

## SUPPLEMENT

### **Agaricoid and boletoid fungi of Russia: the modern country-scale checklist of scientific names based on literature data**

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## Appendix A. Accepted current names of agaricoid and boletoid fungi of Russia

This list includes 6142 scientific names of agaricoid and boletoid fungi that were unambiguously ascribed to 3246 accepted current names, using API querying to Index Fungorum (as of 18.05.2021). The checklist is presented in alphabetical order. Each accepted current species name is accompanied by a list of homotypic synonyms, including type intraspecific taxa without current names (denoted by  $\equiv$ ), and heterotypic synonyms (denoted by =), if these have been used in the publications listed below. In order to retain the information about the name, under which the accepted species was published in a particular work, we use the same superscripts for each title and bibliographic citation.

For each current name, the regions in which it has been recorded are listed alphabetically. For each region, the publications in which the species has been published are listed in chronological order. In cases where it was possible to assign the names to specific administrative regions due to lack of information in the publication, geographical regions have been retained in the original manner. For names with problematic taxonomy or nomenclature, we provide comments.

### *Agaricus abruptibulbus* Peck

EASTERN EUROPE: **Adygea** (Kovalenko, 1980b); **Belgorod Oblast** (Bedenko, 1979a); **Kabardino-Balkarian Republic** (Shkhagapsoev and Krapivina, 2004); **Karelia** (Krutov et al., 2014); **Kirov Oblast** (Kirillov, 2011; Kirillov, Perevedentseva, and Egoshina, 2011; Ivanov, 2018); **Komi Republic** (Bobretsova, 2004; Palamarchuk, 2011b; Palamarchuk, 2012; Palamarchuk, 2016a; Palamarchuk, 2016b; Palamarchuk and Kirillov, 2017); **Krasnodar Krai** (Kovalenko, 1980a; Kovalenko, 1980b; Ivanov, 2018); **Leningrad Oblast** (Stolyarskaya, 1993; Kovalenko and Morozova, 1999a; Morozova, 2007; Popov et al., 2007; Zmitrovich et al., 2015; Ivanov, 2018); **Lipetsk Oblast** (Sarycheva, 1999); **Moscow Oblast** (Gorlenko, Sidorova, and Sidorova, 1989); **Murmansk Oblast** (Ivanov, 2018); **Orenburg Oblast** (Desyatova, 2007; Desyatova, 2008; Ivanov, 2018); **Penza Oblast** (Ivanov, 1985; Ivanov, 2018); **Perm Krai** (Perevedentseva, Nezdjominogo, and Kovalenko, 1990; Perevedentseva, 2008; Belkovskaya et al., 2014); **Rostov Oblast** (Zmitrovich et al., 2008; Ivanov, 2018; Rusanov, Rebriev, and Bulgakov, 2018); **Ryazan Oblast** (Volosnova, 2005); **Samara Oblast** (Malysheva and Malysheva, 2004; Malysheva and Malysheva, 2008; Ivanov, 2018); **Stavropol Krai** (Ivanov, 2018); **Sverdlovsk Oblast** (Marina, 2006); **Tula Oblast** (Svetasheva, 2004; Ivanov, 2018); **Ulyanovsk Oblast** (Ilyukhin, 2010a; Ilyukhin, 2010b); **Vologda Oblast** (Kirillova, 2006; Kirillova, 2007; Ivanov, 2018); **Arid territories** (Rebriev, Rusanov, et al., 2012).

SIBERIA: **Altai Republic** (Gorbunova, 2001b; Perova and Gorbunova, 2001); **Irkutsk Oblast** (Petrov, 1986; Petrov, 1989; Petrov, 1991; Bardunov et al., 2005; Petrov, 2008; Ivanov, 2018); **Novosibirsk Oblast** (Perova and Gorbunova, 2001; Perova and Gorbunova, 2007); **Tomsk Oblast** (Agaphonova, Kutafjeva, and Gashkov, 2007; Agaphonova, Kutafjeva, and Gashkov, 2009b; Kudashova, Gashkov, and Kutafjeva, 2013).

FAR EAST: **Amur Oblast** (Bulakh, Govorova, and Taranina, 2003; Taranina, 2005); **Jewish Autonomous Oblast** (Bulakh, Govorova, Nazarova, and Vassiljeva, 2007; Bau, Bulakh, and Govorova, 2011); **Khabarovsk Krai** (Azbukina et al., 1986; Azbukina et al., 1989; Bulakh, Wasser, Nazarova, and Nezdjominogo, 1990; Bau, Bulakh, and Govorova, 2011; Ivanov, 2018); **Primorsky Krai** (Vassiljeva, 1973; Wasser, 1980; Azbukina et al., 1990; Bulakh, Wasser, Nazarova, and Nezdjominogo, 1990; Bardunov et al., 2002; Azbukina et al., 2006; Bau, Bulakh, and Govorova, 2011; Bulakh et al., 2016; Ivanov, 2018).

### *Agaricus altipes* (F.H. Møller) F.H. Møller<sup>1</sup>

$\equiv$  *Psalliota altipes* F.H. Møller<sup>2</sup> = *Agaricus aestivalis* (F.H. Møller) Pilát<sup>3</sup> = *Psalliota aestivalis* F.H. Møller<sup>4</sup>

EASTERN EUROPE: **Kabardino-Balkarian Republic** (<sup>3</sup>Shkhagapsoev and Krapivina, 2003); **Leningrad Oblast** (<sup>1</sup>Ivanov, 2018); **Murmansk Oblast** (<sup>2</sup>Mikhailovskii, 1975b; <sup>1</sup>Ivanov, 2018); **Orenburg Oblast** (<sup>3</sup>Desyatova, 2008; <sup>1</sup>Ivanov, 2018); **Tula Oblast** (<sup>3</sup>Svetasheva, 2004; <sup>1</sup>Ivanov, 2018).

FAR EAST: **Primorsky Krai** (<sup>4</sup>Azbukina et al., 2006).

### *Agaricus amanitiformis* Wasser

EASTERN EUROPE: **Rostov Oblast** (Fedyeva, 2014; Rusanov, Rebriev, and Bulgakov, 2018); **Arid territories** (Rebriev, Rusanov, et al., 2012; Ivanov, 2018).

***Agaricus aristocratus* Gulden<sup>1</sup>**= *Agaricus arcticus* Gulden<sup>2</sup>SIBERIA: **Altai Republic** (<sup>1</sup>Gorbunova, 2006; <sup>1</sup>Gorbunova, 2010; <sup>1</sup>Gorbunova, 2017b); **Krasnoyarsk Krai** (<sup>1</sup>Karatygin, Nezdoyminogo, Novozhilov, and Zhurbenko, 1999; <sup>1</sup>Ivanov, 2018).FAR EAST: **Chukotka Autonomous Okrug** (<sup>2</sup>Nezdoyminogo, 1997a; <sup>1</sup>Karatygin, Nezdoyminogo, Novozhilov, and Zhurbenko, 1999; <sup>1</sup>Chereshnev, 2008a; <sup>1</sup>Ivanov, 2018).***Agaricus arvensis* Schaeff.<sup>1</sup>**≡ *Agaricus arvensis* var. *arvensis* Schaeff.<sup>2</sup> ≡ *Psalliota arvensis* (Schaeff.) Gillet<sup>3</sup> = *Agaricus leucotrichus* F.H. Møller<sup>4</sup>EASTERN EUROPE: **Astrakhan Oblast** (<sup>1</sup>Rebriev, Aleksandrova, et al., 2012; <sup>1</sup>Ivanov, 2018); **Bashkortostan** (<sup>1</sup>Stepanova and Sirko, 1977); **Belgorod Oblast** (<sup>1</sup>Bedenko, 1979a); **Bryansk Oblast** (<sup>1</sup>Kruglikov, 2007); **Chechen Republic** (<sup>1</sup>Taysumov, Krapivina, Umarov, and Astamirova, 2012); **Chelyabinsk Oblast** (<sup>3</sup>Aleksandrovskaya and Lobanova, 1968; <sup>1</sup>Stepanova and Sirko, 1977); **Crimea** (<sup>1</sup>Zerova, 1962; <sup>1</sup>Wasser, 1980; <sup>1</sup>Sarkina, 2001; <sup>1</sup>Dudka et al., 2004; <sup>1</sup>Sarkina, 2006; <sup>1</sup>Sarkina, 2010b; <sup>1</sup>Sarkina, 2011; <sup>1</sup>Sarkina and Prydiuk, 2012; <sup>1</sup>Sarkina, 2014b; <sup>1</sup>Sarkina and Mironova, 2015; <sup>1</sup>Sarkina and Stavishenko, 2019); **Kabardino-Balkarian Republic** (<sup>1</sup>Shkhagapsoev and Krapivina, 2003; <sup>1</sup>Shkhagapsoev and Krapivina, 2004); **Kaliningrad Oblast** (<sup>1</sup>Dedkov, Volodina, and Gubareva, 2007; <sup>1</sup>Volodina, 2007; <sup>1</sup>Ivanov, 2018); **Kaluga Oblast** (<sup>1</sup>Sionova, 2012); **Karachay-Cherkess Republic** (<sup>1</sup>Onipchenko and Kaverina, 1989; <sup>1</sup>Kalamees and Botashev, 2000); **Karelia** (<sup>1</sup>Freindling, 1949; <sup>1</sup>Bondartseva et al., 2001; <sup>1</sup>Krutov et al., 2014); **Kirov Oblast** (<sup>1</sup>Kirillov, 2011; <sup>1</sup>Kirillov, Perevedentseva, and Egoshina, 2011; <sup>1</sup>Ivanov, 2018; <sup>1</sup>Stavishenko, Luginina, Kirillov, and Egoshina, 2019); **Komi Republic** (<sup>1</sup>Palamarchuk and Kirillov, 2017; <sup>1</sup>Palamarchuk, 2020a); **Krasnodar Krai** (<sup>1</sup>Kovalenko, 1980a; <sup>1</sup>Ivanov, 2018); **Kursk Oblast** (<sup>1</sup>Soshnina, 2005); **Leningrad Oblast** (<sup>1</sup>Thesleff, 1920; <sup>1</sup>Kalamees and Kovalenko, 1984; <sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Popov et al., 2007; <sup>1</sup>Zmitrovich et al., 2015); **Lipetsk Oblast** (<sup>1</sup>Alferova, 1977; <sup>1</sup>Rtishcheva, 1999; <sup>1</sup>Sarycheva, 1999; <sup>1</sup>Afanasyev, Rtishcheva, and Starodubtseva, 2007; <sup>1</sup>Sarycheva et al., 2009; <sup>1</sup>Sarycheva, 2011; <sup>1</sup>Sarycheva, 2014a; <sup>1</sup>Sarycheva, 2016; <sup>1</sup>Sarycheva, Starodubtseva, and Sapelnikova, 2017); **Mordovia** (<sup>3</sup>Kuznetsov, 1960; <sup>1</sup>Ivoilov and Bolshakov, 2011a; <sup>3</sup>Chastukhin, 2011); **Moscow** (<sup>3</sup>Bucholtz, 1897b; <sup>3</sup>Bucholtz, 1897c; <sup>3</sup>Mosolov, 1906); **Moscow Oblast** (<sup>1</sup>Gorlenko, Sidorova, and Sidorova, 1989; <sup>4</sup>Levitskaya, 1995a; <sup>1</sup>Levitskaya, 1998; <sup>1</sup>Levitskaya, 2013; <sup>4</sup>Levitskaya, 2013; <sup>1</sup>Voronina et al., 2014; <sup>1</sup>Sidorova, Alexandrova, and Voronina, 2017; <sup>1</sup>Ivanov, 2018); **Murmansk Oblast** (<sup>1</sup>Berlina, 2005; <sup>1</sup>Ivanov, 2018); **North Ossetia** (<sup>1</sup>Nikolayev, 2001); **Orenburg Oblast** (<sup>1</sup>Desyatova, 2008; <sup>1</sup>Ivanov, 2018); **Penza Oblast** (<sup>1</sup>Ivanov, 1982; <sup>1</sup>Ivanov, 1999; <sup>1</sup>Ivanov, 2018); **Perm Krai** (<sup>1</sup>Perevedentseva, 2008; <sup>1</sup>Belkovskaya et al., 2014); **Rostov Oblast** (<sup>1</sup>Vyshchepan, 1992; <sup>1</sup>Rusanov et al., 2004; <sup>1</sup>Zmitrovich et al., 2008; <sup>1</sup>Rebriev, 2018; <sup>1</sup>Rusanov, Rebriev, and Bulgakov, 2018); **Saint Petersburg** (<sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Morozova and Kovalenko, 2000; <sup>1</sup>Kotkova, Morozova, and Popov, 2006; <sup>1</sup>Psurtseva, Kiyashko, Gachkova, and Belova, 2007; <sup>1</sup>Morozova and Smirnov, 2011; <sup>1</sup>Morozova et al., 2020); **Saratov Oblast** (<sup>1</sup>Komirnaya, 1970); **Sevastopol** (<sup>1</sup>Sarkina, 2016b; <sup>1</sup>Sarkina, 2020b; <sup>1</sup>Sarkina, 2020c); **Stavropol Krai** (<sup>3</sup>Lebedeva, 1930); **Sverdlovsk Oblast** (<sup>1</sup>Stepanova and Sirko, 1977; <sup>1</sup>Marina, 2006; <sup>1</sup>Ivanov, 2018); **Tula Oblast** (<sup>1</sup>Svetasheva, 2004; <sup>1</sup>Svetasheva, 2005b; <sup>1</sup>Svetasheva, 2013; <sup>1</sup>Ivanov, 2018); **Tver Oblast** (<sup>1</sup>Kurochkin, 1993; <sup>1</sup>Kurochkin and Medvedev, 2015; <sup>1</sup>Kurochkin, 2016; <sup>1</sup>Ivanov, 2018); **Udmurt Republic** (<sup>1</sup>Tychinin, 1990; <sup>1</sup>Tychinin and Kuzmina, 2003); **Volgograd Oblast** (<sup>1</sup>Burova and Nezdoyminogo, 1980; <sup>1</sup>Burova and Nezdoyminogo, 1982; <sup>1</sup>Dudka and Vedeneyev, 2014; <sup>1</sup>Goncharova and Vedeneyev, 2015; <sup>1</sup>Stauchan and Vedeneyev, 2015); **Vologda Oblast** (<sup>3</sup>Kutova, 1957); **Voronezh Oblast** (<sup>1</sup>Rtishcheva, 1999; <sup>1</sup>Afanasyev, Rtishcheva, and Starodubtseva, 2007; <sup>1</sup>Sarycheva, Starodubtseva, and Sapelnikova, 2017); **Yaroslavl Oblast** (<sup>1</sup>Lazareva, 1998a; <sup>1</sup>Lazareva, 1998b; <sup>1</sup>Ivanov, 2018); **Arid territories** (<sup>2</sup>Rebriev, Rusanov, et al., 2012; <sup>1</sup>Ivanov, 2018); **Northern Caucasus** (<sup>1</sup>Kovalenko, 1980b).SIBERIA: **Altai Krai** (<sup>1</sup>Gorbunova and Perova, 2006; <sup>1</sup>Gorbunova, 2006; <sup>1</sup>Gorbunova and Chubarova, 2008; <sup>1</sup>Gorbunova, Vlasenko, and Tzhubarova, 2011); **Altai Republic** (<sup>1</sup>Perova and Gorbunova, 2001; <sup>1</sup>Gorbunova, 2003; <sup>1</sup>Gorbunova, 2006; <sup>1</sup>Gorbunova, 2010); **Buryatia** (<sup>1</sup>Nezdoyminogo, 1973; <sup>1</sup>Wasser, 1980; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdoyminogo, 1990; <sup>1</sup>Heklau and Dörfelt, 2017); **Irkutsk Oblast** (<sup>1</sup>Kutafjeva, 1983; <sup>1</sup>Petrov, 1986; <sup>1</sup>Bardunov et al., 2005; <sup>1</sup>Petrov, 2008; <sup>1</sup>Muzyka, 2009); **Khakassia** (<sup>1</sup>Beglyanova, 1972a); **Krasnoyarsk Krai** (<sup>1</sup>Beglyanova, 1972a; <sup>1</sup>Wasser, 1980; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdoyminogo, 1990; <sup>1</sup>Pavlov et al., 2007; <sup>1</sup>Zauzolkova, 2012; <sup>1</sup>Zauzolkova, 2015; <sup>1</sup>Krom and Kapitonov, 2019); **Novosibirsk Oblast** (<sup>1</sup>Nozdrenko, 1970; <sup>1</sup>Zaytseva, 1971; <sup>1</sup>Perova and Gorbunova, 2001; <sup>1</sup>Gorbunova, 2006; <sup>1</sup>Koropachinskiy and Banaev, 2014); **Omsk Oblast** (<sup>1</sup>Wasser, 1980; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdoyminogo, 1990); **Sakha Republic** (<sup>1</sup>Wasser, 1980; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdoyminogo, 1990); **Tomsk Oblast** (<sup>1</sup>Milovidova, 1980; <sup>1</sup>Perova and Gorbunova, 2001; <sup>1</sup>Kosheleva and Kutafjeva, 2004; <sup>1</sup>Kudashova, Gashkov, and Kutafjeva, 2013); **Zabaykalsky Krai** (<sup>1</sup>Karsten, 1911).FAR EAST: **Amur Oblast** (<sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdoyminogo, 1990; <sup>1</sup>Taranina, 2005); **Chukotka Autonomous Okrug** (<sup>1</sup>Vassilkov, 1974; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdoyminogo, 1990; <sup>1</sup>Karatygin,

Nezdojminogo, Novozhilov, and Zhurbenko, 1999; <sup>1</sup>Ivanov, 2018); **Jewish Autonomous Oblast** (<sup>1</sup>Erofeeva, Bukharova, and Bulakh, 2019); **Kamchatka Krai** (<sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990); **Khabarovsk Krai** (<sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1</sup>Bau, Bulakh, Zhuang, and Li, 2007; <sup>1</sup>Bau, Bulakh, and Govorova, 2011); **Magadan Oblast** (<sup>1</sup>Sazanova, 2009a); **Primorsky Krai** (<sup>1</sup>Vassiljeva, 1973; <sup>1</sup>Wasser, 1980; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1</sup>Bardunov et al., 2002; <sup>1</sup>Azbukina et al., 2006; <sup>1</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Ivanov, 2018); **Sakhalin Oblast** (<sup>1</sup>Bulakh, Govorova, and Bogatov, 1999).

### ***Agaricus augustus* Fr.<sup>1</sup>**

≡ *Psalliota augusta* (Fr.) Quél.<sup>2</sup> = *Agaricus augustus* var. *albus* M.M. Moser<sup>3</sup> = *Agaricus perrarus* Schulzer<sup>4</sup>

EASTERN EUROPE: **Adygea** (<sup>1</sup>Sopina, 2001a); **Belgorod Oblast** (<sup>1</sup>Bedenko, 1979a; <sup>4</sup>Bedenko, 1979a); **Chelyabinsk Oblast** (<sup>1</sup>Stepanova and Sirko, 1977); **Crimea** (<sup>1</sup>Sarkina and Prydiuk, 2012); **Kabardino-Balkarian Republic** (<sup>1</sup>Shkhagapsoev and Krapivina, 2004); **Kaluga Oblast** (<sup>1</sup>Sionova, 2012); **Karachay-Cherkess Republic** (<sup>1</sup>Kalamees and Botashev, 2000; <sup>1</sup>Ivanov, 2018); **Krasnodar Krai** (<sup>4</sup>Vassiljeva, 1939; <sup>1</sup>Vaasma, Kalamees, and Raitviir, 1986); **Leningrad Oblast** (<sup>1</sup>Thesleff, 1920; <sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Popov et al., 2007); **Moscow** (<sup>2</sup>Bucholtz, 1897b; <sup>2</sup>Bucholtz, 1897c; <sup>2</sup>Mosolov, 1906); **Moscow Oblast** (<sup>1</sup>Wasser, 1980; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990); **Novgorod Oblast** (<sup>1</sup>Arslanov, 2012); **Orenburg Oblast** (<sup>1</sup>Desyatova, 2007; <sup>1</sup>Desyatova, 2008; <sup>1</sup>Ivanov, 2018); **Penza Oblast** (<sup>1</sup>Ivanov, 1982); **Rostov Oblast** (<sup>1</sup>Vyshchepan, 1992; <sup>1</sup>Rusanov, Rebriev, and Bulgakov, 2018); **Ryazan Oblast** (<sup>1</sup>Volosnova, 1997; <sup>1</sup>Volosnova, 2014); **Tula Oblast** (<sup>1</sup>Svetasheva, 2004; <sup>1</sup>Ivanov, 2018); **Udmurt Republic** (<sup>1</sup>Kapitonov, 2013); **Arid territories** (<sup>1</sup>Rebriev, Rusanov, et al., 2012; <sup>1</sup>Ivanov, 2018); **Northern Caucasus** (<sup>4</sup>Vassiljeva, 1939).

SIBERIA: **Altai Republic** (<sup>1</sup>Gorbunova, 2008; <sup>1</sup>Gorbunova, 2017b); **Irkutsk Oblast** (<sup>1</sup>Kutafjeva, 1983); **Krasnoyarsk Krai** (<sup>1</sup>Beglyanova, 1972a; <sup>1</sup>Wasser, 1980; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1</sup>Kosheleva and Kutafjeva, 2008a; <sup>1</sup>Ivanov, 2018; <sup>1</sup>Krom and Kapitonov, 2019); **Kurgan Oblast** (<sup>1</sup>Stepanova and Sirko, 1977); **Novosibirsk Oblast** (<sup>1</sup>Nozdrenko, 1970).

FAR EAST: **Kamchatka Krai** (<sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1</sup>Ivanov, 2018); **Khabarovsk Krai** (<sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Ivanov, 2018); **Primorsky Krai** (<sup>1</sup>Vassiljeva, 1973; <sup>1</sup>Wasser, 1980; <sup>1</sup>Azbukina et al., 1990; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>3</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1</sup>Bardunov et al., 2002; <sup>1</sup>Azbukina et al., 2006; <sup>1</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Bogacheva et al., 2018; <sup>1</sup>Ivanov, 2018); **Sakhalin Oblast** (<sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>3</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1</sup>Ivanov, 2018; <sup>3</sup>Ivanov, 2018).

### ***Agaricus balchaschensis* Samgina & G.A. Nam**

SIBERIA: **Baikalia** (Psurtseva, Kiyashko, Gachkova, and Belova, 2007).

### ***Agaricus benesii* (Pilát) Pilát<sup>1</sup>**

= *Agaricus squamulifer* (F.H. Møller) Pilát<sup>2</sup>

EASTERN EUROPE: **Crimea** (<sup>2</sup>Sarkina, 2001; <sup>2</sup>Dudka et al., 2004; <sup>2</sup>Sarkina and Prydiuk, 2012); **Penza Oblast** (<sup>2</sup>Ivanov, 1988a; <sup>1</sup>Ivanov, 2018); **Sevastopol** (<sup>2</sup>Sarkina, 2016b).

SIBERIA: **Tomsk Oblast** (<sup>1</sup>Kudashova, Gashkov, and Vaishlya, 2016a; <sup>1</sup>Kudashova, Gashkov, and Vaishlya, 2016b).

### ***Agaricus bernardii* Quél.<sup>1</sup>**

= *Agaricus maleolens* F.H. Møller<sup>2</sup>

EASTERN EUROPE: **Bashkortostan** (<sup>1</sup>Mirkin, 2011); **Belgorod Oblast** (<sup>2</sup>Bedenko, 1979a; <sup>2</sup>Bedenko, 1979b); **Crimea** (<sup>1</sup>Yena and Fateryga, 2015; <sup>1</sup>Ivanov, 2018); **Kalmykia** (<sup>1</sup>Baktasheva, 2014; <sup>1</sup>Ivanov, 2018); **Lipetsk Oblast** (<sup>1</sup>Alferova, 1977; <sup>1</sup>Sarycheva, 1999; <sup>1</sup>Sarycheva et al., 2009; <sup>1</sup>Sarycheva, 2011; <sup>1</sup>Shcherbakov, 2014; <sup>1</sup>Sarycheva, 2016); **Orenburg Oblast** (<sup>1</sup>Desyatova, 2008; <sup>1</sup>Ivanov, 2018); **Penza Oblast** (<sup>1</sup>Ivanov, 1989); **Rostov Oblast** (<sup>1</sup>Ivanov, 2018); **Saratov Oblast** (<sup>1</sup>Ivanov, 2018); **Udmurt Republic** (<sup>1</sup>Kapitonov, 2013); **Vladimir Oblast** (<sup>1</sup>Wasser, 1980); **Volgograd Oblast** (<sup>1</sup>Rebriev, Popov, Pridyuk, and Svetasheva, 2014; <sup>1</sup>Ivanov, 2018); **Arid territories** (<sup>1</sup>Rebriev, Rusanov, et al., 2012; <sup>1</sup>Ivanov, 2018).

SIBERIA: **Altai Republic** (<sup>1</sup>Gorbunova, 2019); **Krasnoyarsk Krai** (<sup>1</sup>Beglyanova, 1972a); **Novosibirsk Oblast** (<sup>1</sup>Koropachinskiy and Banaev, 2014).

### ***Agaricus bernardiiformis* Bohus**

EASTERN EUROPE: **Rostov Oblast** (Vyshchepan, 1992; Fedyeva, 2014; Rusanov, Rebriev, and Bulgakov, 2018).

***Agaricus bisporus* (J.E. Lange) Imbach<sup>1</sup>**

≡ *Agaricus bisporus* var. *bisporus* (J.E. Lange) Imbach<sup>2</sup> = *Agaricus bisporus* var. *albidus* J.E. Lange ex Singer<sup>3</sup> = *Agaricus bisporus* var. *avellaneus* J.E. Lange ex Singer<sup>4</sup> = *Agaricus hortensis* (Cooke) S. Imai<sup>5</sup>

EASTERN EUROPE: **Belgorod Oblast** (<sup>5</sup>Bedenko, 1979a); **Bryansk Oblast** (<sup>1</sup>Kruglikov, 2007); **Crimea** (<sup>5</sup>Zerova, 1962; <sup>1</sup>Wasser, 1980; <sup>1</sup>Sarkina, 2001; <sup>1</sup>Dudka et al., 2004; <sup>1</sup>Sarkina, 2014b; <sup>1</sup>Sarkina and Stavishenko, 2019); **Kabardino-Balkarian Republic** (<sup>1</sup>Shkhagapsoev and Krapivina, 2004); **Kaliningrad Oblast** (<sup>1</sup>Atayev and Volodina, 2020); **Karelia** (<sup>1</sup>Krutov et al., 2014; <sup>1</sup>Savelev and Kikeeva, 2018); **Komi Republic** (<sup>1</sup>Palamarchuk and Kirillov, 2017); **Mordovia** (<sup>1</sup>Ivoilov and Bolshakov, 2011a); **Moscow Oblast** (<sup>1</sup>Levitskaya, 1998; <sup>1</sup>Voronina et al., 2012; <sup>1</sup>Levitskaya, 2013; <sup>1</sup>Voronina et al., 2014; <sup>4</sup>Ivanov, 2018); **North Ossetia** (<sup>1</sup>Nikolayev, 2001); **Penza Oblast** (<sup>1</sup>Ivanov, 1982; <sup>5</sup>Ivanov, 1983; <sup>1</sup>Ivanov, 2018; <sup>3</sup>Ivanov, 2018); **Perm Krai** (<sup>1</sup>Perevedentseva, 2008); **Rostov Oblast** (<sup>1</sup>Vyshchepan, 1992; <sup>1</sup>Zmitrovich et al., 2008; <sup>1</sup>Rebriev, 2018; <sup>1</sup>Rusanov, Rebriev, and Bulgakov, 2018; <sup>2</sup>Ivanov, 2018); **Sevastopol** (<sup>1</sup>Sarkina, 2016b); **Tver Oblast** (<sup>1</sup>Kurochkin and Medvedev, 2015); **Udmurt Republic** (<sup>1</sup>Tychinin and Kuzmina, 2003); **Arid territories** (<sup>1</sup>Rebriev, Rusanov, et al., 2012; <sup>1</sup>Ivanov, 2018).

SIBERIA: **Altai Republic** (<sup>1</sup>Gorbunova, 2006); **Irkutsk Oblast** (<sup>1</sup>Kutafjeva and Astapenko, 1987; <sup>1</sup>Petrov, 1991; <sup>1</sup>Muzyka, 2002; <sup>1</sup>Petrov, 2008; <sup>1</sup>Gorbunova and Stepanova, 2015); **Khakassia** (<sup>1</sup>Zauzolkova, 2015); **Krasnoyarsk Krai** (<sup>1</sup>Beglyanova, 1972a; <sup>1</sup>Wasser, 1980; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1</sup>Zauzolkova, 2012; <sup>1</sup>Zauzolkova, 2015; <sup>1</sup>Ivanov, 2018; <sup>2</sup>Ivanov, 2018); **Novosibirsk Oblast** (<sup>1</sup>Perova and Gorbunova, 2001; <sup>1</sup>Perova and Gorbunova, 2007; <sup>1</sup>Koropachinskiy and Banaev, 2014); **Sverdlovsk Oblast** (<sup>1</sup>Stepanova and Sirko, 1977); **Tomsk Oblast** (<sup>1</sup>Kudashova, Gashkov, and Kutafjeva, 2013; <sup>1</sup>Kudashova, Gashkov, and Vaishlya, 2016b).

FAR EAST: **Amur Oblast** (<sup>1</sup>Kochunova, 2019); **Khabarovsk Krai** (<sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990); **Magadan Oblast** (<sup>1</sup>Rebriev, Bulakh, Sazanova, and Shiryaev, 2020); **Primorsky Krai** (<sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1</sup>Bau, Bulakh, and Govorova, 2011).

***Agaricus bitorquis* (Quél.) Sacc.<sup>1</sup>**

= *Agaricus edulis* (Vittad.) Konrad & Maubl.<sup>2</sup>

EASTERN EUROPE: **Belgorod Oblast** (<sup>2</sup>Bedenko, 1980); **Crimea** (<sup>2</sup>Zerova, 1962; <sup>1</sup>Wasser, 1980; <sup>1</sup>Sarkina, 2001; <sup>1</sup>Dudka et al., 2004; <sup>1</sup>Sarkina, 2011; <sup>1</sup>Sarkina, 2014b); **Kabardino-Balkarian Republic** (<sup>1</sup>Shkhagapsoev and Krapivina, 2004); **Kaliningrad Oblast** (<sup>1</sup>Dedkov, Volodina, and Gubareva, 2007; <sup>1</sup>Atayev and Volodina, 2020); **Karelia** (<sup>1</sup>Savelev and Kikeeva, 2020); **Komi Republic** (<sup>1</sup>Palamarchuk and Kirillov, 2017); **Leningrad Oblast** (<sup>1</sup>Popov et al., 2007); **Mordovia** (<sup>1</sup>Ivoilov and Bolshakov, 2011a; <sup>1</sup>Ivanov, 2018); **Moscow** (<sup>1</sup>Ivanov, 2018); **Orenburg Oblast** (<sup>1</sup>Desyatova, 2008; <sup>1</sup>Ivanov, 2018); **Penza Oblast** (<sup>1</sup>Ivanov, 1982); **Perm Krai** (<sup>1</sup>Perevedentseva, 2008); **Rostov Oblast** (<sup>1</sup>Rebriev, 2018; <sup>1</sup>Rusanov, Rebriev, and Bulgakov, 2018); **Ryazan Oblast** (<sup>1</sup>Volosnova, 1997; <sup>1</sup>Volosnova, 2014); **Saint Petersburg** (<sup>1</sup>Morozova, 2002; <sup>1</sup>Morozova, Kovalenko, Rebriev, and Malysheva, 2014; <sup>1</sup>Zhukova, Morozova, Volobuev, and Bryantseva, 2017; <sup>1</sup>Ivanov, 2018); **Saratov Oblast** (<sup>1</sup>Ivanov, 2018); **Sevastopol** (<sup>1</sup>Sarkina, 2016b; <sup>1</sup>Sarkina, 2020b; <sup>1</sup>Sarkina, 2020c); **Tatarstan** (<sup>1</sup>Vassiljeva, 1977); **Tula Oblast** (<sup>1</sup>Svetasheva, 2004; <sup>1</sup>Ivanov, 2018); **Tver Oblast** (<sup>1</sup>Kurochkin, 1993; <sup>1</sup>Kurochkin and Medvedev, 2015; <sup>1</sup>Kurochkin, 2016; <sup>1</sup>Ivanov, 2018); **Udmurt Republic** (<sup>1</sup>Tychinin, 1990; <sup>1</sup>Tychinin and Kuzmina, 2003); **Ulyanovsk Oblast** (<sup>1</sup>Ilyukhin, 2009; <sup>1</sup>Ilyukhin, 2010a; <sup>1</sup>Ivanov, 2018); **Yaroslavl Oblast** (<sup>1</sup>Lazareva, 1998a; <sup>1</sup>Lazareva, 1998b; <sup>1</sup>Ivanov, 2018); **Arid territories** (<sup>1</sup>Rebriev, Rusanov, et al., 2012; <sup>1</sup>Ivanov, 2018).

SIBERIA: **Altai Krai** (<sup>1</sup>Gorbunova, 2006); **Altai Republic** (<sup>1</sup>Gorbunova, 2003; <sup>1</sup>Gorbunova, 2006; <sup>1</sup>Gorbunova, 2008; <sup>1</sup>Gorbunova, 2010); **Khakassia** (<sup>1</sup>Zauzolkova, 2015); **Krasnoyarsk Krai** (<sup>1</sup>Beglyanova, 1972a; <sup>1</sup>Wasser, 1980; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990); **Novosibirsk Oblast** (<sup>1</sup>Koropachinskiy and Banaev, 2014); **Tomsk Oblast** (<sup>1</sup>Agaphonova, Kutafjeva, and Gashkov, 2007; <sup>1</sup>Agaphonova, Kutafjeva, and Gashkov, 2009b; <sup>1</sup>Kudashova, Gashkov, and Kutafjeva, 2013).

FAR EAST: **Primorsky Krai** (<sup>1</sup>Bau, Bulakh, and Govorova, 2011).

***Agaricus bresadolanus* Bohus<sup>1</sup>**

= *Agaricus romagnesii* Wasser<sup>2</sup>

EASTERN EUROPE: **Crimea** (<sup>2</sup>Sarkina and Prydiuk, 2012; <sup>2</sup>Sarkina, 2014b); **Penza Oblast** (<sup>1</sup>Ivanov, 1988a; <sup>1</sup>Ivanov, 2018); **Arid territories** (<sup>1</sup>Rebriev, Rusanov, et al., 2012; <sup>1</sup>Ivanov, 2018).

***Agaricus brunneolus* (J.E. Lange) Pilát**

≡ *Psalliota brunneola* J.E. Lange<sup>1</sup>

FAR EAST: **Khabarovsk Krai** (<sup>1</sup>Azbukina et al., 1986).

***Agaricus campestris* L.<sup>1</sup>**

≡ *Agaricus campestris* var. *campestris* L.<sup>2</sup> ≡ *Psalliota campestris* (L.) Quél.<sup>3</sup> = *Agaricus campestris* var. *equestris* (F.H. Møller) Pilát<sup>4</sup> = *Agaricus campestris* var. *fuscopilosellus* F.H. Møller<sup>5</sup> = *Agaricus campestris* var. *squamulosus* (Rea) Pilát<sup>6</sup>

EASTERN EUROPE: **Arkhangelsk Oblast** (<sup>3</sup>Lebedeva, 1933); **Astrakhan Oblast** (<sup>1</sup>Rebriev, Aleksandrova, et al., 2012); **Bashkortostan** (<sup>1</sup>Stepanova and Sirko, 1977); **Belgorod Oblast** (<sup>1</sup>Bedenko, 1980; <sup>1</sup>Ryabova and Ignatenko, 1981; <sup>1</sup>Psurtseva, Belova, and Ryabusheva, 2003; <sup>1</sup>Psurtseva, Kiyashko, Gachkova, and Belova, 2007); **Bryansk Oblast** (<sup>1</sup>Kruglikov, 2007); **Chechen Republic** (<sup>1</sup>Taysumov, Krapivina, Umarov, and Astamirova, 2012); **Chelyabinsk Oblast** (<sup>3</sup>Aleksandrovskaya and Lobanova, 1968; <sup>1</sup>Stepanova and Sirko, 1977); **Chuvash Republic** (<sup>1</sup>Marfin, 2001); **Crimea** (<sup>1</sup>Léveillé, 1842; <sup>1</sup>Wasser, 1980; <sup>1</sup>Sarkina, 2001; <sup>1</sup>Dudka et al., 2004; <sup>1</sup>Sarkina, 2006; <sup>1</sup>Sarkina, 2011; <sup>1</sup>Sarkina and Prydiuk, 2012; <sup>1</sup>Sarkina and Mironova, 2015); **Dagestan** (<sup>3</sup>Hollós, 1902; <sup>3</sup>Hollós, 1905; <sup>3</sup>Filarszky, 1907); **Kabardino-Balkarian Republic** (<sup>1</sup>Shkhagapsoev and Krapivina, 2003; <sup>1</sup>Shkhagapsoev and Krapivina, 2004); **Kaliningrad Oblast** (<sup>1</sup>Dedkov, Volodina, and Gubareva, 2007); **Kaluga Oblast** (<sup>1</sup>Sionova, 2003); **Karachay-Cherkess Republic** (<sup>1</sup>Onipchenko and Kaverina, 1989; <sup>1</sup>Kalamees and Botashev, 2000); **Karelia** (<sup>1</sup>Freindling, 1949; <sup>1</sup>Bondartseva et al., 2001; <sup>1</sup>Krutov et al., 2014; <sup>1</sup>Savelev and Kikeeva, 2018); **Krasnodar Krai** (<sup>1</sup>Vassiljeva, 1939; <sup>1</sup>Kovalenko, 1980a; <sup>1</sup>Sopina, 2001a); **Kursk Oblast** (<sup>1</sup>Ryabova and Ignatenko, 1981; <sup>1</sup>Soshnina, 2001; <sup>2</sup>Baranov, 2002); **Leningrad Oblast** (<sup>1</sup>Thesleff, 1920; <sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Popov et al., 2007); **Lipetsk Oblast** (<sup>1</sup>Alferova, 1977; <sup>1</sup>Rtishcheva, 1999; <sup>1</sup>Sarycheva, 1999; <sup>1</sup>Afanasyev, Rtishcheva, and Starodubtseva, 2007; <sup>1</sup>Sarycheva et al., 2009; <sup>1</sup>Sarycheva, 2011; <sup>1</sup>Sarycheva, 2014a; <sup>2</sup>Sarycheva, 2016; <sup>1</sup>Sarycheva, Starodubtseva, and Sapelnikova, 2017); **Mordovia** (<sup>1</sup>Ivoilov and Bolshakov, 2011a); **Moscow** (<sup>3</sup>Bucholtz, 1897a; <sup>3</sup>Bucholtz, 1897b; <sup>3</sup>Bucholtz, 1897c; <sup>3</sup>Mosolov, 1906); **Moscow Oblast** (<sup>1</sup>Gorlenko, Sidorova, and Sidorova, 1989; <sup>1</sup>Levitskaya, 1998; <sup>1</sup>Levitskaya, 2013); **North Ossetia** (<sup>1</sup>Nikolayev, 2001); **Orenburg Oblast** (<sup>1</sup>Vorontsovsky, 1921; <sup>2</sup>Korshikova, 2005; <sup>2</sup>Desyatova, 2008; <sup>2</sup>Ivanov, 2018); **Oryol Oblast** (<sup>1</sup>Radygina, Derzhavina, and Tsutsupa, 2014); **Penza Oblast** (<sup>1</sup>Ivanov, 1982; <sup>1</sup>Ivanov, 1999; <sup>2</sup>Ivanov, 2018); **Perm Krai** (<sup>1</sup>Perevedentseva, 2008; <sup>1</sup>Belkovskaya et al., 2014); **Pskov Oblast** (<sup>1</sup>Popov et al., 2013); **Rostov Oblast** (<sup>1</sup>Vyshchepan, 1992; <sup>1</sup>Rusanov et al., 2004; <sup>1</sup>Zmitrovich et al., 2008; <sup>1</sup>Rusanov, Rebriev, and Bulgakov, 2018; <sup>2,4,6</sup>Rebriev, 2018; <sup>6</sup>Ivanov, 2018); **Ryazan Oblast** (<sup>1</sup>Volosnova, 1997; <sup>1</sup>Volosnova, 2014); **Saint Petersburg** (<sup>1</sup>Weinmann, 1828; <sup>1</sup>Weinmann, 1836; <sup>1</sup>Weinmann, 1837; <sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Morozova, Kovalenko, Rebriev, and Malysheva, 2014); **Samara Oblast** (<sup>1</sup>Malysheva and Malysheva, 2004; <sup>1</sup>Malysheva and Malysheva, 2008; <sup>2</sup>Ivanov, 2018; <sup>5</sup>Ivanov, 2018); **Saratov Oblast** (<sup>3</sup>Kazakevich and Prisyazhnyuk, 1932; <sup>1</sup>Komirnaya, 1970); **Sevastopol** (<sup>1</sup>Sarkina, 2016b; <sup>1</sup>Sarkina, 2020c); **Smolensk Oblast** (<sup>3</sup>Jaczewski, 1893; <sup>3</sup>Jaczewski, 1895); **Sverdlovsk Oblast** (<sup>1</sup>Stepanova and Sirko, 1977); **Tatarstan** (<sup>1</sup>Vassiljeva, 1977); **Tula Oblast** (<sup>1</sup>Svetasheva, 2004; <sup>2</sup>Svetasheva, 2013; <sup>2</sup>Ivanov, 2018); **Tver Oblast** (<sup>1</sup>Kurochkin, 1993; <sup>2</sup>Kurochkin and Medvedev, 2015; <sup>2</sup>Kurochkin, 2016; <sup>2</sup>Ivanov, 2018); **Udmurt Republic** (<sup>1</sup>Tychinin, 1990; <sup>1</sup>Tychinin and Kuzmina, 2003); **Ulyanovsk Oblast** (<sup>1</sup>Ilyukhin, 2010a; <sup>1</sup>Ilyukhin, 2010b); **Vladimir Oblast** (<sup>1</sup>Weinmann, 1836); **Volgograd Oblast** (<sup>1</sup>Burova and Nezdojminogo, 1980; <sup>1</sup>Burova and Nezdojminogo, 1982); **Vologda Oblast** (<sup>2,6</sup>Kirillova, 2006; <sup>2,6</sup>Kirillova, 2007; <sup>2,6</sup>Ivanov, 2018); **Voronezh Oblast** (<sup>3</sup>Chastukhin and Nikolaevskaya, 1953; <sup>1</sup>Chastukhin and Nikolaevskaya, 1969; <sup>1</sup>Rtishcheva, 1999; <sup>1</sup>Afanasyev, Rtishcheva, and Starodubtseva, 2007; <sup>1</sup>Selochnik, 2015; <sup>1</sup>Sarycheva, Starodubtseva, and Sapelnikova, 2017); **Yamalo-Nenets Autonomous Okrug** (<sup>1</sup>Vassilkov, 1974; <sup>1</sup>Karatygin, Nezdojminogo, Novozhilov, and Zhurbenko, 1999); **Yaroslavl Oblast** (<sup>1</sup>Lazareva, 1998a; <sup>1</sup>Lazareva, 1998b; <sup>2</sup>Ivanov, 2018); **Arid territories** (<sup>2,4,6</sup>Rebriev, Rusanov, et al., 2012; <sup>2,4</sup>Ivanov, 2018); **Northern Caucasus** (<sup>1</sup>Kovalenko, 1980b).

SIBERIA: **Altai Krai** (<sup>1</sup>Gorbunova and Perova, 2006; <sup>2</sup>Gorbunova, 2006); **Altai Republic** (<sup>1</sup>Gorbunova, 1996; <sup>1</sup>Gorbunova, 1997; <sup>1</sup>Perova and Gorbunova, 2001; <sup>1</sup>Gorbunova, 2003; <sup>2</sup>Gorbunova, 2006; <sup>1</sup>Gorbunova, 2008; <sup>2</sup>Gorbunova, 2010; <sup>1</sup>Gorbunova, 2017b); **Buryatia** (<sup>1</sup>Nezdojminogo, 1973); **Irkutsk Oblast** (<sup>1</sup>Vassilkov, 1974; <sup>1</sup>Kutafjeva, 1983; <sup>1</sup>Petrov, 1986; <sup>1</sup>Muzyka, 2002; <sup>1</sup>Petrov, 2008; <sup>1</sup>Heklau and Dörfelt, 2017); **Khakassia** (<sup>1</sup>Gorbunova and Majnagasheva, 2013); **Khanty-Mansi Autonomous Okrug** (<sup>1</sup>Zvyagina, Baykalova, and Gorbunova, 2007; <sup>1</sup>Makarova, Makarov, Zvyagina, and Bobrikov, 2015); **Krasnoyarsk Krai** (<sup>1</sup>Thümen, 1878; <sup>3</sup>Kalchbrenner, 1878; <sup>1</sup>Thümen, 1880a; <sup>1</sup>Beglyanova, 1972a; <sup>1</sup>Stepanova and Tomilin, 1973; <sup>1</sup>Lapitskaya, 1993; <sup>1</sup>Karatygin, Nezdojminogo, Novozhilov, and Zhurbenko, 1999; <sup>1</sup>Kosheleva and Kutafjeva, 2008a; <sup>1</sup>Zauzolkova, 2012; <sup>1</sup>Zauzolkova, 2015; <sup>2</sup>Ivanov, 2018); **Kurgan Oblast** (<sup>3</sup>Sirko, 1966; <sup>1</sup>Stepanova and Sirko, 1977); **Novosibirsk Oblast** (<sup>1</sup>Nozdrenko, 1970; <sup>3</sup>Nozdrenko, 1970; <sup>1</sup>Zaytseva, 1971; <sup>1</sup>Perova, 1977; <sup>1</sup>Perova and Gorbunova, 2001; <sup>2</sup>Gorbunova, 2006; <sup>2</sup>Gorbunova, 2007; <sup>2</sup>Koropachinskiy and Banaev, 2014); **Sakha Republic** (<sup>1</sup>Vassilkov, 1974); **Sverdlovsk Oblast** (<sup>1</sup>Stepanova and Sirko, 1977); **Tomsk Oblast** (<sup>1</sup>Milovidova, 1980; <sup>1</sup>Perova and Gorbunova, 2001; <sup>1</sup>Agaphonova, Kutafjeva, and Gashkov, 2007; <sup>2</sup>Kudashova, Gashkov, and Kutafjeva, 2013); **Tyumen Oblast** (<sup>2</sup>Ivanov, 2018).

FAR EAST: **Amur Oblast** (<sup>1</sup>Gordienko, Petrova, and Tarasov, 1981; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990); **Chukotka Autonomous Okrug** (<sup>1</sup>Vassilkov, 1974; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990);

<sup>1</sup>Nezdojminogo, 1997a; <sup>1</sup>Karatygin, Nezdojminogo, Novozhilov, and Zhurbenko, 1999; <sup>2</sup>Ivanov, 2018); **Kamchatka Krai** (<sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990); **Khabarovsk Krai** (<sup>1</sup>Azbukina et al., 1986; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1</sup>Bau, Bulakh, and Govorova, 2011; <sup>2</sup>Ivanov, 2018); **Magadan Oblast** (<sup>1</sup>Sazanova, 2005; <sup>2</sup>Sazanova, 2009a); **Primorsky Krai** (<sup>1</sup>Vassiljeva, 1973; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1</sup>Bardunov et al., 2002; <sup>1</sup>Azbukina et al., 2006; <sup>1</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Bulakh et al., 2016; <sup>2</sup>Ivanov, 2018); **Sakhalin Oblast** (<sup>1</sup>Vassiljeva and Nazarova, 1972; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>2</sup>Ivanov, 2018); **Far East** (<sup>5</sup>Ivanov, 2018).

***Agaricus cappellianus* Hlaváček<sup>1</sup>**

= *Agaricus vaporarius* (Pers.) Imbach<sup>2</sup>

EASTERN EUROPE: **Perm Krai** (<sup>2</sup>Perevedentseva, 2008).

SIBERIA: **Tomsk Oblast** (<sup>2</sup>Kudashova, Gashkov, and Kutafjeva, 2013; <sup>1</sup>Kudashova, Gashkov, and Vaishlya, 2016b).

***Agaricus comtulus* Fr.<sup>1</sup>**

≡ *Psalliota comtula* (Fr.) Quél.<sup>2</sup> = *Agaricus niveolutescens* Huijsman<sup>3</sup>

EASTERN EUROPE: **Belgorod Oblast** (<sup>1</sup>Bedenko, 1980); **Kaliningrad Oblast** (<sup>1</sup>Atayev and Volodina, 2020); **Kaluga Oblast** (<sup>1</sup>Sionova, 2012); **Krasnodar Krai** (<sup>1</sup>Vassiljeva, 1939); **Kursk Oblast** (<sup>1</sup>Baranov, 2002); **Leningrad Oblast** (<sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Morozova, 2007; <sup>1</sup>Popov et al., 2007; <sup>1</sup>Ivanov, 2018; <sup>1</sup>Kalinina, 2018); **Lipetsk Oblast** (<sup>1</sup>Alferova, 1977); **Moscow Oblast** (<sup>1</sup>Gorlenko, Sidorova, and Sidorova, 1989; <sup>1</sup>Ivanov, 2018); **Orenburg Oblast** (<sup>3</sup>Desyatova, 2008); **Penza Oblast** (<sup>1</sup>Ivanov, 1982); **Rostov Oblast** (<sup>1</sup>Rebriev, 2018); **Smolensk Oblast** (<sup>2</sup>Jaczewski, 1896); **Tatarstan** (<sup>1</sup>Vassiljeva, 1977); **Tula Oblast** (<sup>1</sup>Svetasheva, 2004; <sup>1</sup>Svetasheva, 2013; <sup>1</sup>Ivanov, 2018); **Udmurt Republic** (<sup>1</sup>Kapitonov, 2013); **Ulyanovsk Oblast** (<sup>1</sup>Ilyukhin, 2009; <sup>1</sup>Ilyukhin, 2010a; <sup>1</sup>Ivanov, 2018); **Volgograd Oblast** (<sup>1</sup>Goncharova and Vedeneyev, 2015); **Arid territories** (<sup>1</sup>Rebriev, Rusanov, et al., 2012; <sup>1</sup>Ivanov, 2018).

SIBERIA: **Irkutsk Oblast** (<sup>3</sup>Petrov, 1991; <sup>3</sup>Petrov, 2008); **Khakassia** (<sup>1</sup>Zauzolkova, 2015; <sup>1</sup>Zauzolkova and Gorbunova, 2016); **Novosibirsk Oblast** (<sup>1</sup>Koropachinskiy and Banaev, 2014).

FAR EAST: **Khabarovsk Krai** (<sup>1</sup>Azbukina et al., 1986; <sup>1</sup>Bau, Bulakh, and Govorova, 2011); **Primorsky Krai** (<sup>1</sup>Vassiljeva, 1972; <sup>1</sup>Vassiljeva, 1973).

***Agaricus cupreobrunneus* (Jul. Schäff. & Steer) Pilát**

EASTERN EUROPE: **Crimea** (Sarkina and Mironova, 2015); **Moscow Oblast** (Levitskaya, 1995c; Levitskaya, 2013; Ivanov, 2018).

SIBERIA: **Altai Krai** (Gorbunova and Perova, 2006); **Irkutsk Oblast** (Petrov, 1991; Petrov, 2008).

FAR EAST: **Amur Oblast** (Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990); **Primorsky Krai** (Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; Azbukina et al., 2006; Bau, Bulakh, and Govorova, 2011; Ivanov, 2018).

***Agaricus diminutivus* Peck**

EASTERN EUROPE: **Penza Oblast** (Ivanov, 2018).

FAR EAST: **Primorsky Krai** (Ivanov, 2018).

***Agaricus dulcidulus* Schulzer<sup>1</sup>**

= *Agaricus purpurellus* F.H. Møller<sup>2</sup> = *Agaricus rubellus* (Gillet) Sacc.<sup>3</sup>

EASTERN EUROPE: **Crimea** (<sup>2</sup>Dudka et al., 2004); **Krasnodar Krai** (<sup>3</sup>Vassiljeva, 1939); **Novgorod Oblast** (<sup>2</sup>Kovalenko, Morozova, Nezdojminogo, and Popov, 2005; <sup>2</sup>Popov et al., 2013); **Penza Oblast** (<sup>2</sup>Ivanov, 1988a); **Pskov Oblast** (<sup>2</sup>Popov et al., 2013; <sup>1</sup>Morozova et al., 2015); **Samara Oblast** (<sup>1</sup>Malysheva and Malysheva, 2008); **Tula Oblast** (<sup>2</sup>Svetasheva, 2004).

SIBERIA: **Irkutsk Oblast** (<sup>1</sup>Petrov, 1986; <sup>1</sup>Petrov, 1991; <sup>2</sup>Petrov, 1991; <sup>1</sup>Petrov, 2008; <sup>2</sup>Petrov, 2008); **Khakassia** (<sup>2</sup>Beglyanova, 1972a; <sup>2</sup>Beglyanova, 1972b; <sup>1</sup>Zauzolkova, 2015); **Krasnoyarsk Krai** (<sup>2</sup>Wasser, 1980; <sup>1</sup>Nezdojminogo, 1982a; <sup>2</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990); **Tomsk Oblast** (<sup>1</sup>Kudashova, Gashkov, and Kutafjeva, 2013; <sup>1</sup>Kudashova, Gashkov, and Vaishlya, 2016b).

FAR EAST: **Khabarovsk Krai** (<sup>2</sup>Azbukina et al., 1986; <sup>2</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>2</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Erofeeva and Bulakh, 2016); **Primorsky Krai** (<sup>2</sup>Vassiljeva, 1972; <sup>2</sup>Vassiljeva, 1973; <sup>1</sup>Bulakh, 1977; <sup>2</sup>Wasser, 1980; <sup>1,2</sup>Azbukina et al., 1984; <sup>1,2</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1,2</sup>Bau, Bulakh, and Govorova, 2011; <sup>1,2</sup>Bulakh et al., 2016).

***Agaricus fuscofibrillosus* (F.H. Møller) Pilát**

SIBERIA: **Krasnoyarsk Krai** (Beglyanova, 1972a; Wasser, 1980).

***Agaricus gennadii* (Chatin & Boud.) P.D. Orton**

EASTERN EUROPE: **Astrakhan Oblast** (Rebriev, Aleksandrova, et al., 2012; Ivanov, 2018); **Arid territories** (Rebriev, Rusanov, et al., 2012; Ivanov, 2018).

***Agaricus impudicus* (Rea) Pilát<sup>1</sup>**

= *Agaricus koelerionis* (Bon) Bon<sup>2</sup> = *Agaricus variegans* F.H. Møller<sup>3</sup> = *Agaricus variegatus* (F.H. Møller) Pilát<sup>4</sup>

EASTERN EUROPE: **Crimea** (<sup>4</sup>Sarkina, 2001; <sup>1</sup>Dudka et al., 2004; <sup>1</sup>Sarkina and Prydiuk, 2012).

FAR EAST: **Amur Oblast** (<sup>1</sup>Taranina, 2005); **Jewish Autonomous Oblast** (<sup>4</sup>Bulakh, Govorova, Nazarova, and Vassiljeva, 2007; <sup>1</sup>Bau, Bulakh, and Govorova, 2011; <sup>2</sup>Bogacheva et al., 2018); **Khabarovsk Krai** (<sup>4</sup>Azbukina et al., 1989; <sup>4</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Bulakh, 2013; <sup>1</sup>Bogacheva, Bulakh, Bukharova, and Egorova, 2015; <sup>2</sup>Erofeeva and Bulakh, 2015a; <sup>2</sup>Bogacheva et al., 2018); **Primorsky Krai** (<sup>3</sup>Vassiljeva, 1972; <sup>4</sup>Vassiljeva, 1973; <sup>4</sup>Wasser, 1980; <sup>4</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Bulakh et al., 2016; <sup>2</sup>Bogacheva et al., 2018; <sup>1</sup>Bogacheva, Bulakh, Bukharova, and Egorova, 2020).

***Agaricus iodosmus* Heinem.**

EASTERN EUROPE: **Penza Oblast** (Ivanov, 2018); **Volgograd Oblast** (Ivanov, 2018); **Arid territories** (Rebriev, Rusanov, et al., 2012; Ivanov, 2018).

***Agaricus kuehnerianus* Heinem.**

EASTERN EUROPE: **Crimea** (Wasser, 1980; Sarkina, 2001; Dudka et al., 2004; Sarkina and Prydiuk, 2012; Yena and Fateryga, 2015; Ivanov, 2018).

SIBERIA: **Altai Republic** (Gorbunova, 2010); **Krasnoyarsk Krai** (Kosheleva and Kutafjeva, 2008a).

***Agaricus langei* (F.H. Møller) F.H. Møller<sup>1</sup>**

= *Agaricus mediofuscus* (F.H. Møller) Pilát<sup>2</sup>

EASTERN EUROPE: **Belgorod Oblast** (<sup>2</sup>Bedenko, 1979a; <sup>2</sup>Bedenko, 1979b); **Karachay-Cherkess Republic** (<sup>1</sup>Kalamees and Botashev, 2000); **Krasnodar Krai** (<sup>1</sup>Kovalenko, 1980a; <sup>1</sup>Kovalenko, 1980b; <sup>1</sup>Vaasma, Kalamees, and Raitviir, 1986; <sup>1</sup>Litvinskaya, 2007; <sup>1</sup>Litvinskaya, 2017).

FAR EAST: **Khabarovsk Krai** (<sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1</sup>Ivanov, 2018); **Primorsky Krai** (<sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1</sup>Bardunov et al., 2002; <sup>1</sup>Ivanov, 2018).

***Agaricus lanipes* (F.H. Møller & Jul. Schäff.) Hlaváček**

EASTERN EUROPE: **Leningrad Oblast** (Wasser, 1980; Popov et al., 2007; Ivanov, 2018); **Saint Petersburg** (Kovalenko and Morozova, 1999a; Morozova, Kovalenko, Rebriev, and Malysheva, 2014; Ivanov, 2018).

***Agaricus litoralis* (Wakef. & A. Pearson) Pilát<sup>1</sup>**

= *Agaricus maskae* Pilát<sup>2</sup> = *Agaricus spissicaulis* F.H. Møller<sup>3</sup>

EASTERN EUROPE: **Chechen Republic** (<sup>3</sup>Taysumov, Zamotaylov, and Batkhiev, 2020); **Crimea** (<sup>3</sup>Sarkina, 2001; <sup>3</sup>Dudka et al., 2004; <sup>3</sup>Sarkina, 2010b; <sup>2</sup>Sarkina and Prydiuk, 2012); **Kabardino-Balkarian Republic** (<sup>3</sup>Shkhagapsoev and Krapivina, 2004; <sup>1</sup>Ivanov, 2018); **Penza Oblast** (<sup>3</sup>Ivanov, 1988a; <sup>1</sup>Ivanov, 2018); **Rostov Oblast** (<sup>2</sup>Vyshchepan, 1992; <sup>1</sup>Fedyeva, 2014; <sup>1</sup>Ivanov, 2018); **Sevastopol** (<sup>3</sup>Sarkina and Belyaeva, 2013; <sup>3</sup>Sarkina, 2016b); **Stavropol Krai** (<sup>1</sup>Ivanov, 2018); **Tula Oblast** (<sup>3</sup>Svetasheva, 2004; <sup>3</sup>Svetasheva, 2005b; <sup>1</sup>Shcherbakov, 2010; <sup>1</sup>Ivanov, 2018; <sup>1</sup>Svetasheva, Sheremetyeva, and Lakomov, 2019); **Arid territories** (<sup>1</sup>Rebriev, Rusanov, et al., 2012; <sup>1</sup>Ivanov, 2018).

SIBERIA: **Altai Republic** (<sup>1</sup>Gorbunova, 2019).

FAR EAST: **Khabarovsk Krai** (<sup>3</sup>Azbukina et al., 1989); **Primorsky Krai** (<sup>3</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1</sup>Bau, Bulakh, and Govorova, 2011).

***Agaricus lutosus* F.H. Møller**

EASTERN EUROPE: **Crimea** (Sarkina, 2010b); **Penza Oblast** (Ivanov, 1988a; Ivanov, 2018); **Rostov Oblast** (Fedyeva, 2014; Ivanov, 2018; Rebriev, 2018; Rusanov, Rebriev, and Bulgakov, 2018); **Arid territories** (Rebriev, Rusanov, et al., 2012; Ivanov, 2018).

FAR EAST: **Primorsky Krai** (Ivanov, 2018).



***Agaricus macrocarpus* F.H. Møller**

EASTERN EUROPE: **Crimea** (Dudka et al., 2004); **Moscow Oblast** (Ivanov, 2018); **Orenburg Oblast** (Desyatova, 2008; Ivanov, 2018); **Penza Oblast** (Psurtseva, Kiyashko, Gachkova, and Belova, 2007; Ivanov, 2018); **Rostov Oblast** (Fedyeva, 2014); **Tula Oblast** (Svetasheva, 2004; Svetasheva, 2005b; Shcherbakov, 2010; Ivanov, 2018); **Arid territories** (Rebriev, Rusanov, et al., 2012; Ivanov, 2018).

SIBERIA: **Irkutsk Oblast** (Petrov, 1991); **Tomsk Oblast** (Agaphonova, Kutafjeva, and Gashkov, 2009b; Kudashova, Gashkov, and Kutafjeva, 2013; Kudashova, Gashkov, and Vaishlya, 2016b).

***Agaricus macrolepis* (Pilát & Pouzar) Boisselet & Courtec.**

≡ *Agaricus arvensis* var. *macrolepis* Pilát & Pouzar<sup>1</sup>

EASTERN EUROPE: **Arid territories** (<sup>1</sup>Rebriev, Rusanov, et al., 2012).

FAR EAST: **Kamchatka Krai** (<sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990); **Primorsky Krai** (<sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990).

***Agaricus macrosporoides* Bohus**

EASTERN EUROPE: **Rostov Oblast** (Vyshchepan, 1992; Fedyeva, 2014); **Arid territories** (Rebriev, Rusanov, et al., 2012; Ivanov, 2018).

***Agaricus meleagris* With.**

EASTERN EUROPE: **Crimea** (Ivanov, 2018; Sarkina and Stavishenko, 2019); **Krasnodar Krai** (Ivanov, 2018); **Orenburg Oblast** (Ivanov, 2018).

FAR EAST: **Primorsky Krai** (Ivanov, 2018); **Sakhalin Oblast** (Ivanov, 2018).

***Agaricus menieri* Bon<sup>1</sup>**

= *Agaricus ammophilus* (Menier) Sacc.<sup>2</sup>

EASTERN EUROPE: **Moscow Oblast** (<sup>2</sup>Levitskaya, 1995c; <sup>1</sup>Levitskaya, 2013).

***Agaricus minimus* (Ricken) Pilát<sup>1</sup>**

≡ *Agaricus semotus* var. *minimus* (Ricken) Wasser<sup>2</sup>

EASTERN EUROPE: **Rostov Oblast** (<sup>2</sup>Rusanov, Rebriev, and Bulgakov, 2018).

FAR EAST: **Kamchatka Krai** (<sup>2</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990); **Primorsky Krai** (<sup>1</sup>Azbukina et al., 2006; <sup>1</sup>Bau, Bulakh, and Govorova, 2011).

***Agaricus moelleri* Wasser<sup>1</sup>**

= *Agaricus meleagris* (Jul. Schäff.) Imbach<sup>2</sup> = *Agaricus placomyces* var. *meleagris* (Jul. Schäff.) M.M. Moser<sup>3</sup> = *Agaricus praeclaresquamosus* A.E. Freeman<sup>4</sup>

EASTERN EUROPE: **Belgorod Oblast** (<sup>3</sup>Bedenko, 1979a); **Crimea** (<sup>2</sup>Zerova, 1962; <sup>1,2</sup>Wasser, 1980; <sup>1</sup>Sarkina, 2001; <sup>12</sup>Dudka et al., 2004; <sup>1</sup>Sarkina, 2010b; <sup>1</sup>Sarkina, 2013); **Kaliningrad Oblast** (<sup>1</sup>Atayev and Volodina, 2020); **Krasnodar Krai** (<sup>3</sup>Kovalenko, 1980a; <sup>3</sup>Kovalenko, 1980b); **Orenburg Oblast** (<sup>2</sup>Desyatova, 2008); **Arid territories** (<sup>1</sup>Rebriev, Rusanov, et al., 2012).

SIBERIA: **Tomsk Oblast** (<sup>1</sup>Kudashova, Gashkov, and Kutafjeva, 2013; <sup>1</sup>Kudashova, Gashkov, and Vaishlya, 2016b).

FAR EAST: **Jewish Autonomous Oblast** (<sup>4</sup>Bau, Bulakh, Zhuang, and Li, 2007; <sup>1</sup>Bau, Bulakh, and Govorova, 2011); **Primorsky Krai** (<sup>2</sup>Wasser, 1980; <sup>2</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>2</sup>Bau, Bulakh, and Govorova, 2011); **Sakhalin Oblast** (<sup>2</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990).

***Agaricus moellerianus* Bon**

EASTERN EUROPE: **Orenburg Oblast** (Ivanov, 2018); **Rostov Oblast** (Fedyeva, 2014; Ivanov, 2018; Rebriev, 2018); **Arid territories** (Rebriev, Rusanov, et al., 2012; Ivanov, 2018).

***Agaricus osecanus* Pilát<sup>1</sup>**

= *Agaricus nivescens* F.H. Møller<sup>2</sup>

EASTERN EUROPE: **Leningrad Oblast** (<sup>1</sup>Ivanov, 2018); **Penza Oblast** (<sup>1</sup>Ivanov, 2018); **Saint Petersburg** (<sup>1</sup>Morozova, Kovalenko, Rebriev, and Malysheva, 2014); **Tula Oblast** (<sup>2</sup>Svetasheva, 2004; <sup>2</sup>Svetasheva, 2005b; <sup>1</sup>Shcherbakov, 2010; <sup>1</sup>Svetasheva, 2013; <sup>1</sup>Ivanov, 2018); **Arid territories** (<sup>1</sup>Rebriev, Rusanov, et al., 2012; <sup>1</sup>Ivanov, 2018).

***Agaricus pampeanus* Speg.**

EASTERN EUROPE: **Stavropol Krai** (Ivanov, 2018); **Arid territories** (Rebriev, Rusanov, et al., 2012; Ivanov, 2018).

***Agaricus perturbans* E. Ludw. & W. Pohl<sup>1</sup>**

= *Agaricus decoratus* (F.H. Møller) Pilát<sup>2</sup>

EASTERN EUROPE: **Samara Oblast** (<sup>2</sup>Malysheva and Malysheva, 2005b; <sup>2</sup>Malysheva and Malysheva, 2008; <sup>1</sup>Ivanov, 2018).

***Agaricus phaeolepidotus* F.H. Møller**

EASTERN EUROPE: **Volgograd Oblast** (Dudka and Vedeneyev, 2014); **Arid territories** (Rebriev, Rusanov, et al., 2012; Ivanov, 2018).

***Agaricus pilatianus* (Bohus) Bohus**

EASTERN EUROPE: **Penza Oblast** (Ivanov, 1999; Ivanov, 2018); **Rostov Oblast** (Rusanov, Rebriev, and Bulgakov, 2018); **Volgograd Oblast** (Ivanov, 2018).

***Agaricus placomyces* Peck**

EASTERN EUROPE: **Crimea** (Sarkina, 2001; Sarkina, 2010b; Sarkina and Prydiuk, 2012; Sarkina and Mironova, 2015); **Krasnodar Krai** (Ivanov, 2018).

FAR EAST: **Kamchatka Krai** (Bulakh, Wasser, Nazarova, and Nezdjominogo, 1990); **Khabarovsk Krai** (Azbukina et al., 1986; Bulakh, Wasser, Nazarova, and Nezdjominogo, 1990; Bau, Bulakh, and Govorova, 2011; Bogacheva et al., 2018); **Primorsky Krai** (Vassiljeva, 1972; Vassiljeva, 1973; Shalapugina, 1976; Bulakh, 1977; Bunkina and Nazarova, 1978; Azbukina et al., 1984; Azbukina et al., 1990; Bulakh, Wasser, Nazarova, and Nezdjominogo, 1990; Bardunov et al., 2002; Azbukina et al., 2006; Bau, Bulakh, and Govorova, 2011; Bulakh et al., 2016; Bogacheva et al., 2018; Ivanov, 2018; Bogacheva, Bulakh, Bukharova, and Egorova, 2020); **Sakhalin Oblast** (Bogacheva et al., 2018).

***Agaricus porphyrimon* P.D. Orton**

EASTERN EUROPE: **Belgorod Oblast** (Bedenko, 1980); **Crimea** (Sarkina, 2010b; Sarkina and Prydiuk, 2012; Sarkina, 2013); **Tula Oblast** (Svetasheva, 2004; Svetasheva, 2005b; Shcherbakov, 2010; Svetasheva, 2013; Ivanov, 2018).

SIBERIA: **Altai Krai** (Ivanov, 2018); **Novosibirsk Oblast** (Perova, 1977; Bulakh, Wasser, Nazarova, and Nezdjominogo, 1990; Perova and Gorbunova, 2001; Ivanov, 2018); **Tomsk Oblast** (Perova, 1972; Kudashova, Gashkov, and Kutafjeva, 2013; Kudashova, Gashkov, and Vaishlya, 2016b).

FAR EAST: **Amur Oblast** (Bulakh, Wasser, Nazarova, and Nezdjominogo, 1990); **Kamchatka Krai** (Bulakh, Wasser, Nazarova, and Nezdjominogo, 1990; Ivanov, 2018); **Primorsky Krai** (Bulakh, Wasser, Nazarova, and Nezdjominogo, 1990; Bardunov et al., 2002; Bau, Bulakh, and Govorova, 2011; Bogacheva, Bulakh, Bukharova, and Egorova, 2020).

***Agaricus porphyrocephalus* F.H. Møller**

EASTERN EUROPE: **Orenburg Oblast** (Desyatova, 2008; Ivanov, 2018); **Sverdlovsk Oblast** (Marina, 2006; Ivanov, 2018); **Tula Oblast** (Ivanov, 2018); **Arid territories** (Ivanov, 2018).

***Agaricus praerimosus* Peck**

= *Agaricus tabularis* Peck<sup>1</sup>

EASTERN EUROPE: **Belgorod Oblast** (<sup>1</sup>Bedenko, 1979a); **Crimea** (<sup>1</sup>Sarkina, Prydiuk, and Heluta, 2003; <sup>1</sup>Yena and Fateryga, 2015); **Orenburg Oblast** (<sup>1</sup>Desyatova, 2008; <sup>1</sup>Ivanov, 2018); **Saratov Oblast** (<sup>1</sup>Ivanov, 2018); **Volgograd Oblast** (<sup>1</sup>Novikov and Klinkova, 2006; <sup>1</sup>Rebriev, 2016; <sup>1</sup>Baranova and Salagaev, 2017); **Arid territories** (<sup>1</sup>Rebriev, Rusanov, et al., 2012; <sup>1</sup>Ivanov, 2018).

SIBERIA: **Irkutsk Oblast** (<sup>1</sup>Petrov, 1991; <sup>1</sup>Petrov, 2008); **Krasnoyarsk Krai** (<sup>1</sup>Beglyanova, 1972a; <sup>1</sup>Beglyanova, 1972b; <sup>1</sup>Vassilkov, 1974; <sup>1</sup>Wasser, 1980; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdjominogo, 1990); **Tomsk Oblast** (<sup>1</sup>Agaphonova, Kutafjeva, and Gashkov, 2009b; <sup>1</sup>Kudashova, Gashkov, and Kutafjeva, 2013; <sup>1</sup>Kudashova, Gashkov, and Vaishlya, 2016b).

FAR EAST: **Chukotka Autonomous Okrug** (<sup>1</sup>Vassilkov, 1974; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdjominogo, 1990).

***Agaricus pseudoprattensis* (Bohus) Wasser<sup>1</sup>**= *Agaricus pseudoprattensis* var. *niveus* Bohus<sup>2</sup>EASTERN EUROPE: **Penza Oblast** (<sup>1</sup>Svetasheva et al., 2017; <sup>1</sup>Ivanov, 2018); **Rostov Oblast** (<sup>1</sup>Fedyaeva, 2014; <sup>1</sup>Ivanov, 2018); **Volgograd Oblast** (<sup>1</sup>Ivanov, 2018); **Arid territories** (<sup>1</sup>Rebriev, Rusanov, et al., 2012; <sup>1</sup>Ivanov, 2018).SIBERIA: **Krasnoyarsk Krai** (<sup>2</sup>Krom and Kapitonov, 2019).***Agaricus rusiophyllus* Lasch**EASTERN EUROPE: **Bryansk Oblast** (Kruglikov, 2007); **Leningrad Oblast** (Wasser, 1980; Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; Kovalenko and Morozova, 1999a; Popov et al., 2007); **Lipetsk Oblast** (Sarycheva, 1999; Sarycheva et al., 2009; Sarycheva, 2014a; Sarycheva, 2016; Sarycheva, Starodubtseva, and Sapelnikova, 2017); **Moscow Oblast** (Wasser, 1980; Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990); **Perm Krai** (Perevedentseva, 2008); **Rostov Oblast** (Rusanov, Rebriev, and Bulgakov, 2018); **Samara Oblast** (Malysheva and Malysheva, 2006; Malysheva and Malysheva, 2008); **Udmurt Republic** (Tychinin and Kuzmina, 2003); **Arid territories** (Rebriev, Rusanov, et al., 2012).SIBERIA: **Novosibirsk Oblast** (Perova and Gorbunova, 2001).FAR EAST: **Amur Oblast** (Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990); **Khabarovsk Krai** (Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; Bau, Bulakh, and Govorova, 2011); **Primorsky Krai** (Wasser, 1980; Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990).***Agaricus semotus* Fr.**EASTERN EUROPE: **Crimea** (Wasser, 1980; Dudka et al., 2004; Sarkina, 2010b; Sarkina and Prydiuk, 2012; Sarkina, 2013; Sarkina and Mironova, 2015; Ivanov, 2018); **Komi Republic** (Palamarchuk and Kirillov, 2017; Palamarchuk, 2017; Palamarchuk and Kirillov, 2018a; Palamarchuk, 2020a); **Leningrad Oblast** (Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; Kovalenko and Morozova, 1999a; Popov et al., 2007; Ivanov, 2018; Kalinina, 2018); **Lipetsk Oblast** (Sarycheva, 1999; Sarycheva et al., 2009; Sarycheva, 2011; Sarycheva, 2014a; Sarycheva, 2016); **Moscow Oblast** (Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; Levitskaya, 1995c; Voronina et al., 2012; Levitskaya, 2013; Voronina et al., 2014; Ivanov, 2018); **Penza Oblast** (Ivanov, 1982; Ivanov, 1999; Ivanov, 2018); **Perm Krai** (Perevedentseva, 2008); **Pskov Oblast** (Popov et al., 2013); **Rostov Oblast** (Ivanov, 2018); **Ryazan Oblast** (Volosnova, 1997; Volosnova, 2014); **Saint Petersburg** (Morozova and Smirnov, 2011; Morozova et al., 2020); **Sverdlovsk Oblast** (Marina, 2006; Ivanov, 2018); **Udmurt Republic** (Kapitonov, 2013); **Yamalo-Nenets Autonomous Okrug** (Vassilkov, 1974; Karatygin, Nezdojminogo, Novozhilov, and Zhurbenko, 1999; Nezdojminogo, 2001; Ivanov, 2018).SIBERIA: **Altai Krai** (Gorbunova and Perova, 2006; Gorbunova, 2006; Gorbunova, 2018a); **Altai Republic** (Gorbunova, 1996; Gorbunova, 1997; Gorbunova, 2001b; Perova and Gorbunova, 2001; Gorbunova, 2006); **Buryatia** (Nezdojminogo, 1973; Wasser, 1980; Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; Ivanov, 2018); **Irkutsk Oblast** (Petrov, 1986; Kutafjeva, 1989; Petrov, 1989; Bardunov et al., 2005; Petrov, 2008; Ivanov, 2018); **Khakassia** (Beglyanova, 1972a; Zauzolkova, 2015); **Khanty-Mansi Autonomous Okrug** (Zvyagina, Baykalova, and Gorbunova, 2007; Zvyagina, 2008; Shepeleva et al., 2014; Zvyagina and Vasina, 2015; Filippova and Bulyonkova, 2017a; Filippova and Bulyonkova, 2017b); **Krasnoyarsk Krai** (Beglyanova, 1972a; Wasser, 1980; Nezdojminogo, 1982a; Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; Zauzolkova, 2015; Malysheva, Malysheva, Kiyashko, et al., 2017; Ivanov, 2018; Krom and Kapitonov, 2019); **Novosibirsk Oblast** (Perova and Gorbunova, 2001; Gorbunova, 2006; Gorbunova, 2007; Koropachinskiy and Banaev, 2014); **Tomsk Oblast** (Perova, 1972; Perova and Gorbunova, 2001; Kudashova, Gashkov, and Kutafjeva, 2013).FAR EAST: **Amur Oblast** (Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990); **Jewish Autonomous Oblast** (Erofeeva and Bulakh, 2015b); **Kamchatka Krai** (Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; Ivanov, 2018); **Khabarovsk Krai** (Azbukina et al., 1986; Azbukina et al., 1989; Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; Bau, Bulakh, and Govorova, 2011; Bogacheva et al., 2018; Ivanov, 2018); **Magadan Oblast** (Rebriev, Bulakh, Sazanova, and Shiryaev, 2020); **Primorsky Krai** (Vassiljeva, 1973; Shalapugina, 1976; Bunkina and Nazarova, 1978; Wasser, 1980; Azbukina et al., 1984; Azbukina et al., 1990; Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; Bardunov et al., 2002; Azbukina et al., 2006; Bau, Bulakh, and Govorova, 2011; Bulakh et al., 2016; Bogacheva et al., 2018; Ivanov, 2018); **Sakhalin Oblast** (Vassiljeva and Nazarova, 1972; Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; Ivanov, 2018).***Agaricus silvicolae-similis* Bohus & Locsmándi**EASTERN EUROPE: **Lipetsk Oblast** (Shcherbakov, 2014).

***Agaricus subfloccosus* (J.E. Lange) Hlaváček**

EASTERN EUROPE: **Belgorod Oblast** (Bedenko, 1979a); **Leningrad Oblast** (Wasser, 1980; Kovalenko and Morozova, 1999a; Popov et al., 2007; Ivanov, 2018); **Saint Petersburg** (Ivanov, 2018).

***Agaricus subperonatus* (J.E. Lange) Singer**

EASTERN EUROPE: **Leningrad Oblast** (Ivanov, 2018); **Penza Oblast** (Ivanov, 1992; Ivanov, 2018).

***Agaricus subrufescens* Peck**

FAR EAST: **Khabarovsk Krai** (Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; Bau, Bulakh, and Govorova, 2011; Ivanov, 2018); **Primorsky Krai** (Vassiljeva, 1973; Bunkina and Nazarova, 1978; Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; Bardunov et al., 2002; Azbukina et al., 2006; Bau, Bulakh, and Govorova, 2011; Ivanov, 2018).

***Agaricus subrutilescens* (Kauffman) Hotson & D.E. Stuntz**

FAR EAST: **Primorsky Krai** (Bulakh et al., 2016).

***Agaricus sylvaticus* Schaeff.<sup>1</sup>**

≡ *Agaricus sylvaticus* var. *sylvaticus* Schaeff.<sup>2</sup> ≡ *Psalliota sylvatica* (Schaeff.) P. Kumm.<sup>3</sup> = *Agaricus haemorrhoidarius* Schulzer<sup>4</sup> = *Agaricus sylvaticus* var. *pallens* Pilát<sup>5</sup> = *Agaricus sylvaticus* var. *pallidus* (F.H. Møller) F.H. Møller<sup>6</sup> = *Agaricus sylvaticus* var. *saturatus* (F.H. Møller) F.H. Møller<sup>7</sup>

EASTERN EUROPE: **Adygea** (<sup>1</sup>Vassiljeva, 1939; <sup>1</sup>Kovalenko, 1980b); **Arkhangelsk Oblast** (<sup>1</sup>Ezhov, Ershov, Ruokolainen, and Zmitrovich, 2011; <sup>1</sup>Ezhov, 2014); **Belgorod Oblast** (<sup>1</sup>Bedenko, 1979a; <sup>4,5</sup>Bedenko, 1980; <sup>1</sup>Psurtseva, Belova, and Ryabusheva, 2003); **Bryansk Oblast** (<sup>1</sup>Kruglikov, 2007); **Chelyabinsk Oblast** (<sup>3</sup>Aleksandrovskaya and Lobanova, 1968; <sup>1</sup>Stepanova and Sirko, 1977); **Crimea** (<sup>1,4</sup>Wasser, 1980; <sup>1,4</sup>Sarkina, 2001; <sup>1,4</sup>Dudka et al., 2004; <sup>1,4</sup>Sarkina, 2011; <sup>1,4</sup>Sarkina and Prydiuk, 2012; <sup>1</sup>Sarkina, 2013; <sup>1,4</sup>Sarkina and Mironova, 2015); **Kabardino-Balkarian Republic** (<sup>1</sup>Shkhagapsoev and Krapivina, 2003; <sup>1</sup>Shkhagapsoev and Krapivina, 2004); **Kaliningrad Oblast** (<sup>1</sup>Dedkov, Volodina, and Gubareva, 2007; <sup>1</sup>Volodina, 2007; <sup>1</sup>Ivanov, 2018; <sup>1</sup>Atayev and Volodina, 2020); **Kaluga Oblast** (<sup>1</sup>Sionova, 2003); **Karachay-Cherkess Republic** (<sup>1</sup>Vassiljeva, 1939); **Karelia** (<sup>1</sup>Wasser, 1980; <sup>1</sup>Czerepanova, Perfiljeva, and Tobias, 1982; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1</sup>Bondartseva et al., 2001; <sup>1</sup>Krutov et al., 2014; <sup>1</sup>Savelev and Kikeeva, 2018); **Kirov Oblast** (<sup>1</sup>Kirillov, 2011; <sup>1</sup>Kirillov, Perevedentseva, and Egoshina, 2011; <sup>1</sup>Ivanov, 2018); **Komi Republic** (<sup>1</sup>Palamarchuk, 2012); **Krasnodar Krai** (<sup>1</sup>Vassiljeva, 1939; <sup>1</sup>Kovalenko, 1980a; <sup>1</sup>Kovalenko, 1980b); **Kursk Oblast** (<sup>1</sup>Ryabova and Ignatenko, 1981; <sup>1</sup>Soshnina, 2005); **Leningrad Oblast** (<sup>1</sup>Thesleff, 1920; <sup>1</sup>Wasser, 1980; <sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Popov et al., 2007); **Lipetsk Oblast** (<sup>1</sup>Rtishcheva, 1999; <sup>1</sup>Sarycheva, 1999; <sup>1</sup>Afanasyev, Rtishcheva, and Starodubtseva, 2007; <sup>1</sup>Sarycheva et al., 2009; <sup>1</sup>Sarycheva, 2011; <sup>1</sup>Sarycheva, 2014a; <sup>1</sup>Sarycheva, 2016; <sup>1</sup>Sarycheva, Starodubtseva, and Sapelnikova, 2017); **Mordovia** (<sup>3</sup>Kuznetsov, 1960; <sup>1</sup>Ivoilov and Bolshakov, 2011a; <sup>3</sup>Chastukhin, 2011); **Moscow** (<sup>3</sup>Burova, 1968); **Moscow Oblast** (<sup>1</sup>Gorlenko, Sidorova, and Sidorova, 1989; <sup>1</sup>Levitskaya, 1995b; <sup>2,6</sup>Levitskaya, 2013; <sup>1</sup>Voronina et al., 2014; <sup>1</sup>Sidorova, Alexandrova, and Voronina, 2017; <sup>1</sup>Ivanov, 2018); **Murmansk Oblast** (<sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1</sup>Ivanov, 2018); **North Ossetia** (<sup>1</sup>Nikolayev, 2001); **Penza Oblast** (<sup>1</sup>Vet, 1943; <sup>1,4</sup>Ivanov, 1982; <sup>7</sup>Ivanov, 1988a; <sup>1</sup>Ivanov, 2018); **Perm Krai** (<sup>1</sup>Perevedentseva, 2008; <sup>1</sup>Belkovskaya et al., 2014); **Pskov Oblast** (<sup>2</sup>Popov, 2001a; <sup>2</sup>Popov et al., 2013; <sup>1</sup>Ivanov, 2018); **Rostov Oblast** (<sup>1</sup>Zmitrovich et al., 2008; <sup>1</sup>Ivanov, 2018; <sup>1</sup>Rusanov, Rebriev, and Bulgakov, 2018); **Ryazan Oblast** (<sup>1</sup>Volosnova, 1997; <sup>1</sup>Volosnova, 2014); **Saint Petersburg** (<sup>1</sup>Morozova and Smirnov, 2011; <sup>1</sup>Morozova et al., 2020); **Samara Oblast** (<sup>1</sup>Malysheva and Malysheva, 2004; <sup>2</sup>Malysheva and Malysheva, 2008; <sup>1</sup>Ivanov, 2018); **Sevastopol** (<sup>1,4</sup>Sarkina, 2016b; <sup>1,4</sup>Sarkina, 2020c); **Smolensk Oblast** (<sup>3</sup>Jaczewski, 1893; <sup>3</sup>Jaczewski, 1895); **Sverdlovsk Oblast** (<sup>1</sup>Marina, 2006; <sup>1</sup>Ivanov, 2018); **Tatarstan** (<sup>1</sup>Vassiljeva, 1977; <sup>1</sup>Potapov, 2015b); **Tula Oblast** (<sup>1</sup>Svetasheva, 2001; <sup>1,4</sup>Svetasheva, 2004; <sup>4</sup>Svetasheva, 2005b; <sup>1</sup>Svetasheva, 2013; <sup>1</sup>Ivanov, 2018); **Tver Oblast** (<sup>1</sup>Kurochkin, 1993; <sup>1</sup>Ivanov, 2018); **Udmurt Republic** (<sup>1</sup>Tychinin, 1990; <sup>1</sup>Tychinin and Kuzmina, 2003); **Ulyanovsk Oblast** (<sup>1</sup>Ilyukhin, 2009; <sup>1</sup>Ilyukhin, 2010a; <sup>1</sup>Ivanov, 2018); **Volgograd Oblast** (<sup>1</sup>Dudka and Vedeneyev, 2015; <sup>1</sup>Ivanov, 2018); **Vologda Oblast** (<sup>1</sup>Kirillova, 2007; <sup>1</sup>Ivanov, 2018); **Voronezh Oblast** (<sup>1</sup>Rtishcheva, 1999; <sup>1</sup>Afanasyev, Rtishcheva, and Starodubtseva, 2007; <sup>1</sup>Selochnik, 2015; <sup>1</sup>Sarycheva, Starodubtseva, and Sapelnikova, 2017; <sup>1</sup>Kochergina and Furmenkova, 2019); **Yaroslavl Oblast** (<sup>1</sup>Lazareva, 1998a; <sup>1</sup>Lazareva, 1998b; <sup>1</sup>Ivanov, 2018); **Arid territories** (<sup>1</sup>Rebriev, Rusanov, et al., 2012; <sup>1</sup>Ivanov, 2018).

SIBERIA: **Altai Krai** (<sup>1</sup>Gorbunova and Perova, 2006; <sup>1</sup>Gorbunova, 2018a); **Altai Republic** (<sup>1</sup>Gorbunova, 2003; <sup>1</sup>Gorbunova, 2008; <sup>1</sup>Gorbunova, 2010); **Irkutsk Oblast** (<sup>1</sup>Petrov, 1991; <sup>1</sup>Muzyka, 2002; <sup>1</sup>Petrov, 2008); **Khakassia** (<sup>1</sup>Beglyanova, 1972a; <sup>1</sup>Zauzolkova, 2015); **Khanty-Mansi Autonomous Okrug** (<sup>1</sup>Filippova, Bulyonkova, and Lapshina, 2015); **Krasnoyarsk Krai** (<sup>1</sup>Beglyanova, 1972a; <sup>1</sup>Wasser, 1980; <sup>1</sup>Bulakh, Wasser, Nazarova, and

Nezdojminogo, 1990; <sup>1</sup>Zauzolkova, 2015; <sup>1</sup>Malysheva, Malysheva, Kiyashko, et al., 2017; <sup>1</sup>Ivanov, 2018); **Novosibirsk Oblast** (<sup>1</sup>Perova and Gorbunova, 2001; <sup>1</sup>Perova and Gorbunova, 2007; <sup>1</sup>Koropachinskiy and Banaev, 2014); **Sakha Republic** (<sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1</sup>Ivanov, 2018); **Tomsk Oblast** (<sup>1</sup>Perova, 1972; <sup>1</sup>Milovidova, 1980; <sup>1</sup>Wasser, 1980; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1</sup>Perova and Gorbunova, 2001; <sup>1</sup>Agaphonova, Kutafjeva, and Gashkov, 2007; <sup>1</sup>Kudashova, Gashkov, and Kutafjeva, 2013; <sup>1</sup>Ivanov, 2018); **Yamalo-Nenets Autonomous Okrug** (<sup>1</sup>Tarчевskaya, 1990).

FAR EAST: **Amur Oblast** (<sup>1</sup>Taranina, 2005); **Jewish Autonomous Oblast** (<sup>1</sup>Bulakh, Govorova, Nazarova, and Vassiljeva, 2007; <sup>1</sup>Bau, Bulakh, and Govorova, 2011); **Kamchatka Krai** (<sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990); **Khabarovsk Krai** (<sup>1</sup>Azbukina et al., 1986; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1</sup>Bulakh, Vassiljeva, and Erofeeva, 2010; <sup>1</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Erofeeva and Bulakh, 2015a; <sup>1</sup>Ivanov, 2018); **Magadan Oblast** (<sup>1</sup>Sazanova, 2005; <sup>1</sup>Sazanova, 2009a); **Primorsky Krai** (<sup>1</sup>Vassiljeva, 1972; <sup>1</sup>Vassiljeva, 1973; <sup>1</sup>Bunkina and Nazarova, 1978; <sup>1</sup>Wasser, 1980; <sup>1</sup>Azbukina et al., 1990; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1</sup>Bardunov et al., 2002; <sup>1</sup>Azbukina et al., 2006; <sup>1</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Bulakh et al., 2016; <sup>1</sup>Bogacheva et al., 2018; <sup>1</sup>Ivanov, 2018).

### *Agaricus sylvicola* (Vittad.) Peck<sup>1</sup>

≡ *Agaricus campestris* var. *sylvicola* Vittad.<sup>2</sup> ≡ *Agaricus sylvicola* var. *sylvicola* (Vittad.) Peck<sup>3</sup> ≡ *Psalliota campestris* var. *sylvicola* (Vittad.) Quél.<sup>4</sup> ≡ *Psalliota sylvicola* (Vittad.) Richon & Roze<sup>5</sup> = *Agaricus flavescens* (Gillet) Sacc.<sup>6</sup>

EASTERN EUROPE: **Belgorod Oblast** (<sup>1</sup>Bedenko, 1980); **Bryansk Oblast** (<sup>1</sup>Kruglikov, 2007); **Chelyabinsk Oblast** (<sup>1</sup>Sirko and Stepanova, 1977; <sup>1</sup>Stepanova and Sirko, 1977); **Kabardino-Balkarian Republic** (<sup>1</sup>Shkhagapsoev and Krapivina, 2004); **Kaliningrad Oblast** (<sup>1</sup>Dedkov, Volodina, and Gubareva, 2007; <sup>1</sup>Volodina, 2007; <sup>1</sup>Ivanov, 2018; <sup>1</sup>Atayev and Volodina, 2020); **Kaluga Oblast** (<sup>1</sup>Sionova, 2003); **Karachay-Cherkess Republic** (<sup>1</sup>Kalamees and Botashev, 2000); **Kirov Oblast** (<sup>1</sup>Kirillov, 2011; <sup>1</sup>Kirillov, Perevedentseva, and Egoshina, 2011; <sup>1</sup>Ivanov, 2018; <sup>1</sup>Stavishenko, Luginina, Kirillov, and Egoshina, 2019); **Komi Republic** (<sup>1</sup>Palamarchuk and Kirillov, 2017); **Krasnodar Krai** (<sup>6</sup>Vassiljeva, 1939; <sup>1</sup>Kovalenko, 1980a; <sup>1</sup>Kovalenko, 1980b; <sup>1</sup>Ivanov, 2018); **Leningrad Oblast** (<sup>1</sup>Popov et al., 2007; <sup>1</sup>Ivanov, 2018); **Lipetsk Oblast** (<sup>1</sup>Sarycheva et al., 2009; <sup>1</sup>Sarycheva, 2016; <sup>1</sup>Sarycheva, Starodubtseva, and Sapelnikova, 2017; <sup>1</sup>Ivanov, 2018); **Mordovia** (<sup>1</sup>Bolshakov and Ivoilov, 2012b [as *Agaricus abruptibulbus* Peck, redet, in Bolshakov, 2015]; <sup>1</sup>Bolshakov, 2015); **Moscow Oblast** (<sup>1</sup>Gorlenko, Sidorova, and Sidorova, 1989; <sup>1</sup>Levitskaya, 1995b; <sup>1</sup>Levitskaya, 2013; <sup>1</sup>Voronina et al., 2014; <sup>1</sup>Ivanov, 2018); **North Ossetia** (<sup>1</sup>Nikolayev, 2001); **Novgorod Oblast** (<sup>1</sup>Malysheva, Malysheva, and Zmitrovich, 2007); **Orenburg Oblast** (<sup>2</sup>Vorontsovsky, 1921; <sup>1</sup>Desyatova, 2008; <sup>1</sup>Ivanov, 2018); **Penza Oblast** (<sup>1</sup>Ivanov, 1982; <sup>1</sup>Ivanov, 2018); **Perm Krai** (<sup>1</sup>Perevedentseva, 2008; <sup>1</sup>Belkovskaya et al., 2014); **Pskov Oblast** (<sup>1</sup>Popov, 2001a; <sup>1</sup>Popov et al., 2013; <sup>1</sup>Ivanov, 2018); **Rostov Oblast** (<sup>1</sup>Rusanov et al., 2004; <sup>1</sup>Morozova et al., 2008; <sup>1</sup>Zmitrovich et al., 2008; <sup>1</sup>Ivanov, 2018); **Ryazan Oblast** (<sup>1</sup>Volosnova, 1997; <sup>1</sup>Volosnova, 2014); **Saint Petersburg** (<sup>1</sup>Kotkova, Morozova, and Popov, 2005; <sup>1</sup>Morozova and Smirnov, 2011; <sup>1</sup>Morozova et al., 2020); **Smolensk Oblast** (<sup>4</sup>Jaczewski, 1896); **Sverdlovsk Oblast** (<sup>1</sup>Stepanova and Sirko, 1977; <sup>1</sup>Marina, 2006); **Tatarstan** (<sup>1</sup>Vassiljeva, 1977); **Tula Oblast** (<sup>1</sup>Svetasheva, 2001; <sup>1</sup>Svetasheva, 2004; <sup>1</sup>Svetasheva, 2013; <sup>1</sup>Ivanov, 2018); **Tver Oblast** (<sup>5</sup>Chastukhin, 1948b; <sup>1</sup>Chastukhin and Nikolaevskaya, 1969; <sup>1</sup>Kurochkin, 1993; <sup>1</sup>Mukhina, 2011a; <sup>1</sup>Mukhina, 2011b; <sup>1</sup>Kotkova, 2014; <sup>1</sup>Ivanov, 2018); **Udmurt Republic** (<sup>1</sup>Tychinin and Kuzmina, 2003); **Ulyanovsk Oblast** (<sup>1</sup>Ilyukhin, 2009; <sup>1</sup>Ilyukhin, 2010a); **Volgograd Oblast** (<sup>1</sup>Dudka and Vedeneyev, 2014); **Vologda Oblast** (<sup>1</sup>Kirillova, 2006; <sup>1</sup>Kirillova, 2007; <sup>1</sup>Ivanov, 2018); **Voronezh Oblast** (<sup>1</sup>Kochergina and Furmenkova, 2019); **Yaroslavl Oblast** (<sup>1</sup>Lazareva, 1998a; <sup>1</sup>Lazareva, 1998b; <sup>1</sup>Ivanov, 2018); **Arid territories** (<sup>1</sup>Rebriev, Rusanov, et al., 2012; <sup>1</sup>Ivanov, 2018).

SIBERIA: **Altai Krai** (<sup>1</sup>Gorbunova and Perova, 2006; <sup>1</sup>Gorbunova, 2018a); **Altai Republic** (<sup>1</sup>Gorbunova, 2001b); **Irkutsk Oblast** (<sup>1</sup>Petrov, 1986; <sup>1</sup>Petrov, 1991; <sup>1</sup>Petrov, 2008); **Khakassia** (<sup>1</sup>Zauzolkova and Gorbunova, 2013; <sup>1</sup>Zauzolkova, 2015); **Khanty-Mansi Autonomous Okrug** (<sup>1</sup>Zvyagina, Baykalova, and Gorbunova, 2007; <sup>1</sup>Filippova, Bulyonkova, and Lapshina, 2015); **Krasnoyarsk Krai** (<sup>1</sup>Beglyanova, 1972a; <sup>1</sup>Wasser, 1980; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1</sup>Kosheleva and Kutafjeva, 2008a; <sup>1</sup>Zauzolkova, 2015; <sup>1</sup>Malysheva, Malysheva, Kiyashko, et al., 2017; <sup>1</sup>Krom and Kapitonov, 2019); **Novosibirsk Oblast** (<sup>1</sup>Perova, 1977; <sup>1</sup>Gorbunova, 2007; <sup>1</sup>Perova and Gorbunova, 2007; <sup>1</sup>Koropachinskiy and Banaev, 2014); **Tomsk Oblast** (<sup>1</sup>Perova, 1972; <sup>1</sup>Wasser, 1980; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1</sup>Kudashova, Gashkov, and Kutafjeva, 2013).

FAR EAST: **Amur Oblast** (<sup>1</sup>Kochunova, 2019); **Jewish Autonomous Oblast** (<sup>1</sup>Bulakh, Govorova, Nazarova, and Vassiljeva, 2007; <sup>1</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Bogacheva et al., 2018); **Kamchatka Krai** (<sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990); **Khabarovsk Krai** (<sup>1</sup>Azbukina et al., 1986; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1</sup>Bau, Bulakh, Zhuang, and Li, 2007; <sup>1</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Bulakh, 2013; <sup>1</sup>Bogacheva, Bulakh, Bukharova, and Egorova, 2015; <sup>1</sup>Ivanov, 2018); **Magadan Oblast** (<sup>1</sup>Sazanova, 2009a; <sup>3</sup>Sazanova, 2011); **Primorsky Krai** (<sup>1</sup>Vassiljeva, 1972; <sup>1</sup>Vassiljeva, 1973; <sup>1</sup>Shalapugina, 1976; <sup>1</sup>Bunkina and Nazarova, 1978);

<sup>1</sup>Wasser, 1980; <sup>1</sup>Azbukina et al., 1984; <sup>1</sup>Azbukina et al., 1990; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1</sup>Bardunov et al., 2002; <sup>1</sup>Azbukina et al., 2006; <sup>1</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Bulakh et al., 2016; <sup>1</sup>Bogacheva et al., 2018; <sup>1</sup>Ivanov, 2018); **Sakhalin Oblast** (<sup>1</sup>Vassiljeva and Nazarova, 1972; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1</sup>Bogacheva et al., 2018; <sup>1</sup>Ivanov, 2018).

#### ***Agaricus urinascens* (Jul. Schäff. & F.H. Møller) Singer<sup>1</sup>**

≡ *Agaricus urinascens* var. *urinascens* (Jul. Schäff. & F.H. Møller) Singer<sup>2</sup> = *Agaricus excellens* F.H. Møller<sup>3</sup> = *Agaricus macrosporus* (F.H. Møller & Jul. Schäff.) Pilát<sup>4</sup> = *Agaricus urinascens* var. *excellens* (F.H. Møller) Nauta<sup>5</sup>

EASTERN EUROPE: **Belgorod Oblast** (<sup>4</sup>Bedenko, 1979a; <sup>3</sup>Bedenko, 1980); **Crimea** (<sup>4</sup>Wasser, 1980; <sup>4</sup>Dudka et al., 2004; <sup>4</sup>Sarkina, 2011; <sup>4</sup>Yena and Fateryga, 2015); **Lipetsk Oblast** (<sup>4</sup>Afanasyev, Rtishcheva, and Starodubtseva, 2007; <sup>2</sup>Sarycheva et al., 2009; <sup>4</sup>Sarycheva, Starodubtseva, and Sapelnikova, 2017); **Moscow Oblast** (<sup>4</sup>Levitskaya, 1995a; <sup>4</sup>Levitskaya, 2013); **Penza Oblast** (<sup>1</sup>Ivanov, 2018); **Rostov Oblast** (<sup>4</sup>Vyshchepan, 1992; <sup>5</sup>Fedyayeva, 2014; <sup>1</sup>Ivanov, 2018); **Tula Oblast** (<sup>1</sup>Ivanov, 2018); **Udmurt Republic** (<sup>4</sup>Tychinin and Kuzmina, 2003); **Volgograd Oblast** (<sup>1</sup>Dudka and Vedeneyev, 2014); **Voronezh Oblast** (<sup>4</sup>Afanasyev, Rtishcheva, and Starodubtseva, 2007; <sup>4</sup>Sarycheva, Starodubtseva, and Sapelnikova, 2017); **Arid territories** (<sup>2,5</sup>Rebriev, Rusanov, et al., 2012; <sup>1</sup>Ivanov, 2018).

SIBERIA: **Irkutsk Oblast** (<sup>3</sup>Petrov, 1991); **Krasnoyarsk Krai** (<sup>3</sup>Beglyanova, 1972a; <sup>3</sup>Beglyanova, 1972b; <sup>3</sup>Wasser, 1980; <sup>3</sup>Kosheleva and Kutafjeva, 2008b; <sup>3</sup>Kosheleva, 2010).

FAR EAST: **Khabarovsk Krai** (<sup>4</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1</sup>Ivanov, 2018); **Primorsky Krai** (<sup>4</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>4</sup>Bulakh et al., 2016; <sup>1</sup>Ivanov, 2018).

#### ***Agaricus velenovskiy* Pilát**

EASTERN EUROPE: **Crimea** (Sarkina and Mironova, 2015); **Rostov Oblast** (Vyshchepan, 1992; Rusanov, Rebriev, and Bulgakov, 2018); **Arid territories** (Rebriev, Rusanov, et al., 2012; Ivanov, 2018).

#### ***Agaricus xanthodermus* Genev.<sup>1</sup>**

= *Agaricus meleagris* var. *grisea* (A. Pearson) Wasser<sup>2</sup> = *Agaricus xanthodermus* var. *griseus* (A. Pearson) Bon & Cappelli<sup>3</sup> = *Agaricus xanthodermus* var. *lepiotoides* Maire<sup>4</sup> = *Psalliota flavescens* Richon & Roze<sup>5</sup>

EASTERN EUROPE: **Adygea** (<sup>1</sup>Kovalenko, 1980b); **Astrakhan Oblast** (<sup>1</sup>Ivanov, 2018); **Belgorod Oblast** (<sup>1</sup>Bedenko, 1980); **Bryansk Oblast** (<sup>1</sup>Kruglikov, 2007); **Chechen Republic** (<sup>1</sup>Taysumov, Krapivina, Umarov, and Astamirova, 2012); **Chelyabinsk Oblast** (<sup>1</sup>Stepanova and Sirko, 1977); **Crimea** (<sup>1</sup>Wasser, 1980; <sup>1</sup>Sarkina, 2001; <sup>1</sup>Dudka et al., 2004; <sup>1</sup>Sarkina, 2010b; <sup>1</sup>Sarkina, 2011; <sup>1,2,3,4</sup>Sarkina and Prydiuk, 2012; <sup>1</sup>Sarkina, 2013; <sup>1,2</sup>Sarkina, 2014b; <sup>1</sup>Sarkina and Stavishenko, 2019); **Kaliningrad Oblast** (<sup>1</sup>Dedkov, Volodina, and Gubareva, 2007; <sup>1</sup>Volodina, 2007; <sup>1</sup>Ivanov, 2018; <sup>1</sup>Atayev and Volodina, 2020); **Kaluga Oblast** (<sup>1</sup>Sionova, 2003; <sup>1</sup>Antokhina et al., 2015); **Karachay-Cherkess Republic** (<sup>1</sup>Onipchenko and Kaverina, 1989; <sup>1</sup>Kalamees and Botashev, 2000); **Karelia** (<sup>1</sup>Wasser, 1980; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1</sup>Krutov et al., 2014; <sup>1</sup>Savelev and Kikeeva, 2020); **Krasnodar Krai** (<sup>1</sup>Kovalenko, 1980a; <sup>1</sup>Kovalenko, 1980b; <sup>1</sup>Shumkova, Krivorotov, and Gayday, 2018); **Leningrad Oblast** (<sup>1</sup>Zmitrovich et al., 2015); **Lipetsk Oblast** (<sup>1</sup>Rtishcheva, 1999; <sup>1</sup>Sarycheva, 1999; <sup>1</sup>Afanasyev, Rtishcheva, and Starodubtseva, 2007; <sup>1</sup>Sarycheva et al., 2009; <sup>1</sup>Sarycheva, 2011; <sup>1</sup>Sarycheva, 2016); **Mari El Republic** (<sup>1</sup>Prokhorov, 2007); **Mordovia** (<sup>5</sup>Kuznetsov, 1960; <sup>1</sup>Ivoilov and Bolshakov, 2011a; <sup>5</sup>Chastukhin, 2011); **Moscow Oblast** (<sup>1</sup>Levitskaya, 1995b; <sup>1</sup>Levitskaya, 2013; <sup>1</sup>Ivanov, 2018); **North Ossetia** (<sup>1</sup>Nikolayev, 2001); **Orenburg Oblast** (<sup>1</sup>Desyatova, 2008; <sup>1</sup>Ivanov, 2018); **Oryol Oblast** (<sup>1</sup>Radygina, Derzhavina, and Tsutsupa, 2014); **Penza Oblast** (<sup>1</sup>Ivanov, 1982; <sup>4</sup>Ivanov, 1988a; <sup>1</sup>Ivanov, 1999; <sup>1</sup>Ivanov, 2018; <sup>4</sup>Ivanov, 2018); **Rostov Oblast** (<sup>1,4</sup>Vyshchepan, 1992; <sup>1</sup>Morozova et al., 2008; <sup>1</sup>Zmitrovich et al., 2008; <sup>1</sup>Ivanov, 2018; <sup>1</sup>Rebriev, 2018; <sup>1</sup>Rusanov, Rebriev, and Bulgakov, 2018); **Sevastopol** (<sup>1</sup>Sarkina, 2016b); **Tula Oblast** (<sup>1</sup>Svetasheva, 2004; <sup>1</sup>Svetasheva, 2005b; <sup>1</sup>Svetasheva, 2013; <sup>1</sup>Ivanov, 2018); **Tver Oblast** (<sup>5</sup>Chastukhin, 1948b; <sup>1</sup>Kotkova, 2014; <sup>1</sup>Kurochkin and Medvedev, 2015; <sup>1</sup>Kurochkin, 2016); **Udmurt Republic** (<sup>1</sup>Tychinin, 1990; <sup>1</sup>Tychinin and Kuzmina, 2003); **Ulyanovsk Oblast** (<sup>1</sup>Ilyukhin, 2010a; <sup>1</sup>Ilyukhin, 2010b); **Volgograd Oblast** (<sup>1</sup>Dudka and Vedeneyev, 2015; <sup>1</sup>Goncharova and Vedeneyev, 2015; <sup>1</sup>Stauchan and Vedeneyev, 2015); **Voronezh Oblast** (<sup>1</sup>Rtishcheva, 1999; <sup>1</sup>Afanasyev, Rtishcheva, and Starodubtseva, 2007); **Arid territories** (<sup>1</sup>Rebriev, Rusanov, et al., 2012; <sup>1</sup>Ivanov, 2018).

SIBERIA: **Altai Republic** (<sup>1</sup>Gorbunova, 2012); **Khakassia** (<sup>1</sup>Zauzolkova, 2015); **Krasnoyarsk Krai** (<sup>1</sup>Kosheleva and Kutafjeva, 2008a; <sup>1</sup>Ivanov, 2018); **Novosibirsk Oblast** (<sup>1</sup>Gorbunova, 2012; <sup>1</sup>Koropachinskiy and Banaev, 2014); **Tomsk Oblast** (<sup>1</sup>Agaphonova, Kutafjeva, and Gashkov, 2007; <sup>1</sup>Agaphonova, Kutafjeva, and Gashkov, 2009b; <sup>1</sup>Kudashova, Gashkov, and Kutafjeva, 2013; <sup>4</sup>Kudashova, Gashkov, and Kutafjeva, 2013).

FAR EAST: **Primorsky Krai** (<sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1</sup>Bardunov et al., 2002; <sup>1</sup>Bulakh et al., 2016; <sup>1</sup>Ivanov, 2018).

***Agaricus xantholepis* F.H. Møller**

EASTERN EUROPE: **Rostov Oblast** (Zmitrovich et al., 2008); **Arid territories** (Rebriev, Rusanov, et al., 2012).  
 FAR EAST: **Primorsky Krai** (Bulakh and Maslov, 2016; Bogacheva, Bulakh, Bukharova, and Egorova, 2020).

***Agrocybe acericola* (Peck) Singer**

SIBERIA: **Altai Republic** (Gorbunova, 2008).

***Agrocybe amoena* (Weinm. ex Fr.) Singer<sup>1</sup>**

≡ *Agaricus amoenus* Weinm. ex Fr.<sup>2</sup>

EASTERN EUROPE: **Leningrad Oblast** (<sup>1</sup>Popov et al., 2007); **Saint Petersburg** (<sup>2</sup>Weinmann, 1836; <sup>1</sup>Kovalenko and Morozova, 1999a).

***Agrocybe arvalis* (Fr.) Singer<sup>1</sup>**

≡ *Agaricus arvalis* Fr.<sup>2</sup> ≡ *Naucoria arvalis* (Fr.) Sacc.<sup>3</sup> = *Agrocybe tuberosa* (Henn.) Singer<sup>4</sup> = *Naucoria tuberosa* Henn.<sup>5</sup>

EASTERN EUROPE: **Belgorod Oblast** (<sup>1</sup>Bedenko, 1979a); **Crimea** (<sup>1</sup>Sarkina and Mironova, 2015); **Karelia** (<sup>4</sup>Freindling, 1949; <sup>1</sup>Singer, 1950a; <sup>1</sup>Bondartseva et al., 2001; <sup>1</sup>Krutov et al., 2014); **Leningrad Oblast** (<sup>4</sup>Singer, 1950a; <sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Popov et al., 2007); **Moscow** (<sup>5</sup>Mosolov, 1906); **Moscow Oblast** (<sup>4</sup>Singer, 1950a); **Saint Petersburg** (<sup>2</sup>Weinmann, 1828; <sup>2</sup>Weinmann, 1836; <sup>2</sup>Weinmann, 1837; <sup>1</sup>Zhukova, Morozova, Volobuev, and Bryantseva, 2017); **Samara Oblast** (<sup>1</sup>Malysheva and Malysheva, 2005b; <sup>1</sup>Malysheva and Malysheva, 2008); **Sevastopol** (<sup>1</sup>Sarkina, 2016b); **Stavropol Krai** (<sup>3</sup>Lebedeva, 1930); **Arid territories** (<sup>1</sup>Rebriev, Rusanov, et al., 2012).

SIBERIA: **Khakassia** (<sup>1</sup>Beglyanova, 1972a; <sup>1</sup>Zauzolkova, 2015); **Krasnoyarsk Krai** (<sup>1</sup>Beglyanova, 1972a).

FAR EAST: **Primorsky Krai** (<sup>1</sup>Vassiljeva, 1973; <sup>1</sup>Bunkina and Nazarova, 1978; <sup>1</sup>Azbukina et al., 2006).

***Agrocybe coprophila* Singer**

SIBERIA: **Altai Republic** (Singer, 1945; Singer, 1950a).

***Agrocybe dura* (Bolton) Singer<sup>1</sup>**

≡ *Pholiota dura* (Bolton) P. Kumm.<sup>2</sup>

EASTERN EUROPE: **Belgorod Oblast** (<sup>1</sup>Bedenko, 1980); **Crimea** (<sup>1</sup>Dudka et al., 2004; <sup>1</sup>Sarkina and Prydiuk, 2012); **Karelia** (<sup>1</sup>Czerepanova, Perfiljeva, and Tobias, 1982; <sup>1</sup>Krutov et al., 2014); **Komi Republic** (<sup>1</sup>Palamarchuk and Kirillov, 2017); **Krasnodar Krai** (<sup>1</sup>Kovalenko, 1980a); **Leningrad Oblast** (<sup>2</sup>Thesleff, 1920; <sup>1</sup>Stolyarskaya, 1993; <sup>1</sup>Zmitrovich et al., 2015); **Lipetsk Oblast** (<sup>1</sup>Alferova, 1977; <sup>1</sup>Sarycheva, 1999; <sup>2</sup>Afanasyev, Rtishcheva, and Starodubtseva, 2007); **Moscow Oblast** (<sup>1</sup>Levitskaya, 1998); **Murmansk Oblast** (<sup>1</sup>Pystina, Pavlova, and Shestakova, 1969); **Penza Oblast** (<sup>1</sup>Ivanov, 1982; <sup>1</sup>Ivanov, 1999); **Rostov Oblast** (<sup>1</sup>Rebriev, 2018; <sup>1</sup>Rusanov, Rebriev, and Bulgakov, 2018); **Saint Petersburg** (<sup>1</sup>Morozova and Smirnov, 2011); **Samara Oblast** (<sup>1</sup>Malysheva and Malysheva, 2008); **Smolensk Oblast** (<sup>2</sup>Jaczevski, 1896); **Sverdlovsk Oblast** (<sup>1</sup>Stepanova and Sirko, 1977); **Tatarstan** (<sup>1</sup>Singer, 1950a); **Tver Oblast** (<sup>1</sup>Kurochkin, 1993); **Udmurt Republic** (<sup>1</sup>Tychinin and Kuzmina, 2003); **Volgograd Oblast** (<sup>1</sup>Burova and Nezdojminogo, 1980; <sup>1</sup>Goncharova and Vedeneyev, 2015); **Voronezh Oblast** (<sup>2</sup>Chastukhin and Nikolaevskaya, 1953; <sup>1</sup>Chastukhin and Nikolaevskaya, 1969; <sup>2</sup>Afanasyev, Rtishcheva, and Starodubtseva, 2007); **Yamalo-Nenets Autonomous Okrug** (<sup>1</sup>Kazantseva, 1966; <sup>1</sup>Stepanova and Sirko, 1977); **Yaroslavl Oblast** (<sup>1</sup>Lazareva, 1998a; <sup>1</sup>Lazareva, 1998b); **Arid territories** (<sup>1</sup>Rebriev, Rusanov, et al., 2012); **Northern Caucasus** (<sup>1</sup>Kovalenko, 1980b).

SIBERIA: **Irkutsk Oblast** (<sup>1</sup>Petrov, 1986; <sup>1</sup>Petrov, 1991; <sup>1</sup>Petrov, 2008); **Khakassia** (<sup>1</sup>Beglyanova, 1972a; <sup>1</sup>Gorbunova and Majnagasheva, 2013; <sup>1</sup>Zauzolkova, 2015); **Krasnoyarsk Krai** (<sup>1</sup>Beglyanova, 1972a; <sup>1</sup>Zauzolkova, 2015); **Novosibirsk Oblast** (<sup>1</sup>Nozdrenko, 1970; <sup>1</sup>Perova, 1977; <sup>1</sup>Perova and Gorbunova, 2001; <sup>1</sup>Gorbunova, 2006; <sup>1</sup>Koropachinskiy and Banaev, 2014); **Tomsk Oblast** (<sup>1</sup>Perova and Gorbunova, 2001; <sup>1</sup>Kudashova, Gashkov, and Kutafjeva, 2013).

FAR EAST: **Khabarovsk Krai** (<sup>1</sup>Azbukina et al., 1986; <sup>1</sup>Azbukina et al., 1989; <sup>1</sup>Bau, Bulakh, and Govorova, 2011); **Magadan Oblast** (<sup>1</sup>Sazanova, 2009a; <sup>1</sup>Sazanova, 2012); **Primorsky Krai** (<sup>1</sup>Vassiljeva, 1973; <sup>1</sup>Bulakh, 1977; <sup>1</sup>Azbukina et al., 1984; <sup>1</sup>Bau, Bulakh, and Govorova, 2011).

***Agrocybe elatella* (P. Karst.) Vesterh.**

EASTERN EUROPE: **Orenburg Oblast** (Desyatova, 2008); **Saint Petersburg** (Morozova, Kovalenko, Rebriev, and Malysheva, 2014); **Vologda Oblast** (Kirillova, 2007).

SIBERIA: **Altai Krai** (Gorbunova, 2018a); **Khanty-Mansi Autonomous Okrug** (Filippova and Bulyonkova, 2017a; Filippova and Bulyonkova, 2017b).

FAR EAST: **Magadan Oblast** (Rebriev, Bulakh, Sazanova, and Shiryaev, 2020).

***Agrocybe firma* (Peck) Singer**

EASTERN EUROPE: **Komi Republic** (Palamarchuk, 2011a; Palamarchuk, 2012; Palamarchuk and Kirillov, 2018a); **Leningrad Oblast** (Bondartseva et al., 2015; Zmitrovich et al., 2015); **Moscow Oblast** (Levitskaya, 1995c; Levitskaya, 2013); **Novgorod Oblast** (Kovalenko, Morozova, Nezdojminogo, and Popov, 2005; Psurtseva, Kiyashko, Gachkova, and Belova, 2007; Popov et al., 2013); **Tver Oblast** (Morozova, Aleksandrova, Popov, and Malysheva, 2016).

SIBERIA: **Khakassia** (Zauzolkova and Gorbunova, 2013; Zauzolkova, 2015); **Khanty-Mansi Autonomous Okrug** (Filippova and Bulyonkova, 2017a; Filippova and Bulyonkova, 2017b; Zvyagina and Baykalova, 2017); **Krasnoyarsk Krai** (Kosheleva and Kutafjeva, 2008a; Krom and Kapitonov, 2019); **Tomsk Oblast** (Perova and Gorbunova, 2001; Kudashova, Gashkov, and Kutafjeva, 2013).

FAR EAST: **Primorsky Krai** (Bunkina and Nazarova, 1978; Azbukina et al., 2006; Bau, Bulakh, and Govorova, 2011).

***Agrocybe insignis* Singer**

EASTERN EUROPE: **Belgorod Oblast** (Bedenko, 1979a; Bedenko, 1979b); **Northern Caucasus** (Singer, 1941; Singer, 1950a).

***Agrocybe karelica* Singer**

EASTERN EUROPE: **Karelia** (Singer, 1941; Freindling, 1949; Singer, 1950a; Bondartseva et al., 2001; Krutov et al., 2014).

***Agrocybe molesta* (Lasch) Singer**

EASTERN EUROPE: **Karelia** (Bondartseva et al., 2001); **Leningrad Oblast** (Kovalenko and Morozova, 1999a; Popov et al., 2007); **Lipetsk Oblast** (Sarycheva et al., 2009; Sarycheva, 2011; Sarycheva, 2014a; Sarycheva, 2016; Sarycheva, Starodubtseva, and Sapelnikova, 2017); **Moscow Oblast** (Levitskaya, 2013); **Perm Krai** (Perevedentseva, 2008); **Pskov Oblast** (Popov et al., 2013); **Saratov Oblast** (Nagumanov, 2015); **Sverdlovsk Oblast** (Marina, 2006); **Tula Oblast** (Svetasheva, 2004); **Tver Oblast** (Kurochkin and Medvedev, 2015); **Ulyanovsk Oblast** (Ilyukhin, 2010a; Ilyukhin, 2010b); **Vologda Oblast** (Kirillova, 2007); **Voronezh Oblast** (Sarycheva, Starodubtseva, and Sapelnikova, 2017).

SIBERIA: **Tomsk Oblast** (Kudashova, Gashkov, and Kutafjeva, 2013).

***Agrocybe ochracea* Nauta**

EASTERN EUROPE: **Astrakhan Oblast** (Rebriev, Aleksandrova, et al., 2012); **Arid territories** (Rebriev, Rusanov, et al., 2012).

SIBERIA: **Khakassia** (Gorbunova and Majnagasheva, 2013); **Krasnoyarsk Krai** (Krom and Kapitonov, 2019).

***Agrocybe paludosa* (J.E. Lange) Kühner & Romagn. ex Bon<sup>1</sup>**

≡ *Agrocybe paludosa* (J.E. Lange) Kühner & Romagn.<sup>2</sup>

EASTERN EUROPE: **Komi Republic** (<sup>2</sup>Palamarchuk, 2016a; <sup>2</sup>Palamarchuk, 2016b; <sup>1</sup>Palamarchuk and Kirillov, 2017; <sup>1</sup>Palamarchuk, 2020a); **Krasnodar Krai** (<sup>2</sup>Vaasma, Kalamees, and Raitviir, 1986); **Moscow Oblast** (<sup>2</sup>Levitskaya, 1998; <sup>2</sup>Levitskaya, 2013); **Murmansk Oblast** (<sup>2</sup>Mikhailovskii, 1975b; <sup>2</sup>Karatygin, Nezdojminogo, Novozhilov, and Zhurbenko, 1999); **Orenburg Oblast** (<sup>2</sup>Korshikova, 2005; <sup>2</sup>Desyatova, 2007; <sup>2</sup>Desyatova, 2008); **Penza Oblast** (<sup>2</sup>Ivanov, 1999); **Pskov Oblast** (<sup>2</sup>Kovalenko and Morozova, 1999b); **Rostov Oblast** (<sup>2</sup>Vyshchepan, 1992); **Ryazan Oblast** (<sup>2</sup>Volosnova, 2005; <sup>2</sup>Volosnova, 2014); **Tula Oblast** (<sup>2</sup>Svetasheva, 2004); **Vologda Oblast** (<sup>2</sup>Kirillova, 2006); **Arid territories** (<sup>2</sup>Rebriev, Rusanov, et al., 2012).

SIBERIA: **Altai Republic** (<sup>2</sup>Gorbunova, 2010); **Buryatia** (<sup>2</sup>Nezdojminogo, 1970a; <sup>2</sup>Petrov, 1991); **Krasnoyarsk Krai** (<sup>2</sup>Vassilkov, 1971b; <sup>2</sup>Nezdojminogo, 1976a; <sup>2</sup>Nezdojminogo, 1994; <sup>2</sup>Karatygin, Nezdojminogo, Novozhilov, and Zhurbenko, 1999; <sup>2</sup>Gorbunova, 2016).

FAR EAST: **Chukotka Autonomous Okrug** (<sup>2</sup>Nezdojminogo, 1994; <sup>2</sup>Karatygin, Nezdojminogo, Novozhilov, and Zhurbenko, 1999); **Primorsky Krai** (<sup>2</sup>Bau, Bulakh, and Govorova, 2011).

***Agrocybe pediades* (Fr.) Fayod<sup>1</sup>**

≡ *Agaricus pediades* Fr.<sup>2</sup> ≡ *Agrocybe pediades* f. *pediades* (Fr.) Fayod<sup>3</sup> ≡ *Agrocybe pediades* var. *pediades* (Fr.) Fayod<sup>4</sup> ≡ *Naucoria pediades* (Fr.) P. Kumm.<sup>5</sup> = *Agaricus temulentus* Fr.<sup>6</sup> = *Agrocybe arenaria* (Peck) Singer<sup>7</sup> = *Agrocybe arenicola* (Berk.) Singer<sup>8</sup> = *Agrocybe pediades* f. *bispora* A.N. Petrov<sup>9</sup> = *Agrocybe semiorbicularis* (Bull.) Fayod<sup>10</sup> = *Agrocybe subpediades* (Murrill) Watling<sup>11</sup> = *Agrocybe temulenta* (Fr.) P.D. Orton<sup>12</sup> = *Agrocybe temulenta* Singer<sup>13</sup> = *Naucoria semiorbicularis* (Bull.) Quél.<sup>14</sup> = *Naucoria temulenta* (Fr.) P. Kumm.<sup>15</sup>



EASTERN EUROPE: **Adygea** (<sup>1</sup>Sopina, 2004b); **Astrakhan Oblast** (<sup>1</sup>Rebriev, Aleksandrova, et al., 2012); **Belgorod Oblast** (<sup>10</sup>Bedenko, 1979a); **Bryansk Oblast** (<sup>14</sup>Kruglikov, 2007; <sup>4</sup>Malysheva and Kiyashko, 2011); **Chelyabinsk Oblast** (<sup>14</sup>Aleksandrovskaya and Lobanova, 1968); **Crimea** (<sup>8,10</sup>Dudka et al., 2004; <sup>10</sup>Sarkina, 2006; <sup>8</sup>Sarkina, 2011); **Kabardino-Balkarian Republic** (<sup>14</sup>Shkhagapsoev and Krapivina, 2004); **Kaliningrad Oblast** (<sup>5</sup>Hennings, 1895; <sup>10</sup>Dedkov, Volodina, and Gubareva, 2007; <sup>1</sup>Volodina, 2007); **Kaluga Oblast** (<sup>10</sup>Sionova, 2012); **Karelia** (<sup>1</sup>Krutov et al., 2014); **Leningrad Oblast** (<sup>2</sup>Weinmann, 1836; <sup>5,15</sup>Thesleff, 1920; <sup>1,10,13</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Morozova and Kovalenko, 2000; <sup>1,10,13</sup>Popov et al., 2007; <sup>1</sup>Psurtseva, Kiyashko, Gachkova, and Belova, 2007; <sup>1,4,10</sup>Malysheva and Kiyashko, 2011; <sup>1</sup>Zmitrovich et al., 2015); **Lipetsk Oblast** (<sup>10</sup>Alferova, 1977; <sup>1</sup>Sarycheva, 1999; <sup>1</sup>Sarycheva et al., 2009; <sup>1</sup>Sarycheva, 2011; <sup>1</sup>Sarycheva, 2014a; <sup>1</sup>Sarycheva, 2016); **Moscow Oblast** (<sup>10</sup>Levitskaya, 1998; <sup>10</sup>Levitskaya, 2013); **Murmansk Oblast** (<sup>10,12</sup>Pystina, Pavlova, and Shestakova, 1969); **Nizhny Novgorod Oblast** (<sup>5</sup>Murashkinsky, 1911); **Novgorod Oblast** (<sup>11</sup>Kovalenko, Morozova, Nezdojminogo, and Popov, 2005; <sup>11</sup>Malysheva and Kiyashko, 2011; <sup>1</sup>Popov et al., 2013); **Penza Oblast** (<sup>1</sup>Ivanov, 1999); **Pskov Oblast** (<sup>10</sup>Kovalenko and Morozova, 1999b; <sup>1</sup>Popov, 2001a; <sup>10</sup>Malysheva and Kiyashko, 2011; <sup>1</sup>Popov et al., 2013); **Rostov Oblast** (<sup>1</sup>Shiryayev, Rebriev, and Knudsen, 2017; <sup>1</sup>Rebriev, 2018); **Ryazan Oblast** (<sup>7,10</sup>Volosnova, 2005; <sup>4</sup>Malysheva and Volosnova, 2008; <sup>4</sup>Malysheva and Kiyashko, 2011; <sup>1</sup>Volosnova, 2014); **Saint Petersburg** (<sup>2</sup>Weinmann, 1828; <sup>6</sup>Weinmann, 1836; <sup>2</sup>Weinmann, 1837); **Samara Oblast** (<sup>10</sup>Malysheva and Malysheva, 2005b; <sup>1,10</sup>Malysheva and Malysheva, 2007; <sup>4</sup>Malysheva and Malysheva, 2008; <sup>4</sup>Malysheva and Kiyashko, 2011); **Saratov Oblast** (<sup>5</sup>Lebedeva, 1927); **Stavropol Krai** (<sup>5</sup>Lobik, 1927; <sup>14</sup>Lebedeva, 1930); **Sverdlovsk Oblast** (<sup>1</sup>Stepanova and Sirko, 1977); **Tula Oblast** (<sup>1,10,11</sup>Svetasheva, 2004; <sup>11</sup>Malysheva and Kiyashko, 2011; <sup>1</sup>Svetasheva, 2013); **Ulyanovsk Oblast** (<sup>1</sup>Ilyukhin, 2010a); **Volgograd Oblast** (<sup>7,8</sup>Burova and Nezdojminogo, 1980; <sup>1</sup>Dudka and Vedeneyev, 2014); **Yaroslavl Oblast** (<sup>1</sup>Lazareva, 1998a; <sup>1</sup>Lazareva, 1998b); **Arid territories** (<sup>1</sup>Rebriev, Rusanov, et al., 2012); **Northern Caucasus** (<sup>8</sup>Singer, 1950a; <sup>1</sup>Malysheva and Kiyashko, 2011).

SIBERIA: **Altai Krai** (<sup>10</sup>Gorbunova and Perova, 2006; <sup>1</sup>Gorbunova, 2006; <sup>1,10</sup>Malysheva and Kiyashko, 2011; <sup>1</sup>Gorbunova, 2018a); **Altai Republic** (<sup>1</sup>Gorbunova, 2003; <sup>1</sup>Gorbunova, 2006; <sup>1</sup>Gorbunova, 2008; <sup>1</sup>Gorbunova, 2010; <sup>1</sup>Gorbunova, 2017b); **Buryatia** (<sup>3</sup>Petrov, 1991); **Irkutsk Oblast** (<sup>10</sup>Kutafjeva, 1983; <sup>9</sup>Petrov, 1983; <sup>3,9,10</sup>Petrov, 1986; <sup>3,9,10</sup>Petrov, 1991; <sup>3,9,10</sup>Petrov, 2008; <sup>9</sup>Malysheva and Kiyashko, 2011; <sup>1</sup>Gorbunova and Stepantsova, 2015); **Khakassia** (<sup>10</sup>Beglyanova, 1972a; <sup>1</sup>Gorbunova and Majnagasheva, 2013; <sup>1</sup>Zauzolkova, 2015); **Krasnoyarsk Krai** (<sup>1</sup>Borszczow and Borszczow, 1856; <sup>2</sup>Thümen, 1878; <sup>5</sup>Kalchbrenner, 1878; <sup>5</sup>Saccardo, 1896; <sup>10</sup>Beglyanova, 1972a; <sup>10</sup>Malysheva and Kiyashko, 2011); **Novosibirsk Oblast** (<sup>10</sup>Nozdrenko, 1970; <sup>10</sup>Perova, 1977; <sup>1</sup>Gorbunova, 2006; <sup>1</sup>Gorbunova, 2007; <sup>1</sup>Perova and Gorbunova, 2007; <sup>1,10</sup>Malysheva and Kiyashko, 2011; <sup>1</sup>Koropachinskiy and Banaev, 2014); **Tomsk Oblast** (<sup>8</sup>Kosheleva and Kutafjeva, 2004; <sup>1</sup>Kudashova, Gashkov, and Kutafjeva, 2013).

FAR EAST: **Chukotka Autonomous Okrug** (<sup>6</sup>Berkeley and Curtis, 1978; <sup>1</sup>Nezdojminogo, 1994; <sup>1</sup>Karatygin, Nezdojminogo, Novozhilov, and Zhurbenko, 1999); **Khabarovsk Krai** (<sup>1</sup>Azbukina et al., 1989); **Magadan Oblast** (<sup>1</sup>Sazanova, 2012; <sup>1</sup>Sazanova and Golodnova, 2015); **Primorsky Krai** (<sup>1</sup>Vassiljeva, 1973; <sup>1</sup>Azbukina et al., 1990; <sup>1</sup>Bardunov et al., 2002; <sup>8</sup>Bardunov et al., 2002; <sup>1</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Malysheva and Kiyashko, 2011; <sup>1</sup>Bogacheva, Bulakh, Bukharova, and Egorova, 2020).

### ***Agrocybe praecox* (Pers.) Fayod<sup>1</sup>**

≡ *Agaricus praecox* Pers.<sup>2</sup> ≡ *Pholiota praecox* (Pers.) P. Kumm.<sup>3</sup> = *Agaricus sphaeromorphus* Bull.<sup>4</sup> = *Agrocybe gibberosa* (Fr.) Fayod<sup>5</sup> = *Agrocybe sphaeromorpha* (Bull.) Fayod<sup>6</sup>

EASTERN EUROPE: **Adygea** (<sup>1</sup>Kovalenko, 1979a; <sup>1</sup>Kovalenko, 1980b; <sup>1</sup>Vaasma, Kalamees, and Raitviir, 1986; <sup>1</sup>Sopina, 2001a; <sup>6</sup>Psurtseva, Kiyashko, Gachkova, and Belova, 2007); **Arkhangelsk Oblast** (<sup>1</sup>Karatygin, Nezdojminogo, Novozhilov, and Zhurbenko, 1999); **Belgorod Oblast** (<sup>1</sup>Bedenko, 1979a); **Bryansk Oblast** (<sup>3</sup>Kruglikov, 2007); **Crimea** (<sup>3</sup>Zerova, 1962; <sup>3</sup>Sarkina, 2001; <sup>1</sup>Dudka et al., 2004; <sup>1</sup>Sarkina, 2011; <sup>1</sup>Sarkina and Prydiuk, 2012; <sup>1</sup>Sarkina and Mironova, 2015); **Kabardino-Balkarian Republic** (<sup>3</sup>Singer, 1929; <sup>3</sup>Singer, 1931; <sup>3</sup>Shkhagapsoev and Krapivina, 2004); **Kaliningrad Oblast** (<sup>1</sup>Dedkov, Volodina, and Gubareva, 2007); **Kaluga Oblast** (<sup>1</sup>Sionova, 2012); **Karachay-Cherkess Republic** (<sup>6</sup>Onipchenko and Kaverina, 1989; <sup>6</sup>Kalamees and Botashev, 2000); **Karelia** (<sup>1,3</sup>Freindling, 1949; <sup>1</sup>Singer, 1950a; <sup>1</sup>Czerepanova, Perfiljeva, and Tobias, 1982; <sup>1</sup>Bondartseva et al., 2001; <sup>1</sup>Predtechenskaya and Ruokolainen, 2013; <sup>1,6</sup>Krutov et al., 2014; <sup>1</sup>Savelev and Kikeeva, 2018); **Kirov Oblast** (<sup>1</sup>Kirillov, 2011; <sup>1</sup>Kirillov, Perevedentseva, and Egoshina, 2011; <sup>1</sup>Stavishenko, Luginina, Kirillov, and Egoshina, 2019); **Komi Republic** (<sup>1</sup>Nezdojminogo, 1994; <sup>1</sup>Karatygin, Nezdojminogo, Novozhilov, and Zhurbenko, 1999; <sup>1</sup>Palamarchuk, 2016a; <sup>1</sup>Palamarchuk, 2016b; <sup>1</sup>Palamarchuk and Kirillov, 2017; <sup>1</sup>Palamarchuk, 2020a); **Krasnodar Krai** (<sup>1</sup>Vassiljeva, 1939; <sup>1</sup>Kovalenko, 1980a; <sup>1</sup>Vaasma, Kalamees, and Raitviir, 1986); **Leningrad Oblast** (<sup>3</sup>Thesleff, 1920; <sup>6</sup>Stolyarskaya, 1993; <sup>1,6</sup>Kovalenko and Morozova, 1999a; <sup>6</sup>Morozova, 2007; <sup>1,6</sup>Popov et al., 2007; <sup>1,6</sup>Psurtseva, Kiyashko, Gachkova, and Belova, 2007; <sup>1</sup>Zmitrovich et al., 2015); **Lipetsk Oblast** (<sup>1</sup>Alferova, 1977; <sup>1</sup>Sarycheva, 1999; <sup>1</sup>Sarycheva et al., 2009; <sup>1</sup>Sarycheva, 2011; <sup>1</sup>Sarycheva, 2014a; <sup>1</sup>Sarycheva, 2016); **Moscow Oblast** (<sup>1</sup>Gorlenko, Sidorova, and Sidorova, 1989;

<sup>1,5</sup>Levitskaya, 1998; <sup>1</sup>Levitskaya, 2013; <sup>5</sup>Levitskaya, 2013); **Murmansk Oblast** (<sup>1</sup>Mikhailovskii, 1975b; <sup>1</sup>Karatygin, Nezdojminogo, Novozhilov, and Zhurbenko, 1999); **Novgorod Oblast** (<sup>6</sup>Kovalenko, Morozova, Nezdojminogo, and Popov, 2005; <sup>6</sup>Psurtsseva, Kiyashko, Gachkova, and Belova, 2007; <sup>6</sup>Popov et al., 2013); **Orenburg Oblast** (<sup>5</sup>Desyatova, 2007; <sup>5</sup>Desyatova, 2008); **Penza Oblast** (<sup>1</sup>Ivanov, 1982; <sup>1</sup>Ivanov, 1999); **Perm Krai** (<sup>1</sup>Perevedentseva, 2008); **Pskov Oblast** (<sup>1</sup>Kolmakov and Popov, 2005; <sup>1</sup>Popov et al., 2013); **Rostov Oblast** (<sup>1</sup>Rusanov, Rebriev, and Bulgakov, 2018); **Ryazan Oblast** (<sup>1</sup>Volosnova, 1997; <sup>1</sup>Volosnova, 2014); **Saint Petersburg** (<sup>2</sup>Weinmann, 1828; <sup>2</sup>Weinmann, 1836; <sup>4</sup>Weinmann, 1836; <sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Morozova and Smirnov, 2011; <sup>1</sup>Morozova, Kovalenko, Rebriev, and Malysheva, 2014; <sup>1</sup>Zhukova, Morozova, Volobuev, and Bryantseva, 2017; <sup>1</sup>Morozova et al., 2020); **Samara Oblast** (<sup>1</sup>Malysheva and Malysheva, 2008); **Smolensk Oblast** (<sup>3</sup>Jaczewski, 1895); **Sverdlovsk Oblast** (<sup>1</sup>Stepanova and Sirko, 1977; <sup>1,6</sup>Marina, 2006); **Tatarstan** (<sup>1</sup>Singer, 1950a; <sup>1</sup>Vassiljeva, 1977); **Tula Oblast** (<sup>1,6</sup>Svetasheva, 2004; <sup>1</sup>Svetasheva, 2013); **Tver Oblast** (<sup>1</sup>Kurochkin, 1993; <sup>1</sup>Kurochkin and Medvedev, 2015; <sup>1</sup>Kurochkin, 2016); **Udmurt Republic** (<sup>1</sup>Tychinin, 1990; <sup>1</sup>Tychinin and Kuzmina, 2003); **Ulyanovsk Oblast** (<sup>1</sup>Ilyukhin, 2010a; <sup>1</sup>Ilyukhin, 2010b); **Volgograd Oblast** (<sup>6</sup>Burova and Nezdojminogo, 1982; <sup>1</sup>Goncharova and Vedeneyev, 2015); **Vologda Oblast** (<sup>1</sup>Kirillova, 2006; <sup>1</sup>Kirillova, 2007); **Voronezh Oblast** (<sup>1</sup>Sarycheva, Starodubtseva, and Sapelnikova, 2017); **Yamalo-Nenets Autonomous Okrug** (<sup>1</sup>Kazantseva, 1966; <sup>1</sup>Stepanova and Sirko, 1977; <sup>1</sup>Nezdojminogo, 1994; <sup>1</sup>Karatygin, Nezdojminogo, Novozhilov, and Zhurbenko, 1999); **Yaroslavl Oblast** (<sup>1</sup>Lazareva, 1998a; <sup>1</sup>Lazareva, 1998b); **Arid territories** (<sup>1</sup>Rebriev, Rusanov, et al., 2012); **Lapland** (<sup>2</sup>Karsten, 1866).

SIBERIA: **Altai Krai** (<sup>1</sup>Gorbunova and Perova, 2006; <sup>1</sup>Gorbunova, 2018a); **Altai Republic** (<sup>1</sup>Gorbunova, 1996; <sup>1</sup>Gorbunova, 1997; <sup>1</sup>Gorbunova, 2001a; <sup>1</sup>Gorbunova, 2001b; <sup>1</sup>Gorbunova, 2003; <sup>1</sup>Gorbunova, 2006; <sup>1</sup>Gorbunova, 2008; <sup>1</sup>Gorbunova, 2010); **Buryatia** (<sup>1</sup>Nezdojminogo, 1973); **Irkutsk Oblast** (<sup>1</sup>Kutafjeva, 1983; <sup>1</sup>Petrov, 1986; <sup>1</sup>Petrov, 2008); **Khanty-Mansi Autonomous Okrug** (<sup>1</sup>Filippova, Bulyonkova, and Lapshina, 2015; <sup>1</sup>Zvyagina and Baykalova, 2017); **Krasnoyarsk Krai** (<sup>2</sup>Thümen, 1880a; <sup>1</sup>Beglyanova, 1972a; <sup>1</sup>Stepanova and Tomilin, 1973; <sup>1</sup>Nezdojminogo, 1976a; <sup>1</sup>Nezdojminogo, 1994; <sup>1</sup>Karatygin, Nezdojminogo, Novozhilov, and Zhurbenko, 1999; <sup>1</sup>Gorbunova, 2016); **Novosibirsk Oblast** (<sup>1</sup>Perova, 1977; <sup>1</sup>Gorbunova, 2006; <sup>1</sup>Perova and Gorbunova, 2007; <sup>1</sup>Koropachinskiy and Banaev, 2014); **Sakha Republic** (<sup>1</sup>Nezdojminogo, 1994; <sup>1</sup>Karatygin, Nezdojminogo, Novozhilov, and Zhurbenko, 1999; <sup>1</sup>Nezdojminogo, 2003); **Tomsk Oblast** (<sup>1</sup>Milovidova, 1980; <sup>1</sup>Kudashova, Gashkov, and Kutafjeva, 2013).

FAR EAST: **Amur Oblast** (<sup>1</sup>Azbukina et al., 1998); **Chukotka Autonomous Okrug** (<sup>6</sup>Sazanova, 1993; <sup>1</sup>Nezdojminogo, 1994; <sup>1</sup>Karatygin, Nezdojminogo, Novozhilov, and Zhurbenko, 1999); **Kamchatka Krai** (<sup>1</sup>Kalamees and Vaasma, 1981); **Khabarovsk Krai** (<sup>1</sup>Azbukina et al., 1986; <sup>1</sup>Azbukina et al., 1989; <sup>1</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Erofeeva and Bulakh, 2015a); **Magadan Oblast** (<sup>1</sup>Sazanova, 2005; <sup>1</sup>Sazanova, 2009a; <sup>1</sup>Sazanova, 2011); **Primorsky Krai** (<sup>1</sup>Vassiljeva, 1973; <sup>1</sup>Bunkina and Nazarova, 1978; <sup>1</sup>Azbukina et al., 1984; <sup>1</sup>Azbukina et al., 1990; <sup>1,6</sup>Bardunov et al., 2002; <sup>1</sup>Azbukina et al., 2006; <sup>1</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Bulakh et al., 2016); **Sakhalin Oblast** (<sup>1</sup>Vassiljeva and Nazarova, 1972).

### ***Agrocybe pusiola* (Fr.) R. Heim<sup>1</sup>**

= *Agaricus pusillus* Fr.<sup>2</sup> = *Agrocybe pusilla* (Schaeff.) Watling<sup>3</sup>

EASTERN EUROPE: **Leningrad Oblast** (<sup>3</sup>Popov et al., 2007); **Novgorod Oblast** (<sup>1</sup>Kovalenko, Morozova, Nezdojminogo, and Popov, 2005; <sup>1</sup>Popov et al., 2013); **Saint Petersburg** (<sup>2</sup>Weinmann, 1828; <sup>2</sup>Weinmann, 1836; <sup>2</sup>Weinmann, 1837; <sup>3</sup>Kovalenko and Morozova, 1999a); **Samara Oblast** (<sup>1</sup>Malysheva and Malysheva, 2005b; <sup>1</sup>Malysheva and Malysheva, 2008); **Arid territories** (<sup>1</sup>Rebriev, Rusanov, et al., 2012).

SIBERIA: **Altai Krai** (<sup>1</sup>Gorbunova and Perova, 2006; <sup>1</sup>Gorbunova, 2006); **Khakassia** (<sup>1</sup>Zauzolkova, 2015; <sup>1</sup>Zauzolkova and Gorbunova, 2016); **Krasnoyarsk Krai** (<sup>1</sup>Zauzolkova, 2015; <sup>1</sup>Zauzolkova and Gorbunova, 2016).

### ***Agrocybe splendida* Cléménçon**

EASTERN EUROPE: **Penza Oblast** (Ivanov, 1982).

SIBERIA: **Tomsk Oblast** (Kudashova, Gashkov, and Kutafjeva, 2013; Kudashova, Gashkov, and Vaishlya, 2016b).

### ***Agrocybe tabacina* (DC.) Konrad & Maubl.<sup>1</sup>**

≡ *Agaricus tabacinus* DC.<sup>2</sup>

FAR EAST: **Chukotka Autonomous Okrug** (<sup>2</sup>Berkeley and Curtis, 1978); **Primorsky Krai** (<sup>1</sup>Bulakh, 2008).

### ***Agrocybe vervacti* (Fr.) Singer<sup>1</sup>**

≡ *Agaricus vervacti* Fr.<sup>2</sup> ≡ *Naucoria vervacti* (Fr.) QuéL.<sup>3</sup>

EASTERN EUROPE: **Arkhangelsk Oblast** (<sup>3</sup>Lebedeva, 1933); **Leningrad Oblast** (<sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Popov et al., 2007); **Lipetsk Oblast** (<sup>1</sup>Alferova, 1977; <sup>1</sup>Sarycheva, 1999; <sup>1</sup>Sarycheva et al., 2009; <sup>1</sup>Sarycheva, 2011);

<sup>1</sup>Sarycheva, 2014a; <sup>1</sup>Sarycheva, 2016); **Moscow Oblast** (<sup>1</sup>Gorlenko, Sidorova, and Sidorova, 1989; <sup>1</sup>Levitskaya, 1995c; <sup>1</sup>Levitskaya, 2013); **Murmansk Oblast** (<sup>1</sup>Pystina, Pavlova, and Shestakova, 1969); **Orenburg Oblast** (<sup>1</sup>Desyatova, 2007; <sup>1</sup>Desyatova, 2008); **Saint Petersburg** (<sup>2</sup>Weinmann, 1836); **Samara Oblast** (<sup>1</sup>Malysheva and Malysheva, 2007; <sup>1</sup>Malysheva and Malysheva, 2008); **Stavropol Krai** (<sup>3</sup>Lobik, 1927); **Sverdlovsk Oblast** (<sup>1</sup>Marina, 2006); **Tula Oblast** (<sup>1</sup>Svetasheva, 2004; <sup>1</sup>Shcherbakov, 2010); **Udmurt Republic** (<sup>1</sup>Tychinin, 1990); **Arid territories** (<sup>1</sup>Rebriev, Rusanov, et al., 2012).

SIBERIA: **Altai Krai** (<sup>1</sup>Gorbunova and Perova, 2006; <sup>1</sup>Gorbunova, 2006); **Altai Republic** (<sup>1</sup>Gorbunova, 2008); **Khakassia** (<sup>1</sup>Zauzolkova, 2015; <sup>1</sup>Zauzolkova and Gorbunova, 2016); **Krasnoyarsk Krai** (<sup>1</sup>Beglyanova, 1972a); **Tyva Republic** (<sup>1</sup>Gorbunova, 2015).

***Alnicola arctica* (Lebedeva) Blanco-Dios**

≡ *Naucoria arctica* Lebedeva<sup>1</sup>

EASTERN EUROPE: **Yamalo-Nenets Autonomous Okrug** (<sup>1</sup>Kazantseva, 1966; <sup>1</sup>Stepanova and Sirko, 1977).

SIBERIA: **Krasnoyarsk Krai** (<sup>1</sup>Lebedjeva, 1924); **Yamalo-Nenets Autonomous Okrug** (<sup>1</sup>Tarchevskaya, 1990).

***Alnicola umbrina* (R. Maire) Kühner**

EASTERN EUROPE: **Tatarstan** (Vassiljeva, 1977).

SIBERIA: **Altai Republic** (Singer, 1939; Singer, 1950a).

***Amanita abietum* E.-J. Gilbert**

≡ *Amanita pantherina* var. *abietum* (E.-J. Gilbert) Veselý<sup>1</sup>

EASTERN EUROPE: **Krasnodar Krai** (<sup>1</sup>Vaasma, Kalamees, and Raitviir, 1986); **Moscow Oblast** (<sup>1</sup>Levitskaya, 2013).

***Amanita agglutinata* (Berk. & M.A. Curtis) Lloyd**

FAR EAST: **Primorsky Krai** (Vassiljeva, 1972; Vassiljeva, 1973; Bunkina and Nazarova, 1978; Azbukina et al., 2006).

***Amanita arctica* Bas, Knudsen & T. Borgen**

EASTERN EUROPE: **Komi Republic** (Palamarchuk, 2016a; Palamarchuk, 2016b).

***Amanita argentea* Huijsman**

EASTERN EUROPE: **Lipetsk Oblast** (Sarycheva et al., 2009; Shcherbakov, 2014); **Tatarstan** (Bolshakov et al., 2018); **Tula Oblast** (Shcherbakov, 2010).

***Amanita badia* (Schaeff.) Bon & Contu**

≡ *Amanita vaginata* var. *badia* (Schaeff.) L. Maire<sup>1</sup>

EASTERN EUROPE: **Adygea** (<sup>1</sup>Vaasma, Kalamees, and Raitviir, 1986); **Karachay-Cherkess Republic** (<sup>1</sup>Kalamees and Botashev, 2000); **Karelia** (<sup>1</sup>Bondartseva et al., 2001; <sup>1</sup>Krutov et al., 2014); **Vologda Oblast** (<sup>1</sup>Kutova, 1957).

***Amanita battarrae* (Boud.) Bon<sup>1</sup>**

= *Amanita umbrinolutea* (Secr. ex Gillet) Bataille<sup>2</sup> = *Amanitopsis umbrinolutea* Secr. ex E.-J. Gilbert<sup>3</sup>

EASTERN EUROPE: **Karelia** (<sup>1</sup>Bondartseva et al., 2001; <sup>1</sup>Krutov et al., 2014); **Komi Republic** (<sup>1</sup>Karatygin, Nezdojminogo, Novozhilov, and Zhurbenko, 1999; <sup>1</sup>Palamarchuk (Bobretsova), 2009; <sup>1</sup>Palamarchuk, 2012; <sup>1</sup>Palamarchuk, 2016a; <sup>1</sup>Palamarchuk, 2016b); **Kursk Oblast** (<sup>1</sup>Baranov, 2002); **Leningrad Oblast** (<sup>2</sup>Kalamees and Kovalenko, 1984; <sup>2</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Fomina, 2000; <sup>1</sup>Fomina, 2001; <sup>1</sup>Morozova, 2007; <sup>1</sup>Popov et al., 2007; <sup>2</sup>Popov et al., 2007); **Moscow Oblast** (<sup>1</sup>Levitskaya, 1995a; <sup>1</sup>Voronina et al., 2012; <sup>1</sup>Levitskaya, 2013; <sup>1</sup>Voronina et al., 2014); **Murmansk Oblast** (<sup>2</sup>Mikhailovskii, 1975b; <sup>1</sup>Karatygin, Nezdojminogo, Novozhilov, and Zhurbenko, 1999); **Novgorod Oblast** (<sup>1</sup>Kovalenko, Morozova, Nezdojminogo, and Popov, 2005; <sup>1</sup>Popov et al., 2013); **Perm Krai** (<sup>2</sup>Shkaraba, Perevedentseva, and Moshkina, 1990; <sup>1</sup>Perevedentseva, 2008; <sup>1</sup>Belkovskaya et al., 2014; <sup>1</sup>Perevedentseva and Shishigin, 2015); **Saint Petersburg** (<sup>1</sup>Morozova and Smirnov, 2011); **Sverdlovsk Oblast** (<sup>1</sup>Marina, 2006); **Tatarstan** (<sup>1</sup>Potapov, Galejev, and Zhukov, 2013; <sup>1</sup>Potapov, 2015b); **Tula Oblast** (<sup>1</sup>Svetasheva, 2004; <sup>1</sup>Shcherbakov, 2010; <sup>1</sup>Svetasheva, Sheremetyeva, and Lakomov, 2019); **Udmurt Republic** (<sup>3</sup>Tychinin and Kuzmina, 2003); **Vologda Oblast** (<sup>1</sup>Kirillova, 2006; <sup>1</sup>Kirillova, 2007); **Yamalo-Nenets Autonomous Okrug** (<sup>1</sup>Karatygin, Nezdojminogo, Novozhilov, and Zhurbenko, 1999); **Yaroslavl Oblast** (<sup>1</sup>Lazareva, 1997; <sup>1</sup>Lazareva, 1998a).

SIBERIA: **Altai Krai** (<sup>1</sup>Gorbunova, 2018a); **Altai Republic** (<sup>1</sup>Gorbunova, 2017a); **Irkutsk Oblast** (<sup>2</sup>Petrov, 1986; <sup>2</sup>Petrov, 1989; <sup>2</sup>Petrov, 1991; <sup>2</sup>Muzyka, 2002; <sup>2</sup>Petrov, 2008; <sup>2</sup>Muzyka, 2009; <sup>1</sup>Muzyka and Penzina, 2017); **Khanty-Mansi Autonomous Okrug** (<sup>1</sup>Zvyagina, 2008; <sup>1</sup>Shepeleva et al., 2014; <sup>1</sup>Zvyagina and Vasina, 2015; <sup>2</sup>Filippova, Bulyonkova, and Lapshina, 2015; <sup>1</sup>Filippova and Bulyonkova, 2017a; <sup>1</sup>Filippova and Bulyonkova, 2017b); **Krasnoyarsk Krai** (<sup>1</sup>Gorbunova, 2016; <sup>1</sup>Malysheva, Malysheva, Kiyashko, et al., 2017; <sup>1</sup>Krom and Kapitonov, 2019; <sup>2</sup>Krom and Kapitonov, 2019); **Tomsk Oblast** (<sup>1</sup>Agaphonova, Kutafjeva, and Gashkov, 2009b; <sup>1</sup>Kudashova, Gashkov, and Kutafjeva, 2013; <sup>1</sup>Vaishlya et al., 2017).

FAR EAST: **Chukotka Autonomous Okrug** (<sup>1</sup>Karatygin, Nezdojminogo, Novozhilov, and Zhurbenko, 1999); **Primorsky Krai** (<sup>2</sup>Shalapugina, 1976; <sup>3</sup>Bulakh, 1977; <sup>3</sup>Azbukina et al., 1984).

#### *Amanita bivolvata* Peck

FAR EAST: **Jewish Autonomous Oblast** (Bulakh, Govorova, Nazarova, and Vassiljeva, 2007; Bau, Bulakh, and Govorova, 2011); **Khabarovsk Krai** (Azbukina et al., 1986; Azbukina et al., 1989; Bau, Bulakh, and Govorova, 2011); **Primorsky Krai** (Vassiljeva, 1973; Bulakh et al., 2016).

#### *Amanita caesarea* (Scop.) Pers.<sup>1</sup>

≡ *Agaricus caesareus* Scop.<sup>2</sup>

EASTERN EUROPE: **Belgorod Oblast** (<sup>1</sup>Bedenko, 1980); **Crimea** (<sup>1</sup>Kovalenko, 1979b; <sup>1</sup>Shimkus, 1981; <sup>1</sup>Sarkina, 2001; <sup>1</sup>Sarkina, Prydiuk, and Heluta, 2003; <sup>1</sup>Dudka et al., 2004; <sup>1</sup>Sarkina, 2011; <sup>1</sup>Sarkina and Prydiuk, 2012; <sup>1</sup>Yena and Fateryga, 2015; <sup>1</sup>Dovgal and Korzhenevsky, 2018; <sup>1</sup>Sarkina and Stavishenko, 2019); **Kabardino-Balkarian Republic** (<sup>1</sup>Shkhagapsoev and Krapivina, 2004); **Krasnodar Krai** (<sup>1</sup>Kovalenko, 1979b; <sup>1</sup>Kovalenko, 1980a; <sup>1</sup>Kovalenko, 1980b; <sup>1</sup>Litvinskaya, 2017; <sup>1</sup>Shumkova, Krivorotov, and Gayday, 2018); **Penza Oblast** (<sup>2</sup>Vet, 1943); **Sevastopol** (<sup>1</sup>Sarkina, 2016b; <sup>1</sup>Dovgal and Korzhenevsky, 2018; <sup>1</sup>Sarkina, 2020c); **Sverdlovsk Oblast** (<sup>1</sup>Stepanova and Sirko, 1977).

FAR EAST: **Amur Oblast** (<sup>1</sup>Kovalenko, 1979b; <sup>1</sup>Bogacheva et al., 2018); **Jewish Autonomous Oblast** (<sup>1</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Erofeeva and Bulakh, 2015b; <sup>1</sup>Bogacheva et al., 2018; <sup>1</sup>Erofeeva and Bukharova, 2019); **Khabarovsk Krai** (<sup>1</sup>Voronov, 2008; <sup>1</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Erofeeva and Bulakh, 2015a; <sup>1</sup>Bogacheva et al., 2018); **Primorsky Krai** (<sup>1</sup>Kovalenko, 1979b; <sup>1</sup>Bardunov et al., 2002; <sup>1</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Bulakh et al., 2016; <sup>1</sup>Bogacheva et al., 2018); **Sakhalin Oblast** (<sup>1</sup>Kovalenko, 1979b; <sup>1</sup>Eremin, 2019).

#### *Amanita caesareoides* Lj.N. Vassiljeva<sup>1</sup>

≡ *Amanita caesarea* var. *caesareoides* (Lj.N. Vassiljeva) Wasser<sup>2</sup>

FAR EAST: **Amur Oblast** (<sup>1</sup>Vassiljeva, 1973; <sup>1</sup>Azbukina et al., 1998); **Khabarovsk Krai** (<sup>1</sup>Vassiljeva, 1973; <sup>1</sup>Azbukina et al., 1986; <sup>1</sup>Ermolin et al., 2018); **Primorsky Krai** (<sup>1</sup>Vassiljeva, 1950; <sup>1</sup>Vassiljeva, 1972; <sup>1</sup>Vassiljeva, 1973; <sup>1</sup>Bunkina and Nazarova, 1978; <sup>2</sup>Azbukina et al., 2006; <sup>1</sup>Cui et al., 2018); **Sakhalin Oblast** (<sup>1</sup>Vassiljeva and Nazarova, 1972; <sup>1</sup>Vassiljeva, 1973; <sup>2</sup>Eremin, 2005).

#### *Amanita ceciliae* (Berk. & Broome) Bas<sup>1</sup>

≡ *Amanitopsis ceciliae* (Berk. & Broome) Wasser<sup>2</sup> = *Amanita inaurata* Secr.<sup>3</sup> = *Amanitopsis inaurata* (Secr. ex Gillet) Fayod<sup>4</sup>

EASTERN EUROPE: **Belgorod Oblast** (<sup>3</sup>Bedenko, 1980); **Krasnodar Krai** (<sup>3</sup>Kovalenko, 1980a; <sup>3</sup>Kovalenko, 1980b); **Moscow Oblast** (<sup>3</sup>Levitskaya, 1998; <sup>1</sup>Levitskaya, 2013); **Perm Krai** (<sup>3</sup>Perevedentseva, Nezdojminogo, and Kovalenko, 1990; <sup>1</sup>Perevedentseva, 2008; <sup>1</sup>Belkovskaya et al., 2014); **Sevastopol** (<sup>1</sup>Sarkina, 2020c); **Tula Oblast** (<sup>1</sup>Svetasheva, 2004; <sup>1</sup>Svetasheva, 2005b; <sup>1</sup>Shcherbakov, 2010); **Voronezh Oblast** (<sup>4</sup>Agafonov, 2018); **Arid territories** (<sup>1</sup>Rebriev, Rusanov, et al., 2012).

FAR EAST: **Amur Oblast** (<sup>1</sup>Bulakh, Govorova, and Taranina, 2003); **Jewish Autonomous Oblast** (<sup>1</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Erofeeva and Bulakh, 2015b; <sup>1</sup>Bogacheva et al., 2018; <sup>1</sup>Erofeeva, Bukharova, and Bulakh, 2019); **Khabarovsk Krai** (<sup>3</sup>Azbukina et al., 1986; <sup>3</sup>Azbukina et al., 1989; <sup>1</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Erofeeva and Bulakh, 2016; <sup>1</sup>Bogacheva et al., 2018); **Primorsky Krai** (<sup>4</sup>Vassiljeva, 1973; <sup>3</sup>Shalapugina, 1976; <sup>4</sup>Bulakh, 1977; <sup>4</sup>Bunkina and Nazarova, 1978; <sup>4</sup>Azbukina et al., 1984; <sup>3</sup>Azbukina et al., 1990; <sup>2</sup>Bardunov et al., 2002; <sup>2</sup>Azbukina et al., 2006; <sup>1</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Bogacheva et al., 2018).

#### *Amanita citrina* Pers.<sup>1</sup>

≡ *Amanita citrina* var. *citrina* Pers.<sup>2</sup> = *Amanita citrina* var. *alba* (Pers.) Quél. & Bataille<sup>3</sup> = *Amanita mappa* (Batsch) Bertill.<sup>4</sup>

EASTERN EUROPE: **Adygea** (<sup>1</sup>Vaasma, Kalamees, and Raitviir, 1986); **Belgorod Oblast** (<sup>1</sup>Bedenko, 1979a); **Bryansk Oblast** (<sup>1</sup>Kruglikov, 2007); **Chelyabinsk Oblast** (<sup>1</sup>Stepanova and Sirko, 1977); **Crimea** (<sup>1</sup>Sarkina, 2001; <sup>1</sup>Dudka et al., 2004; <sup>1</sup>Sarkina, 2010b; <sup>1</sup>Sarkina, 2011; <sup>1</sup>Sarkina and Prydiuk, 2012; <sup>1</sup>Sarkina, 2013; <sup>1</sup>Sarkina, 2014b; <sup>1</sup>Sarkina, 2016a; <sup>3</sup>Sarkina and Stavishenko, 2019); **Kabardino-Balkarian Republic** (<sup>1</sup>Shkhagapsoev and Krapivina, 2003; <sup>1</sup>Shkhagapsoev and Krapivina, 2004); **Kaliningrad Oblast** (<sup>1</sup>Dedkov, Volodina, and Gubareva, 2007; <sup>1</sup>Volodina, 2007); **Kaluga Oblast** (<sup>1</sup>Sionova, 2003; <sup>1</sup>Sionova, 2006); **Karachay-Cherkess Republic** (<sup>1</sup>Kalamees and Botashev, 2000); **Karelia** (<sup>1</sup>Bondartseva et al., 2001; <sup>2</sup>Predtechenskaya, 2013; <sup>2</sup>Krutov et al., 2014; <sup>2</sup>Predtechenskaya and Ruokolainen, 2014); **Kirov Oblast** (<sup>1</sup>Kirillov, 2011; <sup>1</sup>Kirillov, Perevedentseva, and Egoshina, 2011; <sup>1</sup>Stavishenko, Luginina, Kirillov, and Egoshina, 2019); **Kostroma Oblast** (<sup>1</sup>Burova, 1982); **Krasnodar Krai** (<sup>4</sup>Vassiljeva, 1939; <sup>1</sup>Kovalenko, 1980a; <sup>1</sup>Kovalenko, 1980b; <sup>1</sup>Shumkova, Krivorotov, and Gayday, 2018); **Leningrad Oblast** (<sup>1</sup>Kalamees and Kovalenko, 1984; <sup>1</sup>Stolyarskaya, 1989; <sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Fomina, 2000; <sup>1</sup>Morozova and Kovalenko, 2000; <sup>1</sup>Fomina, 2001; <sup>1</sup>Morozova, 2007; <sup>1</sup>Popov et al., 2007; <sup>1</sup>Zmitrovich et al., 2015; <sup>1</sup>Kalinina, 2018); **Lipetsk Oblast** (<sup>1</sup>Alferova, 1977; <sup>1</sup>Rtishcheva, 1999; <sup>1</sup>Sarycheva, 1999; <sup>1</sup>Afanasyev, Rtishcheva, and Starodubtseva, 2007; <sup>1</sup>Sarycheva et al., 2009; <sup>1</sup>Sarycheva, 2011; <sup>1</sup>Sarycheva, 2014a; <sup>1</sup>Sarycheva, 2016; <sup>1</sup>Sarycheva, Starodubtseva, and Sapelnikova, 2017); **Mordovia** (<sup>1</sup>Chastukhin, 1948a; <sup>4</sup>Kuznetsov, 1960; <sup>1</sup>Chastukhin and Nikolaevskaya, 1969; <sup>1</sup>Chastukhin, 2011; <sup>1</sup>Ivoilov and Bolshakov, 2011a); **Moscow Oblast** (<sup>1</sup>Gorlenko, Sidorova, and Sidorova, 1989; <sup>1</sup>Levitskaya, 1995b; <sup>1</sup>Levitskaya, 2013; <sup>1</sup>Voronina et al., 2014; <sup>1</sup>Sidorova, Alexandrova, and Voronina, 2017); **North Ossetia** (<sup>1</sup>Nikolayev, 2001); **Novgorod Oblast** (<sup>1</sup>Malysheva, Malysheva, and Zmitrovich, 2007); **Orenburg Oblast** (<sup>1</sup>Desyatova, 2008); **Oryol Oblast** (<sup>4</sup>Radygina, Derzhavina, and Tsutsupa, 2014); **Penza Oblast** (<sup>1</sup>Ivanov, 1982; <sup>1</sup>Ivanov, 2019); **Perm Krai** (<sup>1</sup>Perevedentseva, 2008; <sup>1</sup>Belkovskaya et al., 2014; <sup>1</sup>Botalov, 2017); **Pskov Oblast** (<sup>1</sup>Popov, 2001a; <sup>1</sup>Popov et al., 2013); **Rostov Oblast** (<sup>1</sup>Rusanov et al., 2004; <sup>1</sup>Morozova et al., 2008; <sup>1</sup>Zmitrovich et al., 2008); **Ryazan Oblast** (<sup>1</sup>Volosnova, 1997; <sup>1</sup>Volosnova, 2014); **Saint Petersburg** (<sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Morozova and Smirnov, 2011; <sup>1</sup>Morozova et al., 2020); **Samara Oblast** (<sup>1</sup>Malysheva and Malysheva, 2008); **Sevastopol** (<sup>1</sup>Sarkina, 2020c); **Smolensk Oblast** (<sup>4</sup>Jaczevski, 1896); **Sverdlovsk Oblast** (<sup>1</sup>Stepanova and Sirko, 1977; <sup>1</sup>Marina, 2006); **Tatarstan** (<sup>1</sup>Vassiljeva, 1977; <sup>1</sup>Potapov, 2015b); **Tula Oblast** (<sup>1</sup>Svetasheva, 2004); **Tver Oblast** (<sup>1</sup>Kurochkin, 1993; <sup>1</sup>Kurochkin, 2016); **Udmurt Republic** (<sup>1</sup>Tychinin, 1990; <sup>1</sup>Tychinin and Kuzmina, 2003); **Ulyanovsk Oblast** (<sup>1</sup>Ilyukhin, 2009; <sup>1</sup>Ilyukhin, 2010a); **Voronezh Oblast** (<sup>1</sup>Rtishcheva, 1999; <sup>1</sup>Afanasyev, Rtishcheva, and Starodubtseva, 2007; <sup>1</sup>Selochnik, 2015; <sup>1</sup>Sarycheva, Starodubtseva, and Sapelnikova, 2017; <sup>1</sup>Kochergina and Furmenkova, 2019); **Yaroslavl Oblast** (<sup>1</sup>Lazareva, 1997; <sup>1</sup>Lazareva, 1998a); **Arid territories** (<sup>1</sup>Rebriev, Rusanov, et al., 2012).

SIBERIA: **Altai Krai** (<sup>1</sup>Gorbunova and Perova, 2006); **Irkutsk Oblast** (<sup>1</sup>Muzyka, 2009; <sup>1</sup>Heklau and Dörfelt, 2017); **Khanty-Mansi Autonomous Okrug** (<sup>1</sup>Zvyagina, Baykalova, and Gorbunova, 2007); **Krasnoyarsk Krai** (<sup>1</sup>Beglyanova, 1972a; <sup>1</sup>Lapitskaya, 1993; <sup>1</sup>Krom and Kapitonov, 2019); **Novosibirsk Oblast** (<sup>1</sup>Perova and Gorbunova, 2001; <sup>2</sup>Koropachinskiy and Banaev, 2014); **Tomsk Oblast** (<sup>1</sup>Milovidova, 1980; <sup>1</sup>Kosheleva and Kutafjeva, 2004; <sup>1</sup>Agaphonova, Kutafjeva, and Gashkov, 2007; <sup>1</sup>Kudashova, Gashkov, and Kutafjeva, 2013; <sup>1</sup>Vaishlya et al., 2017).

FAR EAST: **Khabarovsk Krai** (<sup>1</sup>Erofeeva and Bulakh, 2015a); **Primorsky Krai** (<sup>1</sup>Azbukina et al., 1990; <sup>1</sup>Bardunov et al., 2002; <sup>1</sup>Bogacheva et al., 2018); **Sakhalin Oblast** (<sup>1</sup>Bogacheva et al., 2018).

### ***Amanita cokeri* E.-J. Gilbert & Kühner ex E.-J. Gilbert**

FAR EAST: **Primorsky Krai** (Bogacheva et al., 2018).

### ***Amanita contui* Bon & Courtec.<sup>1</sup>**

≡ *Amanita flavescens* (E.-J. Gilbert) Contu<sup>2</sup>

EASTERN EUROPE: **Tatarstan** (<sup>2</sup>Bolshakov et al., 2018); **Udmurt Republic** (<sup>2</sup>Kapitonov, 2013).

SIBERIA: **Khanty-Mansi Autonomous Okrug** (<sup>2</sup>Filippova, Bulyonkova, and Lapshina, 2015); **Krasnoyarsk Krai** (<sup>2</sup>Krom and Kapitonov, 2019); **Tomsk Oblast** (<sup>2</sup>Kudashova, Gashkov, and Kutafjeva, 2013; <sup>1</sup>Vaishlya et al., 2017).

### ***Amanita cothurnata* G.F. Atk.**

FAR EAST: **Primorsky Krai** (Bunkina and Nazarova, 1978; Azbukina et al., 2006; Bau, Bulakh, and Govorova, 2011; Bulakh et al., 2016).

### ***Amanita crocea* (Quél.) Singer<sup>1</sup>**

≡ *Amanitopsis crocea* (Quél.) E.-J. Gilbert<sup>2</sup>

EASTERN EUROPE: **Adygea** (<sup>1</sup>Sopina, 2001a); **Astrakhan Oblast** (<sup>2</sup>Pilipenko et al., 2014); **Bashkortostan** (<sup>1</sup>Stepanova and Sirko, 1977); **Belgorod Oblast** (<sup>1</sup>Bedenko, 1979a); **Bryansk Oblast** (<sup>1</sup>Kruglikov, 2007); **Chelyabinsk Oblast** (<sup>1</sup>Sirko and Stepanova, 1977; <sup>1</sup>Stepanova and Sirko, 1977); **Crimea** (<sup>2</sup>Dudka et al., 2004);

<sup>1</sup>Sarkina and Mironova, 2015; <sup>1</sup>Sarkina and Stavishenko, 2019); **Kabardino-Balkarian Republic** (<sup>2</sup>Shkhagapsoev and Krapivina, 2004); **Kaliningrad Oblast** (<sup>1</sup>Dedkov, Volodina, and Gubareva, 2007); **Kaluga Oblast** (<sup>1</sup>Sionova, 2003; <sup>1</sup>Sionova, 2006); **Karachay-Cherkess Republic** (<sup>1</sup>Kalamees and Botashev, 2000); **Karelia** (<sup>1</sup>Krutov et al., 2014); **Kirov Oblast** (<sup>1</sup>Kirillov, 2011; <sup>1</sup>Kirillov, Perevedentseva, and Egoshina, 2011; <sup>1</sup>Stavishenko, Luginina, Kirillov, and Egoshina, 2019); **Komi Republic** (<sup>1</sup>Palamarchuk, 2012; <sup>1</sup>Palamarchuk and Kirillov, 2017; <sup>1</sup>Palamarchuk and Kirillov, 2018a); **Krasnodar Krai** (<sup>1</sup>Kovalenko, 1980a; <sup>1</sup>Kovalenko, 1980b; <sup>1</sup>Vaasma, Kalamees, and Raitviir, 1986); **Kursk Oblast** (<sup>1</sup>Baranov, 2002); **Leningrad Oblast** (<sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Morozova, 1999; <sup>1</sup>Morozova and Kovalenko, 2000; <sup>1</sup>Popov et al., 2007; <sup>1</sup>Kalinina, 2018); **Lipetsk Oblast** (<sup>2</sup>Sarycheva, 1999; <sup>1</sup>Sarycheva et al., 2009; <sup>1</sup>Sarycheva, 2011; <sup>1</sup>Sarycheva, 2014a; <sup>1</sup>Sarycheva, 2016; <sup>1</sup>Sarycheva, Starodubtseva, and Sapelnikova, 2017); **Mari El Republic** (<sup>1</sup>Prokhorov, 2007); **Mordovia** (<sup>1</sup>Bolshakov and Ivoilov, 2012a); **Moscow Oblast** (<sup>1</sup>Gorlenko, Sidorova, and Sidorova, 1989; <sup>1</sup>Levitskaya, 1998; <sup>1</sup>Voronina et al., 2012; <sup>1</sup>Levitskaya, 2013; <sup>1</sup>Voronina et al., 2014); **Novgorod Oblast** (<sup>1</sup>Kovalenko, Morozova, Nezdoyminogo, and Popov, 2005; <sup>1</sup>Malysheva, Malysheva, and Zmitrovich, 2007; <sup>1</sup>Popov et al., 2013); **Orenburg Oblast** (<sup>1</sup>Desyatova, 2007; <sup>1</sup>Desyatova, 2008); **Penza Oblast** (<sup>1</sup>Ivanov, 1982; <sup>1</sup>Ivanov, 2019); **Perm Krai** (<sup>1</sup>Perevedentseva, 2008; <sup>1</sup>Belkovskaya et al., 2014; <sup>1</sup>Perevedentseva and Shishigin, 2014; <sup>1</sup>Perevedentseva and Shishigin, 2015; <sup>1</sup>Botalov, 2017); **Pskov Oblast** (<sup>1</sup>Kovalenko, Kolmakov, Morozova, and Popov, 2003; <sup>1</sup>Popov et al., 2013); **Rostov Oblast** (<sup>1</sup>Rusanov et al., 2004; <sup>1</sup>Zmitrovich et al., 2008); **Ryazan Oblast** (<sup>1</sup>Volosnova, 1997; <sup>1</sup>Volosnova, 2014); **Saint Petersburg** (<sup>1</sup>Morozova and Smirnov, 2011); **Samara Oblast** (<sup>1</sup>Malysheva and Malysheva, 2008); **Sverdlovsk Oblast** (<sup>1</sup>Marina, 2006); **Tatarstan** (<sup>2</sup>Vassiljeva, 1977); **Tula Oblast** (<sup>1</sup>Svetasheva, 2004; <sup>1</sup>Svetasheva, 2013); **Tver Oblast** (<sup>1</sup>Kurochkin, 1993; <sup>1</sup>Mukhina, 2011a; <sup>1</sup>Mukhina, 2011b; <sup>1</sup>Kotkova, 2014); **Udmurt Republic** (<sup>2</sup>Tychinin and Kuzmina, 2003); **Ulyanovsk Oblast** (<sup>1</sup>Ilyukhin, 2009; <sup>1</sup>Ilyukhin, 2010a); **Vologda Oblast** (<sup>1</sup>Kirillova, 2007); **Voronezh Oblast** (<sup>2</sup>Selochnik, 2015; <sup>1</sup>Sarycheva, Starodubtseva, and Sapelnikova, 2017); **Yaroslavl Oblast** (<sup>1</sup>Lazareva, 1998a; <sup>1</sup>Lazareva, 1998b); **Arid territories** (<sup>1</sup>Rebriev, Rusanov, et al., 2012).

SIBERIA: **Altai Krai** (<sup>1</sup>Gorbunova and Perova, 2006; <sup>1</sup>Gorbunova and Chubarova, 2008; <sup>1</sup>Gorbunova, Vlasenko, and Tzhubarova, 2011); **Altai Republic** (<sup>2</sup>Singer, 1939; <sup>1</sup>Kovalenko, 1992; <sup>1</sup>Gorbunova, 2001b; <sup>1</sup>Perova and Gorbunova, 2001); **Buryatia** (<sup>1</sup>Penzina and Petrov, 1994); **Irkutsk Oblast** (<sup>1</sup>Kutafjeva, 1983; <sup>1</sup>Petrov, 1986; <sup>1</sup>Petrov, 1989; <sup>1</sup>Astapenko, 1990b; <sup>1</sup>Muzyka, 2002; <sup>1</sup>Petrov, 2008; <sup>1</sup>Muzyka and Penzina, 2017); **Khakassia** (<sup>1</sup>Beglyanova, 1972a; <sup>1</sup>Zauzolkova, 2015); **Khanty-Mansi Autonomous Okrug** (<sup>1</sup>Zvyagina, Baykalova, and Gorbunova, 2007; <sup>1</sup>Zvyagina, 2008; <sup>1</sup>Shepeleva et al., 2014; <sup>1</sup>Filippova and Bulyonkova, 2017a; <sup>1</sup>Filippova and Bulyonkova, 2017b); **Krasnoyarsk Krai** (<sup>1</sup>Beglyanova, 1972a; <sup>1</sup>Nezdoyminogo, 1976a; <sup>1</sup>Lapitskaya, 1993; <sup>1</sup>Kosheleva and Kutafjeva, 2008a; <sup>1</sup>Zauzolkova, 2015; <sup>1</sup>Malysheva, Malysheva, Kiyashko, et al., 2017; <sup>1</sup>Krom and Kapitonov, 2019); **Novosibirsk Oblast** (<sup>2</sup>Singer, 1939; <sup>1</sup>Perova and Gorbunova, 2001; <sup>1</sup>Gorbunova, 2007; <sup>1</sup>Koropachinskiy and Banaev, 2014); **Tomsk Oblast** (<sup>1</sup>Kosheleva and Kutafjeva, 2004; <sup>1</sup>Kudashova, Gashkov, and Vaishlya, 2016a).

FAR EAST: **Amur Oblast** (<sup>1</sup>Azbukina et al., 1998; <sup>1</sup>Bulakh, Govorova, and Taranina, 2003; <sup>1</sup>Taranina, 2005; <sup>1</sup>Kochunova, 2019); **Jewish Autonomous Oblast** (<sup>1</sup>Bulakh, Govorova, Nazarova, and Vassiljeva, 2007; <sup>1</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Bogacheva et al., 2018; <sup>1</sup>Erofeeva, Bukharova, and Bulakh, 2019); **Kamchatka Krai** (<sup>1</sup>Kalamees and Vaasma, 1981); **Khabarovsk Krai** (<sup>1</sup>Azbukina et al., 1986; <sup>1</sup>Azbukina et al., 1989; <sup>1</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Erofeeva and Bulakh, 2015a; <sup>1</sup>Bogacheva et al., 2018); **Primorsky Krai** (<sup>2</sup>Vassiljeva, 1973; <sup>1</sup>Shalapugina, 1976; <sup>2</sup>Bunkina and Nazarova, 1978; <sup>2</sup>Azbukina et al., 1984; <sup>1</sup>Azbukina et al., 1990; <sup>2</sup>Bardunov et al., 2002; <sup>2</sup>Azbukina et al., 2006; <sup>1</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Bulakh et al., 2016; <sup>1</sup>Bogacheva et al., 2018); **Sakhalin Oblast** (<sup>2</sup>Vassiljeva and Nazarova, 1972).

#### *Amanita echinocephala* (Vittad.) Quél.<sup>1</sup>

= *Amanita echinocephala* var. *subbeillei* (Neville & Poumarat) Traverso<sup>2</sup>

EASTERN EUROPE: **Krasnodar Krai** (<sup>1</sup>Shumkova, Krivorotov, and Gayday, 2018); **North Ossetia** (<sup>1</sup>Nikolayev, 2001); **Rostov Oblast** (<sup>2</sup>Morozova et al., 2008; <sup>1</sup>Fedyeva, 2014); **Arid territories** (<sup>1</sup>Rebriev, Rusanov, et al., 2012).

SIBERIA: **Altai Republic** (<sup>1</sup>Gorbunova, 2017b).

#### *Amanita eliae* Quél.

EASTERN EUROPE: **Adygea** (Sopina, 2001a); **Chelyabinsk Oblast** (Stepanova and Sirko, 1977); **Kaliningrad Oblast** (Volodina, 2007); **Kaluga Oblast** (Sionova, 2009; Antokhina et al., 2015); **Karachay-Cherkess Republic** (Onipchenko et al., 2013); **Mordovia** (Silaeva et al., 2016); **Rostov Oblast** (Rusanov et al., 2004; Zmitrovich et al., 2008); **Tula Oblast** (Svetasheva, 2004; Svetasheva, 2005b; Shcherbakov, 2010); **Arid territories** (Rebriev, Rusanov, et al., 2012).

SIBERIA: **Krasnoyarsk Krai** (Beglyanova, 1972a; Beglyanova, 1972b; Kosheleva and Kutafjeva, 2008b; Kosheleva, 2010).

***Amanita excelsa* (Fr.) Bertill.<sup>1</sup>**= *Amanita spissa* (Fr.) P. Kumm.<sup>2</sup>

EASTERN EUROPE: **Adygea** (<sup>2</sup>Sopina, 2001a); **Belgorod Oblast** (<sup>2</sup>Bedenko, 1979a); **Crimea** (<sup>1</sup>Sarkina, 2001; <sup>1</sup>Dudka et al., 2004; <sup>1</sup>Sarkina, 2011); **Kaliningrad Oblast** (<sup>1,2</sup>Dedkov, Volodina, and Gubareva, 2007); **Krasnodar Krai** (<sup>2</sup>Kovalenko, 1980a; <sup>2</sup>Kovalenko, 1980b); **Leningrad Oblast** (<sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Popov et al., 2007; <sup>1</sup>Kalinina, 2018; <sup>1</sup>Malysheva, Malysheva, Shchepin, and Novozhilov, 2018); **Moscow Oblast** (<sup>2</sup>Levitskaya, 1998; <sup>2</sup>Levitskaya, 2013); **Saratov Oblast** (<sup>2</sup>Nagumanov, 2015); **Tver Oblast** (<sup>1</sup>Kurochkin, 1993); **Udmurt Republic** (<sup>2</sup>Tychinin and Kuzmina, 2003); **Arid territories** (<sup>1</sup>Rebriev, Rusanov, et al., 2012).

SIBERIA: **Krasnoyarsk Krai** (<sup>1</sup>Beglyanova, 1972a); **Tomsk Oblast** (<sup>2</sup>Milovidova, 1980; <sup>2</sup>Kudashova, Gashkov, and Kutafjeva, 2013; <sup>1</sup>Kudashova, Gashkov, and Vaishlya, 2016b; <sup>1</sup>Vaishlya et al., 2017).

FAR EAST: **Jewish Autonomous Oblast** (<sup>1</sup>Bulakh, Govorova, Nazarova, and Vassiljeva, 2007; <sup>2</sup>Bau, Bulakh, and Govorova, 2011); **Primorsky Krai** (<sup>1</sup>Vassiljeva, 1973; <sup>2</sup>Malysheva et al., 2014; <sup>2</sup>Malysheva et al., 2016); **Sakhalin Oblast** (<sup>1</sup>Vassiljeva and Nazarova, 1972).

***Amanita farinosa* Schwein.**FAR EAST: **Primorsky Krai** (Malysheva, Kiyashko, and Kovalenko, 2014).***Amanita flavipes* S. Imai**

FAR EAST: **Jewish Autonomous Oblast** (Bulakh, Govorova, Nazarova, and Vassiljeva, 2007; Bau, Bulakh, and Govorova, 2011; Bogacheva et al., 2018; Erofeeva, Bukharova, and Bulakh, 2019); **Khabarovsk Krai** (Azbukina et al., 1986; Azbukina et al., 1989; Bau, Bulakh, and Govorova, 2011; Erofeeva and Bulakh, 2015a; Bogacheva et al., 2018); **Primorsky Krai** (Vassiljeva, 1972; Vassiljeva, 1973; Azbukina et al., 1990; Bardunov et al., 2002; Bau, Bulakh, and Govorova, 2011; Bulakh et al., 2016; Bogacheva et al., 2018; Bogacheva, Bulakh, Bukharova, and Egorova, 2020); **Sakhalin Oblast** (Vassiljeva and Nazarova, 1972; Vassiljeva, 1973).

***Amanita franchetii* (Boud.) Fayod**

EASTERN EUROPE: **Novgorod Oblast** (Kovalenko, Morozova, Nezdjominogo, and Popov, 2005; Popov et al., 2013; Vetkin et al., 2015); **Perm Krai** (Perevedentseva, 2008; Belkovskaya et al., 2014); **Tula Oblast** (Shcherbakov, 2010; Svetasheva et al., 2017); **Arid territories** (Rebriev, Rusanov, et al., 2012).

***Amanita friabilis* (P. Karst.) Bas**

EASTERN EUROPE: **Karachay-Cherkess Republic** (Kalamees and Botashev, 2000; Onipchenko et al., 2013); **Krasnodar Krai** (Vaasma, Kalamees, and Raitviir, 1986; Litvinskaya, 2007; Litvinskaya, 2017).

SIBERIA: **Irkutsk Oblast** (Petrov, 1986; Petrov, 1991; Petrov, 2008; Trofimova, Popov, and Merkacheva, 2020); **Krasnoyarsk Krai** (Malysheva, Malysheva, Kiyashko, et al., 2017).

FAR EAST: **Magadan Oblast** (Sazanova, 2009a).***Amanita fulva* Fr.<sup>1</sup>**≡ *Agaricus fulvus* Schaeff.<sup>2</sup> ≡ *Amanita vaginata* var. *fulva* (Fr.) Gillet<sup>3</sup> ≡ *Amanitopsis fulva* (Fr.) W.G. Sm.<sup>4</sup>

EASTERN EUROPE: **Adygea** (<sup>4</sup>Vassiljeva, 1939); **Arkhangelsk Oblast** (<sup>1</sup>Ezhov, Zmitrovich, and Ruokolainen, 2019); **Astrakhan Oblast** (<sup>4</sup>Pilipenko et al., 2014); **Belgorod Oblast** (<sup>1</sup>Bedenko, 1980); **Chelyabinsk Oblast** (<sup>1</sup>Stepanova and Sirko, 1977); **Chuvash Republic** (<sup>1</sup>Vladimirova and Potapov, 2018); **Crimea** (<sup>4</sup>Dudka et al., 2004); **Kabardino-Balkarian Republic** (<sup>4</sup>Shkhagapsoev and Krapivina, 2004); **Kaliningrad Oblast** (<sup>1</sup>Dedkov, Volodina, and Gubareva, 2007; <sup>1</sup>Volodina, 2007); **Kaluga Oblast** (<sup>1</sup>Sionova, 2003; <sup>1</sup>Sionova, 2006); **Karelia** (<sup>1</sup>Bondartseva et al., 2001; <sup>1</sup>Predtechenskaya and Ruokolainen, 2008; <sup>1</sup>Predtechenskaya and Ruokolainen, 2013; <sup>1</sup>Predtechenskaya, 2013; <sup>1</sup>Krutov et al., 2014; <sup>1</sup>Predtechenskaya and Ruokolainen, 2014); **Kirov Oblast** (<sup>1</sup>Kirillov, 2011; <sup>1</sup>Kirillov, Perevedentseva, and Egoshina, 2011; <sup>1</sup>Stavishenko, Luginina, Kirillov, and Egoshina, 2019); **Komi Republic** (<sup>1</sup>Palamarchuk, 2012; <sup>1</sup>Palamarchuk, 2016a; <sup>1</sup>Palamarchuk, 2016b; <sup>1</sup>Palamarchuk and Kirillov, 2017; <sup>1</sup>Palamarchuk, 2017); **Krasnodar Krai** (<sup>4</sup>Vassiljeva, 1939; <sup>1</sup>Kovalenko, 1980a; <sup>1</sup>Kovalenko, 1980b); **Leningrad Oblast** (<sup>1</sup>Nezdjominogo, 1967; <sup>1</sup>Stolyarskaya, 1989; <sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Fomina, 2000; <sup>1</sup>Morozova and Kovalenko, 2000; <sup>1</sup>Fomina, 2001; <sup>1</sup>Morozova, 2007; <sup>1</sup>Popov et al., 2007; <sup>1</sup>Zmitrovich et al., 2015); **Lipetsk Oblast** (<sup>1</sup>Alferova, 1977; <sup>1</sup>Rtishcheva, 1999; <sup>4</sup>Sarycheva, 1999; <sup>4</sup>Afanasyev, Rtishcheva, and Starodubtseva, 2007; <sup>1</sup>Sarycheva et al., 2009; <sup>1</sup>Sarycheva, 2011; <sup>4</sup>Sarycheva, 2014a; <sup>1</sup>Sarycheva, 2016; <sup>1</sup>Sarycheva, Starodubtseva, and Sapelnikova, 2017); **Mordovia** (<sup>4</sup>Kuznetsov, 1960; <sup>1</sup>Ivoilov and Bolshakov, 2011a; <sup>4</sup>Chastukhin, 2011); **Moscow Oblast** (<sup>1</sup>Gorlenko, Sidorova, and Sidorova, 1989; <sup>1</sup>Levitskaya, 1995b; <sup>1</sup>Voronina et al., 2012; <sup>1</sup>Levitskaya, 2013; <sup>1</sup>Voronina et al., 2014); **Murmansk Oblast** (<sup>1</sup>Pystina, Pavlova, and

Shestakova, 1969; <sup>1</sup>Karatygin, Nezdoininogo, Novozhilov, and Zhurbenko, 1999); **Novgorod Oblast** (<sup>1</sup>Kovalenko, Morozova, Nezdoininogo, and Popov, 2005; <sup>1</sup>Popov et al., 2013); **Orenburg Oblast** (<sup>1</sup>Korshikova, 2006; <sup>1</sup>Desyatova, 2007; <sup>1</sup>Desyatova, 2008); **Penza Oblast** (<sup>1</sup>Ivanov, 1982; <sup>1</sup>Ivanov, 2019); **Perm Krai** (<sup>1</sup>Shkaraba, Perevedentseva, and Moshkina, 1990; <sup>1</sup>Perevedentseva, 2008; <sup>1</sup>Perevedentseva and Shishigin, 2014; <sup>1</sup>Perevedentseva and Shishigin, 2015; <sup>1</sup>Botalov, 2017; <sup>1</sup>Botalov and Perevedentseva, 2018); **Pskov Oblast** (<sup>1</sup>Kovalenko and Morozova, 1999b; <sup>1</sup>Kovalenko, Kolmakov, Morozova, and Popov, 2003; <sup>1</sup>Popov et al., 2013); **Rostov Oblast** (<sup>1</sup>Rusanov et al., 2004; <sup>1</sup>Zmitrovich et al., 2008); **Ryazan Oblast** (<sup>1</sup>Volosnova, 2014); **Saint Petersburg** (<sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Morozova and Kovalenko, 2000; <sup>1</sup>Kotkova, Morozova, and Popov, 2005; <sup>1</sup>Kotkova, Morozova, and Popov, 2006; <sup>1</sup>Kotkova, Morozova, and Popov, 2007; <sup>1</sup>Morozova and Smirnov, 2011; <sup>1</sup>Morozova et al., 2020); **Samara Oblast** (<sup>2</sup>Malysheva and Malysheva, 2008); **Sverdlovsk Oblast** (<sup>1</sup>Marina, 2006); **Tatarstan** (<sup>4</sup>Vassiljeva, 1977); **Tula Oblast** (<sup>1</sup>Svetasheva, 2001; <sup>1</sup>Svetasheva, 2004; <sup>1</sup>Svetasheva, 2013); **Tver Oblast** (<sup>1</sup>Kurochkin, 1993; <sup>1</sup>Mukhina, 2011a; <sup>1</sup>Mukhina, 2011b; <sup>1</sup>Kotkova, 2014); **Udmurt Republic** (<sup>4</sup>Tychinin and Kuzmina, 2003); **Ulyanovsk Oblast** (<sup>1</sup>Ilyukhin, 2010a; <sup>1</sup>Ilyukhin, 2010b); **Vladimir Oblast** (<sup>1</sup>Mishulin, Blinov, and Gushchina, 2018); **Vologda Oblast** (<sup>3</sup>Kutova, 1957; <sup>1</sup>Kirillova, 2006; <sup>1</sup>Kirillova, 2007); **Voronezh Oblast** (<sup>4</sup>Chastukhin and Nikolaevskaya, 1953; <sup>1</sup>Chastukhin and Nikolaevskaya, 1969; <sup>1</sup>Rtishcheva, 1999; <sup>4</sup>Afanasyev, Rtishcheva, and Starodubtseva, 2007; <sup>4</sup>Selochnik, 2015; <sup>1</sup>Sarycheva, Starodubtseva, and Sapelnikova, 2017); **Yaroslavl Oblast** (<sup>1</sup>Lazareva, 1998a; <sup>1</sup>Lazareva, 1998b); **Arid territories** (<sup>1</sup>Rebriev, Rusanov, et al., 2012).

SIBERIA: **Altai Krai** (<sup>1</sup>Gorbunova and Perova, 2006); **Altai Republic** (<sup>1</sup>Gorbunova, 2001a; <sup>1</sup>Gorbunova, 2001b; <sup>1</sup>Gorbunova, 2008); **Buryatia** (<sup>1</sup>Nezdoininogo, 1970a; <sup>1</sup>Petrov, 1991); **Irkutsk Oblast** (<sup>1</sup>Kutafjeva, 1983; <sup>1</sup>Muzyka, 2002; <sup>1</sup>Bardunov et al., 2005; <sup>1</sup>Muzyka, 2009); **Khakassia** (<sup>1</sup>Beglyanova, 1972a); **Khanty-Mansi Autonomous Okrug** (<sup>1</sup>Zvyagina, Baykalova, and Gorbunova, 2007; <sup>1</sup>Zvyagina, 2008; <sup>1</sup>Shepeleva et al., 2014; <sup>1</sup>Filippova, Bulyonkova, and Lapshina, 2015; <sup>1</sup>Filippova and Bulyonkova, 2017a; <sup>1</sup>Filippova and Bulyonkova, 2017b); **Krasnoyarsk Krai** (<sup>1</sup>Beglyanova, 1972a; <sup>1</sup>Lapitskaya, 1993; <sup>1</sup>Kosheleva and Kutafjeva, 2008b; <sup>1</sup>Kosheleva, 2010; <sup>1</sup>Zauzolkova, 2012; <sup>1</sup>Zauzolkova, 2015); **Novosibirsk Oblast** (<sup>1</sup>Zaytseva, 1971; <sup>1</sup>Perova, 1977; <sup>1</sup>Gorbunova, 2007; <sup>1</sup>Perova and Gorbunova, 2007); **Tomsk Oblast** (<sup>1</sup>Milovidova, 1980; <sup>1</sup>Kosheleva and Kutafjeva, 2004; <sup>1</sup>Agaphonova, Kutafjeva, and Gashkov, 2007; <sup>1</sup>Kudashova, Gashkov, and Kutafjeva, 2013; <sup>1</sup>Vaishlya et al., 2017).

FAR EAST: **Amur Oblast** (<sup>1</sup>Taranina, 2005); **Chukotka Autonomous Okrug** (<sup>1</sup>Sazanova, 1993; <sup>1</sup>Karatygin, Nezdoininogo, Novozhilov, and Zhurbenko, 1999); **Khabarovsk Krai** (<sup>1</sup>Erofeeva and Bulakh, 2015a); **Magadan Oblast** (<sup>1</sup>Sazanova, 1996; <sup>1</sup>Sazanova, 2005; <sup>1</sup>Sazanova, 2009a; <sup>1</sup>Sazanova, 2011); **Primorsky Krai** (<sup>4</sup>Vassiljeva, 1973; <sup>1</sup>Shalapugina, 1976; <sup>4</sup>Bulakh, 1977; <sup>4</sup>Azbukina et al., 1984; <sup>1</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Bulakh et al., 2016); **Sakhalin Oblast** (<sup>4</sup>Vassiljeva and Nazarova, 1972).

### *Amanita gemmata* (Fr.) Bertill.

EASTERN EUROPE: **Adygea** (Kovalenko, 1980b; Sopina, 2001a); **Belgorod Oblast** (Bedenko, 1980); **Crimea** (Dudka et al., 2004; Sarkina, 2011); **Kaluga Oblast** (Sionova, 2012); **Karachay-Cherkess Republic** (Vassiljeva, 1939; Kalamees and Botashev, 2000); **Karelia** (Krutov et al., 2014); **Krasnodar Krai** (Vassiljeva, 1939; Kovalenko, 1980a; Kovalenko, 1980b); **Kursk Oblast** (Baranov, 2002); **Leningrad Oblast** (Stolyarskaya, 1989; Kovalenko and Morozova, 1999a; Fomina, 2000; Popov et al., 2007; Zmitrovich et al., 2015); **Mordovia** (Kuznetsov, 1960; Chastukhin, 2011; Ivoilov and Bolshakov, 2011a; Bolshakov and Ivoilov, 2012b; Silaeva, 2017); **Moscow Oblast** (Levitskaya, 1998; Levitskaya, 2013); **Rostov Oblast** (Morozova et al., 2008); **Ryazan Oblast** (Volosnova, 1997); **Sevastopol** (Sarkina, 2016b); **Ulyanovsk Oblast** (Ilyukhin, 2010b); **Vologda Oblast** (Kutova, 1957); **Arid territories** (Rebriev, Rusanov, et al., 2012).

SIBERIA: **Tomsk Oblast** (Milovidova, 1980; Agaphonova, Kutafjeva, and Gashkov, 2007; Kudashova, Gashkov, and Kutafjeva, 2013; Kudashova, Gashkov, and Vaishlya, 2016b; Vaishlya et al., 2017).

FAR EAST: **Amur Oblast** (Azbukina et al., 1998); **Khabarovsk Krai** (Bulakh, 2013; Bogacheva, Bulakh, Bukharova, and Egorova, 2015).

### *Amanita groenlandica* Bas ex Knudsen & T. Borgen

EASTERN EUROPE: **Yamalo-Nenets Autonomous Okrug** (Knudsen and Mukhin, 1998; Karatygin, Nezdoininogo, Novozhilov, and Zhurbenko, 1999; Nezdoininogo, 2001).

SIBERIA: **Sakha Republic** (Nezdoininogo, 1997a; Karatygin, Nezdoininogo, Novozhilov, and Zhurbenko, 1999; Nezdoininogo, 2003).

FAR EAST: **Chukotka Autonomous Okrug** (Karatygin, Nezdoininogo, Novozhilov, and Zhurbenko, 1999).



***Amanita hyperborea* (P. Karst.) Fayod<sup>1</sup>**

≡ *Agaricus hyperboreus* P. Karst.<sup>2</sup> ≡ *Amanitopsis hyperborea* (P. Karst.) P. Karst.<sup>3</sup> = *Agaricus gemmatus* var. *lapponicus* P. Karst.<sup>4</sup>

According to Bas (1982) *Amanita hyperborea* is an independent species close to *Amanita friabilis*.

**Murmansk Oblast** (<sup>4</sup>Karsten, 1866; <sup>2</sup>Karsten, 1876; <sup>3</sup>Karsten, 1889; <sup>1</sup>Nezdojminogo, 1997b; <sup>1</sup>Karatygin, Nezdojminogo, Novozhilov, and Zhurbenko, 1999).

***Amanita islandica* Melot**

SIBERIA: **Khanty-Mansi Autonomous Okrug** (Filippova, Bulyonkova, and Lapshina, 2015).

***Amanita lividopallescens* (Gillet) Bigeard & H. Guill.<sup>1</sup>**

≡ *Amanita vaginata* var. *lividopallescens* Gillet<sup>2</sup>

EASTERN EUROPE: **Leningrad Oblast** (<sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Popov et al., 2007); **Saratov Oblast** (<sup>2</sup>Komirnaya, 1970).

SIBERIA: **Irkutsk Oblast** (<sup>1</sup>Petrov, 1986; <sup>1</sup>Petrov, 1991; <sup>1</sup>Petrov, 2008); **Krasnoyarsk Krai** (<sup>1</sup>Beglyanova, 1972a; <sup>1</sup>Beglyanova, 1972b; <sup>1</sup>Beglyanova, 1972c).

FAR EAST: **Kamchatka Krai** (<sup>1</sup>Kalamees and Vaasma, 1981).

***Amanita longistriata* S. Imai**

FAR EAST: **Primorsky Krai** (Malysheva, Kiyashko, and Kovalenko, 2014; Bulakh et al., 2016).

***Amanita magnivolvata* Aalto**

EASTERN EUROPE: **Moscow Oblast** (Levitskaya, 1998; Levitskaya, 2013); **Perm Krai** (Perevedentseva, 2008; Belkovskaya et al., 2014); **Tula Oblast** (Svetasheva, 2004; Shcherbakov, 2010; Svetasheva, Sheremetyeva, and Lakomov, 2019).

***Amanita mairei* Foley**

EASTERN EUROPE: **Leningrad Oblast** (Kovalenko and Morozova, 1999a; Popov et al., 2007); **Penza Oblast** (Ivanov, 1999).

***Amanita muscaria* (L.) Lam.<sup>1</sup>**

≡ *Agaricus muscarius* L.<sup>2</sup> ≡ *Amanita muscaria* f. *muscaria* (L.) Lam.<sup>3</sup> ≡ *Amanita muscaria* var. *muscaria* (L.) Lam.<sup>4</sup> = *Agaricus muscarius* var. *formosus* (Pers.) J. Kickx f.<sup>5</sup> = *Agaricus muscarius* var. *puella* (Batsch) Sw.<sup>6</sup> = *Amanita muscaria* f. *beglyanovae* Kutafjeva<sup>7</sup> = *Amanita muscaria* var. *alba* Peck<sup>8</sup> = *Amanita muscaria* var. *aureola* (Kalchbr.) Quél.<sup>9</sup> = *Amanita muscaria* var. *formosa* Pers.<sup>10</sup>

EASTERN EUROPE: **Adygea** (<sup>1</sup>Vassiljeva, 1939; <sup>4</sup>Vaasma, Kalamees, and Raitviir, 1986; <sup>1</sup>Sopina, 2001a); **Arkhangelsk Oblast** (<sup>1</sup>Lebedeva, 1933; <sup>1</sup>Ezhov, Zmitrovich, and Ruokolainen, 2019); **Belgorod Oblast** (<sup>1</sup>Bedenko, 1979a); **Bryansk Oblast** (<sup>1</sup>Kruglikov, 2007); **Chechen Republic** (<sup>1</sup>Taysumov, Krapivina, Umarov, and Astamirova, 2012); **Chelyabinsk Oblast** (<sup>1</sup>Aleksandrovskaia and Lobanova, 1968); **Crimea** (<sup>1</sup>Dudka et al., 2004; <sup>1</sup>Sarkina and Prydiuk, 2012); **Kabardino-Balkarian Republic** (<sup>1</sup>Shkhagapsoev and Krapivina, 2004); **Kaliningrad Oblast** (<sup>1</sup>Dedkov, Volodina, and Gubareva, 2007; <sup>1</sup>Volodina, 2007; <sup>1</sup>Atayev and Volodina, 2020); **Kaluga Oblast** (<sup>1</sup>Sionova, 2003; <sup>1</sup>Sionova, 2006); **Karachay-Cherkess Republic** (<sup>1</sup>Kalamees and Botashev, 2000); **Karelia** (<sup>1</sup>Lebedeva, 1933; <sup>1</sup>Freindling, 1949; <sup>1</sup>Bondartseva et al., 2001; <sup>4</sup>Predtechenskaya and Ruokolainen, 2013; <sup>4</sup>Predtechenskaya, 2013; <sup>4</sup>Krutov et al., 2014; <sup>4</sup>Predtechenskaya and Ruokolainen, 2014; <sup>4</sup>Predtechenskaya, 2015; <sup>1</sup>Savelev and Kikeeva, 2018); **Kirov Oblast** (<sup>4</sup>Kirillov and Luginina, 2011; <sup>4</sup>Kirillov, 2011; <sup>4</sup>Kirillov, Perevedentseva, and Egoshina, 2011; <sup>1</sup>Cui et al., 2018; <sup>1</sup>Stavishenko, Luginina, Kirillov, and Egoshina, 2019); **Komi Republic** (<sup>1</sup>Bobretsova, 2004; <sup>1</sup>Palamarchuk, 2012; <sup>1</sup>Palamarchuk and Kirillov, 2017; <sup>1</sup>Palamarchuk, 2017; <sup>1</sup>Palamarchuk and Kirillov, 2018a); **Kostroma Oblast** (<sup>1</sup>Burova, 1982); **Krasnodar Krai** (<sup>1</sup>Vassiljeva, 1939; <sup>1</sup>Shumkova, Krivorotov, and Gayday, 2018); **Kursk Oblast** (<sup>1</sup>Soshnina, 2001; <sup>1</sup>Baranov, 2002; <sup>1</sup>Soshnina, 2005; <sup>1</sup>Soshnina, 2014); **Leningrad Oblast** (<sup>1</sup>Thesleff, 1920; <sup>1</sup>Kalamees and Kovalenko, 1984; <sup>1</sup>Stolyarskaya, 1989; <sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Fomina, 2000; <sup>1</sup>Morozova and Kovalenko, 2000; <sup>1</sup>Morozova, 2007; <sup>1</sup>Popov et al., 2007; <sup>1</sup>Psurtseva, Kiyashko, Gachkova, and Belova, 2007; <sup>1</sup>Zmitrovich et al., 2015; <sup>1</sup>Kalinina, 2018; <sup>1</sup>Malysheva, Malysheva, Shchepin, and Novozhilov, 2018); **Lipetsk Oblast** (<sup>1</sup>Alferova, 1977; <sup>1</sup>Rtishcheva, 1999; <sup>1</sup>Sarycheva, 1999; <sup>1</sup>Afanasyev, Rtishcheva, and Starodubtseva, 2007; <sup>1</sup>Sarycheva et al., 2009; <sup>1</sup>Sarycheva, 2011; <sup>1</sup>Sarycheva, 2014a; <sup>1</sup>Sarycheva, 2016; <sup>1</sup>Sarycheva, Starodubtseva, and Sapelnikova, 2017); **Mari El Republic** (<sup>1</sup>Prokhorov, 2007); **Mordovia** (<sup>1</sup>Chastukhin, 1948a; <sup>1</sup>Kuznetsov, 1960; <sup>1</sup>Chastukhin and

Nikolaevskaya, 1969; <sup>1</sup>Chastukhin, 2011; <sup>1</sup>Ivoilov and Bolshakov, 2011a); **Moscow** (<sup>1</sup>Bucholtz, 1897a; <sup>1</sup>Bucholtz, 1897b; <sup>1</sup>Bucholtz, 1897c; <sup>1</sup>Mosolov, 1906; <sup>1</sup>Burova, 1968); **Moscow Oblast** (<sup>1</sup>Heyden, 1899; <sup>1</sup>Gorlenko, Sidorova, and Sidorova, 1989; <sup>1</sup>Levitskaya, 1995b; <sup>1</sup>Levitskaya, 2013; <sup>1</sup>Voronina et al., 2014; <sup>1</sup>Sidorova, Alexandrova, and Voronina, 2017); **Murmansk Oblast** (<sup>1</sup>Vanin, 1928; <sup>1</sup>Pystina, Pavlova, and Shestakova, 1969; <sup>1</sup>Mikhailovskii, 1975b; <sup>1</sup>Karatygin, Nezdoininogo, Novozhilov, and Zhurbenko, 1999); **North Ossetia** (<sup>1</sup>Chernetskaja, 1929; <sup>1</sup>Nikolayev, 2001); **Novgorod Oblast** (<sup>1</sup>Kovalenko, Morozova, Nezdoininogo, and Popov, 2005; <sup>1</sup>Malysheva, Malysheva, and Zmitrovich, 2007; <sup>1</sup>Popov et al., 2013); **Orenburg Oblast** (<sup>1</sup>Desyatova, 2008); **Oryol Oblast** (<sup>1</sup>Radygina, Derzhavina, and Tsutsupa, 2014); **Penza Oblast** (<sup>2</sup>Vet, 1943; <sup>1</sup>Ivanov, 1982; <sup>1</sup>Ivanov, 2019); **Perm Krai** (<sup>1</sup>Shkaraba, Perevedentseva, and Moshkina, 1990; <sup>4,9</sup>Perevedentseva, 2008; <sup>4,9</sup>Belkovskaya et al., 2014; <sup>1</sup>Perevedentseva and Shishigin, 2015; <sup>1</sup>Botalov, 2017); **Pskov Oblast** (<sup>1</sup>Popov, 2001a; <sup>1</sup>Popov et al., 2013); **Rostov Oblast** (<sup>4,9</sup>Rusanov et al., 2004; <sup>1</sup>Morozova et al., 2008; <sup>4,9</sup>Zmitrovich et al., 2008; <sup>1</sup>Rusanov, Rebriev, and Bulgakov, 2018); **Ryazan Oblast** (<sup>1</sup>Volosnova, 1997; <sup>1</sup>Volosnova, 2014); **Saint Petersburg** (<sup>2</sup>Weinmann, 1828; <sup>6</sup>Weinmann, 1828; <sup>2,5,6</sup>Weinmann, 1836; <sup>2,5,6</sup>Weinmann, 1837; <sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Morozova and Smirnov, 2011; <sup>1</sup>Morozova, Kovalenko, Rebriev, and Malysheva, 2014; <sup>1</sup>Zhukova, Morozova, Volobuev, and Bryantseva, 2017; <sup>1</sup>Morozova et al., 2020); **Samara Oblast** (<sup>1</sup>Malysheva and Malysheva, 2004; <sup>1</sup>Malysheva and Malysheva, 2008); **Smolensk Oblast** (<sup>1</sup>Jaczevski, 1893; <sup>1</sup>Jaczevski, 1895); **Sverdlovsk Oblast** (<sup>1</sup>Tomilin, 1965; <sup>4,10</sup>Marina, 2006); **Tatarstan** (<sup>1</sup>Alexeeff, 1927; <sup>1</sup>Vassiljeva, 1977; <sup>1</sup>Potapov, 2015b); **Tula Oblast** (<sup>1</sup>Svetasheva, 2001; <sup>1</sup>Svetasheva, 2004; <sup>1</sup>Svetasheva, 2013); **Tver Oblast** (<sup>1</sup>Chastukhin, 1948b; <sup>1</sup>Chastukhin and Nikolaevskaya, 1969; <sup>1</sup>Kurochkin, 1993; <sup>1</sup>Mukhina and Garibova, 2010; <sup>1</sup>Mukhina, 2011a; <sup>1</sup>Mukhina, 2011b; <sup>1</sup>Kotkova, 2014; <sup>1</sup>Kurochkin and Medvedev, 2015; <sup>1</sup>Kurochkin, 2016); **Udmurt Republic** (<sup>1</sup>Tychinin, 1990; <sup>1</sup>Tychinin and Kuzmina, 2003); **Ulyanovsk Oblast** (<sup>1</sup>Ilyukhin, 2009; <sup>1</sup>Ilyukhin, 2010a); **Vladimir Oblast** (<sup>1</sup>Mishulin, Blinov, and Gushchina, 2018); **Volgograd Oblast** (<sup>1</sup>Stauchan and Vedeneyev, 2015); **Vologda Oblast** (<sup>1</sup>Kutova, 1957; <sup>4</sup>Kirillova, 2006; <sup>4,10</sup>Kirillova, 2007); **Voronezh Oblast** (<sup>1</sup>Chastukhin and Nikolaevskaya, 1953; <sup>1</sup>Chastukhin and Nikolaevskaya, 1969; <sup>1</sup>Rtishcheva, 1999; <sup>1</sup>Afanasyev, Rtishcheva, and Starodubtseva, 2007; <sup>1</sup>Selochnik, 2015; <sup>1</sup>Sarycheva, Starodubtseva, and Sapelnikova, 2017; <sup>1</sup>Kochergina and Furmenkova, 2019); **Yamalo-Nenets Autonomous Okrug** (<sup>1</sup>Kazantseva, 1966); **Yaroslavl Oblast** (<sup>1</sup>Lazareva, 1997; <sup>1</sup>Lazareva, 1998a); **Arid territories** (<sup>4,9</sup>Rebriev, Rusanov, et al., 2012); **Lapland** (<sup>2</sup>Karsten, 1866).

SIBERIA: **Altai Krai** (<sup>1</sup>Gorbunova and Perova, 2006; <sup>1</sup>Gorbunova and Chubarova, 2008; <sup>4</sup>Gorbunova, Vlasenko, and Tzhubarova, 2011); **Altai Republic** (<sup>1</sup>Kovalenko, 1992; <sup>1</sup>Gorbunova, 2001a; <sup>1</sup>Gorbunova, 2001b; <sup>1</sup>Gorbunova, 2008); **Buryatia** (<sup>1</sup>Nezdoininogo, 1970a; <sup>1</sup>Penzina and Petrov, 1994); **Irkutsk Oblast** (<sup>1</sup>Kutafjeva, 1983; <sup>3,8,9</sup>Petrov, 1986; <sup>1</sup>Petrov, 1989; <sup>1</sup>Astapenko, 1990b; <sup>8</sup>Petrov, 1991; <sup>1</sup>Muzyka, 2002; <sup>4,9</sup>Bardunov et al., 2005; <sup>4,8,9</sup>Petrov, 2008; <sup>1</sup>Muzyka, 2009; <sup>1</sup>Heklau and Dörfelt, 2017; <sup>1</sup>Muzyka and Penzina, 2017); **Khakassia** (<sup>1</sup>Zauzolkova, 2015); **Khanty-Mansi Autonomous Okrug** (<sup>1</sup>Zvyagina, Baykalova, and Gorbunova, 2007; <sup>1</sup>Filippova, Bulyonkova, and Lapshina, 2015; <sup>1</sup>Makarova, Makarov, Zvyagina, and Bobrikov, 2015; <sup>1</sup>Zvyagina and Vasina, 2015); **Krasnoyarsk Krai** (<sup>1</sup>Perova, 1970; <sup>1</sup>Beglyanova, 1972a; <sup>1</sup>Nezdoininogo, 1976a; <sup>1</sup>Lapitskaya, 1993; <sup>1</sup>Kosheleva and Kutafjeva, 2008a; <sup>1</sup>Kryuchkova, 2009; <sup>7</sup>Kutafjeva, Agafonova, and Kryuchkova, 2010; <sup>1</sup>Zauzolkova, 2012; <sup>1</sup>Zauzolkova, 2015; <sup>1</sup>Malysheva, Malysheva, Kiyashko, et al., 2017; <sup>1</sup>Krom and Kapitonov, 2019); **Kurgan Oblast** (<sup>1</sup>Bystrushkin, 2016); **Novosibirsk Oblast** (<sup>1</sup>Zaytseva, 1971; <sup>1</sup>Perova, 1977; <sup>4</sup>Gorbunova, 2007; <sup>4</sup>Perova and Gorbunova, 2007; <sup>4</sup>Koropachinskiy and Banaev, 2014); **Tomsk Oblast** (<sup>1</sup>Milovidova, 1980; <sup>1,9</sup>Kosheleva and Kutafjeva, 2004; <sup>1</sup>Agaphonova, Kutafjeva, and Gashkov, 2007; <sup>9</sup>Agaphonova, Kutafjeva, and Gashkov, 2009b; <sup>1,7,8,9,10</sup>Kudashova, Gashkov, and Kutafjeva, 2013; <sup>1</sup>Vaishlya et al., 2017); **Zabaykalsky Krai** (<sup>1</sup>Karsten, 1906; <sup>1</sup>Karsten, 1911).

FAR EAST: **Amur Oblast** (<sup>1</sup>Tomilin, 1962; <sup>1</sup>Gordienko, Petrova, and Tarasov, 1981; <sup>1</sup>Nazarova, 1986; <sup>1</sup>Taranina, 2005; <sup>1</sup>Kochunova, 2019); **Chukotka Autonomous Okrug** (<sup>1</sup>Sazanova, 1993; <sup>1</sup>Karatygin, Nezdoininogo, Novozhilov, and Zhurbenko, 1999); **Jewish Autonomous Oblast** (<sup>1</sup>Bulakh, Govorova, Nazarova, and Vassiljeva, 2007; <sup>1</sup>Bau, Bulakh, and Govorova, 2011); **Kamchatka Krai** (<sup>1</sup>Kalamees and Vaasma, 1981; <sup>1</sup>Karatygin, Nezdoininogo, Novozhilov, and Zhurbenko, 1999); **Khabarovsk Krai** (<sup>1</sup>Azbukina et al., 1986; <sup>1</sup>Azbukina et al., 1989; <sup>1</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Erofeeva and Bulakh, 2015a); **Magadan Oblast** (<sup>1</sup>Nazarova, 1976; <sup>1</sup>Sazanova, 1996; <sup>1</sup>Sazanova, 2005; <sup>1</sup>Sazanova, 2009a; <sup>4</sup>Sazanova, 2011; <sup>4</sup>Sazanova, 2012; <sup>1</sup>Sazanova and Golodnova, 2015; <sup>1</sup>Sazanova, 2016); **Primorsky Krai** (<sup>1</sup>Vassiljeva, 1972; <sup>1</sup>Vassiljeva, 1973; <sup>1</sup>Bulakh, 1977; <sup>1</sup>Azbukina et al., 1984; <sup>1</sup>Azbukina et al., 1990; <sup>1</sup>Bardunov et al., 2002; <sup>1</sup>Azbukina et al., 2006; <sup>1</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Bulakh et al., 2016); **Sakhalin Oblast** (<sup>1</sup>Vassiljeva and Nazarova, 1972).

### *Amanita nivalis* Grev.<sup>1</sup>

≡ *Amanitopsis nivalis* (Grev.) Sacc.<sup>2</sup>

EASTERN EUROPE: **Komi Republic** (<sup>1</sup>Karatygin, Nezdoininogo, Novozhilov, and Zhurbenko, 1999; <sup>1</sup>Palamarchuk, 2011b; <sup>1</sup>Palamarchuk, 2012; <sup>1</sup>Palamarchuk, 2016a; <sup>1</sup>Palamarchuk, 2016b); **Murmansk Oblast** (<sup>1</sup>Pystina, Pavlova,

and Shestakova, 1969); **Vologda Oblast** (<sup>1</sup>Kirillova, 2006; <sup>1</sup>Kirillova, 2007); **Yamalo-Nenets Autonomous Okrug** (<sup>1</sup>Knudsen and Mukhin, 1998; <sup>1</sup>Karatygin, Nezdoininogo, Novozhilov, and Zhurbenko, 1999; <sup>1</sup>Nezdoininogo, 2001).

SIBERIA: **Altai Krai** (<sup>1</sup>Gorbunova, 2018b); **Altai Republic** (<sup>2</sup>Singer, 1939; <sup>1</sup>Gorbunova, 2010); **Irkutsk Oblast** (<sup>1</sup>Petrov, 1991); **Krasnoyarsk Krai** (<sup>1</sup>Karatygin, Nezdoininogo, Novozhilov, and Zhurbenko, 1999; <sup>1</sup>Gorbunova, 2016); **Sakha Republic** (<sup>1</sup>Karatygin, Nezdoininogo, Novozhilov, and Zhurbenko, 1999).

FAR EAST: **Chukotka Autonomous Okrug** (<sup>1</sup>Nezdoininogo, 1997a; <sup>1</sup>Karatygin, Nezdoininogo, Novozhilov, and Zhurbenko, 1999); **Jewish Autonomous Oblast** (<sup>1</sup>Bau, Bulakh, and Govorova, 2011); **Magadan Oblast** (<sup>1</sup>Sazanova, 2009a; <sup>1</sup>Sazanova, 2012; <sup>1</sup>Sazanova, 2016).

***Amanita novinupta* Tulloss & J. Lindgr.**

SIBERIA: **Krasnoyarsk Krai** (Krom and Kapitonov, 2019).

***Amanita ovoidea* (Bull.) Link**

EASTERN EUROPE: **Crimea** (Dudka et al., 2004; Sarkina, 2010b; Sarkina, 2011; Sarkina and Prydiuk, 2012; Sarkina, 2013; Sarkina and Mironova, 2015; Sarkina and Stavishenko, 2019); **Kaluga Oblast** (Sionova, 2003); **Krasnodar Krai** (Litvinskaya, 2007; Litvinskaya, 2017); **Sevastopol** (Sarkina, 2016b; Sarkina, 2020b).

SIBERIA: **Krasnoyarsk Krai** (Beglyanova, 1972a).

***Amanita pallidrosea* P. Zhang & Zhu L. Yang**

FAR EAST: **Primorsky Krai** (Malysheva, Kiyashko, and Kovalenko, 2014; Bulakh et al., 2016).

***Amanita paludosa* Bulyonk., Filippova & O.V. Morozova**

SIBERIA: **Khanty-Mansi Autonomous Okrug** (Crous, Luangsa-ard, et al., 2018); **Novosibirsk Oblast** (Crous, Luangsa-ard, et al., 2018).

***Amanita pantherina* (DC.) Krombh.<sup>1</sup>**

≡ *Agaricus pantherinus* DC.<sup>2</sup> ≡ *Amanita pantherina* f. *pantherina* (DC.) Krombh.<sup>3</sup> ≡ *Amanita pantherina* var. *pantherina* (DC.) Krombh.<sup>4</sup>

EASTERN EUROPE: **Adygea** (<sup>1</sup>Vassiljeva, 1939; <sup>4</sup>Vaasma, Kalamees, and Raitviir, 1986; <sup>1</sup>Sopina, 2001a); **Belgorod Oblast** (<sup>1</sup>Bedenko, 1979a); **Bryansk Oblast** (<sup>1</sup>Kruglikov, 2007); **Crimea** (<sup>1</sup>Sarkina, 2001; <sup>1</sup>Dudka et al., 2004; <sup>1</sup>Sarkina, 2011; <sup>1</sup>Sarkina and Prydiuk, 2012; <sup>1</sup>Sarkina and Stavishenko, 2019); **Kabardino-Balkarian Republic** (<sup>1</sup>Shkhagapsoev and Krapivina, 2004); **Kaliningrad Oblast** (<sup>1</sup>Dedkov, Volodina, and Gubareva, 2007; <sup>1</sup>Volodina, 2007); **Kaluga Oblast** (<sup>1</sup>Sionova, 2003; <sup>1</sup>Sionova, 2006); **Karachay-Cherkess Republic** (<sup>1</sup>Kalamees and Botashev, 2000); **Karelia** (<sup>1</sup>Bondartseva et al., 2001; <sup>1</sup>Predtechenskaya and Ruokolainen, 2013; <sup>1</sup>Krutov et al., 2014; <sup>1</sup>Predtechenskaya and Ruokolainen, 2014; <sup>1</sup>Savelev and Kikeeva, 2018); **Kirov Oblast** (<sup>1</sup>Kirillov, 2011; <sup>1</sup>Kirillov, Perevedentseva, and Egoshina, 2011); **Komi Republic** (<sup>1</sup>Bobretsova, 2004; <sup>1</sup>Palamarchuk, 2012; <sup>1</sup>Palamarchuk and Kirillov, 2017); **Krasnodar Krai** (<sup>1</sup>Vassiljeva, 1939; <sup>1</sup>Kovalenko, 1980a; <sup>1</sup>Shumkova, Krivorotov, and Gayday, 2018); **Kursk Oblast** (<sup>1</sup>Ryabova and Ignatenko, 1981; <sup>1</sup>Baranov, 2002; <sup>1</sup>Soshnina, 2005; <sup>1</sup>Soshnina, 2014); **Leningrad Oblast** (<sup>2</sup>Weinmann, 1836; <sup>2</sup>Weinmann, 1837; <sup>1</sup>Thesleff, 1920; <sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Morozova, 2007; <sup>1</sup>Popov et al., 2007; <sup>1</sup>Malysheva, Malysheva, and Krasilnikova, 2009; <sup>1</sup>Bondartseva et al., 2015; <sup>1</sup>Zmitrovich et al., 2015); **Lipetsk Oblast** (<sup>1</sup>Alferova, 1977; <sup>1</sup>Rtishcheva, 1999; <sup>1</sup>Sarycheva, 1999; <sup>1</sup>Afanasyev, Rtishcheva, and Starodubtseva, 2007; <sup>1</sup>Sarycheva et al., 2009; <sup>1</sup>Sarycheva, 2011; <sup>1</sup>Sarycheva, 2014a; <sup>1</sup>Sarycheva, 2016; <sup>1</sup>Sarycheva, Starodubtseva, and Sapelnikova, 2017); **Mordovia** (<sup>1</sup>Ivoilov and Bolshakov, 2011a; <sup>1</sup>Bolshakov and Ivoilov, 2012b; <sup>1</sup>Bolshakov, 2015); **Moscow** (<sup>1</sup>Burova, 1968); **Moscow Oblast** (<sup>1</sup>Gorlenko, Sidorova, and Sidorova, 1989; <sup>1</sup>Levitskaya, 1995b; <sup>1</sup>Malysheva, Malysheva, and Krasilnikova, 2009; <sup>4</sup>Levitskaya, 2013); **Murmansk Oblast** (<sup>1</sup>Pystina, Pavlova, and Shestakova, 1969); **North Ossetia** (<sup>1</sup>Nikolayev, 2001); **Novgorod Oblast** (<sup>1</sup>Kovalenko, Morozova, Nezdoininogo, and Popov, 2005; <sup>1</sup>Popov et al., 2013); **Orenburg Oblast** (<sup>1</sup>Korshikova, 2006; <sup>1</sup>Desyatova, 2008); **Penza Oblast** (<sup>1</sup>Ivanov, 1982; <sup>1</sup>Ivanov, 2019); **Perm Krai** (<sup>1</sup>Perevedentseva, 2008; <sup>1</sup>Belkovskaya et al., 2014; <sup>1</sup>Botalov, 2017); **Pskov Oblast** (<sup>1</sup>Popov, 2001a; <sup>1</sup>Popov et al., 2013); **Rostov Oblast** (<sup>1</sup>Rusanov et al., 2004; <sup>1</sup>Morozova et al., 2008; <sup>1</sup>Zmitrovich et al., 2008); **Ryazan Oblast** (<sup>1</sup>Volosnova, 1997; <sup>1</sup>Volosnova, 2014); **Saint Petersburg** (<sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Morozova and Smirnov, 2011; <sup>1</sup>Morozova et al., 2020); **Samara Oblast** (<sup>1</sup>Malysheva and Malysheva, 2004; <sup>1</sup>Malysheva and Malysheva, 2008; <sup>1</sup>Malysheva, Malysheva, Voronina, et al., 2017; <sup>1</sup>Malysheva, Malysheva, Voronina, and Kovalenko, 2018); **Saratov Oblast** (<sup>1</sup>Komirnyaya, 1970); **Sevastopol** (<sup>1</sup>Sarkina, 2020c); **Smolensk Oblast** (<sup>1</sup>Burova, 1969); **Sverdlovsk Oblast** (<sup>1</sup>Stepanova and Sirko, 1977; <sup>1</sup>Marina, 2006); **Tatarstan** (<sup>1</sup>Vassiljeva, 1977);

**Tula Oblast** (<sup>1</sup>Svetasheva, 2001; <sup>1</sup>Svetasheva, 2004; <sup>1</sup>Svetasheva, 2013); **Tver Oblast** (<sup>1</sup>Kurochkin, 1993; <sup>1</sup>Mukhina, 2011a; <sup>1</sup>Mukhina, 2011b; <sup>1</sup>Kotkova, 2014); **Udmurt Republic** (<sup>1</sup>Tychinin and Kuzmina, 2003); **Ulyanovsk Oblast** (<sup>1</sup>Ilyukhin, 2009; <sup>1</sup>Ilyukhin, 2010a); **Vladimir Oblast** (<sup>1</sup>Mishulin, Blinov, and Gushchina, 2018); **Volgograd Oblast** (<sup>1</sup>Burova and Nezdoyminogo, 1982; <sup>1</sup>Dudka and Vedeneyev, 2014; <sup>1</sup>Stauchan and Vedeneyev, 2015); **Vologda Oblast** (<sup>1</sup>Kutova, 1957); **Voronezh Oblast** (<sup>1</sup>Rtishcheva, 1999; <sup>1</sup>Afanasyev, Rtishcheva, and Starodubtseva, 2007; <sup>1</sup>Sarycheva, Starodubtseva, and Sapelnikova, 2017); **Yaroslavl Oblast** (<sup>1</sup>Lazareva, 1997; <sup>1</sup>Lazareva, 1998a); **Arid territories** (<sup>1</sup>Rebriev, Rusanov, et al., 2012); **Northern Caucasus** (<sup>1</sup>Kovalenko, 1980b).

SIBERIA: **Altai Krai** (<sup>1</sup>Gorbunova and Perova, 2006; <sup>1</sup>Gorbunova and Chubarova, 2008; <sup>1</sup>Gorbunova, Vlasenko, and Tzhubarova, 2011); **Altai Republic** (<sup>1</sup>Perova and Gorbunova, 2001); **Irkutsk Oblast** (<sup>3</sup>Petrov, 1986; <sup>4</sup>Petrov, 1991; <sup>4</sup>Petrov, 2008; <sup>1</sup>Muzyka, 2009); **Khakassia** (<sup>1</sup>Beglyanova, 1972a; <sup>1</sup>Zauzolkova, 2015); **Khanty-Mansi Autonomous Okrug** (<sup>1</sup>Zvyagina, 2008; <sup>1</sup>Shepeleva et al., 2014); **Krasnoyarsk Krai** (<sup>1</sup>Perova, 1970; <sup>1</sup>Beglyanova, 1972a; <sup>1</sup>Lapitskaya, 1993; <sup>1</sup>Kosheleva and Kutafjeva, 2008a; <sup>1</sup>Kryuchkova, 2009; <sup>1</sup>Krom and Kapitonov, 2019); **Kurgan Oblast** (<sup>1</sup>Bystrushkin, 2016); **Novosibirsk Oblast** (<sup>1</sup>Zaytseva, 1971; <sup>1</sup>Perova and Gorbunova, 2001; <sup>1</sup>Gorbunova, 2007; <sup>1</sup>Koropachinskiy and Banaev, 2014); **Tomsk Oblast** (<sup>1</sup>Perova, 1972; <sup>1</sup>Milovidova, 1980; <sup>1</sup>Perova and Gorbunova, 2001; <sup>1</sup>Kosheleva and Kutafjeva, 2004; <sup>1</sup>Agaphonova, Kutafjeva, and Gashkov, 2007; <sup>1</sup>Kudashova, Gashkov, and Kutafjeva, 2013; <sup>1</sup>Vaishlya et al., 2017).

FAR EAST: **Amur Oblast** (<sup>1</sup>Gordienko, Petrova, and Tarasov, 1981; <sup>1</sup>Nazarova, 1986; <sup>1</sup>Azbukina et al., 1998; <sup>1</sup>Taranina, 2005; <sup>1</sup>Bogacheva et al., 2018; <sup>1</sup>Kochunova, 2019); **Jewish Autonomous Oblast** (<sup>1</sup>Erofeeva and Bulakh, 2015b; <sup>1</sup>Erofeeva, Bukharova, and Bulakh, 2019); **Khabarovsk Krai** (<sup>1</sup>Azbukina et al., 1986; <sup>1</sup>Azbukina et al., 1989; <sup>1</sup>Bulakh, Vassiljeva, and Erofeeva, 2010; <sup>1</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Bulakh, 2013; <sup>1</sup>Bogacheva, Bulakh, Bukharova, and Egorova, 2015; <sup>1</sup>Bogacheva et al., 2018); **Magadan Oblast** (<sup>1</sup>Sazanova, 2005; <sup>1</sup>Sazanova, 2009a); **Primorsky Krai** (<sup>1</sup>Vassiljeva, 1972; <sup>1</sup>Vassiljeva, 1973; <sup>1</sup>Azbukina et al., 1984; <sup>1</sup>Azbukina et al., 1990; <sup>1</sup>Bardunov et al., 2002; <sup>1</sup>Azbukina et al., 2006; <sup>1</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Bulakh et al., 2016; <sup>1</sup>Bogacheva et al., 2018; <sup>1</sup>Bogacheva, Bulakh, Bukharova, and Egorova, 2020); **Sakhalin Oblast** (<sup>1</sup>Vassiljeva and Nazarova, 1972).

#### ***Amanita pantherinoides* (Murrill) Murrill**

≡ *Amanita pantherina* var. *pantherinoides* (Murrill) D.T. Jenkins<sup>1</sup>

SIBERIA: **Irkutsk Oblast** (<sup>1</sup>Petrov, 1986; <sup>1</sup>Petrov, 1991; <sup>1</sup>Muzyka, 2002; <sup>1</sup>Bardunov et al., 2005; <sup>1</sup>Petrov, 2008; <sup>1</sup>Trofimova, Popov, and Merkacheva, 2020).

#### ***Amanita phalloides* (Vaill. ex Fr.) Link<sup>1</sup>**

≡ *Agaricus phalloides* Vaill. ex Fr.<sup>2</sup> = *Amanita phalloides* var. *alba* Costantin & L.M. Dufour<sup>3</sup>

EASTERN EUROPE: **Adygea** (<sup>1</sup>Vassiljeva, 1939; <sup>1</sup>Vaasma, Kalamees, and Raitviir, 1986; <sup>1</sup>Sopina, 2001a); **Belgorod Oblast** (<sup>1</sup>Bedenko, 1979a; <sup>1</sup>Psurtseva, Belova, and Ryabusheva, 2003); **Bryansk Oblast** (<sup>1</sup>Kruglikov, 2007); **Chechen Republic** (<sup>1</sup>Taysumov, Krapivina, Umarov, and Astamirova, 2012); **Chelyabinsk Oblast** (<sup>1</sup>Stepanova and Sirko, 1977); **Crimea** (<sup>1</sup>Sarkina, 2001; <sup>1</sup>Dudka et al., 2004; <sup>1</sup>Sarkina, 2010b; <sup>1</sup>Sarkina, 2011; <sup>1</sup>Sarkina and Prydiuk, 2012; <sup>1</sup>Sarkina and Mironova, 2015); **Kabardino-Balkarian Republic** (<sup>1</sup>Shkhagapsoev and Krapivina, 2004); **Kaliningrad Oblast** (<sup>1</sup>Dedkov, Volodina, and Gubareva, 2007; <sup>1</sup>Volodina, 2007; <sup>1</sup>Atayev and Volodina, 2020); **Kaluga Oblast** (<sup>1</sup>Sionova, 2003; <sup>1</sup>Sionova, 2006); **Karachay-Cherkess Republic** (<sup>1</sup>Kalamees and Botashev, 2000); **Krasnodar Krai** (<sup>1</sup>Vassiljeva, 1939; <sup>1</sup>Kovalenko, 1980a; <sup>1</sup>Shumkova, Krivorotov, and Gayday, 2018); **Kursk Oblast** (<sup>1</sup>Ryabova and Ignatenko, 1981; <sup>1</sup>Soshnina, 2001; <sup>1</sup>Baranov, 2002); **Leningrad Oblast** (<sup>2</sup>Thesleff, 1920; <sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Popov et al., 2007); **Lipetsk Oblast** (<sup>1</sup>Rtishcheva, 1999; <sup>1</sup>Sarycheva, 1999; <sup>1</sup>Afanasyev, Rtishcheva, and Starodubtseva, 2007; <sup>1</sup>Sarycheva et al., 2009; <sup>1</sup>Sarycheva, 2011; <sup>1</sup>Sarycheva, 2014a; <sup>1</sup>Sarycheva, 2016; <sup>1</sup>Sarycheva, Starodubtseva, and Sapelnikova, 2017); **Mordovia** (<sup>1</sup>Ivoilov and Bolshakov, 2011a; <sup>1</sup>Bolshakov, 2015); **Moscow Oblast** (<sup>1</sup>Gorlenko, Sidorova, and Sidorova, 1989; <sup>1</sup>Levitskaya, 1995b; <sup>1</sup>Levitskaya, 2013; <sup>1</sup>Sidorova, Alexandrova, and Voronina, 2017); **North Ossetia** (<sup>1</sup>Nikolayev, 2001); **Orenburg Oblast** (<sup>1</sup>Vorontsovsky, 1921; <sup>1</sup>Desyatova, 2008); **Oryol Oblast** (<sup>1</sup>Radygina, Derzhavina, and Tsutsupa, 2014); **Penza Oblast** (<sup>1</sup>Ivanov, 1982; <sup>1</sup>Ivanov, 2019); **Pern Krai** (<sup>1</sup>Perevedentseva, 2008; <sup>1</sup>Shepel, 2008; <sup>1</sup>Baklanov, 2018); **Pskov Oblast** (<sup>1</sup>Popov et al., 2013; <sup>1</sup>Aleksandrov et al., 2014); **Rostov Oblast** (<sup>1</sup>Rusanov et al., 2004; <sup>1</sup>Morozova et al., 2008; <sup>1</sup>Zmitrovich et al., 2008; <sup>1</sup>Rusanov, Rebriev, and Bulgakov, 2018); **Ryazan Oblast** (<sup>1</sup>Volosnova, 2005; <sup>1</sup>Volosnova, 2014); **Saint Petersburg** (<sup>2</sup>Weinmann, 1828; <sup>2</sup>Weinmann, 1837; <sup>1</sup>Geltman, 2018a; <sup>1</sup>Morozova et al., 2020); **Samara Oblast** (<sup>1</sup>Malysheva and Malysheva, 2005b; <sup>1</sup>Malysheva and Malysheva, 2008); **Sevastopol** (<sup>3</sup>Sarkina, 2016b; <sup>1</sup>Sarkina, 2020c); **Sverdlovsk Oblast** (<sup>1</sup>Stepanova and Sirko, 1977); **Tatarstan** (<sup>1</sup>Vassiljeva, 1977); **Tula Oblast** (<sup>1</sup>Svetasheva, 2004; <sup>1</sup>Svetasheva, 2013); **Udmurt Republic** (<sup>1</sup>Tychinin and Kuzmina, 2003; <sup>1</sup>Baranova, 2012); **Ulyanovsk Oblast** (<sup>1</sup>Ilyukhin, 2009; <sup>1</sup>Ilyukhin, 2010a); **Voronezh Oblast** (<sup>1</sup>Chastukhin, 1952; <sup>1</sup>Chastukhin and Nikolaevskaya, 1953; <sup>1</sup>Chastukhin and Nikolaevskaya, 1969;

<sup>1</sup>Rtishcheva, 1999; <sup>1</sup>Afanasyev, Rtishcheva, and Starodubtseva, 2007; <sup>1</sup>Selochnik, 2015; <sup>1</sup>Sarycheva, Starodubtseva, and Sapelnikova, 2017; <sup>1</sup>Kochergina and Furmenkova, 2019); **Yaroslavl Oblast** (<sup>1</sup>Lazareva, 1998a; <sup>1</sup>Lazareva, 1998b); **Arid territories** (<sup>1</sup>Rebriev, Rusanov, et al., 2012); **Northern Caucasus** (<sup>2</sup>Kovalenko, 1980b).

SIBERIA: **Altai Krai** (<sup>1</sup>Gorbunova and Perova, 2006); **Khakassia** (<sup>1</sup>Zauzolkova, 2015); **Krasnoyarsk Krai** (<sup>1</sup>Beglyanova, 1972a; <sup>2</sup>Beglyanova, 1972b; <sup>1</sup>Stepanov, 2012); **Kurgan Oblast** (<sup>1</sup>Stepanova and Sirko, 1977; <sup>1</sup>Bystrushkin, 2016); **Novosibirsk Oblast** (<sup>1</sup>Zaytseva, 1971; <sup>1</sup>Koropachinskiy and Banaev, 2014); **Sverdlovsk Oblast** (<sup>1</sup>Stepanova and Sirko, 1977).

FAR EAST: **Amur Oblast** (<sup>1</sup>Taranina, 2005); **Jewish Autonomous Oblast** (<sup>1</sup>Bulakh, Govorova, Nazarova, and Vassiljeva, 2007; <sup>1</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Bogacheva et al., 2018); **Khabarovsk Krai** (<sup>1</sup>Azbukina et al., 1986; <sup>1</sup>Azbukina et al., 1989; <sup>1</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Erofeeva and Bulakh, 2015a; <sup>1</sup>Bogacheva et al., 2018); **Primorsky Krai** (<sup>1</sup>Vassiljeva, 1972; <sup>1</sup>Vassiljeva, 1973; <sup>1</sup>Bunkina and Nazarova, 1978; <sup>1</sup>Azbukina et al., 1990; <sup>1</sup>Bardunov et al., 2002; <sup>1</sup>Azbukina et al., 2006; <sup>1</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Bulakh et al., 2016; <sup>1</sup>Bogacheva et al., 2018; <sup>1</sup>Bogacheva, Bulakh, Bukharova, and Egorova, 2020).

### ***Amanita porphyria* Alb. & Schwein.<sup>1</sup>**

≡ *Agaricus porphyrius* (Alb. & Schwein.) Fr.<sup>2</sup> = *Amanita porphyria* var. *major* Sacc.<sup>3</sup> = *Amanita porphyria* var. *tenuior* Sacc.<sup>4</sup> = *Amanita recutita* (Fr.) Gillet<sup>5</sup>

EASTERN EUROPE: **Belgorod Oblast** (<sup>1</sup>Bedenko, 1980); **Bryansk Oblast** (<sup>1</sup>Kruglikov, 2007); **Crimea** (<sup>1</sup>Dudka et al., 2004); **Kabardino-Balkarian Republic** (<sup>1</sup>Shkhagapsoev and Krapivina, 2004); **Kaliningrad Oblast** (<sup>1</sup>Hennings, 1895; <sup>1</sup>Dedkov, Volodina, and Gubareva, 2007; <sup>1</sup>Volodina, 2007); **Kaluga Oblast** (<sup>1</sup>Sionova, 2003); **Karelia** (<sup>1</sup>Freindling, 1949; <sup>1</sup>Bondartseva et al., 2001; <sup>1</sup>Predtechenskaya and Ruokolainen, 2013; <sup>1</sup>Krutov et al., 2014; <sup>1</sup>Predtechenskaya and Ruokolainen, 2014; <sup>1</sup>Predtechenskaya, 2015; <sup>1</sup>Savelev and Kikeeva, 2018); **Kirov Oblast** (<sup>1</sup>Kirillov and Luginina, 2011; <sup>1</sup>Kirillov, 2011; <sup>1</sup>Kirillov, Perevedentseva, and Egoshina, 2011; <sup>1</sup>Stavishenko, Luginina, Kirillov, and Egoshina, 2019); **Komi Republic** (<sup>1</sup>Bobretsova, 2004; <sup>1</sup>Palamarchuk, 2012; <sup>1</sup>Palamarchuk and Kirillov, 2017; <sup>1</sup>Palamarchuk, 2017); **Kostroma Oblast** (<sup>1</sup>Burova, 1982); **Leningrad Oblast** (<sup>2</sup>Weinmann, 1836; <sup>2</sup>Weinmann, 1837; <sup>1,5</sup>Thesleff, 1920; <sup>1</sup>Nezdojminogo, 1967; <sup>1</sup>Kalamees and Kovalenko, 1984; <sup>1</sup>Stolyarskaya, 1989; <sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Fomina, 2000; <sup>1</sup>Fomina, 2001; <sup>1</sup>Morozova, 2007; <sup>1</sup>Popov et al., 2007; <sup>1</sup>Zmitrovich et al., 2015; <sup>1</sup>Kalinina, 2018; <sup>1</sup>Malysheva, Malysheva, Shchepin, and Novozhilov, 2018); **Lipetsk Oblast** (<sup>1</sup>Rtishcheva, 1999; <sup>1</sup>Afanasyev, Rtishcheva, and Starodubtseva, 2007; <sup>1</sup>Sarycheva et al., 2009; <sup>1</sup>Sarycheva, 2011; <sup>1</sup>Sarycheva, 2014a; <sup>1</sup>Sarycheva, 2016); **Mordovia** (<sup>1</sup>Kuznetsov, 1960; <sup>1</sup>Ivoilov and Bolshakov, 2011a); **Moscow Oblast** (<sup>1</sup>Gorlenko, Sidorova, and Sidorova, 1989; <sup>1</sup>Levitskaya, 1995b; <sup>1</sup>Levitskaya, 2013; <sup>1</sup>Voronina et al., 2014); **Murmansk Oblast** (<sup>1</sup>Berlina, 2005); **North Ossetia** (<sup>1</sup>Nikolayev, 2001); **Novgorod Oblast** (<sup>1</sup>Kovalenko, Morozova, Nezdojminogo, and Popov, 2005; <sup>1</sup>Popov et al., 2013; <sup>1</sup>Baklan, 2015); **Oryol Oblast** (<sup>1</sup>Radygina, Derzhavina, and Tsutsupa, 2014); **Penza Oblast** (<sup>1</sup>Ivanov, 1982; <sup>1</sup>Ivanov, 2019); **Perm Krai** (<sup>1</sup>Perevedentseva, 2008; <sup>1</sup>Belkovskaya et al., 2014; <sup>1</sup>Perevedentseva and Shishigin, 2015; <sup>1</sup>Botalov, 2017; <sup>1</sup>Botalov and Perevedentseva, 2018); **Pskov Oblast** (<sup>1</sup>Popov, 2001a; <sup>1</sup>Popov et al., 2013); **Ryazan Oblast** (<sup>1</sup>Volosnova, 1997; <sup>1</sup>Volosnova, 2014); **Saint Petersburg** (<sup>2</sup>Weinmann, 1828; <sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Fomina, 2000; <sup>1</sup>Kotkova, Morozova, and Popov, 2005; <sup>1</sup>Morozova and Smirnov, 2011; <sup>1</sup>Morozova et al., 2020); **Smolensk Oblast** (<sup>3,4</sup>Jaczewski, 1893; <sup>3,4</sup>Jaczewski, 1895); **Sverdlovsk Oblast** (<sup>1</sup>Stepanova and Sirko, 1977; <sup>1</sup>Marina, 2006); **Tatarstan** (<sup>1</sup>Vassiljeva, 1977; <sup>1</sup>Potapov, Galeyev, and Zhukov, 2013; <sup>1</sup>Potapov, 2015b); **Tula Oblast** (<sup>1</sup>Svetasheva, 2004; <sup>1</sup>Svetasheva, 2005b); **Tver Oblast** (<sup>1</sup>Kurochkin, 1993; <sup>1</sup>Mukhina and Garibova, 2010; <sup>1</sup>Mukhina, 2011a; <sup>1</sup>Mukhina, 2011b; <sup>1</sup>Kotkova, 2014); **Udmurt Republic** (<sup>1</sup>Tychinin, 1990; <sup>1</sup>Tychinin and Kuzmina, 2003); **Ulyanovsk Oblast** (<sup>1</sup>Ilyukhin, 2010a); **Vologda Oblast** (<sup>1</sup>Kutova, 1957; <sup>1</sup>Kirillova, 2006; <sup>1</sup>Kirillova, 2007); **Voronezh Oblast** (<sup>1</sup>Rtishcheva, 1999; <sup>1</sup>Afanasyev, Rtishcheva, and Starodubtseva, 2007; <sup>1</sup>Agafonov, 2011; <sup>1</sup>Sarycheva, Starodubtseva, and Sapelnikova, 2017; <sup>1</sup>Agafonov, 2018); **Yaroslavl Oblast** (<sup>1</sup>Lazareva, 1998a; <sup>1</sup>Lazareva, 1998b); **Arid territories** (<sup>1</sup>Rebriev, Rusanov, et al., 2012).

SIBERIA: **Irkutsk Oblast** (<sup>1</sup>Kutafjeva and Astapenko, 1988; <sup>1</sup>Astapenko, 1990a; <sup>1</sup>Astapenko, 1990b; <sup>1</sup>Heklau and Dörfelt, 2017); **Khanty-Mansi Autonomous Okrug** (<sup>1</sup>Zvyagina, Baykalova, and Gorbunova, 2007; <sup>1</sup>Filippova, 2009; <sup>1</sup>Filippova and Thormann, 2014; <sup>1</sup>Filippova, 2014; <sup>1</sup>Filippova, Mourgues, and Philippe, 2014; <sup>1</sup>Filippova, Bulyonkova, and Lapshina, 2015; <sup>1</sup>Filippova and Bulyonkova, 2017a; <sup>1</sup>Filippova and Bulyonkova, 2017b); **Krasnoyarsk Krai** (<sup>1</sup>Malysheva, Malysheva, Kiyashko, et al., 2017; <sup>1</sup>Krom and Kapitonov, 2019); **Kurgan Oblast** (<sup>1</sup>Stepanova and Sirko, 1977); **Tomsk Oblast** (<sup>1</sup>Perova, 1972; <sup>1</sup>Milovidova, 1980; <sup>1</sup>Perova and Gorbunova, 2001; <sup>1</sup>Agaphonova, Kutafjeva, and Gashkov, 2007; <sup>1</sup>Kudashova, Gashkov, and Kutafjeva, 2013; <sup>1</sup>Vaishlya et al., 2017); **Yamalo-Nenets Autonomous Okrug** (<sup>1</sup>Tarchevskaya, 1990).

FAR EAST: **Amur Oblast** (<sup>1</sup>Taranina, 2005); **Jewish Autonomous Oblast** (<sup>1</sup>Bulakh, Govorova, Nazarova, and Vassiljeva, 2007; <sup>1</sup>Bau, Bulakh, and Govorova, 2011); **Khabarovsk Krai** (<sup>1</sup>Azbukina et al., 1986; <sup>1</sup>Bau, Bulakh, and

Govorova, 2011; <sup>1</sup>Bulakh, 2013; <sup>1</sup>Bogacheva, Bulakh, Bukharova, and Egorova, 2015; <sup>1</sup>Erofeeva and Bulakh, 2015a); **Primorsky Krai** (<sup>1</sup>Vassiljeva, 1973; <sup>1</sup>Bunkina and Nazarova, 1978; <sup>1</sup>Azbukina et al., 1984; <sup>1</sup>Azbukina et al., 2006; <sup>1</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Bulakh et al., 2016).

***Amanita praelongispora* (Murrill) Murrill**

= *Amanita praegemmata* (Murrill) Murrill<sup>1</sup>

SIBERIA: **Irkutsk Oblast** (<sup>1</sup>Petrov, 1986).

***Amanita proxima* Dumée**

EASTERN EUROPE: **Sevastopol** (Sarkina, 2020c).

***Amanita pulchella* S. Imai**

FAR EAST: **Primorsky Krai** (Bulakh et al., 2016).

***Amanita regalis* (Fr.) Michael<sup>1</sup>**

≡ *Amanita muscaria* var. *regalis* (Fr.) Sacc.<sup>2</sup> = *Amanita muscaria* var. *umbrina* (Pers.) Sacc.<sup>3</sup> = *Amanita umbrina* Pers.<sup>4</sup>

EASTERN EUROPE: **Belgorod Oblast** (<sup>1</sup>Bedenko, 1980); **Komi Republic** (<sup>1</sup>Palamarchuk, 2020b); **Moscow** (<sup>4</sup>Bucholtz, 1897b; <sup>4</sup>Bucholtz, 1897c; <sup>4</sup>Mosolov, 1906); **Moscow Oblast** (<sup>4</sup>Heyden, 1899); **Novgorod Oblast** (<sup>1</sup>Arslanov, 2012; <sup>1</sup>Arslanov, 2014); **Perm Krai** (<sup>2</sup>Perevedentseva, 2008; <sup>1</sup>Belkovskaya et al., 2014; <sup>1</sup>Perevedentseva and Shishigin, 2015; <sup>1</sup>Botalov, 2017); **Sverdlovsk Oblast** (<sup>2</sup>Marina, 2006); **Udmurt Republic** (<sup>1</sup>Tychinin and Kuzmina, 2003); **Vologda Oblast** (<sup>2</sup>Kirillova, 2006; <sup>1</sup>Kirillova, 2007); **Yamalo-Nenets Autonomous Okrug** (<sup>1</sup>Karatygin, Nezdojminogo, Novozhilov, and Zhurbenko, 1999; <sup>1</sup>Nezdojminogo, 2001).

SIBERIA: **Altai Krai** (<sup>1</sup>Gorbunova and Chubarova, 2008; <sup>1</sup>Gorbunova, Vlasenko, and Tzhubarova, 2011); **Altai Republic** (<sup>1</sup>Gorbunova, 2008; <sup>1</sup>Gorbunova, 2017b); **Buryatia** (<sup>1</sup>Nezdojminogo, 1970a; <sup>1</sup>Petrov, 1991); **Irkutsk Oblast** (<sup>1</sup>Kutafjeva, 1983; <sup>1</sup>Petrov, 1986; <sup>1</sup>Petrov, 1989; <sup>1</sup>Petrov, 1991; <sup>1</sup>Muzyka, 2009); **Khanty-Mansi Autonomous Okrug** (<sup>1</sup>Filippova, Bulyonkova, and Lapshina, 2015; <sup>1</sup>Filippova and Bulyonkova, 2017a; <sup>1</sup>Filippova and Bulyonkova, 2017b); **Krasnoyarsk Krai** (<sup>1</sup>Beglyanova, 1972a; <sup>1</sup>Nezdojminogo, 1976a; <sup>2</sup>Kosheleva and Kutafjeva, 2008b; <sup>1</sup>Kryuchkova, 2009; <sup>1</sup>Kosheleva, 2010; <sup>1</sup>Malysheva, Malysheva, Kiyashko, et al., 2017; <sup>1</sup>Krom and Kapitonov, 2019); **Novosibirsk Oblast** (<sup>3</sup>Nozdrenko, 1970; <sup>1</sup>Perova and Gorbunova, 2001; <sup>1</sup>Perova and Gorbunova, 2007); **Tomsk Oblast** (<sup>1</sup>Perova and Gorbunova, 2001; <sup>1</sup>Kosheleva and Kutafjeva, 2004; <sup>1</sup>Agaphonova, Kutafjeva, and Gashkov, 2007; <sup>1</sup>Kudashova, Gashkov, and Kutafjeva, 2013; <sup>1</sup>Vaishlya et al., 2017).

FAR EAST: **Chukotka Autonomous Okrug** (<sup>1</sup>Karatygin, Nezdojminogo, Novozhilov, and Zhurbenko, 1999); **Magadan Oblast** (<sup>1</sup>Sazanova, 2009a; <sup>1</sup>Sazanova, 2009b; <sup>1</sup>Sazanova, 2011; <sup>1</sup>Sazanova, 2012; <sup>1</sup>Sazanova, 2016); **Primorsky Krai** (<sup>1</sup>Malysheva et al., 2014; <sup>1</sup>Malysheva et al., 2016).

***Amanita rubescens* Pers.<sup>1</sup>**

≡ *Agaricus rubescens* (Pers.) Fr.<sup>2</sup> ≡ *Amanita rubescens* var. *rubescens* Pers.<sup>3</sup> = *Amanita annulosulphurea* (Gillet) Seyot<sup>4</sup> = *Amanita rubescens* f. *annulosulphurea* (Gillet) J.E. Lange<sup>5</sup> = *Amanita rubescens* var. *annulosulfurea* Gillet<sup>6</sup>

EASTERN EUROPE: **Adygea** (<sup>1</sup>Vassiljeva, 1939; <sup>1</sup>Vaasma, Kalamees, and Raitviir, 1986; <sup>1</sup>Sopina, 2001a); **Belgorod Oblast** (<sup>1</sup>Bedenko, 1979a; <sup>1</sup>Psurtseva, Belova, and Ryabusheva, 2003); **Bryansk Oblast** (<sup>1</sup>Kruglikov, 2007); **Chuvash Republic** (<sup>1</sup>Marfin, 2001); **Crimea** (<sup>1</sup>Sarkina, 2001; <sup>1</sup>Dudka et al., 2004; <sup>1</sup>Sarkina, 2011; <sup>1</sup>Sarkina and Mironova, 2015; <sup>1</sup>Sarkina and Stavishenko, 2019); **Kabardino-Balkarian Republic** (<sup>1</sup>Shkhagapsoev and Krapivina, 2003; <sup>1</sup>Shkhagapsoev and Krapivina, 2004); **Kaliningrad Oblast** (<sup>1</sup>Dedkov, Volodina, and Gubareva, 2007; <sup>1</sup>Volodina, 2007; <sup>1</sup>Atayev and Volodina, 2020); **Kaluga Oblast** (<sup>1</sup>Sionova, 2003); **Karachay-Cherkess Republic** (<sup>1</sup>Vassiljeva, 1939; <sup>1</sup>Kalamees and Botashev, 2000); **Karelia** (<sup>1</sup>Bondartseva et al., 2001; <sup>3</sup>Predtechenskaya and Ruokolainen, 2013; <sup>3</sup>Krutov et al., 2014; <sup>3</sup>Predtechenskaya and Ruokolainen, 2014; <sup>6</sup>Krutov et al., 2014; <sup>1</sup>Savelev and Kikeeva, 2020); **Kirov Oblast** (<sup>3</sup>Kirillov, 2011; <sup>3</sup>Kirillov, Perevedentseva, and Egoshina, 2011); **Komi Republic** (<sup>3</sup>Bobretsova, 2004; <sup>3</sup>Palamarchuk, 2012); **Krasnodar Krai** (<sup>1</sup>Vassiljeva, 1939; <sup>1</sup>Kovalenko, 1980a; <sup>1</sup>Vaasma, Kalamees, and Raitviir, 1986; <sup>1</sup>Shumkova, Krivorotov, and Gayday, 2018); **Kursk Oblast** (<sup>1</sup>Baranov, 2002); **Leningrad Oblast** (<sup>1</sup>Thesleff, 1920; <sup>1</sup>Kalamees and Kovalenko, 1984; <sup>1</sup>Stolyarskaya, 1989; <sup>6</sup>Stolyarskaya, 1993; <sup>3,6</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Morozova and Kovalenko, 2000; <sup>3</sup>Fomina, 2000; <sup>3</sup>Fomina, 2001; <sup>1</sup>Psurtseva, Kiyashko, Gachkova, and Belova, 2007; <sup>3,6</sup>Popov et al., 2007; <sup>1</sup>Zmitrovich et al., 2015; <sup>1</sup>Kalinina, 2018); **Lipetsk Oblast** (<sup>1</sup>Alferova, 1977; <sup>1</sup>Rtishcheva, 1999; <sup>1</sup>Sarycheva, 1999; <sup>1</sup>Afanasyev, Rtishcheva, and Starodubtseva, 2007; <sup>1</sup>Sarycheva et al., 2009; <sup>1</sup>Sarycheva, 2011; <sup>1</sup>Sarycheva, 2014a; <sup>1</sup>Sarycheva, 2016; <sup>1</sup>Sarycheva, Starodubtseva, and Sapelnikova, 2017); **Mari El Republic**

(<sup>1</sup>Prokhorov, 2007); **Mordovia** (<sup>1</sup>Ivoilov and Bolshakov, 2011a; <sup>1</sup>Bolshakov, 2015); **Moscow** (<sup>1</sup>Burova, 1968); **Moscow Oblast** (<sup>1</sup>Gorlenko, Sidorova, and Sidorova, 1989; <sup>1</sup>Levitskaya, 1995b; <sup>3</sup>Voronina et al., 2012; <sup>1</sup>Levitskaya, 2013; <sup>1</sup>Voronina et al., 2014; <sup>1</sup>Sidorova, Alexandrova, and Voronina, 2017); **Murmansk Oblast** (<sup>1</sup>Pystina, Pavlova, and Shestakova, 1969); **North Ossetia** (<sup>1</sup>Nikolayev, 2001); **Novgorod Oblast** (<sup>1</sup>Morozova, 2012; <sup>3</sup>Popov et al., 2013); **Orenburg Oblast** (<sup>1</sup>Desyatova, 2008); **Oryol Oblast** (<sup>1</sup>Radygina, Derzhavina, and Tsutsupa, 2014); **Penza Oblast** (<sup>1</sup>Ivanov, 1982; <sup>1</sup>Ivanov, 2019); **Perm Krai** (<sup>6</sup>Perevedentseva, Nezdoininogo, and Kovalenko, 1990; <sup>1</sup>Psurtseva, Kiyashko, Gachkova, and Belova, 2007; <sup>3,6</sup>Perevedentseva, 2008; <sup>1</sup>Belkovskaya et al., 2014; <sup>1,4</sup>Perevedentseva and Shishigin, 2015; <sup>3,5</sup>Botalov, 2017); **Pskov Oblast** (<sup>1</sup>Popov, 2001a; <sup>3</sup>Popov et al., 2013); **Rostov Oblast** (<sup>1</sup>Rusanov et al., 2004; <sup>1</sup>Morozova et al., 2008; <sup>1</sup>Zmitrovich et al., 2008); **Ryazan Oblast** (<sup>1</sup>Volosnova, 1997; <sup>1</sup>Volosnova, 2014); **Saint Petersburg** (<sup>2</sup>Weinmann, 1828; <sup>2</sup>Weinmann, 1836; <sup>2</sup>Weinmann, 1837; <sup>3,6</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Morozova and Smirnov, 2011; <sup>1</sup>Morozova et al., 2020); **Samara Oblast** (<sup>1</sup>Malysheva and Malysheva, 2005b; <sup>3</sup>Malysheva and Malysheva, 2008); **Saratov Oblast** (<sup>1</sup>Nagumanov, 2015); **Sevastopol** (<sup>1</sup>Sarkina, 2016b; <sup>1</sup>Sarkina, 2020c); **Smolensk Oblast** (<sup>1</sup>Jaczevski, 1893; <sup>1</sup>Jaczevski, 1895); **Sverdlovsk Oblast** (<sup>1</sup>Stepanova and Sirko, 1977; <sup>3,6</sup>Marina, 2006); **Tatarstan** (<sup>1</sup>Vassiljeva, 1977); **Tula Oblast** (<sup>3,6</sup>Svetasheva, 2004; <sup>3</sup>Svetasheva, 2013); **Tver Oblast** (<sup>1</sup>Kurochkin, 1993; <sup>1</sup>Mukhina and Garibova, 2010; <sup>1</sup>Mukhina, 2011a; <sup>1</sup>Mukhina, 2011b; <sup>1</sup>Kotkova, 2014); **Udmurt Republic** (<sup>1</sup>Tychinin, 1990; <sup>1</sup>Tychinin and Kuzmina, 2003); **Ulyanovsk Oblast** (<sup>3</sup>Ilyukhin, 2010a; <sup>3</sup>Ilyukhin, 2010b); **Vologda Oblast** (<sup>1</sup>Kirillova, 2006; <sup>1</sup>Kirillova, 2007); **Voronezh Oblast** (<sup>1</sup>Rtishcheva, 1999; <sup>1</sup>Afanasyev, Rtishcheva, and Starodubtseva, 2007; <sup>1</sup>Sarycheva, Starodubtseva, and Sapelnikova, 2017); **Yaroslavl Oblast** (<sup>3</sup>Lazareva, 1997; <sup>3,6</sup>Lazareva, 1998a; <sup>6</sup>Lazareva, 1998b); **Arid territories** (<sup>1</sup>Rebriev, Rusanov, et al., 2012); **Northern Caucasus** (<sup>2</sup>Kovalenko, 1980b).

**SIBERIA:** **Altai Krai** (<sup>1</sup>Gorbunova and Perova, 2006; <sup>3</sup>Gorbunova and Chubarova, 2008; <sup>3</sup>Gorbunova, Vlasenko, and Tzhubarova, 2011); **Altai Republic** (<sup>1</sup>Gorbunova, 2001b; <sup>1</sup>Perova and Gorbunova, 2001); **Buryatia** (<sup>1</sup>Nezdoininogo, 1973; <sup>1</sup>Petrov, 1991; <sup>1</sup>Heklau and Dörfelt, 2017); **Krasnoyarsk Krai** (<sup>1</sup>Lapitskaya, 1993; <sup>3</sup>Zauzolkova, 2012; <sup>1</sup>Zauzolkova, 2015); **Novosibirsk Oblast** (<sup>1</sup>Zaytseva, 1971; <sup>1</sup>Perova and Gorbunova, 2001; <sup>3</sup>Gorbunova, 2007; <sup>3</sup>Perova and Gorbunova, 2007; <sup>3</sup>Koropachinskiy and Banaev, 2014); **Tomsk Oblast** (<sup>1</sup>Milovidova, 1980; <sup>1</sup>Perova and Gorbunova, 2001; <sup>1</sup>Kosheleva and Kutafjeva, 2004; <sup>1</sup>Agaphonova, Kutafjeva, and Gashkov, 2007; <sup>1</sup>Kudashova, Gashkov, and Kutafjeva, 2013; <sup>1</sup>Vaishlya et al., 2017).

**FAR EAST:** **Amur Oblast** (<sup>1</sup>Kochunova and Erofeeva, 2017; <sup>1</sup>Kochunova, 2019); **Kamchatka Krai** (<sup>1</sup>Kalamees and Vaasma, 1981); **Khabarovsk Krai** (<sup>1</sup>Azbukina et al., 1986; <sup>1</sup>Azbukina et al., 1989; <sup>1</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Bulakh, 2013; <sup>1</sup>Bogacheva, Bulakh, Bukharova, and Egorova, 2015; <sup>1</sup>Erofeeva and Bulakh, 2015a); **Magadan Oblast** (<sup>1</sup>Sazanova, 2005; <sup>1</sup>Chereshnev, 2008b; <sup>6</sup>Sazanova, 2009a; <sup>1</sup>Khoreva and Dokuchaev, 2019); **Primorsky Krai** (<sup>1</sup>Vassiljeva, 1972; <sup>1</sup>Vassiljeva, 1973; <sup>1</sup>Bulakh, 1977; <sup>1</sup>Bunkina and Nazarova, 1978; <sup>1</sup>Azbukina et al., 1984; <sup>1</sup>Azbukina et al., 1990; <sup>1</sup>Bardunov et al., 2002; <sup>1</sup>Azbukina et al., 2006; <sup>1</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Bulakh et al., 2016).

#### ***Amanita sichotensis* E.F. Malysheva & Kovalenko**

**FAR EAST:** **Primorsky Krai** (Malysheva and Kovalenko, 2015; Bulakh et al., 2016).

#### ***Amanita solitaria* (Bull.) Fr.**

The name *Aspidella* E.-J. Gilbert is shown to be illegitimate and replaced by *Saproamanita* (Redhead, Vizzini, Drehmel, and Contu, 2016). It was shown that *Amanita solitaria* belongs to *Amanita* sensu stricto, not to *Saproamanita* (Wolfe, Tulloss, and Pringle, 2012; Redhead, Vizzini, Drehmel, and Contu, 2016).

**EASTERN EUROPE:** **Belgorod Oblast** (Bedenko, 1980); **Sevastopol** (Sarkina, 2020c).

#### ***Amanita sprete* (Peck) Sacc.**

**EASTERN EUROPE:** **Tatarstan** (Vassiljeva, 1977).

**FAR EAST:** **Jewish Autonomous Oblast** (Bulakh, Govorova, Nazarova, and Vassiljeva, 2007; Bau, Bulakh, and Govorova, 2011; Bogacheva et al., 2018; Erofeeva, Bukharova, and Bulakh, 2019); **Khabarovsk Krai** (Azbukina et al., 1986; Bau, Bulakh, and Govorova, 2011; Bogacheva et al., 2018); **Primorsky Krai** (Vassiljeva, 1973; Bunkina and Nazarova, 1978; Azbukina et al., 1990; Bardunov et al., 2002; Azbukina et al., 2006; Bau, Bulakh, and Govorova, 2011; Bulakh et al., 2016; Bogacheva et al., 2018).

#### ***Amanita strobiliformis* (Paulet ex Vittad.) Bertill.<sup>1</sup>**

≡ *Amanita solitaria* var. *strobiliformis* (Paulet ex Vittad.) Costantin & L.M. Dufour<sup>2</sup>

**EASTERN EUROPE:** **Belgorod Oblast** (<sup>1</sup>Prisny, 2019); **Krasnodar Krai** (<sup>1</sup>Shumkova, Krivorotov, and Gayday, 2018); **Penza Oblast** (<sup>1</sup>Ivanov, 1999; <sup>1</sup>Ivanov, 2013a); **Perm Krai** (<sup>2</sup>Naoumoff, 1915); **Sevastopol** (<sup>1</sup>Sarkina, 2016b; <sup>1</sup>Dovgal and Korzhenevsky, 2018; <sup>1</sup>Sarkina, 2020c).

FAR EAST: **Primorsky Krai** (<sup>1</sup>Azbukina et al., 1990; <sup>1</sup>Bardunov et al., 2002; <sup>1</sup>Azbukina et al., 2006; <sup>1</sup>Kozhevnikov, 2008; <sup>1</sup>Bau, Bulakh, and Govorova, 2011).

***Amanita subjunquillea* S. Imai**

FAR EAST: **Amur Oblast** (Azbukina et al., 1998); **Primorsky Krai** (Vassiljeva, 1973; Kovalenko and Nezdoyminogo, 1989; Bulakh et al., 2016).

***Amanita submembranacea* (Bon) Gröger**

EASTERN EUROPE: **Karelia** (Krutov et al., 2014); **Kirov Oblast** (Kirillov, 2011; Kirillov, Perevedentseva, and Egoshina, 2011); **Komi Republic** (Palamarchuk, 2012); **Leningrad Oblast** (Stolyarskaya, 1993; Kovalenko and Morozova, 1999a; Morozova, 2007; Popov et al., 2007; Zmitrovich et al., 2015); **Moscow Oblast** (Levitskaya, 1995a; Levitskaya, 2013; Voronina et al., 2014); **Vologda Oblast** (Kirillova, 2006; Kirillova, 2007).

SIBERIA: **Altai Republic** (Gorbunova, 2010; Gorbunova, 2019); **Irkutsk Oblast** (Gorbunova and Stepansova, 2015); **Tomsk Oblast** (Kudashova, Gashkov, and Kutafjeva, 2013; Kudashova, Gashkov, and Vaishlya, 2016b; Vaishlya et al., 2017).

***Amanita vaginata* (Bull.) Lam.<sup>1</sup>**

≡ *Agaricus vaginatus* Bull.<sup>2</sup> ≡ *Amanita vaginata* f. *vaginata* (Bull.) Lam.<sup>3</sup> ≡ *Amanita vaginata* var. *vaginata* (Bull.) Lam.<sup>4</sup> ≡ *Amanitopsis vaginata* (Bull.) Roze<sup>5</sup> ≡ *Amanitopsis vaginata* var. *vaginata* (Bull.) Roze<sup>6</sup> = *Amanita vaginata* f. *alba* (Sacc.) Romagn.<sup>7</sup> = *Amanita vaginata* f. *radicans* Kutafjeva<sup>8</sup> = *Amanita vaginata* var. *alba* (De Seynes) Gillet<sup>9</sup> = *Amanita vaginata* var. *alba* Velen.<sup>10</sup> = *Amanita vaginata* var. *plumbea* (Schaeff.) Quél. & Bataille<sup>11</sup> = *Amanitopsis plumbea* (Schaeff.) J. Schröt.<sup>12</sup> = *Amanitopsis vaginata* var. *alba* Sacc.<sup>13</sup>

EASTERN EUROPE: **Adygea** (<sup>1</sup>Kovalenko, 1979a; <sup>1</sup>Kovalenko, 1980b; <sup>1,4</sup>Vaasma, Kalamees, and Raitviir, 1986; <sup>4</sup>Sopina, 2001a); **Arkhangelsk Oblast** (<sup>12</sup>Lebedeva, 1933); **Astrakhan Oblast** (<sup>5</sup>Pilipenko et al., 2014); **Belgorod Oblast** (<sup>1</sup>Bedenko, 1980; <sup>1</sup>Soshnina, 1995; <sup>1</sup>Psurtseva, Belova, and Ryabusheva, 2003); **Bryansk Oblast** (<sup>5</sup>Kruglikov, 2007); **Chelyabinsk Oblast** (<sup>5</sup>Aleksandrovskaya and Lobanova, 1968; <sup>1</sup>Sirko and Stepanova, 1977); **Crimea** (<sup>2</sup>Léveillé, 1842; <sup>5</sup>Zerova, 1962; <sup>1</sup>Sarkina, 2001; <sup>5</sup>Dudka et al., 2004; <sup>4</sup>Sarkina, 2010b; <sup>4</sup>Sarkina, 2011; <sup>4</sup>Sarkina and Prydiuk, 2012; <sup>1</sup>Sarkina, 2013; <sup>1,9</sup>Sarkina and Mironova, 2015; <sup>1,10</sup>Sarkina and Stavishenko, 2019); **Kabardino-Balkarian Republic** (<sup>6,13</sup>Shkhagapsoev and Krapivina, 2004); **Kaliningrad Oblast** (<sup>5</sup>Neuhoff, 1922; <sup>1</sup>Dedkov, Volodina, and Gubareva, 2007; <sup>1</sup>Volodina, 2007); **Kaluga Oblast** (<sup>1</sup>Sionova, 2003); **Karachay-Cherkess Republic** (<sup>5</sup>Vassiljeva, 1939; <sup>4,9</sup>Kalamees and Botashev, 2000); **Karelia** (<sup>1</sup>Freindling, 1949; <sup>1,4,9</sup>Bondartseva et al., 2001; <sup>1</sup>Predtechenskaya, 2013; <sup>1,9</sup>Krutov et al., 2014; <sup>1</sup>Predtechenskaya and Ruokolainen, 2014; <sup>1</sup>Savelev and Kikeeva, 2018); **Kirov Oblast** (<sup>3</sup>Kirillov, 2011; <sup>3</sup>Kirillov, Perevedentseva, and Egoshina, 2011; <sup>1</sup>Stavishenko, Luginina, Kirillov, and Egoshina, 2019); **Komi Republic** (<sup>1</sup>Karatygin, Nezdoyminogo, Novozhilov, and Zhurbenko, 1999; <sup>1</sup>Palamarchuk, 2012; <sup>1,9</sup>Palamarchuk, 2016a; <sup>1,9</sup>Palamarchuk, 2016b; <sup>9</sup>Palamarchuk and Kirillov, 2017); **Kostroma Oblast** (<sup>1</sup>Burova, 1982); **Krasnodar Krai** (<sup>5</sup>Vassiljeva, 1939; <sup>1</sup>Kovalenko, 1980a; <sup>1</sup>Kovalenko, 1980b; <sup>1</sup>Vaasma, Kalamees, and Raitviir, 1986); **Kursk Oblast** (<sup>5</sup>Ryabova and Ignatenko, 1981; <sup>1</sup>Baranov, 2002; <sup>1</sup>Soshnina, 2005); **Leningrad Oblast** (<sup>5</sup>Thesleff, 1920; <sup>1</sup>Chastukhin and Nikolaevskaya, 1969; <sup>4</sup>Kalamees and Kovalenko, 1984; <sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Popov et al., 2007; <sup>1</sup>Zmitrovich et al., 2015); **Lipetsk Oblast** (<sup>1</sup>Alferova, 1977; <sup>1</sup>Rtishcheva, 1999; <sup>5</sup>Sarycheva, 1999; <sup>5</sup>Afanasyev, Rtishcheva, and Starodubtseva, 2007; <sup>1,9</sup>Sarycheva, 2011; <sup>13</sup>Sarycheva, 2014a; <sup>5</sup>Sarycheva, 2014a; <sup>4,9</sup>Sarycheva, 2016; <sup>1</sup>Sarycheva, Starodubtseva, and Sapelnikova, 2017); **Mari El Republic** (<sup>1</sup>Prokhorov, 2007); **Mordovia** (<sup>5</sup>Chastukhin, 1948a; <sup>5</sup>Kuznetsov, 1960; <sup>1</sup>Chastukhin and Nikolaevskaya, 1969; <sup>1</sup>Ivoilov and Bolshakov, 2011a; <sup>5</sup>Chastukhin, 2011); **Moscow** (<sup>2</sup>Weinmann, 1836; <sup>12</sup>Bucholtz, 1897a; <sup>12</sup>Bucholtz, 1897b; <sup>12</sup>Bucholtz, 1897c; <sup>12</sup>Mosolov, 1906; <sup>5</sup>Burova, 1968); **Moscow Oblast** (<sup>1</sup>Gorlenko, Sidorova, and Sidorova, 1989; <sup>1</sup>Levitskaya, 1995b; <sup>4</sup>Voronina et al., 2012; <sup>4,9</sup>Levitskaya, 2013; <sup>1,9</sup>Voronina et al., 2014; <sup>1</sup>Sidorova, Alexandrova, and Voronina, 2017); **Murmansk Oblast** (<sup>1</sup>Pystina, Pavlova, and Shestakova, 1969; <sup>1</sup>Mikhailovskii, 1975b; <sup>1</sup>Karatygin, Nezdoyminogo, Novozhilov, and Zhurbenko, 1999; <sup>1</sup>Berlina, 2005); **North Ossetia** (<sup>1</sup>Nikolayev, 2001); **Novgorod Oblast** (<sup>1</sup>Kovalenko, Morozova, Nezdoyminogo, and Popov, 2005; <sup>1</sup>Malysheva, Malysheva, and Zmitrovich, 2007; <sup>4</sup>Popov et al., 2013); **Orenburg Oblast** (<sup>4</sup>Korshikova, 2006; <sup>1</sup>Desyatova, 2007; <sup>4,9</sup>Desyatova, 2008); **Penza Oblast** (<sup>1</sup>Ivanov, 1982; <sup>1</sup>Ivanov, 2019); **Perm Krai** (<sup>1</sup>Shkaraba, Perevedentseva, and Moshkina, 1990; <sup>4,9</sup>Perevedentseva, 2008; <sup>1</sup>Belkovskaya et al., 2014; <sup>1</sup>Perevedentseva and Shishigin, 2014; <sup>1</sup>Perevedentseva and Shishigin, 2015; <sup>1</sup>Botalov, 2017); **Pskov Oblast** (<sup>1</sup>Popov, 2001a; <sup>4</sup>Popov et al., 2013); **Rostov Oblast** (<sup>1</sup>Rusanov et al., 2004; <sup>1</sup>Zmitrovich et al., 2008); **Ryazan Oblast** (<sup>1</sup>Volosnova, 1997; <sup>1</sup>Volosnova, 2014); **Saint Petersburg** (<sup>2</sup>Weinmann, 1828; <sup>2</sup>Weinmann, 1836; <sup>2</sup>Weinmann, 1837; <sup>3,9</sup>Morozova and Smirnov, 2011; <sup>1</sup>Morozova, Kovalenko, Rebriev, and Malysheva, 2014; <sup>3</sup>Morozova et al., 2020); **Samara Oblast** (<sup>1</sup>Malysheva and Malysheva, 2005b; <sup>1</sup>Malysheva and Malysheva, 2008); **Saratov Oblast** (<sup>12</sup>Lebedeva, 1927; <sup>12</sup>Kazakevich and



Prisyazhnyuk, 1932); **Sevastopol** (<sup>1</sup>Sarkina, 2016b; <sup>1</sup>Sarkina, 2020c); **Smolensk Oblast** (<sup>1</sup>Jaczewski, 1893; <sup>1</sup>Jaczewski, 1895); **Sverdlovsk Oblast** (<sup>1</sup>Tomilin, 1965; <sup>4,9</sup>Marina, 2006); **Tatarstan** (<sup>5</sup>Vassiljeva, 1977); **Tula Oblast** (<sup>1</sup>Svetasheva, 2001; <sup>4,9</sup>Svetasheva, 2004; <sup>4,9</sup>Svetasheva, 2013); **Tver Oblast** (<sup>5</sup>Chastukhin, 1948b; <sup>1</sup>Chastukhin and Nikolaevskaya, 1969; <sup>1</sup>Kurochkin, 1993; <sup>1</sup>Mukhina, 2011a; <sup>1</sup>Mukhina, 2011b; <sup>1</sup>Kotkova, 2014); **Udmurt Republic** (<sup>5</sup>Tychinin, 1990; <sup>5</sup>Tychinin and Kuzmina, 2003); **Ulyanovsk Oblast** (<sup>1</sup>Ilyukhin, 2009; <sup>1</sup>Ilyukhin, 2010a; <sup>7</sup>Ilyukhin, 2010a); **Vologda Oblast** (<sup>1</sup>Kutova, 1957; <sup>1</sup>Kirillova, 2006; <sup>1</sup>Kirillova, 2007); **Voronezh Oblast** (<sup>5,12</sup>Chastukhin, 1952; <sup>5</sup>Chastukhin and Nikolaevskaya, 1953; <sup>1</sup>Chastukhin and Nikolaevskaya, 1969; <sup>1</sup>Rtishcheva, 1999; <sup>5</sup>Afanasyev, Rtishcheva, and Starodubtseva, 2007; <sup>5</sup>Selochnik, 2015; <sup>1</sup>Sarycheva, Starodubtseva, and Sapelnikova, 2017); **Yamalo-Nenets Autonomous Okrug** (<sup>1</sup>Karatygin, Nezdojminogo, Novozhilov, and Zhurbenko, 1999; <sup>1</sup>Nezdojminogo, 2001); **Yaroslavl Oblast** (<sup>4</sup>Lazareva, 1997; <sup>4,9</sup>Lazareva, 1998a; <sup>9</sup>Lazareva, 1998b); **Arid territories** (<sup>1</sup>Rebriev, Rusanov, et al., 2012); **Lapland** (<sup>2</sup>Karsten, 1866).

SIBERIA: **Altai Krai** (<sup>1</sup>Gorbunova and Perova, 2006; <sup>4</sup>Gorbunova and Chubarova, 2008; <sup>1</sup>Gorbunova, Vlasenko, and Tzhubarova, 2011); **Altai Republic** (<sup>1</sup>Kovalenko, 1992; <sup>5</sup>Gorbunova, 1996; <sup>5</sup>Gorbunova, 1997; <sup>1</sup>Gorbunova, 2001a; <sup>1</sup>Gorbunova, 2001b; <sup>1</sup>Gorbunova, 2008; <sup>4</sup>Gorbunova, 2010; <sup>9</sup>Gorbunova, 2010); **Buryatia** (<sup>1</sup>Nezdojminogo, 1970a; <sup>1</sup>Heklau and Dörfelt, 2017); **Irkutsk Oblast** (<sup>1</sup>Kutafjeva, 1983; <sup>1</sup>Petrov, 1986; <sup>1</sup>Petrov, 1989; <sup>1</sup>Astapenko, 1990b; <sup>1</sup>Muzyka, 2002; <sup>1</sup>Bardunov et al., 2005; <sup>1</sup>Petrov, 2008; <sup>1</sup>Muzyka, 2009; <sup>1</sup>Muzyka and Penzina, 2017); **Khakassia** (<sup>1</sup>Beglyanova, 1972a; <sup>9</sup>Zauzolkova, 2015); **Khanty-Mansi Autonomous Okrug** (<sup>1</sup>Zvyagina, Baykalova, and Gorbunova, 2007; <sup>4</sup>Zvyagina, 2008; <sup>1</sup>Shepeleva et al., 2014; <sup>7</sup>Filippova, Bulyonkova, and Lapshina, 2015; <sup>7</sup>Filippova and Bulyonkova, 2017a; <sup>1</sup>Filippova and Bulyonkova, 2017b); **Krasnoyarsk Krai** (<sup>1</sup>Perova, 1970; <sup>1</sup>Beglyanova, 1972a; <sup>1</sup>Beglyanova, 1972c; <sup>1</sup>Nezdojminogo, 1976a; <sup>1</sup>Lapitskaya, 1993; <sup>1</sup>Kosheleva and Kutafjeva, 2008a; <sup>1</sup>Kosheleva and Kutafjeva, 2008b; <sup>1</sup>Kryuchkova, 2009; <sup>8</sup>Kutafjeva, Agafonova, and Kryuchkova, 2010; <sup>1</sup>Malysheva, Malysheva, Kiyashko, et al., 2017; <sup>1</sup>Krom and Kapitonov, 2019; <sup>9</sup>Krom and Kapitonov, 2019); **Kurgan Oblast** (<sup>1</sup>Bystrushkin, 2016); **Novosibirsk Oblast** (<sup>1</sup>Zaytseva, 1971; <sup>1</sup>Perova, 1977; <sup>4</sup>Gorbunova, 2007; <sup>4</sup>Perova and Gorbunova, 2007; <sup>1</sup>Koropachinskiy and Banaev, 2014); **Tomsk Oblast** (<sup>1</sup>Milovidova, 1980; <sup>1</sup>Kosheleva and Kutafjeva, 2004; <sup>9</sup>Agaphonova, Kutafjeva, and Gashkov, 2009b; <sup>4,9</sup>Kudashova, Gashkov, and Kutafjeva, 2013; <sup>1</sup>Vaishlya et al., 2017); **Yamalo-Nenets Autonomous Okrug** (<sup>1</sup>Tarchevskaya, 1990); **Zabaykalsky Krai** (<sup>5</sup>Karsten, 1906).

FAR EAST: **Amur Oblast** (<sup>5</sup>Nazarova, 1986; <sup>1</sup>Azbukina et al., 1998; <sup>1</sup>Bulakh, Govorova, and Taranina, 2003; <sup>1</sup>Taranina, 2005); **Chukotka Autonomous Okrug** (<sup>2</sup>Berkeley and Curtis, 1978; <sup>1</sup>Sazanova, 1993; <sup>1</sup>Karatygin, Nezdojminogo, Novozhilov, and Zhurbenko, 1999); **Jewish Autonomous Oblast** (<sup>1</sup>Bulakh, Govorova, Nazarova, and Vassiljeva, 2007; <sup>1</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Erofeeva, Bukharova, and Bulakh, 2019); **Kamchatka Krai** (<sup>4</sup>Kalamees and Vaasma, 1981); **Khabarovsk Krai** (<sup>1</sup>Azbukina et al., 1986; <sup>1</sup>Azbukina et al., 1989; <sup>1</sup>Bau, Bulakh, Zhuang, and Li, 2007; <sup>1</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Bulakh, 2013; <sup>1</sup>Bogacheva, Bulakh, Bukharova, and Egorova, 2015; <sup>1</sup>Erofeeva and Bulakh, 2015a); **Magadan Oblast** (<sup>1</sup>Nazarova, 1976; <sup>1</sup>Sazanova, 1996; <sup>1</sup>Sazanova, 2005; <sup>1</sup>Sazanova, 2009a; <sup>1,10</sup>Sazanova, 2009b; <sup>1,9</sup>Sazanova, 2011; <sup>1</sup>Sazanova, 2012; <sup>1</sup>Sazanova and Golodnova, 2015; <sup>1</sup>Sazanova, 2016); **Primorsky Krai** (<sup>5</sup>Vassiljeva, 1972; <sup>5</sup>Vassiljeva, 1973; <sup>1</sup>Shalapugina, 1976; <sup>5</sup>Bunkina and Nazarova, 1978; <sup>5</sup>Azbukina et al., 1984; <sup>1</sup>Azbukina et al., 1990; <sup>5</sup>Bardunov et al., 2002; <sup>5</sup>Azbukina et al., 2006; <sup>1</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Bulakh et al., 2016; <sup>1</sup>Malysheva et al., 2016; <sup>1</sup>Bogacheva, Bulakh, Bukharova, and Egorova, 2020); **Sakhalin Oblast** (<sup>5</sup>Vassiljeva and Nazarova, 1972).

### *Amanita verna* Bull. ex Lam.<sup>1</sup>

= *Agaricus vernus* Bull.<sup>2</sup>

EASTERN EUROPE: **Belgorod Oblast** (<sup>1</sup>Bedenko, 1979a); **Crimea** (<sup>1</sup>Sarkina, 2001; <sup>1</sup>Dudka et al., 2004; <sup>1</sup>Sarkina, 2010b; <sup>1</sup>Sarkina and Prydiuk, 2012; <sup>1</sup>Sarkina and Mironova, 2015); **Kaliningrad Oblast** (<sup>1</sup>Dedkov, Volodina, and Gubareva, 2007); **Krasnodar Krai** (<sup>1</sup>Kovalenko, 1980a); **Leningrad Oblast** (<sup>2</sup>Weinmann, 1836; <sup>2</sup>Weinmann, 1837; <sup>1</sup>Kalamees and Kovalenko, 1984; <sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Morozova and Kovalenko, 2000; <sup>1</sup>Popov et al., 2007); **Penza Oblast** (<sup>1</sup>Ivanov, 1983); **Saint Petersburg** (<sup>2</sup>Weinmann, 1828); **Saratov Oblast** (<sup>1</sup>Nagumanov, 2015); **Sevastopol** (<sup>1</sup>Sarkina, 2016b; <sup>1</sup>Sarkina, 2020c); **Tatarstan** (<sup>1</sup>Vassiljeva, 1977); **Arid territories** (<sup>1</sup>Rebriev, Rusanov, et al., 2012); **Northern Caucasus** (<sup>1</sup>Kovalenko, 1980b).

SIBERIA: **Irkutsk Oblast** (<sup>1</sup>Petrov, 1986; <sup>1</sup>Petrov, 1991; <sup>1</sup>Petrov, 2008); **Krasnoyarsk Krai** (<sup>1</sup>Beglyanova, 1972a).

FAR EAST: **Khabarovsk Krai** (<sup>1</sup>Bau, Bulakh, and Govorova, 2011); **Primorsky Krai** (<sup>1</sup>Vassiljeva, 1972; <sup>1</sup>Vassiljeva, 1973; <sup>1</sup>Azbukina et al., 1990; <sup>1</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Bogacheva et al., 2018).

### *Amanita virosa* Bertill.

EASTERN EUROPE: **Belgorod Oblast** (Bedenko, 1979a); **Bryansk Oblast** (Kruglikov, 2007); **Crimea** (Sarkina, 2001; Dudka et al., 2004; Sarkina and Prydiuk, 2012); **Kabardino-Balkarian Republic** (Shkhaapsoev and Krapivina,

2004); **Kaliningrad Oblast** (Dedkov, Volodina, and Gubareva, 2007; Volodina, 2007); **Karelia** (Bondartseva et al., 2001; Ivanter and Kuznetsov, 2007; Predtechenskaya and Ruokolainen, 2013; Krutov et al., 2014; Predtechenskaya and Ruokolainen, 2014; Savelev and Kikeeva, 2020); **Kirov Oblast** (Kirillov, 2011; Kirillov, Perevedentseva, and Egoshina, 2011); **Kursk Oblast** (Soshnina, 2013; Soshnina, 2017); **Leningrad Oblast** (Thesleff, 1920; Stolyarskaya, 1989; Kovalenko and Morozova, 1999a; Fomina, 2000; Morozova and Kovalenko, 2000; Fomina, 2001; Morozova, 2007; Popov et al., 2007; Zmitrovich et al., 2015; Kalinina, 2018); **Lipetsk Oblast** (Sarycheva et al., 2009; Sarycheva, 2014a; Sarycheva, 2016); **Mordovia** (Ivoilov and Bolshakov, 2011a; Bolshakov and Ivoilov, 2012b; Silaeva, 2017); **Moscow Oblast** (Gorlenko, Sidorova, and Sidorova, 1989; Levitskaya, 1995b; Levitskaya, 2013; Sidorova, Alexandrova, and Voronina, 2017); **Novgorod Oblast** (Kovalenko, Morozova, Nezdjominogo, and Popov, 2005; Popov et al., 2013); **Orenburg Oblast** (Desyatova, 2008); **Oryol Oblast** (Radygina, Derzhavina, and Tsutsupa, 2014); **Perm Krai** (Perevedentseva, 2008; Belkovskaya et al., 2014); **Pskov Oblast** (Kovalenko, Kolmakov, Morozova, and Popov, 2003; Popov et al., 2013); **Saint Petersburg** (Kovalenko and Morozova, 1999a; Morozova and Smirnov, 2011; Morozova et al., 2020); **Tver Oblast** (Mukhina and Garibova, 2010; Mukhina, 2011a; Mukhina, 2011b; Kotkova, 2014); **Udmurt Republic** (Tychinin and Kuzmina, 2003); **Vologda Oblast** (Kirillova, 2006; Kirillova, 2007); **Yaroslavl Oblast** (Lazareva, 1998a; Lazareva, 1998b).

**SIBERIA: Altai Republic** (Gorbunova, 2010); **Tomsk Oblast** (Agaphonova, Kutafjeva, and Gashkov, 2009b; Kudashova, Gashkov, and Kutafjeva, 2013; Kudashova, Gashkov, and Vaishlya, 2016b; Vaishlya et al., 2017).

**FAR EAST: Khabarovsk Krai** (Azbukina et al., 1986; Azbukina et al., 1989; Bau, Bulakh, and Govorova, 2011; Bulakh, 2013; Bogacheva, Bulakh, Bukharova, and Egorova, 2015; Bogacheva et al., 2018); **Primorsky Krai** (Vassiljeva, 1973; Bulakh, 1977; Azbukina et al., 1984; Bau, Bulakh, and Govorova, 2011; Bulakh et al., 2016; Bogacheva et al., 2018; Bogacheva, Bulakh, Bukharova, and Egorova, 2020).

#### ***Amanita volvata* (Peck) Lloyd**

**FAR EAST: Primorsky Krai** (Bogacheva, Bulakh, Bukharova, and Egorova, 2020).

#### ***Ampulloclitocybe clavipes* (Pers.) Redhead, Lutzoni, Moncalvo & Vilgalys<sup>1</sup>**

≡ *Agaricus clavipes* Pers.<sup>2</sup> ≡ *Clitocybe clavipes* (Pers.) P. Kumm.<sup>3</sup> = *Clitocybe squamulosoides* P.D. Orton<sup>4</sup>

**EASTERN EUROPE: Belgorod Oblast** (<sup>3</sup>Nikolayev, 1986); **Bryansk Oblast** (<sup>3</sup>Kruglikov, 2007); **Chelyabinsk Oblast** (<sup>3</sup>Aleksandrovskaya and Lobanova, 1968; <sup>3</sup>Sirko and Stepanova, 1977; <sup>3</sup>Stepanova and Sirko, 1977); **Kabardino-Balkarian Republic** (<sup>3</sup>Shkhagapsoev and Krapivina, 2004); **Kaliningrad Oblast** (<sup>3</sup>Dedkov, Volodina, and Gubareva, 2007; <sup>3</sup>Volodina, 2007; <sup>1</sup>Atayev and Volodina, 2020); **Kaluga Oblast** (<sup>3</sup>Sionova, 2003; <sup>3</sup>Sionova, 2006; <sup>3</sup>Sionova, 2012); **Karachay-Cherkess Republic** (<sup>4</sup>Onipchenko and Kaverina, 1989; <sup>3,4</sup>Kalamees and Botashev, 2000); **Karelia** (<sup>2</sup>Karsten, 1866; <sup>2</sup>Karsten, 1876; <sup>3</sup>Karsten, 1889; <sup>3</sup>Kovalenko, Morozova, Fomina, and Särkisilta, 1998; <sup>3</sup>Bondartseva et al., 2001; <sup>3</sup>Predtechenskaya and Ruokolainen, 2008; <sup>1</sup>Predtechenskaya and Ruokolainen, 2013; <sup>1</sup>Predtechenskaya, 2013; <sup>1</sup>Krutov et al., 2014; <sup>1</sup>Predtechenskaya and Ruokolainen, 2014; <sup>1</sup>Predtechenskaya, 2015; <sup>1</sup>Savelev and Kikeeva, 2020); **Kirov Oblast** (<sup>3</sup>Kirillov, 2011; <sup>3</sup>Kirillov, Perevedentseva, and Egoshina, 2011); **Komi Republic** (<sup>3</sup>Bobretsova, 2004; <sup>3</sup>Palamarchuk, 2011b; <sup>1</sup>Palamarchuk, 2012; <sup>1</sup>Palamarchuk, 2016a; <sup>1</sup>Palamarchuk, 2016b; <sup>1</sup>Palamarchuk, 2017); **Krasnodar Krai** (<sup>3</sup>Kovalenko, 1980a; <sup>3</sup>Kovalenko, 1980b; <sup>3</sup>Vaasma, Kalamees, and Raitviir, 1986); **Kursk Oblast** (<sup>3</sup>Bedenko, 1987; <sup>3</sup>Baranov, 2002); **Leningrad Oblast** (<sup>3</sup>Thesleff, 1920; <sup>3</sup>Harmaja, 1969; <sup>3</sup>Kalamees and Kovalenko, 1984; <sup>3</sup>Stolyarskaya, 1993; <sup>3</sup>Kovalenko and Morozova, 1999a; <sup>3</sup>Morozova and Kovalenko, 2000; <sup>3</sup>Morozova, 2007; <sup>3</sup>Popov et al., 2007; <sup>3</sup>Psurtseva, Kiyashko, Gachkova, and Belova, 2007; <sup>1</sup>Zmitrovich et al., 2015); **Lipetsk Oblast** (<sup>3</sup>Rtishcheva, 1999; <sup>3</sup>Afanasyev, Rtishcheva, and Starodubtseva, 2007; <sup>3</sup>Sarycheva et al., 2009; <sup>3</sup>Sarycheva, 2014a; <sup>3</sup>Sarycheva, Starodubtseva, and Sapelnikova, 2017); **Moscow** (<sup>3</sup>Hennings, 1905; <sup>2</sup>Mosolov, 1906); **Moscow Oblast** (<sup>3</sup>Gorlenko, Sidorova, and Sidorova, 1989; <sup>3</sup>Levitskaya, 1995c; <sup>3</sup>Vishnevsky, 1998; <sup>3</sup>Levitskaya, 2013; <sup>1</sup>Voronina et al., 2014; <sup>1</sup>Sidorova, Alexandrova, and Voronina, 2017); **Murmansk Oblast** (<sup>3</sup>Pystina, Pavlova, and Shestakova, 1969; <sup>3</sup>Mikhailovskii, 1975b; <sup>3</sup>Karatygin, Nezdjominogo, Novozhilov, and Zhurbenko, 1999; <sup>3</sup>Kalamees and Raitviir, 2006); **North Ossetia** (<sup>3</sup>Nikolayev, 2001); **Novgorod Oblast** (<sup>3</sup>Morozova, 2012; <sup>1</sup>Popov et al., 2013); **Penza Oblast** (<sup>3</sup>Ivanov, 1981a); **Perm Krai** (<sup>3</sup>Psurtseva, Kiyashko, Gachkova, and Belova, 2007; <sup>3</sup>Perevedentseva, 2008; <sup>1</sup>Belkovskaya et al., 2014; <sup>3</sup>Perevedentseva and Shishigin, 2014; <sup>3</sup>Botalov, 2017; <sup>3</sup>Botalov and Perevedentseva, 2020); **Pskov Oblast** (<sup>3</sup>Popov, 2001a; <sup>1</sup>Popov et al., 2013); **Rostov Oblast** (<sup>1</sup>Rusanov, Rebriev, and Bulgakov, 2018); **Ryazan Oblast** (<sup>3</sup>Volosnova, 1997; <sup>3</sup>Volosnova, 2014); **Saint Petersburg** (<sup>2</sup>Weinmann, 1828; <sup>2</sup>Weinmann, 1836; <sup>2</sup>Weinmann, 1837; <sup>3</sup>Kovalenko and Morozova, 1999a; <sup>3</sup>Kotkova, Morozova, and Popov, 2005; <sup>3</sup>Morozova and Smirnov, 2011; <sup>1</sup>Morozova et al., 2020); **Sverdlovsk Oblast** (<sup>3</sup>Tomilin, 1965; <sup>3</sup>Stepanova and Sirko, 1977; <sup>3</sup>Marina, 2006); **Tula Oblast** (<sup>3</sup>Svetasheva, 2004; <sup>3</sup>Svetasheva, 2008); **Tver Oblast** (<sup>3</sup>Kurochkin, 1993; <sup>1</sup>Mukhina, 2011a; <sup>3</sup>Mukhina, 2011b; <sup>1</sup>Kotkova, 2014); **Udmurt Republic** (<sup>3</sup>Tychinin and Kuzmina, 2003); **Ulyanovsk Oblast** (<sup>3</sup>Ilyukhin, 2010a; <sup>3</sup>Ilyukhin,

2010b); **Vologda Oblast** (<sup>3</sup>Kutova, 1957; <sup>3</sup>Kirillova, 2007; <sup>3</sup>Kirillova, 2009); **Voronezh Oblast** (<sup>3</sup>Bedenko, 1987; <sup>3</sup>Rtishcheva, 1999; <sup>3</sup>Afanasyev, Rtishcheva, and Starodubtseva, 2007; <sup>3</sup>Sarycheva, Starodubtseva, and Sapelnikova, 2017); **Yamalo-Nenets Autonomous Okrug** (<sup>3</sup>Stepanova and Sirko, 1977; <sup>3</sup>Karatygin, Nezdojminogo, Novozhilov, and Zhurbenko, 1999); **Yaroslavl Oblast** (<sup>3</sup>Lazareva, 1997; <sup>3</sup>Lazareva, 1998a); **Arid territories** (<sup>1</sup>Rebriev, Rusanov, et al., 2012).

SIBERIA: **Altai Krai** (<sup>1</sup>Gorbunova, 2018a); **Irkutsk Oblast** (<sup>3</sup>Kutafjeva, 1983; <sup>3</sup>Astapenko, 1990a); **Khakassia** (<sup>1</sup>Zauzolkova, 2015); **Khanty-Mansi Autonomous Okrug** (<sup>1</sup>Filippova, Bulyonkova, and Lapshina, 2015; <sup>1</sup>Zvyagina and Vasina, 2015; <sup>1</sup>Filippova and Bulyonkova, 2017a; <sup>1</sup>Filippova and Bulyonkova, 2017b; <sup>1</sup>Zvyagina and Baykalova, 2017); **Krasnoyarsk Krai** (<sup>3</sup>Beglyanova, 1972a; <sup>3</sup>Nezdojminogo, 1976a; <sup>3</sup>Lapitskaya, 1993; <sup>1</sup>Kryuchkova, 2009; <sup>1</sup>Malysheva, Malysheva, Kiyashko, et al., 2017; <sup>1</sup>Krom and Kapitonov, 2019); **Tomsk Oblast** (<sup>3</sup>Milovidova, 1980; <sup>3</sup>Kosheleva and Kutafjeva, 2004; <sup>3</sup>Agaphonova, Kutafjeva, and Gashkov, 2007; <sup>1</sup>Kudashova, Gashkov, and Kutafjeva, 2013); **Yamalo-Nenets Autonomous Okrug** (<sup>3</sup>Tarчевskaya, 1990; <sup>3</sup>Karatygin, Nezdojminogo, Novozhilov, and Zhurbenko, 1999).

FAR EAST: **Amur Oblast** (<sup>3</sup>Taranina, 2005); **Jewish Autonomous Oblast** (<sup>3</sup>Bulakh, Govorova, Nazarova, and Vassiljeva, 2007; <sup>3</sup>Bau, Bulakh, and Govorova, 2011); **Kamchatka Krai** (<sup>3</sup>Kalamees and Vaasma, 1981); **Khabarovsk Krai** (<sup>3</sup>Azbukina et al., 1986; <sup>3</sup>Azbukina et al., 1989; <sup>3</sup>Bau, Bulakh, Zhuang, and Li, 2007; <sup>3</sup>Bulakh, Vassiljeva, and Erofeeva, 2010; <sup>3</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Bulakh, 2013; <sup>1</sup>Bogacheva, Bulakh, Bukharova, and Egorova, 2015); **Magadan Oblast** (<sup>3</sup>Sazanova, 2005; <sup>1</sup>Sazanova, 2009a; <sup>1</sup>Sazanova, 2009b; <sup>1</sup>Sazanova, 2011; <sup>1</sup>Sazanova and Golodnova, 2015); **Primorsky Krai** (<sup>3</sup>Vassiljeva, 1973; <sup>3</sup>Bunkina and Nazarova, 1978; <sup>3</sup>Azbukina et al., 1984; <sup>3</sup>Azbukina et al., 1990; <sup>3</sup>Bardunov et al., 2002; <sup>3</sup>Azbukina et al., 2006; <sup>3</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Bulakh et al., 2016); **Sakhalin Oblast** (<sup>3</sup>Bulakh, Govorova, and Bogatov, 1999).

#### ***Armillaria borealis* Marxm. & Korhonen**

EASTERN EUROPE: **Arkhangelsk Oblast** (Ezhov, Zmitrovich, and Ruokolainen, 2019); **Chechen Republic** (Taysumov, Krapivina, and Kushaliev, 2016); **Karelia** (Freindling, 1949 [as *Armillariella mellea* (Vahl) P. Karst., redet. in Bondartseva et al., 2001]; Bondartseva et al., 2001; Krutov et al., 2014; Savelev and Kikeeva, 2020); **Komi Republic** (Palamarchuk, 2012; Palamarchuk and Kirillov, 2018a); **Leningrad Oblast** (Zmitrovich et al., 2015); **Lipetsk Oblast** (Sarycheva et al., 2009; Sarycheva, 2011; Sarycheva, 2014a; Sarycheva, 2016); **Mordovia** (Bolshakov, 2015); **Moscow Oblast** (Vishnevsky, 1998; Sidorova, Alexandrova, and Voronina, 2017); **Novgorod Oblast** (Baklan, 2015); **Perm Krai** (Perevedentseva, Shilkova, and Botalov, 2011); **Pskov Oblast** (Popov et al., 2013); **Rostov Oblast** (Morozova et al., 2008); **Saint Petersburg** (Morozova and Smirnov, 2011; Zhukova, Morozova, Volobuev, and Bryantseva, 2017; Morozova et al., 2020); **Sverdlovsk Oblast** (Marina, 2006); **Tatarstan** (Potapov, 2015b); **Vologda Oblast** (Kirillova, 2007; Kirillova, 2009); **Voronezh Oblast** (Selochnik, 2015); **Yaroslavl Oblast** (Lazareva, 1998a); **Arid territories** (Rebriev, Rusanov, et al., 2012).

SIBERIA: **Altai Krai** (Gorbunova and Chubarova, 2008; Gorbunova, Vlasenko, and Tzhubarova, 2011); **Khanty-Mansi Autonomous Okrug** (Filippova, Bulyonkova, and Lapshina, 2015); **Krasnoyarsk Krai** (Krom and Kapitonov, 2019); **Tomsk Oblast** (Agaphonova, Kutafjeva, and Gashkov, 2009b; Kudashova, Gashkov, and Kutafjeva, 2013).

#### ***Armillaria cepistipes* Velen.<sup>1</sup>**

= *Armillaria cepistipes* f. *pseudobulbosa* Romagn. & Marxm.<sup>2</sup>

EASTERN EUROPE: **Karelia** (<sup>1</sup>Psurtseva, Kiyashko, Gachkova, and Belova, 2007; <sup>1</sup>Predtechenskaya and Ruokolainen, 2013; <sup>1</sup>Krutov et al., 2014; <sup>1</sup>Predtechenskaya and Ruokolainen, 2014; <sup>1</sup>Predtechenskaya, 2015); **Komi Republic** (<sup>1</sup>Palamarchuk (Bobretsova), 2009; <sup>1</sup>Palamarchuk, 2012; <sup>1</sup>Palamarchuk and Kirillov, 2017); **Leningrad Oblast** (<sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Morozova, 2007; <sup>1</sup>Popov et al., 2007); **Mordovia** (<sup>1</sup>Ivoilov and Bolshakov, 2011a); **Moscow Oblast** (<sup>2</sup>Vishnevsky, 1998); **Saint Petersburg** (<sup>1</sup>Kotkova, Morozova, and Popov, 2005; <sup>1</sup>Kotkova, Morozova, and Popov, 2007; <sup>1</sup>Morozova and Smirnov, 2011; <sup>1</sup>Morozova, Kovalenko, Rebriev, and Malysheva, 2014; <sup>1</sup>Zhukova, Morozova, Volobuev, and Bryantseva, 2017); **Sverdlovsk Oblast** (<sup>1</sup>Marina, 2006); **Tula Oblast** (<sup>1</sup>Svetasheva, 2004); **Tver Oblast** (<sup>1</sup>Mukhina, 2011a; <sup>1</sup>Mukhina, 2011b; <sup>1</sup>Kotkova, 2014).

SIBERIA: **Khanty-Mansi Autonomous Okrug** (<sup>1</sup>Filippova, Bulyonkova, and Lapshina, 2015); **Krasnoyarsk Krai** (<sup>1</sup>Malysheva, Malysheva, Kiyashko, et al., 2017); **Tomsk Oblast** (<sup>1</sup>Agaphonova, Kutafjeva, and Gashkov, 2009b; <sup>1,2</sup>Kudashova, Gashkov, and Kutafjeva, 2013).

#### ***Armillaria gallica* Marxm. & Romagn.**

EASTERN EUROPE: **Chechen Republic** (Taysumov, Krapivina, and Kushaliev, 2016); **Kabardino-Balkarian Republic** (Shkhaapsoev and Krapivina, 2004); **Kaliningrad Oblast** (Atayev and Volodina, 2020); **Kaluga Oblast**

(Sionova, 2012); **Karachay-Cherkess Republic** (Kalamees and Botashev, 2000); **Komi Republic** (Palamarchuk, 2012; Palamarchuk and Kirillov, 2017); **Leningrad Oblast** (Kovalenko and Morozova, 1999a; Morozova, 2007; Popov et al., 2007; Zmitrovich et al., 2015); **Lipetsk Oblast** (Sarycheva et al., 2009; Sarycheva, 2011; Sarycheva, 2014a; Sarycheva, 2016; Sarycheva, Starodubtseva, and Sapelnikova, 2017); **Mordovia** (Ivoilov and Bolshakov, 2011a); **Moscow Oblast** (Levitskaya, 1995a; Vishnevsky, 1998; Levitskaya, 2013); **Perm Krai** (Psurtseva, Kiyashko, Gachkova, and Belova, 2007; Perevedentseva, 2008); **Pskov Oblast** (Popov et al., 2013); **Ryazan Oblast** (Volosnova, 2014); **Saint Petersburg** (Kotkova, Morozova, and Popov, 2007; Morozova and Smirnov, 2011; Morozova et al., 2020); **Sevastopol** (Sarkina, 2020c); **Tula Oblast** (Svetasheva, 2001; Svetasheva, 2004; Svetasheva, 2013); **Tver Oblast** (Mukhina, 2011a; Mukhina, 2011b; Kotkova, 2014); **Voronezh Oblast** (Selochnik, 2015; Sarycheva, Starodubtseva, and Sapelnikova, 2017); **Arid territories** (Rebriev, Rusanov, et al., 2012).

SIBERIA: **Khanty-Mansi Autonomous Okrug** (Zvyagina and Baykalova, 2017); **Krasnoyarsk Krai** (Krom and Kapitonov, 2019); **Tomsk Oblast** (Agaphonova, Kutafjeva, and Gashkov, 2009b; Kudashova, Gashkov, and Kutafjeva, 2013).

FAR EAST: **Magadan Oblast** (Rebriev, Bulakh, Sazanova, and Shiryaev, 2020).

### ***Armillaria mellea* (Vahl) P. Kumm.<sup>1</sup>**

≡ *Agaricus melleus* Vahl<sup>2</sup> ≡ *Armillariella mellea* (Vahl) P. Karst.<sup>3</sup>

EASTERN EUROPE: **Adygea** (<sup>3</sup>Vassiljeva, 1939; <sup>1</sup>Vaasma, Kalamees, and Raitviir, 1986; <sup>1</sup>Kummer, 2007); **Arkhangelsk Oblast** (<sup>1</sup>Lebedeva, 1933; <sup>1</sup>Ezhov, Ershov, Ruokolainen, and Zmitrovich, 2011; <sup>3</sup>Ezhov, 2014); **Belgorod Oblast** (<sup>1</sup>Brezhnev, 1950; <sup>3</sup>Bedenko, 1980; <sup>1</sup>Volobuev, Bolshakov, and Shakhova, 2020); **Bryansk Oblast** (<sup>3</sup>Kruglikov, 2007); **Chechen Republic** (<sup>1</sup>Taysumov, Krapivina, Umarov, and Astamirova, 2012; <sup>1</sup>Taysumov, Krapivina, and Kushaliev, 2016); **Chelyabinsk Oblast** (<sup>1</sup>Aleksandrovskaia and Lobanova, 1968; <sup>1</sup>Sirko and Stepanova, 1977; <sup>3</sup>Krasutsky, 2013; <sup>3</sup>Krasutsky, 2014); **Crimea** (<sup>3</sup>Zerova, 1962; <sup>1</sup>Sarkina, 2001; <sup>1</sup>Isikov, 2003; <sup>1</sup>Dudka et al., 2004; <sup>1</sup>Sarkina, 2010b; <sup>1</sup>Sarkina, 2011; <sup>1</sup>Sarkina and Prydiuk, 2012; <sup>1</sup>Sarkina, 2014b; <sup>1</sup>Sarkina and Mironova, 2015; <sup>1</sup>Sarkina and Stavishenko, 2019; <sup>1</sup>Isikov, 2020); **Kabardino-Balkarian Republic** (<sup>3</sup>Singer, 1929; <sup>1</sup>Shkhagapsoev and Krapivina, 2003; <sup>1</sup>Shkhagapsoev and Krapivina, 2004); **Kaliningrad Oblast** (<sup>1</sup>Dedkov, Volodina, and Gubareva, 2007; <sup>1</sup>Volodina, 2007); **Kaluga Oblast** (<sup>3</sup>Sionova, 2003; <sup>3</sup>Sionova, 2006); **Karachay-Cherkess Republic** (<sup>1</sup>Kalamees and Botashev, 2000); **Karelia** (<sup>1</sup>Lebedeva, 1933; <sup>3</sup>Czerepanova, Perfiljeva, and Tobias, 1982; <sup>1</sup>Savelev and Kikeeva, 2018); **Kirov Oblast** (<sup>1</sup>Kirillov and Luginina, 2011; <sup>1</sup>Kirillov, 2011; <sup>1</sup>Kirillov, Perevedentseva, and Egoshina, 2011; <sup>1</sup>Stavishenko, Luginina, Kirillov, and Egoshina, 2019); **Komi Republic** (<sup>1</sup>Bobretsova, 2004; <sup>1</sup>Palamarchuk, 2012; <sup>1</sup>Palamarchuk, 2016a; <sup>1</sup>Palamarchuk, 2016b; <sup>1</sup>Palamarchuk and Kirillov, 2017; <sup>1</sup>Palamarchuk, 2017); **Krasnodar Krai** (<sup>1</sup>Kovalenko, 1980a; <sup>1</sup>Vaasma, Kalamees, and Raitviir, 1986; <sup>1</sup>Psurtseva, Kiyashko, Gachkova, and Belova, 2007; <sup>1</sup>Shumkova, Krivorotov, and Gayday, 2018); **Kursk Oblast** (<sup>1</sup>Ryabova and Ignatenko, 1981; <sup>3</sup>Bedenko, 1987; <sup>3</sup>Soshnina, 2001; <sup>3</sup>Soshnina, 2014); **Leningrad Oblast** (<sup>1</sup>Thesleff, 1920; <sup>1</sup>Nezdojminogo, 1967; <sup>3</sup>Kalamees and Kovalenko, 1984; <sup>1</sup>Stolyarskaya, 1989; <sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Popov et al., 2007); **Lipetsk Oblast** (<sup>3</sup>Alferova, 1977; <sup>1</sup>Rtishcheva, 1999; <sup>1</sup>Sarycheva, 1999; <sup>1</sup>Afanasyev, Rtishcheva, and Starodubtseva, 2007; <sup>1</sup>Sarycheva et al., 2009; <sup>1</sup>Sarycheva, 2011; <sup>1</sup>Sarycheva, 2014a; <sup>1</sup>Sarycheva, 2016; <sup>1</sup>Sarycheva, Starodubtseva, and Sapelnikova, 2017); **Mari El Republic** (<sup>1</sup>Prokhorov, 2007); **Mordovia** (<sup>1</sup>Chastukhin, 1948a; <sup>1</sup>Kuznetsov, 1960; <sup>1</sup>Chastukhin and Nikolaevskaya, 1969; <sup>1</sup>Chastukhin, 2011; <sup>1</sup>Ivoilov and Bolshakov, 2011a); **Moscow** (<sup>1</sup>Bucholtz, 1897a; <sup>1</sup>Bucholtz, 1897b; <sup>1</sup>Bucholtz, 1897c; <sup>1</sup>Hennings, 1905; <sup>1</sup>Mosolov, 1906; <sup>1</sup>Burova, 1968); **Moscow Oblast** (<sup>1</sup>Gorlenko, Sidorova, and Sidorova, 1989; <sup>1</sup>Levitskaya, 1998; <sup>1</sup>Vishnevsky, 1998; <sup>1</sup>Levitskaya, 2013); **Nizhny Novgorod Oblast** (<sup>1</sup>Murashkinsky, 1911); **North Ossetia** (<sup>1</sup>Chernetskaja, 1929; <sup>1</sup>Nikolayev, 2001); **Orenburg Oblast** (<sup>1</sup>Vorontsovsky, 1921; <sup>1</sup>Safonov, 2002; <sup>1</sup>Desyatova, 2008; <sup>1</sup>Safonov, Malenkova, Rusakov, and Leneva, 2013; <sup>1</sup>Safonov, 2015); **Penza Oblast** (<sup>1</sup>Vet, 1943; <sup>1</sup>Ivanov, 1981b; <sup>3</sup>Ivanov, 1981a); **Perm Krai** (<sup>1</sup>Naoumoff, 1915; <sup>1</sup>Perevedentseva, 2008; <sup>1</sup>Belkovskaya et al., 2014; <sup>1</sup>Perevedentseva and Shishigin, 2014); **Rostov Oblast** (<sup>1</sup>Rusanov et al., 2004; <sup>1</sup>Zmitrovich et al., 2008; <sup>1</sup>Rusanov, Rebriev, and Bulgakov, 2018); **Ryazan Oblast** (<sup>1</sup>Vanin, 1916; <sup>1</sup>Volosnova, 1997; <sup>1</sup>Volosnova, 2014); **Saint Petersburg** (<sup>2</sup>Weinmann, 1828; <sup>2</sup>Weinmann, 1836; <sup>2</sup>Weinmann, 1837; <sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Morozova and Kovalenko, 2000; <sup>1</sup>Kotkova, Morozova, and Popov, 2006; <sup>1</sup>Psurtseva, Kiyashko, Gachkova, and Belova, 2007; <sup>1</sup>Morozova, Kovalenko, Rebriev, and Malysheva, 2014); **Samara Oblast** (<sup>1</sup>Malysheva and Malysheva, 2004; <sup>1</sup>Malysheva and Malysheva, 2008); **Saratov Oblast** (<sup>3</sup>Komirnyaya, 1970); **Sevastopol** (<sup>1</sup>Sarkina, 2016b; <sup>1</sup>Sarkina, 2020c); **Smolensk Oblast** (<sup>1</sup>Jaczewski, 1893; <sup>1</sup>Jaczewski, 1895); **Sverdlovsk Oblast** (<sup>3</sup>Tomilin, 1965); **Tatarstan** (<sup>1</sup>Alexeeff, 1927; <sup>3</sup>Vassiljeva, 1977); **Tula Oblast** (<sup>1</sup>Svetasheva, 2001; <sup>1</sup>Svetasheva, 2004); **Tver Oblast** (<sup>1</sup>Chastukhin, 1948b; <sup>1</sup>Chastukhin and Nikolaevskaya, 1969; <sup>1</sup>Kurochkin, 1993; <sup>1</sup>Mukhina, 2011a; <sup>1</sup>Mukhina, 2011b; <sup>1</sup>Kotkova, 2014; <sup>1</sup>Kurochkin, 2016); **Udmurt Republic** (<sup>3</sup>Tychinin, 1990; <sup>3</sup>Tychinin and Kuzmina, 2003); **Ulyanovsk Oblast** (<sup>1</sup>Ilyukhin, 2009; <sup>1</sup>Ilyukhin, 2010a); **Voronezh Oblast** (<sup>1</sup>Chastukhin, 1952; <sup>1</sup>Chastukhin and Nikolaevskaya, 1953; <sup>1</sup>Chastukhin and Nikolaevskaya, 1969;

<sup>3</sup>Bedenko, 1987; <sup>1</sup>Rtishcheva, 1999; <sup>1</sup>Afanasyev, Rtishcheva, and Starodubtseva, 2007; <sup>1</sup>Sarycheva, Starodubtseva, and Sapelnikova, 2017; <sup>3</sup>Kochergina and Furmenkova, 2019); **Yamalo-Nenets Autonomous Okrug** (<sup>3</sup>Kazantseva, 1970; <sup>1</sup>Kazantseva, 1972); **Yaroslavl Oblast** (<sup>1</sup>Lazareva, 1998a); **Arid territories** (<sup>1</sup>Rebriev, Rusanov, et al., 2012); **Northern Caucasus** (<sup>3</sup>Kovalenko, 1980b).

SIBERIA: **Altai Krai** (<sup>1</sup>Gorbunova and Perova, 2006); **Altai Republic** (<sup>3</sup>Gorbunova, 1996; <sup>3</sup>Gorbunova, 1997; <sup>3</sup>Perova and Gorbunova, 2001); **Buryatia** (<sup>1</sup>Nezdojminogo, 1970a; <sup>3</sup>Sokolova, 1988; <sup>1</sup>Penzina and Petrov, 1994); **Irkutsk Oblast** (<sup>1</sup>Kutafjeva, 1983; <sup>1</sup>Petrov, 1984; <sup>3</sup>Petrov, 1989; <sup>1</sup>Astapenko, 1990a; <sup>3</sup>Muzyka, 2002; <sup>3</sup>Bardunov et al., 2005; <sup>1</sup>Psurtsseva, Kiyashko, Gachkova, and Belova, 2007; <sup>1</sup>Petrov, 2008; <sup>3</sup>Muzyka, 2009; <sup>1</sup>Heklau and Dörfelt, 2017; <sup>3</sup>Muzyka and Penzina, 2017); **Kemerovo Oblast** (<sup>3</sup>Zhukov, 1972); **Khakassia** (<sup>3</sup>Beglyanova, 1972a; <sup>1</sup>Zauzolkova, 2015); **Khanty-Mansi Autonomous Okrug** (<sup>1</sup>Mukhin, 1993; <sup>1</sup>Stavishenko, 2003; <sup>1</sup>Zvyagina, Baykalova, and Gorbunova, 2007); **Krasnoyarsk Krai** (<sup>2</sup>Thümen, 1878; <sup>1</sup>Saccardo, 1889; <sup>1</sup>Perova, 1970; <sup>3</sup>Beglyanova, 1972a; <sup>1</sup>Nezdojminogo, 1976a; <sup>1</sup>Lapitskaya, 1993; <sup>1</sup>Kosheleva and Kutafjeva, 2008a; <sup>1</sup>Kryuchkova, 2015; <sup>1</sup>Kryuchkova and Yaskova, 2017); **Kurgan Oblast** (<sup>1</sup>Bystrushkin, 2016); **Novosibirsk Oblast** (<sup>3</sup>Nozdrenko, 1970; <sup>1</sup>Zaytseva, 1971; <sup>3</sup>Zhukov, 1972; <sup>3</sup>Perova, 1977; <sup>3</sup>Perova and Gorbunova, 2001; <sup>1</sup>Perova and Gorbunova, 2007); **Sverdlovsk Oblast** (<sup>1</sup>Mukhin, 1993; <sup>1</sup>Mukhin et al., 2003); **Tomsk Oblast** (<sup>1</sup>Pilát, 1936; <sup>3</sup>Milovidova, 1980; <sup>3</sup>Perova and Gorbunova, 2001; <sup>1</sup>Kosheleva and Kutafjeva, 2004; <sup>1</sup>Kudashova, Gashkov, and Kutafjeva, 2013); **Tyumen Oblast** (<sup>1</sup>Mukhin, 1993); **Yamalo-Nenets Autonomous Okrug** (<sup>3</sup>Mukhin, 1987; <sup>1</sup>Mukhin, 1993); **Zabaykalsky Krai** (<sup>3</sup>Karsten, 1911); **Western Siberia** (<sup>3</sup>Zhukov, 1980).

FAR EAST: **Amur Oblast** (<sup>3</sup>Gordienko, Petrova, and Tarasov, 1981; <sup>3</sup>Azbukina et al., 1998; <sup>3</sup>Taranina, 2005; <sup>1</sup>Kochunova, 2016; <sup>1</sup>Kochunova, 2019); **Chukotka Autonomous Okrug** (<sup>3</sup>Sazanova, 1993); **Jewish Autonomous Oblast** (<sup>3</sup>Bulakh, Govorova, Nazarova, and Vassiljeva, 2007; <sup>1</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Erofeeva, Bukharova, and Bulakh, 2019); **Kamchatka Krai** (<sup>3</sup>Kalamees and Vaasma, 1981); **Khabarovsk Krai** (<sup>3</sup>Azbukina et al., 1986; <sup>3</sup>Azbukina et al., 1989; <sup>1</sup>Bau, Bulakh, Zhuang, and Li, 2007; <sup>1</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Bulakh, 2013; <sup>1</sup>Bogacheva, Bulakh, Bukharova, and Egorova, 2015; <sup>1</sup>Erofeeva and Bulakh, 2015a); **Magadan Oblast** (<sup>3</sup>Nazarova, 1976; <sup>3</sup>Sazanova, 1996; <sup>3</sup>Sazanova, 2005; <sup>1</sup>Sazanova, 2009a; <sup>1</sup>Sazanova, 2009b; <sup>1</sup>Sazanova, 2011; <sup>1</sup>Sazanova, 2012); **Primorsky Krai** (<sup>1</sup>Vassiljeva, 1972; <sup>3</sup>Vassiljeva, 1973; <sup>3</sup>Shalapugina, 1976; <sup>3</sup>Bulakh, 1977; <sup>3</sup>Bunkina and Nazarova, 1978; <sup>3</sup>Azbukina et al., 1984; <sup>3</sup>Azbukina et al., 1990; <sup>3</sup>Bardunov et al., 2002; <sup>3</sup>Azbukina et al., 2006; <sup>1</sup>Bau, Bulakh, and Govorova, 2011; <sup>3</sup>Bulakh et al., 2016); **Sakhalin Oblast** (<sup>3</sup>Vassiljeva and Nazarova, 1972; <sup>3</sup>Bulakh, Govorova, and Bogatov, 1999).

### *Armillaria ostoyae* (Romagn.) Herink

EASTERN EUROPE: **Crimea** (Sarkina, 2011); **Leningrad Oblast** (Morozova, 2002; Popov et al., 2007); **Moscow Oblast** (Levitskaya, 1998; Levitskaya, 2013); **Penza Oblast** (Ivanov, 2019); **Perm Krai** (Perevedentseva, Shilkova, and Botalov, 2011); **Saint Petersburg** (Morozova et al., 2020); **Sverdlovsk Oblast** (Marina, 2006); **Tula Oblast** (Svetasheva, 2004); **Ulyanovsk Oblast** (Ilyukhin, 2009; Ilyukhin, 2010a); **Vologda Oblast** (Kirillova, 2007; Kirillova, 2009); **Yaroslavl Oblast** (Lazareva, 1998a).

SIBERIA: **Khakassia** (Zauzolkova, 2015); **Krasnoyarsk Krai** (Zauzolkova, 2015; Gorbunova, 2016); **Tomsk Oblast** (Agaphonova, Kutafjeva, and Gashkov, 2009b; Kudashova, Gashkov, and Kutafjeva, 2013).

### *Arrhenia acerosa* (Fr.) Kühner<sup>1</sup>

≡ *Arrhenia acerosa* var. *acerosa* (Fr.) Kühner<sup>2</sup> ≡ *Leptoglossum acerosum* (Fr.) M.M. Moser<sup>3</sup> ≡ *Pleurotellus acerosus* (Fr.) Konrad & Maubl.<sup>4</sup> ≡ *Pleurotus acerosus* (Fr.) Qué.<sup>5</sup>

EASTERN EUROPE: **Kirov Oblast** (<sup>2</sup>Kirillov, 2011; <sup>2</sup>Kirillov, Perevedentseva, and Egoshina, 2011); **Komi Republic** (<sup>1</sup>Palamarchuk and Kirillov, 2017); **Leningrad Oblast** (<sup>5</sup>Thesleff, 1920; <sup>1</sup>Bondartseva, Zmirovich, and Lositskaya, 1999); **Lipetsk Oblast** (<sup>4</sup>Sarycheva, 1999; <sup>1</sup>Sarycheva et al., 2009; <sup>1</sup>Sarycheva, 2011; <sup>1</sup>Sarycheva, 2014a; <sup>1</sup>Sarycheva, 2016; <sup>1</sup>Sarycheva, Starodubtseva, and Sapelnikova, 2017); **Moscow Oblast** (<sup>1</sup>Vishnevsky, 1998); **Novgorod Oblast** (<sup>1</sup>Kovalenko, Morozova, Nezdojminogo, and Popov, 2005; <sup>1</sup>Popov et al., 2013); **Pskov Oblast** (<sup>1</sup>Popov et al., 2013); **Tver Oblast** (<sup>1</sup>Morozova, Aleksandrova, Popov, and Malysheva, 2016); **Udmurt Republic** (<sup>1</sup>Kapitonov, 2013); **Voronezh Oblast** (<sup>5</sup>Bedenko, 1985; <sup>1</sup>Sarycheva, Starodubtseva, and Sapelnikova, 2017).

SIBERIA: **Khanty-Mansi Autonomous Okrug** (<sup>1</sup>Filippova and Bulyonkova, 2017a; <sup>1</sup>Filippova and Bulyonkova, 2017b); **Tomsk Oblast** (<sup>1</sup>Kudashova, Gashkov, and Vaishlya, 2016a; <sup>1</sup>Kudashova, Gashkov, and Vaishlya, 2016b).

FAR EAST: **Amur Oblast** (<sup>3</sup>Azbukina et al., 1998); **Primorsky Krai** (<sup>3</sup>Azbukina et al., 1984); **Sakhalin Oblast** (<sup>4</sup>Vassiljeva and Nazarova, 1972).

***Arrhenia auriscalpium* (Fr.) Fr.**

EASTERN EUROPE: **Arkhangelsk Oblast** (Ezhov, Gavriilo, and Zmitrovich, 2014; Zmitrovich and Ezhov, 2015; Ezhov, Zmitrovich, and Ershov, 2016; Shiryaev, Zmitrovich, and Ezhov, 2018); **Karachay-Cherkess Republic** (Klán and Kubičková, 1979); **Murmansk Oblast** (Mikhailovskii, 1975b; Klán and Kubičková, 1979); **Novgorod Oblast** (Arslanov, 2012); **Volgograd Oblast** (Svetasheva, Popov, Rebriev, and Pridyuk, 2014).

***Arrhenia baeospora* (Singer) Redhead, Lutzoni, Moncalvo & Vilgalys**

EASTERN EUROPE: **Pskov Oblast** (Popov et al., 2013); **Volgograd Oblast** (Rebriev, Popov, Pridyuk, and Svetasheva, 2014; Svetasheva, Popov, Rebriev, and Pridyuk, 2014).

***Arrhenia discorosea* (Pilát) Zvyagina, A.V. Alexandrova & Bulyonk.<sup>1</sup>**

≡ *Omphalia discorosea* Pilát<sup>2</sup> ≡ *Omphalina discorosea* (Pilát) Herink & Kotl.<sup>3</sup> = *Rhodocybe ulmi* Lj.N. Vassiljeva<sup>4</sup>

EASTERN EUROPE: **Chuvash Republic** (<sup>1</sup>Gafurova, Ignatov, Tolpysheva, and Svetasheva, 2020); **Penza Oblast** (<sup>3</sup>Ivanov, 1988a).

SIBERIA: **Altai Krai** (<sup>1</sup>Zvyagina, Alexandrova, and Bulyonkova, 2015); **Altai Republic** (<sup>3</sup>Kovalenko, 1992; <sup>3</sup>Perova and Gorbunova, 2001; <sup>1</sup>Zvyagina, Alexandrova, and Bulyonkova, 2015; <sup>3</sup>Maneev, Achimova, Sedelnikova, and Gorbunova, 2017); **Buryatia** (<sup>3</sup>Pronin, 2013; <sup>1</sup>Zvyagina, Alexandrova, and Bulyonkova, 2015); **Irkutsk Oblast** (<sup>3</sup>Petrov, 1981; <sup>3</sup>Petrov, 1984; <sup>3</sup>Petrov, 1989; <sup>3</sup>Petrov, 1991; <sup>3</sup>Gaykova and Popov, 2010; <sup>1</sup>Trofimova, Popov, and Merkacheva, 2020); **Khakassia** (<sup>3</sup>Zauzolkova, 2015; <sup>3</sup>Zauzolkova and Gorbunova, 2016); **Khanty-Mansi Autonomous Okrug** (<sup>3</sup>Zvyagina, 2008; <sup>1</sup>Zvyagina, 2012; <sup>3</sup>Vasin and Vasina, 2013; <sup>3</sup>Shepeleva et al., 2014; <sup>1</sup>Filippova, Bulyonkova, and Lapshina, 2015; <sup>1</sup>Zvyagina, Alexandrova, and Bulyonkova, 2015; <sup>1</sup>Filippova and Bulyonkova, 2017a; <sup>1</sup>Filippova and Bulyonkova, 2017b); **Krasnoyarsk Krai** (<sup>4</sup>Beglyanova, 1972a; <sup>3</sup>Petrov, 1981; <sup>3</sup>Zauzolkova, 2015; <sup>3</sup>Zauzolkova and Gorbunova, 2016; <sup>1</sup>Malysheva, Malysheva, Kiyashko, et al., 2017; <sup>1</sup>Krom and Kapitonov, 2019); **Novosibirsk Oblast** (<sup>3</sup>Perova and Gorbunova, 2001; <sup>3</sup>Perova and Gorbunova, 2007; <sup>3</sup>Yudkin and Shaulo, 2008; <sup>3</sup>Koropachinskiy and Banaev, 2014; <sup>3</sup>Glupov and Shaulo, 2018); **Omsk Oblast** (<sup>2</sup>Pilát, 1934); **Tomsk Oblast** (<sup>3</sup>Perova and Gorbunova, 2001; <sup>3</sup>Kudashova, Gashkov, and Kutafjeva, 2013; <sup>1</sup>Kudashova, Gashkov, and Vaishlya, 2016b).

FAR EAST: **Amur Oblast** (<sup>3</sup>Nazarova, 1986; <sup>3</sup>Azbukina et al., 1998; <sup>3</sup>Kochunova, 2016); **Jewish Autonomous Oblast** (<sup>3</sup>Bulakh, Govorova, Nazarova, and Vassiljeva, 2007; <sup>3</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Erofeeva, Bukharova, and Bulakh, 2019); **Khabarovsk Krai** (<sup>3</sup>Azbukina et al., 1989; <sup>3</sup>Bulakh, Vassiljeva, and Erofeeva, 2010; <sup>3</sup>Erofeeva and Bulakh, 2015a); **Magadan Oblast** (<sup>3</sup>Sazanova, 2009a; <sup>3</sup>Sazanova, 2009b; <sup>3</sup>Sazanova, 2011; <sup>1</sup>Khoreva and Dokuchaev, 2019); **Primorsky Krai** (<sup>4</sup>Vassiljeva, 1973; <sup>4</sup>Bunkina and Nazarova, 1978; <sup>3</sup>Azbukina et al., 1984; <sup>3</sup>Bardunov et al., 2002; <sup>3</sup>Azbukina et al., 2006; <sup>3</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Zvyagina, Alexandrova, and Bulyonkova, 2015; <sup>3</sup>Bulakh et al., 2016; <sup>3</sup>Bogacheva, Bulakh, Bukharova, and Egorova, 2020); **Far East** (<sup>3</sup>Petrov, 1981).

***Arrhenia epichysium* (Pers.) Redhead, Lutzoni, Moncalvo & Vilgalys<sup>1</sup>**

≡ *Agaricus epichysium* Pers.<sup>2</sup> ≡ *Omphalia epichysium* (Pers.) P. Kumm.<sup>3</sup> ≡ *Omphalina epichysium* (Pers.) Quél.<sup>4</sup>

EASTERN EUROPE: **Kaliningrad Oblast** (<sup>4</sup>Dedkov, Volodina, and Gubareva, 2007; <sup>4</sup>Volodina, 2007); **Kaluga Oblast** (<sup>4</sup>Sionova, 2003); **Karachay-Cherkess Republic** (<sup>4</sup>Kalamees and Botashev, 2000); **Karelia** (<sup>4</sup>Kovalenko, Morozova, Fomina, and Särkisilta, 1998; <sup>1</sup>Krutov et al., 2014); **Komi Republic** (<sup>1</sup>Palamarchuk, 2012; <sup>1</sup>Palamarchuk, 2016a; <sup>1</sup>Palamarchuk, 2016b); **Krasnodar Krai** (<sup>4</sup>Kovalenko, 1980a; <sup>4</sup>Kovalenko, 1980b; <sup>4</sup>Vaasma, Kalamees, and Raitviir, 1986); **Leningrad Oblast** (<sup>3</sup>Thesleff, 1920; <sup>4</sup>Kalamees and Kovalenko, 1984; <sup>4</sup>Kovalenko and Morozova, 1999a; <sup>4</sup>Morozova and Kovalenko, 2000; <sup>4</sup>Popov et al., 2007; <sup>4</sup>Kalinina, 2018); **Moscow Oblast** (<sup>4</sup>Levitskaya, 1998; <sup>1</sup>Voronina et al., 2012; <sup>4</sup>Levitskaya, 2013; <sup>1</sup>Voronina et al., 2014); **Novgorod Oblast** (<sup>1</sup>Arslanov, 2012; <sup>1</sup>Arslanov, 2014); **Perm Krai** (<sup>4</sup>Perevedentseva, 2008; <sup>1</sup>Belkovskaya et al., 2014; <sup>4</sup>Botalov, 2017); **Pskov Oblast** (<sup>1</sup>Kalinina, Bolshakov, and Bulyonkova, 2020); **Saint Petersburg** (<sup>2</sup>Weinmann, 1828; <sup>2</sup>Weinmann, 1836; <sup>2</sup>Weinmann, 1837; <sup>4</sup>Kotkova, Morozova, and Popov, 2005); **Samara Oblast** (<sup>4</sup>Malysheva and Malysheva, 2008); **Sverdlovsk Oblast** (<sup>4</sup>Marina, 2006); **Tula Oblast** (<sup>4</sup>Svetasheva, 2004); **Udmurt Republic** (<sup>1</sup>Kapitonov, 2013); **Ulyanovsk Oblast** (<sup>4</sup>Ilyukhin, 2010a).

SIBERIA: **Altai Krai** (<sup>1</sup>Gorbunova, 2018a); **Buryatia** (<sup>4</sup>Nezdojminogo, 1973; <sup>4</sup>Petrov, 1991); **Irkutsk Oblast** (<sup>4</sup>Astapenko, 1990a); **Khanty-Mansi Autonomous Okrug** (<sup>1</sup>Filippova, Bulyonkova, and Lapshina, 2015; <sup>1</sup>Filippova and Bulyonkova, 2017a; <sup>1</sup>Filippova and Bulyonkova, 2017b; <sup>1</sup>Zvyagina and Baykalova, 2017); **Krasnoyarsk Krai** (<sup>4</sup>Beglyanova, 1972a; <sup>4</sup>Beglyanova, 1972b; <sup>1</sup>Kryuchkova, 2009; <sup>1</sup>Zauzolkova, 2012; <sup>1</sup>Zauzolkova, 2015; <sup>1</sup>Malysheva, Malysheva, Kiyashko, et al., 2017; <sup>1</sup>Krom and Kapitonov, 2019); **Novosibirsk Oblast** (<sup>4</sup>Perova and Gorbunova, 2001; <sup>4</sup>Perova and Gorbunova, 2007); **Tomsk Oblast** (<sup>4</sup>Perova and Gorbunova, 2001; <sup>1</sup>Kudashova, Gashkov, and Kutafjeva, 2013).

FAR EAST: **Amur Oblast** (<sup>4</sup>Nazarova, 1986); **Jewish Autonomous Oblast** (<sup>4</sup>Bulakh, Govorova, Nazarova, and Vassiljeva, 2007; <sup>4</sup>Bau, Bulakh, and Govorova, 2011); **Kamchatka Krai** (<sup>4</sup>Kalamees and Vaasma, 1981); **Khabarovsk Krai** (<sup>4</sup>Azbukina et al., 1986; <sup>4</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Erofeeva and Bulakh, 2015a); **Magadan Oblast** (<sup>4</sup>Sazanova, 1996; <sup>4</sup>Sazanova, 2005; <sup>1</sup>Sazanova, 2009a; <sup>1</sup>Sazanova, 2009b; <sup>1</sup>Sazanova, 2011); **Primorsky Krai** (<sup>4</sup>Vassiljeva, 1973; <sup>4</sup>Bunkina and Nazarova, 1978; <sup>4</sup>Azbukina et al., 1984; <sup>4</sup>Bardunov et al., 2002; <sup>4</sup>Azbukina et al., 2006; <sup>4</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Bulakh et al., 2016).

***Arrhenia gerardiana* (Peck) Elborne**

≡ *Omphalina gerardiana* (Peck) Singer<sup>1</sup>

EASTERN EUROPE: **Vologda Oblast** (<sup>1</sup>Kirillova, 2007; <sup>1</sup>Kirillova, 2009).

***Arrhenia griseopallida* (Desm.) Watling<sup>1</sup>**

≡ *Leptoglossum griseopallidum* (Desm.) Cetto<sup>2</sup> ≡ *Omphalia griseopallida* (Desm.) P. Karst.<sup>3</sup> ≡ *Omphalina griseopallida* (Desm.) Quél.<sup>4</sup>

EASTERN EUROPE: **Crimea** (<sup>4</sup>Sarkina, 2001; <sup>4</sup>Dudka et al., 2004; <sup>4</sup>Sarkina, 2010b; <sup>4</sup>Sarkina, 2014b; <sup>1</sup>Sarkina and Mironova, 2015); **Karachay-Cherkess Republic** (<sup>2</sup>Onipchenko and Kaverina, 1989; <sup>4</sup>Kalamees and Botashev, 2000); **Komi Republic** (<sup>1</sup>Palamarchuk, 2016a; <sup>1</sup>Palamarchuk and Kirillov, 2017); **Lipetsk Oblast** (<sup>4</sup>Sarycheva et al., 2009; <sup>4</sup>Sarycheva, 2011; <sup>4</sup>Sarycheva, 2014a; <sup>4</sup>Sarycheva, 2016; <sup>1</sup>Sarycheva, Starodubtseva, and Sapelnikova, 2017); **Penza Oblast** (<sup>4</sup>Ivanov, 1981a); **Sevastopol** (<sup>1</sup>Sarkina, 2016b); **Sverdlovsk Oblast** (<sup>4</sup>Marina, 2006); **Tula Oblast** (<sup>4</sup>Svetasheva, 2004; <sup>1</sup>Shcherbakov, 2010); **Voronezh Oblast** (<sup>3</sup>Chastukhin and Nikolaevskaya, 1953; <sup>4</sup>Chastukhin and Nikolaevskaya, 1969); **Arid territories** (<sup>1</sup>Rebriev, Rusanov, et al., 2012).

SIBERIA: **Altai Republic** (<sup>1</sup>Gorbunova, 2001b; <sup>2,4</sup>Perova and Gorbunova, 2001; <sup>4</sup>Gorbunova, 2008; <sup>1</sup>Gorbunova, 2017b); **Krasnoyarsk Krai** (<sup>4</sup>Kosheleva and Kutafjeva, 2008b; <sup>4</sup>Kosheleva, 2010); **Novosibirsk Oblast** (<sup>4</sup>Perova and Gorbunova, 2001; <sup>1</sup>Koropachinskiy and Banaev, 2014).

***Arrhenia latispora* (J. Favre) Bon & Courtec.**

EASTERN EUROPE: **Leningrad Oblast** (Bondartseva, Zmirovich, and Lositskaya, 1999).

SIBERIA: **Krasnoyarsk Krai** (Krom and Kapitonov, 2019).

***Arrhenia lilacinicolor* (Bon) P.-A. Moreau & Courtec.**

EASTERN EUROPE: **Crimea** (Sarkina and Stavishenko, 2019).

***Arrhenia lobata* (Pers.) Kühner & Lamoure ex Redhead<sup>1</sup>**

≡ *Cantharellus lobatus* (Pers.) Fr.<sup>2</sup> ≡ *Leptoglossum lobatum* (Pers.) Ricken<sup>3</sup>

EASTERN EUROPE: **Arkhangelsk Oblast** (<sup>1</sup>Ezhov, Gavrilov, and Zmitrovich, 2014; <sup>1</sup>Zmitrovich and Ezhov, 2015; <sup>1</sup>Ezhov, Zmitrovich, and Ershov, 2016; <sup>1</sup>Shiryayev, Zmitrovich, and Ezhov, 2018); **Komi Republic** (<sup>1</sup>Palamarchuk, 2011b; <sup>1</sup>Palamarchuk, 2016a; <sup>1</sup>Palamarchuk, 2016b); **Murmansk Oblast** (<sup>1</sup>Nezdojminogo, 1997b; <sup>1</sup>Karatygin, Nezdojminogo, Novozhilov, and Zhurbenko, 1999).

SIBERIA: **Altai Republic** (<sup>1</sup>Gorbunova, 2010); **Khanty-Mansi Autonomous Okrug** (<sup>1</sup>Vasin and Vasina, 2013); **Krasnoyarsk Krai** (<sup>1</sup>Nezdojminogo and Zhurbenko, 1996; <sup>1</sup>Nezdojminogo, 1997a; <sup>1</sup>Karatygin, Nezdojminogo, Novozhilov, and Zhurbenko, 1999; <sup>1</sup>Nezdojminogo, 2002; <sup>1</sup>Zmitrovich and Ezhov, 2015; <sup>1</sup>Shiryayev, Zmitrovich, and Ezhov, 2018); **Sakha Republic** (<sup>1</sup>Karatygin, Nezdojminogo, Novozhilov, and Zhurbenko, 1999); **Tomsk Oblast** (<sup>3</sup>Perova and Gorbunova, 2001; <sup>1</sup>Kudashova, Gashkov, and Kutafjeva, 2013).

FAR EAST: **Chukotka Autonomous Okrug** (<sup>2</sup>Berkeley and Curtis, 1978); **Magadan Oblast** (<sup>1</sup>Rebriev, Bulakh, Sazanova, and Shiryayev, 2020).

***Arrhenia obatra* (J. Favre) Redhead, Lutzoni, Moncalvo & Vilgalys<sup>1</sup>**

≡ *Omphalina obatra* (J. Favre) P.D. Orton<sup>2</sup>

EASTERN EUROPE: **Arkhangelsk Oblast** (<sup>1</sup>Ezhov, Gavrilov, and Zmitrovich, 2014; <sup>1</sup>Zmitrovich and Ezhov, 2015; <sup>1</sup>Ezhov, Zmitrovich, and Ershov, 2016); **Komi Republic** (<sup>1</sup>Palamarchuk, 2016a; <sup>1</sup>Palamarchuk, 2016b); **Murmansk Oblast** (<sup>2</sup>Mikhailovskii, 1975b; <sup>2</sup>Karatygin, Nezdojminogo, Novozhilov, and Zhurbenko, 1999); **Yamalo-Nenets Autonomous Okrug** (<sup>2</sup>Karatygin, Nezdojminogo, Novozhilov, and Zhurbenko, 1999).

SIBERIA: **Altai Republic** (<sup>1</sup>Gorbunova, 2019); **Irkutsk Oblast** (<sup>2</sup>Petrov, 1991; <sup>2</sup>Bardunov et al., 2005; <sup>2</sup>Petrov, 2008; <sup>1</sup>Gorbunova and Stepansova, 2015); **Krasnoyarsk Krai** (<sup>2</sup>Nezdojminogo and Zhurbenko, 1996; <sup>2</sup>Nezdojminogo, 1997a; <sup>2</sup>Karatygin, Nezdojminogo, Novozhilov, and Zhurbenko, 1999; <sup>2</sup>Nezdojminogo, 2002; <sup>1</sup>Zmitrovich and Ezhov,

2015; <sup>1</sup>Gorbunova, 2016; <sup>1</sup>Shiryaev, Zmitrovich, and Ezhov, 2018); **Sakha Republic** (<sup>2</sup>Karatygin, Nezdoininogo, Novozhilov, and Zhurbenko, 1999).

FAR EAST: **Chukotka Autonomous Okrug** (<sup>2</sup>Karatygin, Nezdoininogo, Novozhilov, and Zhurbenko, 1999).

***Arrhenia obscurata* (D.A. Reid) Redhead, Lutzoni, Moncalvo & Vilgalys<sup>1</sup>**

≡ *Omphalina obscurata* D.A. Reid<sup>2</sup>

EASTERN EUROPE: **Komi Republic** (<sup>1</sup>Palamarchuk, 2016a; <sup>1</sup>Palamarchuk, 2016b); **Murmansk Oblast** (<sup>2</sup>Karatygin, Nezdoininogo, Novozhilov, and Zhurbenko, 1999); **Perm Krai** (<sup>2</sup>Perevedentseva, 2008; <sup>1</sup>Belkovskaya et al., 2014); **Ryazan Oblast** (<sup>1</sup>Volosnova, 2014).

SIBERIA: **Buryatia** (<sup>2</sup>Nezdoininogo, 1970a); **Irkutsk Oblast** (<sup>2</sup>Petrov, 1984; <sup>2</sup>Petrov, 2008); **Krasnoyarsk Krai** (<sup>2</sup>Vassilkov, 1971b; <sup>2</sup>Karatygin, Nezdoininogo, Novozhilov, and Zhurbenko, 1999).

***Arrhenia oniscus* (Fr.) Redhead, Lutzoni, Moncalvo & Vilgalys<sup>1</sup>**

≡ *Agaricus oniscus* Fr.<sup>2</sup> ≡ *Omphalia oniscus* (Fr.) Gillet<sup>3</sup> ≡ *Omphalina oniscus* (Fr.) Quél.<sup>4</sup>

EASTERN EUROPE: **Karelia** (<sup>1</sup>Krutov et al., 2014); **Komi Republic** (<sup>4</sup>Bobretsova, 2004; <sup>1</sup>Palamarchuk, 2012; <sup>1</sup>Palamarchuk, 2016a; <sup>1</sup>Palamarchuk, 2016b); **Leningrad Oblast** (<sup>3</sup>Thesleff, 1920; <sup>4</sup>Stolyarskaya, 1989; <sup>4</sup>Kovalenko and Morozova, 1999a; <sup>4</sup>Popov et al., 2007; <sup>1</sup>Zmitrovich et al., 2015); **Lipetsk Oblast** (<sup>4</sup>Sarycheva et al., 2009); **Ryazan Oblast** (<sup>1</sup>Volosnova, 2014); **Saint Petersburg** (<sup>2</sup>Weinmann, 1836; <sup>2</sup>Weinmann, 1837); **Sverdlovsk Oblast** (<sup>4</sup>Marina, 2006); **Tula Oblast** (<sup>4</sup>Svetasheva, 2004; <sup>4</sup>Svetasheva, 2005b; <sup>1</sup>Shcherbakov, 2010); **Yamalo-Nenets Autonomous Okrug** (<sup>4</sup>Stepanova and Sirko, 1977; <sup>4</sup>Karatygin, Nezdoininogo, Novozhilov, and Zhurbenko, 1999).

SIBERIA: **Altai Republic** (<sup>1</sup>Gorbunova, 2010); **Buryatia** (<sup>4</sup>Nezdoininogo, 1973; <sup>4</sup>Petrov, 1991); **Khakassia** (<sup>4</sup>Beglyanova, 1972a; <sup>1</sup>Zauzolkova, 2015); **Khanty-Mansi Autonomous Okrug** (<sup>4</sup>Filippova, 2009; <sup>1</sup>Filippova and Thormann, 2014; <sup>1</sup>Filippova, 2014; <sup>1</sup>Filippova, Mourgues, and Philippe, 2014; <sup>1</sup>Filippova and Bulyonkova, 2017a; <sup>1</sup>Filippova and Bulyonkova, 2017b); **Krasnoyarsk Krai** (<sup>4</sup>Vassilkov, 1971b; <sup>4</sup>Beglyanova, 1972a; <sup>4</sup>Nezdoininogo, 1997a; <sup>4</sup>Karatygin, Nezdoininogo, Novozhilov, and Zhurbenko, 1999); **Sakha Republic** (<sup>4</sup>Karatygin, Nezdoininogo, Novozhilov, and Zhurbenko, 1999; <sup>4</sup>Nezdoininogo, 2003); **Yamalo-Nenets Autonomous Okrug** (<sup>4</sup>Tarchevskaya, 1990; <sup>1</sup>Kapitonov, 2015).

FAR EAST: **Chukotka Autonomous Okrug** (<sup>2</sup>Berkeley and Curtis, 1978; <sup>4</sup>Karatygin, Nezdoininogo, Novozhilov, and Zhurbenko, 1999); **Magadan Oblast** (<sup>4</sup>Nazarova, 1976; <sup>4</sup>Sazanova, 2005; <sup>1</sup>Sazanova, 2009a; <sup>1</sup>Sazanova, 2012).

***Arrhenia peltigerina* (Peck) Redhead, Lutzoni, Moncalvo & Vilgalys**

SIBERIA: **Buryatia** (Zhurbenko, 2009); **Khanty-Mansi Autonomous Okrug** (Vasin and Vasina, 2013; Zvyagina and Baykalova, 2017).

***Arrhenia philonotis* (Lasch) Redhead, Lutzoni, Moncalvo & Vilgalys<sup>1</sup>**

≡ *Omphalia philonotis* (Lasch) Quél.<sup>2</sup> ≡ *Omphalina philonotis* (Lasch) Quél.<sup>3</sup>

EASTERN EUROPE: **Kaliningrad Oblast** (<sup>2</sup>Neuhoff, 1922; <sup>3</sup>Dedkov, Volodina, and Gubareva, 2007; <sup>3</sup>Volodina, 2007); **Karelia** (<sup>2</sup>Singer, 1943); **Komi Republic** (<sup>3</sup>Bobretsova, 2004; <sup>1</sup>Palamarchuk, 2011b; <sup>1</sup>Palamarchuk, 2012; <sup>1</sup>Palamarchuk, 2016a; <sup>1</sup>Palamarchuk, 2016b); **Leningrad Oblast** (<sup>2</sup>Singer, 1943; <sup>3</sup>Kovalenko and Morozova, 1999a; <sup>3</sup>Morozova, 1999; <sup>3</sup>Morozova, 2007; <sup>3</sup>Popov et al., 2007); **Moscow Oblast** (<sup>3</sup>Vishnevsky, 1998; <sup>3</sup>Levitskaya, 2006; <sup>1</sup>Voronina et al., 2012; <sup>3</sup>Levitskaya, 2013; <sup>1</sup>Voronina et al., 2014); **Pskov Oblast** (<sup>3</sup>Popov, 2001a; <sup>1</sup>Popov et al., 2013); **Ryazan Oblast** (<sup>1</sup>Volosnova, 2014); **Tatarstan** (<sup>2</sup>Singer, 1943; <sup>3</sup>Vassiljeva, 1977).

SIBERIA: **Buryatia** (<sup>3</sup>Nezdoininogo, 1973; <sup>3</sup>Petrov, 1991); **Sakha Republic** (<sup>3</sup>Karatygin, Nezdoininogo, Novozhilov, and Zhurbenko, 1999); **Yamalo-Nenets Autonomous Okrug** (<sup>1</sup>Kapitonov, 2015).

***Arrhenia retiruga* (Bull.) Redhead<sup>1</sup>**

≡ *Cantharellus retirugus* (Bull.) Pers.<sup>2</sup> ≡ *Leptotus retirugus* (Bull.) P. Karst.<sup>3</sup>

EASTERN EUROPE: **Komi Republic** (<sup>1</sup>Palamarchuk and Kirillov, 2017; <sup>1</sup>Palamarchuk, 2020a); **Leningrad Oblast** (<sup>3</sup>Thesleff, 1920; <sup>1</sup>Bondartseva, Zmirovich, and Lositskaya, 1999); **Murmansk Oblast** (<sup>1</sup>Bolshakov et al., 2020); **Pskov Oblast** (<sup>1</sup>Popov et al., 2013); **Saint Petersburg** (<sup>2</sup>Weinmann, 1837; <sup>1</sup>Morozova et al., 2020); **Tula Oblast** (<sup>1</sup>Shcherbakov, 2010; <sup>1</sup>Svetasheva et al., 2017); **Arid territories** (<sup>1</sup>Rebriev, Rusanov, et al., 2012).

***Arrhenia rickenii* (Hora) Watling**

EASTERN EUROPE: **Arkhangelsk Oblast** (Ezhov, Gavrilov, and Zmitrovich, 2014; Zmitrovich and Ezhov, 2015; Ezhov, Zmitrovich, and Ershov, 2016; Shiryaev, Zmitrovich, and Ezhov, 2018); **Crimea** (Sarkina, 2014a).

SIBERIA: **Krasnoyarsk Krai** (Gorbunova, 2016).



***Arrhenia rustica* (Fr.) Redhead, Lutzoni, Moncalvo & Vilgalys<sup>1</sup>**

≡ *Agaricus rusticus* Fr.<sup>2</sup> ≡ *Omphalia rustica* (Fr.) Quél.<sup>3</sup> ≡ *Omphalina rustica* (Fr.) Quél.<sup>4</sup>

EASTERN EUROPE: **Kaliningrad Oblast** (<sup>3</sup>Neuhoff, 1922; <sup>4</sup>Dedkov, Volodina, and Gubareva, 2007; <sup>4</sup>Volodina, 2007); **Karachay-Cherkess Republic** (<sup>4</sup>Onipchenko and Kaverina, 1989; <sup>4</sup>Kalamees and Botashev, 2000); **Krasnodar Krai** (<sup>3</sup>Vassiljeva, 1939); **Leningrad Oblast** (<sup>4</sup>Kovalenko and Morozova, 1999a; <sup>4</sup>Popov et al., 2007); **Moscow Oblast** (<sup>4</sup>Gorlenko, Sidorova, and Sidorova, 1989; <sup>4</sup>Vishnevsky, 1998); **Perm Krai** (<sup>4</sup>Perevedentseva, 2008); **Pskov Oblast** (<sup>1</sup>Popov et al., 2013); **Tatarstan** (<sup>4</sup>Vassiljeva, 1977); **Yamalo-Nenets Autonomous Okrug** (<sup>4</sup>Stepanova and Sirko, 1977); **Arid territories** (<sup>1</sup>Rebriev, Rusanov, et al., 2012).

SIBERIA: **Buryatia** (<sup>1</sup>Petrov, 2013); **Krasnoyarsk Krai** (<sup>2</sup>Thümen, 1878; <sup>4</sup>Beglyanova, 1972a; <sup>1</sup>Zauzolkova, 2015); **Yamalo-Nenets Autonomous Okrug** (<sup>4</sup>Tarchevskaya, 1990).

FAR EAST: **Amur Oblast** (<sup>1</sup>Kochunova and Erofeeva, 2017); **Chukotka Autonomous Okrug** (<sup>2</sup>Berkeley and Curtis, 1978); **Magadan Oblast** (<sup>1</sup>Sazanova, 2009a; <sup>1</sup>Sazanova, 2012).

***Arrhenia salina* (Høil.) Bon & Courtec.<sup>1</sup>**

= *Arrhenia littoralis* Gulden<sup>2</sup>

EASTERN EUROPE: **Yamalo-Nenets Autonomous Okrug** (<sup>2</sup>Knudsen and Mukhin, 1998; <sup>1</sup>Karatygin, Nezdojminogo, Novozhilov, and Zhurbenko, 1999).

SIBERIA: **Krasnoyarsk Krai** (<sup>1</sup>Nezdojminogo, 1997a; <sup>1</sup>Karatygin, Nezdojminogo, Novozhilov, and Zhurbenko, 1999).

FAR EAST: **Chukotka Autonomous Okrug** (<sup>1</sup>Karatygin, Nezdojminogo, Novozhilov, and Zhurbenko, 1999).

***Arrhenia spathulata* (Fr.) Redhead<sup>1</sup>**

= *Cantharellus muscigenus* (Bull.) Fr.<sup>2</sup> = *Cyphella muscicola* var. *inaequilatera* (Schumach.) Fr.<sup>3</sup> = *Dictyolus muscigenus* (Bull.) Quél.<sup>4</sup> = *Leptoglossum muscigenum* (Bull.) P. Karst.<sup>5</sup> = *Leptoglossum queletii* (Pilát & Svrček) Corner<sup>6</sup>

According to Redhead (1984) *Leptoglossum queletii* (Pilát & Svrček) Corner is a synonym of *Arrhenia spathulata* (Fr.) Redhead.

EASTERN EUROPE: **Arkhangelsk Oblast** (<sup>1</sup>Ezhov, Zmitrovich, and Ershov, 2016; <sup>1</sup>Shiryayev, Zmitrovich, and Ezhov, 2018); **Kaliningrad Oblast** (<sup>1</sup>Dedkov, Volodina, and Gubareva, 2007; <sup>1</sup>Volodina, 2007; <sup>1</sup>Dedkov and Grishanov, 2010); **Kursk Oblast** (<sup>4</sup>Bedenko, 1985); **Leningrad Oblast** (<sup>5</sup>Thesleff, 1920; <sup>1</sup>Bondartseva, Zmirovich, and Lositskaya, 1999); **Murmansk Oblast** (<sup>6</sup>Mikhailovskii, 1975a); **Ryazan Oblast** (<sup>5</sup>Volosnova, 2005; <sup>1</sup>Volosnova, 2014); **Saint Petersburg** (<sup>2,3</sup>Weinmann, 1836; <sup>2,3</sup>Weinmann, 1837); **Volgograd Oblast** (<sup>1</sup>Svetasheva, Popov, Rebriev, and Pridyuk, 2014).

FAR EAST: **Magadan Oblast** (<sup>1</sup>Sazanova, 2005; <sup>1</sup>Sazanova, 2009a).

***Arrhenia sphagnicola* (Berk.) Redhead, Lutzoni, Moncalvo & Vilgalys<sup>1</sup>**

≡ *Omphalia sphagnicola* (Berk.) P. Karst.<sup>2</sup> ≡ *Omphalina sphagnicola* (Berk.) M.M. Moser<sup>3</sup>

EASTERN EUROPE: **Crimea** (<sup>1</sup>Sarkina and Stavishenko, 2019); **Kaliningrad Oblast** (<sup>3</sup>Neuhoff, 1922; <sup>3</sup>Dedkov, Volodina, and Gubareva, 2007; <sup>3</sup>Volodina, 2007); **Karelia** (<sup>1</sup>Krutov et al., 2014); **Komi Republic** (<sup>1</sup>Palamarchuk, 2016a; <sup>1</sup>Palamarchuk, 2016b); **Leningrad Oblast** (<sup>2</sup>Thesleff, 1920; <sup>3</sup>Kovalenko and Morozova, 1999a; <sup>3</sup>Popov et al., 2007; <sup>1</sup>Zmitrovich et al., 2015); **Moscow Oblast** (<sup>3</sup>Gorlenko, Sidorova, and Sidorova, 1989; <sup>3</sup>Levitskaya, 1998; <sup>3</sup>Vishnevsky, 1998; <sup>3</sup>Levitskaya, 2013; <sup>1</sup>Voronina et al., 2014); **Novgorod Oblast** (<sup>3</sup>Kovalenko, Morozova, Nezdojminogo, and Popov, 2005; <sup>1</sup>Popov et al., 2013); **Perm Krai** (<sup>3</sup>Perevedentseva, 2008; <sup>3</sup>Botalov, 2017); **Pskov Oblast** (<sup>1</sup>Kalinina, Bolshakov, and Bulyonkova, 2020); **Saint Petersburg** (<sup>3</sup>Morozova and Smirnov, 2011); **Tver Oblast** (<sup>3</sup>Kurochkin, 1993; <sup>1</sup>Kotkova, 2014); **Udmurt Republic** (<sup>3</sup>Tychinin and Kuzmina, 2003); **Yamalo-Nenets Autonomous Okrug** (<sup>3</sup>Stepanova and Sirko, 1970; <sup>3</sup>Stepanova and Sirko, 1977; <sup>3</sup>Nezdojminogo, 2001).

SIBERIA: **Altai Republic** (<sup>3</sup>Gorbunova, 2003; <sup>1</sup>Gorbunova, 2010); **Irkutsk Oblast** (<sup>3</sup>Petrov, 1984; <sup>3</sup>Petrov, 1991; <sup>3</sup>Petrov, 2008); **Khanty-Mansi Autonomous Okrug** (<sup>3</sup>Filippova, 2009; <sup>1</sup>Filippova and Thormann, 2014; <sup>1</sup>Filippova, 2014; <sup>1</sup>Filippova, Mourgues, and Philippe, 2014); **Krasnoyarsk Krai** (<sup>3</sup>Beglyanova, 1972a; <sup>3</sup>Nezdojminogo, 1976a; <sup>3</sup>Kosheleva and Kutafjeva, 2008a; <sup>1</sup>Gorbunova, 2016); **Tomsk Oblast** (<sup>3</sup>Perova and Gorbunova, 2001; <sup>1</sup>Kudashova, Gashkov, and Kutafjeva, 2013); **Yamalo-Nenets Autonomous Okrug** (<sup>3</sup>Tarchevskaya, 1990).

FAR EAST: **Amur Oblast** (<sup>3</sup>Nazarova, 1986); **Chukotka Autonomous Okrug** (<sup>3</sup>Sazanova, 1993); **Khabarovsk Krai** (<sup>3</sup>Azbukina et al., 1989; <sup>1</sup>Bulakh, Vassiljeva, and Erofeeva, 2010); **Magadan Oblast** (<sup>3</sup>Sazanova, 2005; <sup>1</sup>Sazanova, 2009a; <sup>1</sup>Sazanova, 2009b; <sup>1</sup>Sazanova, 2011; <sup>1</sup>Sazanova, 2012; <sup>1</sup>Sazanova, 2016); **Primorsky Krai** (<sup>3</sup>Vassiljeva, 1973).

***Arrhenia umbratilis* (Fr.) Redhead, Lutzoni, Moncalvo & Vilgalys<sup>1</sup>**

≡ *Agaricus umbratilis* Fr.<sup>2</sup> ≡ *Omphalia umbratilis* (Fr.) Gillet<sup>3</sup> ≡ *Omphalina umbratilis* (Fr.) Quél.<sup>4</sup>

EASTERN EUROPE: **Bryansk Oblast** (<sup>4</sup>Kruglikov, 2007); **Kaliningrad Oblast** (<sup>3</sup>Neuhoff, 1922; <sup>1</sup>Dedkov, Volodina, and Gubareva, 2007); **Leningrad Oblast** (<sup>4</sup>Kovalenko and Morozova, 1999a; <sup>4</sup>Popov et al., 2007); **Saint Petersburg** (<sup>2</sup>Weinmann, 1836; <sup>2</sup>Weinmann, 1837).

***Arrhenia velutipes* (P.D. Orton) Redhead, Lutzoni, Moncalvo & Vilgalys<sup>1</sup>**

≡ *Omphalina velutipes* P.D. Orton<sup>2</sup>

EASTERN EUROPE: **Karachay-Cherkess Republic** (<sup>1</sup>Malysheva and Svetasheva, 2011).

SIBERIA: **Khakassia** (<sup>1</sup>Gorbunova and Majnagasheva, 2013); **Krasnoyarsk Krai** (<sup>2</sup>Nezdojminogo and Kuvaev, 1993; <sup>1</sup>Gorbunova, 2016).

***Aspropaxillus candidus* (Bres.) M.M. Moser**

≡ *Clitocybe candida* Bres.<sup>1</sup> ≡ *Leucopaxillus candidus* (Bres.) Singer<sup>2</sup>

EASTERN EUROPE: **Krasnodar Krai** (<sup>1</sup>Vassiljeva, 1939; <sup>2</sup>Singer and Smith, 1943); **Moscow Oblast** (<sup>2</sup>Levitskaya, 1995c; <sup>2</sup>Vishnevsky, 1998; <sup>2</sup>Levitskaya, 2013); **Penza Oblast** (<sup>2</sup>Ivanov, 1983).

SIBERIA: **Altai Krai** (<sup>1</sup>Gorbunova, 2018a); **Altai Republic** (<sup>2</sup>Singer, 1939; <sup>2</sup>Singer and Smith, 1943; <sup>2</sup>Singer, 1943); **Krasnoyarsk Krai** (<sup>2</sup>Beglyanova, 1972a).

FAR EAST: **Primorsky Krai** (<sup>2</sup>Vassiljeva, 1973; <sup>2</sup>Bunkina and Nazarova, 1978; <sup>2</sup>Azbukina et al., 1990; <sup>2</sup>Bardunov et al., 2002; <sup>2</sup>Azbukina et al., 2006; <sup>1</sup>Bau, Bulakh, and Govorova, 2011); **Sakhalin Oblast** (<sup>2</sup>Bulakh, Govorova, and Bogatov, 1999).

***Aspropaxillus giganteus* (Sowerby) Kühner & Maire**

≡ *Clitocybe gigantea* (Sowerby) Quél.<sup>1</sup> ≡ *Leucopaxillus giganteus* (Sowerby) Singer<sup>2</sup>

EASTERN EUROPE: **Bryansk Oblast** (<sup>1</sup>Kruglikov, 2007); **Crimea** (<sup>1</sup>Sarkina, 2001; <sup>2</sup>Dudka et al., 2004; <sup>2</sup>Sarkina, 2011; <sup>2</sup>Sarkina and Prydiuk, 2012); **Karachay-Cherkess Republic** (<sup>2</sup>Kalamees and Botashev, 2000); **Krasnodar Krai** (<sup>2</sup>Kovalenko, 1980a; <sup>2</sup>Kovalenko, 1980b); **Kursk Oblast** (<sup>1</sup>Bedenko, 1987; <sup>2</sup>Baranov, 2002); **Leningrad Oblast** (<sup>2</sup>Kovalenko and Morozova, 1999a; <sup>2</sup>Tzvelev, 2000; <sup>2</sup>Popov et al., 2007; <sup>2</sup>Geltman et al., 2018); **Lipetsk Oblast** (<sup>2</sup>Shcherbakov, 2014; <sup>2</sup>Sarycheva, 2016); **Rostov Oblast** (<sup>2</sup>Singer, 1938b); **Ryazan Oblast** (<sup>2</sup>Volosnova, 2005); **Saint Petersburg** (<sup>2</sup>Morozova and Smirnov, 2011); **Samara Oblast** (<sup>2</sup>Malysheva and Malysheva, 2005b; <sup>2</sup>Malysheva and Malysheva, 2008); **Tatarstan** (<sup>2</sup>Shchepovskih, Bojko, Gorshkov, and Rogova, 2006); **Tula Oblast** (<sup>2</sup>Svetasheva, 2004; <sup>2</sup>Svetasheva, 2005b; <sup>2</sup>Shcherbakov, 2010); **Tver Oblast** (<sup>2</sup>Orlov et al., 2016); **Udmurt Republic** (<sup>2</sup>Tychinin and Kuzmina, 2003); **Volgograd Oblast** (<sup>2</sup>Burova and Nezdojminogo, 1980); **Voronezh Oblast** (<sup>1</sup>Bedenko, 1987; <sup>2</sup>Kochergina and Furmenkova, 2019); **Eastern Europe** (<sup>2</sup>Singer and Smith, 1943).

SIBERIA: **Altai Krai** (<sup>2</sup>Gorbunova, 2018b); **Altai Republic** (<sup>2</sup>Gorbunova, 2006); **Irkutsk Oblast** (<sup>2</sup>Muzyka, 2009); **Novosibirsk Oblast** (<sup>2</sup>Perova and Gorbunova, 2001; <sup>2</sup>Perova and Gorbunova, 2007); **Tomsk Oblast** (<sup>2</sup>Kudashova, Gashkov, and Vaishlya, 2016a; <sup>2</sup>Kudashova, Gashkov, and Vaishlya, 2016b).

***Aspropaxillus lepistooides* (Maire) Kühner & Maire**

≡ *Leucopaxillus lepistooides* (Maire) Singer<sup>1</sup>

EASTERN EUROPE: **Moscow Oblast** (<sup>1</sup>Levitskaya, 1995c; <sup>1</sup>Vishnevsky, 1998; <sup>1</sup>Levitskaya, 2013; <sup>1</sup>Varlygina, Zubakin, Nikitsky, and Sviridov, 2018); **Penza Oblast** (<sup>1</sup>Ivanov, 1999; <sup>1</sup>Ivanov, 2013a); **Rostov Oblast** (<sup>1</sup>Fedyayeva, 2014; <sup>1</sup>Rebriev, 2018); **Arid territories** (<sup>1</sup>Rebriev, Rusanov, et al., 2012).

SIBERIA: **Krasnoyarsk Krai** (<sup>1</sup>Stepanov, 2012).

***Asterophora lycoperdoides* (Bull.) Ditmar<sup>1</sup>**

≡ *Asterophora lycoperdoides* Fr.<sup>2</sup> ≡ *Nyctalis lycoperdoides* (Bull.) J. Schröt.<sup>3</sup> = *Asterophora nauseosa* Weinm.<sup>4</sup> = *Nyctalis agaricoides* (Fr.) Bon & Courtec.<sup>5</sup> = *Nyctalis asterophora* Fr.<sup>6</sup> = *Nyctalis nauseosa* (Weinm.) Fr.<sup>7</sup>

EASTERN EUROPE: **Belgorod Oblast** (<sup>6</sup>Bedenko, 1979a); **Chelyabinsk Oblast** (<sup>1</sup>Sirko and Stepanova, 1977; <sup>1</sup>Stepanova and Sirko, 1977); **Kaliningrad Oblast** (<sup>6</sup>Dedkov, Volodina, and Gubareva, 2007; <sup>1</sup>Dedkov and Grishanov, 2010); **Karelia** (<sup>6</sup>Kovalenko, Morozova, Fomina, and Särkisilta, 1998; <sup>1</sup>Bondartseva et al., 2001; <sup>1</sup>Kalamees, 2004); **Kirov Oblast** (<sup>1</sup>Kalamees, 2004); **Krasnodar Krai** (<sup>1</sup>Kovalenko, 1980a; <sup>2</sup>Kovalenko, 1980b); **Kursk Oblast** (<sup>1</sup>Kalamees, 2004); **Leningrad Oblast** (<sup>4</sup>Weinmann, 1836; <sup>4</sup>Borszczow, 1857; <sup>6</sup>Thesleff, 1920; <sup>7</sup>Singer, 1939; <sup>6</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Kalamees, 2004; <sup>1</sup>Popov et al., 2007; <sup>1</sup>Psurtsseva, Kiyashko, Gachkova, and Belova, 2007); **Mordovia** (<sup>1</sup>Bolshakov and Ivoilov, 2012a; <sup>1</sup>Bolshakov and Ivoilov, 2012b; <sup>1</sup>Silaeva, 2017); **Moscow** (<sup>3</sup>Bucholtz,

1897b; <sup>3</sup>Bucholtz, 1897c; <sup>3</sup>Mosolov, 1906); **Moscow Oblast** (<sup>1</sup>Gorlenko, Sidorova, and Sidorova, 1989; <sup>1</sup>Levitskaya, 1998; <sup>1</sup>Vishnevsky, 1998; <sup>1</sup>Kalamees, 2004; <sup>5</sup>Levitskaya, 2013; <sup>1</sup>Voronina et al., 2014); **Penza Oblast** (<sup>1</sup>Ivanov, 1981a); **Perm Krai** (<sup>1</sup>Perevedentseva, 2008; <sup>1</sup>Shepel', 2008; <sup>1</sup>Baklanov, 2018); **Pskov Oblast** (<sup>1</sup>Popov et al., 2013); **Ryazan Oblast** (<sup>1</sup>Volosnova, 2014); **Saint Petersburg** (<sup>2,4</sup>Weinmann, 1836; <sup>2,4</sup>Weinmann, 1837; <sup>7</sup>Singer, 1939; <sup>6</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Morozova and Smirnov, 2011); **Smolensk Oblast** (<sup>6</sup>Jaczewski, 1896); **Sverdlovsk Oblast** (<sup>1</sup>Stepanova and Sirko, 1977; <sup>1</sup>Marina, 2006); **Tatarstan** (<sup>1</sup>Vassiljeva, 1977; <sup>1</sup>Potapov, Galeyev, and Zhukov, 2013; <sup>1</sup>Potapov, 2015b); **Tula Oblast** (<sup>6</sup>Svetasheva, 2004; <sup>1</sup>Shcherbakov, 2010); **Tver Oblast** (<sup>1</sup>Kurochkin, 1993); **Udmurt Republic** (<sup>1</sup>Kapitonov, 2008).

SIBERIA: **Altai Republic** (<sup>1</sup>Gorbunova, 1997; <sup>1</sup>Perova and Gorbunova, 2001); **Irkutsk Oblast** (<sup>1</sup>Astapenko and Kutafjeva, 1990); **Khanty-Mansi Autonomous Okrug** (<sup>1</sup>Filippova, Bulyonkova, and Lapshina, 2015; <sup>1</sup>Filippova and Bulyonkova, 2017a; <sup>1</sup>Filippova and Bulyonkova, 2017b; <sup>1</sup>Zvyagina and Baykalova, 2017); **Krasnoyarsk Krai** (<sup>6</sup>Beglyanova, 1972a; <sup>1</sup>Kosheleva and Kutafjeva, 2008b; <sup>3</sup>Kosheleva, 2010; <sup>1</sup>Stepanov, 2012; <sup>1</sup>Krom and Kapitonov, 2019); **Novosibirsk Oblast** (<sup>1</sup>Nozdrenko, 1970; <sup>1</sup>Perova and Gorbunova, 2001; <sup>1</sup>Gorbunova, 2007; <sup>3</sup>Perova and Gorbunova, 2007; <sup>1</sup>Koropachinskiy and Banaev, 2014); **Tomsk Oblast** (<sup>1</sup>Kudashova, Gashkov, and Kutafjeva, 2013).

FAR EAST: **Amur Oblast** (<sup>1</sup>Azbukina et al., 1998); **Jewish Autonomous Oblast** (<sup>1</sup>Bulakh, Govorova, Nazarova, and Vassiljeva, 2007; <sup>1</sup>Bau, Bulakh, and Govorova, 2011); **Khabarovsk Krai** (<sup>1</sup>Azbukina et al., 1989); **Primorsky Krai** (<sup>1</sup>Bulakh, 1977; <sup>2</sup>Azbukina et al., 1984; <sup>1</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Bulakh et al., 2016); **Sakhalin Oblast** (<sup>1</sup>Vassiljeva and Nazarova, 1972).

### ***Asterophora parasitica* (Bull.) Singer<sup>1</sup>**

≡ *Nyctalis parasitica* (Bull.) Fr.<sup>2</sup>

EASTERN EUROPE: **Adygea** (<sup>1</sup>Kalamees, 2004); **Belgorod Oblast** (<sup>1</sup>Bedenko, 1980); **Kaliningrad Oblast** (<sup>2</sup>Dedkov, Volodina, and Gubareva, 2007); **Kaluga Oblast** (<sup>2</sup>Sionova, 2003); **Leningrad Oblast** (<sup>2</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Kalamees, 2004; <sup>1</sup>Popov et al., 2007; <sup>1</sup>Zmitrovich et al., 2015); **Lipetsk Oblast** (<sup>1</sup>Sarycheva et al., 2009); **Moscow Oblast** (<sup>1</sup>Vishnevsky, 1998); **Sverdlovsk Oblast** (<sup>1</sup>Marina, 2006); **Udmurt Republic** (<sup>1</sup>Tychinin and Kuzmina, 2003).

SIBERIA: **Altai Krai** (<sup>1</sup>Gorbunova and Chubarova, 2008; <sup>1</sup>Gorbunova, Vlasenko, and Tzhubarova, 2011); **Altai Republic** (<sup>1</sup>Gorbunova, 2001a); **Khakassia** (<sup>1</sup>Zauzolkova, 2015); **Krasnoyarsk Krai** (<sup>2</sup>Beglyanova, 1972a).

FAR EAST: **Magadan Oblast** (<sup>1</sup>Nazarova, 1976; <sup>1</sup>Sazanova, 2005; <sup>1</sup>Sazanova, 2009a); **Sakhalin Oblast** (<sup>1</sup>Vassiljeva and Nazarova, 1972).

### ***Atheniella adonis* (Bull.) Redhead, Moncalvo, Vilgalys, Desjardin & B.A. Perry<sup>1</sup>**

≡ *Agaricus adonis* Bull.<sup>2</sup> ≡ *Hemimycena adonis* (Bull.) Singer<sup>3</sup> ≡ *Mycena adonis* (Bull.) Gray<sup>4</sup> ≡ *Mycena adonis* var. *adonis* (Bull.) Gray<sup>5</sup> = *Mycena floridula* (Fr.) Quél.<sup>6</sup>

EASTERN EUROPE: **Kaliningrad Oblast** (<sup>4</sup>Dedkov, Volodina, and Gubareva, 2007); **Kaluga Oblast** (<sup>4</sup>Sionova, 2009; <sup>4</sup>Sionova, 2012; <sup>4</sup>Antokhina et al., 2015); **Kirov Oblast** (<sup>1</sup>Stavishenko, Luginina, Kirillov, and Egoshina, 2019); **Komi Republic** (<sup>4</sup>Bobretsova, 2004; <sup>4</sup>Palamarchuk, 2012; <sup>1</sup>Palamarchuk and Kirillov, 2018a); **Leningrad Oblast** (<sup>4</sup>Kovalenko and Morozova, 1999a; <sup>4</sup>Morozova, 2007; <sup>4</sup>Popov et al., 2007); **Moscow Oblast** (<sup>4</sup>Gorlenko, Sidorova, and Sidorova, 1989; <sup>5</sup>Vishnevsky, 1998; <sup>4</sup>Voronina et al., 2014); **Novgorod Oblast** (<sup>4</sup>Kovalenko, Morozova, Nezdoinog, and Popov, 2005; <sup>4</sup>Popov et al., 2013); **Penza Oblast** (<sup>4</sup>Ivanov, 1983); **Perm Krai** (<sup>4</sup>Perevedentseva, 2008; <sup>4</sup>Belkovskaya et al., 2014); **Saint Petersburg** (<sup>2</sup>Weinmann, 1828; <sup>2</sup>Weinmann, 1836; <sup>2</sup>Weinmann, 1837); **Samara Oblast** (<sup>6</sup>Malysheva and Malysheva, 2005b; <sup>6</sup>Malysheva and Malysheva, 2008); **Sverdlovsk Oblast** (<sup>4</sup>Marina, 2006); **Tatarstan** (<sup>4</sup>Potapov, Galeyev, and Zhukov, 2013; <sup>4</sup>Potapov, 2015b); **Tula Oblast** (<sup>4</sup>Svetasheva, 2004; <sup>4</sup>Svetasheva, 2005b; <sup>4</sup>Shcherbakov, 2010); **Udmurt Republic** (<sup>4</sup>Kapitonov, 2008); **Vologda Oblast** (<sup>6</sup>Kirillova, 2007; <sup>6</sup>Kirillova, 2009); **Yaroslavl Oblast** (<sup>4</sup>Lazareva, 1998a).

SIBERIA: **Altai Republic** (<sup>3</sup>Singer, 1943; <sup>1</sup>Svetasheva et al., 2019); **Irkutsk Oblast** (<sup>4</sup>Petrov, 1984; <sup>4</sup>Petrov, 1991; <sup>4</sup>Bardunov et al., 2005; <sup>6</sup>Purtseva, Kiyashko, Gachkova, and Belova, 2007; <sup>4</sup>Petrov, 2008); **Khanty-Mansi Autonomous Okrug** (<sup>1</sup>Zvyagina and Vasina, 2015; <sup>4</sup>Filippova and Bulyonkova, 2017a; <sup>4</sup>Filippova and Bulyonkova, 2017b); **Krasnoyarsk Krai** (<sup>4</sup>Beglyanova, 1972a; <sup>4</sup>Beglyanova, 1972b; <sup>6</sup>Nezdoinog, 1982a; <sup>4</sup>Zauzolkova, 2015; <sup>1</sup>Zauzolkova and Gorbunova, 2016); **Novosibirsk Oblast** (<sup>4</sup>Perova and Gorbunova, 2001; <sup>5</sup>Perova and Gorbunova, 2007; <sup>5</sup>Koropachinskiy and Banaev, 2014); **Tomsk Oblast** (<sup>1</sup>Kudashova, Gashkov, and Vaishlya, 2016a; <sup>1</sup>Kudashova, Gashkov, and Vaishlya, 2016b).

FAR EAST: **Amur Oblast** (<sup>4</sup>Nazarova, 1986; <sup>6</sup>Azbukina et al., 1998); **Jewish Autonomous Oblast** (<sup>4</sup>Bulakh, Govorova, Nazarova, and Vassiljeva, 2007; <sup>4</sup>Bau, Bulakh, and Govorova, 2011); **Khabarovsk Krai** (<sup>4</sup>Azbukina et al., 1986; <sup>4</sup>Azbukina et al., 1989; <sup>4</sup>Bau, Bulakh, Zhuang, and Li, 2007; <sup>4</sup>Bulakh, Vassiljeva, and Erofeeva, 2010; <sup>4</sup>Bau,

Bulakh, and Govorova, 2011; <sup>4</sup>Bulakh, 2013; <sup>1</sup>Erofeeva and Bulakh, 2015a; <sup>4</sup>Bogacheva, Bulakh, Bukharova, and Egorova, 2015); **Magadan Oblast** (<sup>1</sup>Sazanova, 2015); **Primorsky Krai** (<sup>4</sup>Vassiljeva, 1973; <sup>4,6</sup>Bunkina and Nazarova, 1978; <sup>4</sup>Azbukina et al., 1984; <sup>4,6</sup>Azbukina et al., 2006; <sup>4,6</sup>Bau, Bulakh, and Govorova, 2011); **Sakhalin Oblast** (<sup>4</sup>Bulakh, Govorova, and Bogatov, 1999).

***Atheniella delectabilis* (Peck) Lüderitz & H. Lehmann**

≡ *Hemimycena delectabilis* (Peck) Singer<sup>1</sup> ≡ *Hemimycena delectabilis* var. *delectabilis* (Peck) Singer<sup>2</sup> ≡ *Mycena delectabilis* (Peck) Sacc.<sup>3</sup>

EASTERN EUROPE: **Karelia** (<sup>1</sup>Krutov et al., 2014); **Leningrad Oblast** (<sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Morozova, 1999; <sup>1</sup>Popov et al., 2007); **Moscow Oblast** (<sup>1</sup>Vishnevsky, 1998); **Novgorod Oblast** (<sup>2</sup>Malysheva, Malysheva, and Zmitrovich, 2007; <sup>2</sup>Malysheva and Morozova, 2009); **Penza Oblast** (<sup>1</sup>Ivanov, 1999); **Perm Krai** (<sup>1</sup>Perevedentseva, 2008; <sup>1</sup>Belkovskaya et al., 2014); **Sverdlovsk Oblast** (<sup>1</sup>Marina, 2006); **Tula Oblast** (<sup>1</sup>Svetasheva, 2004; <sup>2</sup>Malysheva and Morozova, 2009); **Arid territories** (<sup>1</sup>Rebriev, Rusanov, et al., 2012).

SIBERIA: **Altai Krai** (<sup>1</sup>Gorbunova, 2018b); **Altai Republic** (<sup>1</sup>Gorbunova, 2001b; <sup>1</sup>Perova and Gorbunova, 2001); **Khanty-Mansi Autonomous Okrug** (<sup>1,3</sup>Filippova and Bulyonkova, 2017a; <sup>1,3</sup>Filippova and Bulyonkova, 2017b).

FAR EAST: **Khabarovsk Krai** (<sup>1</sup>Bulakh, 2013; <sup>1</sup>Bogacheva, Bulakh, Bukharova, and Egorova, 2015).

***Atheniella flavoalba* (Fr.) Redhead, Moncalvo, Vilgalys, Desjardin & B.A. Perry<sup>1</sup>**

≡ *Mycena flavoalba* (Fr.) Quél.<sup>2</sup>

EASTERN EUROPE: **Adygea** (<sup>2</sup>Sopina, 2004b); **Crimea** (<sup>2</sup>Sarkina, 2010b; <sup>2</sup>Sarkina and Prydiuk, 2012; <sup>2</sup>Sarkina, 2013); **Kaliningrad Oblast** (<sup>2</sup>Dedkov, Volodina, and Gubareva, 2007; <sup>2</sup>Volodina, 2007; <sup>1</sup>Atayev and Volodina, 2020); **Kaluga Oblast** (<sup>2</sup>Sionova, 2012); **Karelia** (<sup>2</sup>Kovalenko, Morozova, Fomina, and Särkisilta, 1998; <sup>2</sup>Bondartseva et al., 2001; <sup>2</sup>Krutov et al., 2014); **Kirov Oblast** (<sup>2</sup>Kirillov, 2011; <sup>2</sup>Kirillov, Perevedentseva, and Egoshina, 2011; <sup>1</sup>Stavishenko, Luginina, Kirillov, and Egoshina, 2019); **Komi Republic** (<sup>2</sup>Palamarchuk and Kirillov, 2017; <sup>2</sup>Palamarchuk, 2017; <sup>1</sup>Palamarchuk and Kirillov, 2018a); **Leningrad Oblast** (<sup>2</sup>Thesleff, 1920; <sup>2</sup>Nezdojminogo, 1967; <sup>2</sup>Chastukhin and Nikolaevskaya, 1969; <sup>2</sup>Kovalenko and Morozova, 1999a; <sup>2</sup>Morozova and Kovalenko, 2000; <sup>2</sup>Morozova, 2007; <sup>2</sup>Popov et al., 2007; <sup>1</sup>Zmitrovich et al., 2015); **Lipetsk Oblast** (<sup>2</sup>Sarycheva et al., 2009; <sup>2</sup>Sarycheva, 2011; <sup>2</sup>Sarycheva, 2014a; <sup>2</sup>Sarycheva, 2016); **Moscow** (<sup>2</sup>Burova, 1971); **Moscow Oblast** (<sup>2</sup>Levitskaya, 1998; <sup>2</sup>Vishnevsky, 1998; <sup>2</sup>Levitskaya, 2013); **Murmansk Oblast** (<sup>2</sup>Mikhailovskii, 1975b; <sup>2</sup>Karatygin, Nezdojminogo, Novozhilov, and Zhurbenko, 1999); **Novgorod Oblast** (<sup>2</sup>Kovalenko, Morozova, Nezdojminogo, and Popov, 2005; <sup>2</sup>Morozova, 2012; <sup>2</sup>Popov et al., 2013); **Orenburg Oblast** (<sup>2</sup>Desyatova, 2007; <sup>2</sup>Desyatova, 2008); **Perm Krai** (<sup>2</sup>Perevedentseva, 2008; <sup>2</sup>Belkovskaya et al., 2014; <sup>2</sup>Perevedentseva and Shishigin, 2014; <sup>2</sup>Botalov, 2017; <sup>2</sup>Botalov and Perevedentseva, 2020); **Pskov Oblast** (<sup>2</sup>Kalinina, Bolshakov, and Bulyonkova, 2020); **Ryazan Oblast** (<sup>2</sup>Volosnova, 2014); **Saint Petersburg** (<sup>2</sup>Kovalenko and Morozova, 1999a; <sup>2</sup>Morozova and Kovalenko, 2000; <sup>2</sup>Kotkova, Morozova, and Popov, 2006; <sup>2</sup>Morozova and Smirnov, 2011); **Samara Oblast** (<sup>2</sup>Malysheva and Malysheva, 2004; <sup>2</sup>Malysheva and Malysheva, 2007; <sup>2</sup>Malysheva and Malysheva, 2008); **Sverdlovsk Oblast** (<sup>2</sup>Marina, 2006); **Tula Oblast** (<sup>2</sup>Svetasheva, 2004); **Udmurt Republic** (<sup>2</sup>Tychinin, 1990); **Ulyanovsk Oblast** (<sup>2</sup>Ilyukhin, 2009; <sup>2</sup>Ilyukhin, 2010a); **Volgograd Oblast** (<sup>2</sup>Burova and Nezdojminogo, 1980); **Vologda Oblast** (<sup>2</sup>Kirillova, 2007; <sup>2</sup>Kirillova, 2009); **Voronezh Oblast** (<sup>2</sup>Chastukhin, 1952; <sup>2</sup>Chastukhin and Nikolaevskaya, 1953; <sup>2</sup>Chastukhin and Nikolaevskaya, 1969); **Yamalo-Nenets Autonomous Okrug** (<sup>2</sup>Karatygin, Nezdojminogo, Novozhilov, and Zhurbenko, 1999); **Yaroslavl Oblast** (<sup>2</sup>Lazareva, 1998a); **Arid territories** (<sup>2</sup>Rebriev, Rusanov, et al., 2012).

SIBERIA: **Buryatia** (<sup>2</sup>Nezdojminogo, 1973; <sup>2</sup>Petrov, 1991); **Khakassia** (<sup>2</sup>Zauzolkova and Gorbunova, 2013; <sup>2</sup>Zauzolkova, 2015); **Krasnoyarsk Krai** (<sup>2</sup>Beglyanova, 1972a; <sup>2</sup>Beglyanova, 1972c; <sup>2</sup>Nezdojminogo, 1982a; <sup>2</sup>Kosheleva and Kutafjeva, 2008a; <sup>2</sup>Gorbunova, 2016); **Novosibirsk Oblast** (<sup>2</sup>Gorbunova, 2007; <sup>2</sup>Koropachinskiy and Banaev, 2014); **Tomsk Oblast** (<sup>2</sup>Agaphonova, Kutafjeva, and Gashkov, 2007; <sup>2</sup>Agaphonova, Kutafjeva, and Gashkov, 2009b; <sup>2</sup>Kudashova, Gashkov, and Kutafjeva, 2013; <sup>1</sup>Kudashova, Gashkov, and Vaishlya, 2016b).

***Atheniella leptophylla* (Peck) Gminder & Böhning**

≡ *Mycena leptophylla* (Peck) Sacc.<sup>1</sup>

EASTERN EUROPE: **Kabardino-Balkarian Republic** (<sup>1</sup>Krapivina et al., 2020); **Ryazan Oblast** (<sup>1</sup>Volosnova, 2005).

SIBERIA: **Altai Krai** (<sup>1</sup>Gorbunova and Chubarova, 2008; <sup>1</sup>Gorbunova, Vlasenko, and Tzhubarova, 2011).

FAR EAST: **Primorsky Krai** (<sup>1</sup>Vassiljeva, 1973; <sup>1</sup>Bunkina and Nazarova, 1978; <sup>1</sup>Azbukina et al., 2006; <sup>1</sup>Bau, Bulakh, and Govorova, 2011).

***Atractosporocybe inornata* (Sowerby) P. Alvarado, G. Moreno & Vizzini<sup>1</sup>**

≡ *Clitocybe inornata* (Sowerby) Gillet<sup>2</sup> = *Clitocybe inornata* subsp. *aestivalis* Singer<sup>3</sup>

EASTERN EUROPE: **Belgorod Oblast** (<sup>2</sup>Bedenko, 1980); **Crimea** (<sup>2</sup>Moser, 1993; <sup>2</sup>Sarkina, 2001; <sup>2</sup>Dudka et al., 2004; <sup>2</sup>Sarkina, 2010b; <sup>2</sup>Sarkina, 2011; <sup>2</sup>Sarkina and Prydiuk, 2012; <sup>2</sup>Sarkina, 2013; <sup>2</sup>Sarkina, 2014b; <sup>2</sup>Sarkina and Mironova, 2015); **Leningrad Oblast** (<sup>2</sup>Morozova and Kovalenko, 2000; <sup>2</sup>Popov et al., 2007); **Lipetsk Oblast** (<sup>2</sup>Alferova, 1977; <sup>2</sup>Sarycheva et al., 2009; <sup>2</sup>Sarycheva, 2011; <sup>2</sup>Sarycheva, 2014a; <sup>2</sup>Sarycheva, 2016); **Moscow Oblast** (<sup>2</sup>Gorlenko, Sidorova, and Sidorova, 1989; <sup>2</sup>Vishnevsky, 1998); **Murmansk Oblast** (<sup>2</sup>Mikhailovskii, 1975b); **Perm Krai** (<sup>2</sup>Perevedentseva, 2008); **Pskov Oblast** (<sup>2</sup>Kalinina, Bolshakov, and Bulyonkova, 2020); **Ryazan Oblast** (<sup>2</sup>Volosnova, 2005; <sup>2</sup>Volosnova, 2014); **Samara Oblast** (<sup>2</sup>Malysheva and Malysheva, 2005b; <sup>2</sup>Malysheva and Malysheva, 2008); **Sevastopol** (<sup>2</sup>Sarkina, 2016b); **Voronezh Oblast** (<sup>2</sup>Chastukhin and Nikolaevskaya, 1953; <sup>2</sup>Chastukhin and Nikolaevskaya, 1969); **Yamalo-NeNETS Autonomous Okrug** (<sup>2</sup>Karatygin, Nezdojminogo, Novozhilov, and Zhurbenko, 1999).

SIBERIA: **Altai Republic** (<sup>3</sup>Singer, 1943; <sup>2</sup>Gorbunova, 1996; <sup>2</sup>Gorbunova, 1997; <sup>2</sup>Perova and Gorbunova, 2001); **Irkutsk Oblast** (<sup>2</sup>Petrov, 1984; <sup>2</sup>Kutafjeva, 1989; <sup>2</sup>Petrov, 1991; <sup>2</sup>Petrov, 2008); **Khakassia** (<sup>2</sup>Beglyanova, 1972a; <sup>2</sup>Zauzolkova, 2015); **Krasnoyarsk Krai** (<sup>2</sup>Beglyanova, 1972a; <sup>2</sup>Lapitskaya, 1993; <sup>2</sup>Nezdojminogo and Zhurbenko, 1996; <sup>2</sup>Nezdojminogo, 1997a; <sup>2</sup>Karatygin, Nezdojminogo, Novozhilov, and Zhurbenko, 1999; <sup>2</sup>Zauzolkova, 2015; <sup>1</sup>Malysheva, Malysheva, Kiyashko, et al., 2017); **Novosibirsk Oblast** (<sup>2</sup>Zaytseva, 1971; <sup>2</sup>Perova and Gorbunova, 2001; <sup>2</sup>Perova and Gorbunova, 2007; <sup>2</sup>Koropachinskiy and Banaev, 2014); **Tomsk Oblast** (<sup>2</sup>Perova, 1972; <sup>2</sup>Perova and Gorbunova, 2001; <sup>2</sup>Kudashova, Gashkov, and Kutafjeva, 2013).

FAR EAST: **Primorsky Krai** (<sup>2</sup>Azbukina et al., 1984; <sup>2</sup>Azbukina et al., 2006; <sup>2</sup>Bau, Bulakh, and Govorova, 2011; <sup>2</sup>Bulakh et al., 2016); **Sakhalin Oblast** (<sup>2</sup>Vassiljeva and Nazarova, 1972).

***Aureoboletus gentilis* (Quél.) Pouzar**

EASTERN EUROPE: **Crimea** (Sarkina, 2020a); **Volgograd Oblast** (Rebriev, Svetasheva, Popov, and Zmitrovich, 2013; Rebriev, Popov, Pridyuk, and Svetasheva, 2014; Rebriev, Popov, and Svetasheva, 2015; Svetasheva, 2015).

***Aureoboletus moravicus* (Vaček) Klofac**

= *Xerocomus leonis* (D.A. Reid) Alessio<sup>1</sup>

EASTERN EUROPE: **Moscow Oblast** (<sup>1</sup>Levitskaya, 1998; <sup>1</sup>Levitskaya, 2013); **Tula Oblast** (<sup>1</sup>Svetasheva, 2004).

***Aureoboletus projectellus* (Murrill) Halling**

EASTERN EUROPE: **Kaliningrad Oblast** (Wrzosek et al., 2017).

***Austroboletus gracilis* (Peck) Wolfe**

≡ *Porphyrellus gracilis* (Peck) Singer<sup>1</sup>

FAR EAST: **Primorsky Krai** (<sup>1</sup>Vassiljeva, 1956; <sup>1</sup>Vassiljeva, 1972; <sup>1</sup>Vassiljeva, 1973; <sup>1</sup>Bunkina and Nazarova, 1978; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1</sup>Azbukina et al., 2006; <sup>1</sup>Kozhevnikov, 2008; <sup>1</sup>Bau, Bulakh, and Govorova, 2011).

***Austroboletus subflavidus* (Murrill) Wolfe**

≡ *Porphyrellus subflavidus* (Murrill) Singer<sup>1</sup>

FAR EAST: **Primorsky Krai** (<sup>1</sup>Vassiljeva, 1972; <sup>1</sup>Vassiljeva, 1973; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1</sup>Kozhevnikov, 2008).

***Austroboletus tristis* (Pat. & C.F. Baker) Wolfe**

≡ *Porphyrellus tristis* (Pat. & C.F. Baker) Singer<sup>1</sup>

FAR EAST: **Amur Oblast** (<sup>1</sup>Tomilin, 1962).

***Baeospora myosura* (Fr.) Singer<sup>1</sup>**

≡ *Collybia myosura* (Fr.) Quél.<sup>2</sup> = *Marasmius varicosus* Fr.<sup>3</sup>

EASTERN EUROPE: **Crimea** (<sup>2</sup>Zerova, 1962; <sup>2</sup>Sarkina, 2001; <sup>1</sup>Dudka et al., 2004; <sup>1</sup>Sarkina, 2010b; <sup>1</sup>Sarkina, 2011; <sup>1</sup>Sarkina and Prydiuk, 2012; <sup>1</sup>Sarkina, 2013; <sup>1</sup>Sarkina and Mironova, 2015; <sup>1</sup>Sarkina, 2020a); **Kaliningrad Oblast** (<sup>1</sup>Dedkov, Volodina, and Gubareva, 2007; <sup>1</sup>Volodina, 2007; <sup>1</sup>Atayev and Volodina, 2020); **Kaluga Oblast** (<sup>1</sup>Sionova, 2006; <sup>1</sup>Sionova, 2012); **Karelia** (<sup>1</sup>Bondartseva et al., 2001; <sup>1</sup>Krutov et al., 2014); **Kirov Oblast** (<sup>1</sup>Kirillov, 2011; <sup>1</sup>Kirillov, Perevedentseva, and Egoshina, 2011); **Komi Republic** (<sup>1</sup>Palamarchuk, 2012; <sup>1</sup>Palamarchuk and Kirillov, 2017; <sup>1</sup>Palamarchuk and Kirillov, 2018a); **Krasnodar Krai** (<sup>1</sup>Vaasma, Kalamees, and Raitviir, 1986); **Leningrad**

**Oblast** (<sup>2</sup>Thesleff, 1920; <sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Morozova, 2007; <sup>1</sup>Popov et al., 2007; <sup>1</sup>Kalinina, 2018); **Lipetsk Oblast** (<sup>1</sup>Sarycheva et al., 2009; <sup>1</sup>Sarycheva, 2011); **Moscow Oblast** (<sup>1</sup>Vishnevsky, 1998; <sup>1</sup>Voronina et al., 2014); **Novgorod Oblast** (<sup>1</sup>Psurtseva, Kiyashko, Gachkova, and Belova, 2007); **Perm Krai** (<sup>1</sup>Perevedentseva, 2008; <sup>1</sup>Belkovskaya et al., 2014; <sup>1</sup>Botalov, 2017; <sup>1</sup>Botalov and Perevedentseva, 2020); **Ryazan Oblast** (<sup>1</sup>Volosnova, 1997; <sup>1</sup>Volosnova, 2014); **Saint Petersburg** (<sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Morozova and Smirnov, 2011; <sup>1</sup>Morozova et al., 2020); **Sevastopol** (<sup>1</sup>Sarkina, 2016b; <sup>1</sup>Sarkina, 2020b); **Sverdlovsk Oblast** (<sup>1</sup>Marina, 2006); **Tula Oblast** (<sup>1</sup>Svetasheva, 2004); **Vologda Oblast** (<sup>1</sup>Kirillova, 2007; <sup>1</sup>Kirillova, 2009); **Yaroslavl Oblast** (<sup>1</sup>Lazareva, 1998a).

SIBERIA: **Altai Republic** (<sup>1</sup>Singer, 1938c); **Khakassia** (<sup>1</sup>Zauzolkova and Gorbunova, 2013; <sup>1</sup>Zauzolkova, 2015); **Krasnoyarsk Krai** (<sup>1</sup>Beglyanova, 1972a; <sup>1</sup>Krom and Kapitonov, 2019); **Tomsk Oblast** (<sup>3</sup>Perova, 1972; <sup>1,3</sup>Kudashova, Gashkov, and Kutafjeva, 2013).

#### ***Baeospora myriadophylla* (Peck) Singer**

EASTERN EUROPE: **Komi Republic** (Palamarchuk (Bobretsova), 2009; Palamarchuk, 2012; Dyogteva, 2019; Palamarchuk et al., 2019); **Leningrad Oblast** (Kalinina, 2018); **Novgorod Oblast** (Kalinina, 2019).

SIBERIA: **Altai Republic** (Singer, 1938c); **Irkutsk Oblast** (Petrov, 1984; Petrov, 1991; Petrov, 2008; Gorbunova and Stepanтова, 2015); **Khakassia** (Beglyanova, 1972a); **Khanty-Mansi Autonomous Okrug** (Vasin and Vasina, 2013; Filippova and Bulyonkova, 2017a; Filippova and Bulyonkova, 2017b); **Krasnoyarsk Krai** (Beglyanova, 1972a; Kryuchkova, 2014a; Krom and Kapitonov, 2019); **Novosibirsk Oblast** (Perova and Gorbunova, 2001; Perova and Gorbunova, 2007); **Tomsk Oblast** (Perova and Gorbunova, 2001; Kudashova, Gashkov, and Kutafjeva, 2013).

FAR EAST: **Khabarovsk Krai** (Azbukina et al., 1986; Azbukina et al., 1989; Bau, Bulakh, and Govorova, 2011; Erofeeva and Bulakh, 2015a); **Magadan Oblast** (Rebriev, Bulakh, Sazanova, and Shiryaev, 2020); **Primorsky Krai** (Vassiljeva, 1973; Bunkina and Nazarova, 1978; Nazarova, 1978; Azbukina et al., 1984; Azbukina et al., 2006; Bau, Bulakh, and Govorova, 2011; Bogacheva, Bulakh, Bukharova, and Egorova, 2020).

#### ***Baorangia alexandri* Svetash., Simonini & Vizzini**

FAR EAST: **Primorsky Krai** (Crous, Wingfield, et al., 2018).

#### ***Baorangia bicolor* (Kuntze) G. Wu, Halling & Zhu L. Yang**

≡ *Boletus bicolor* Peck<sup>1</sup>

FAR EAST: **Primorsky Krai** (<sup>1</sup>Bulakh et al., 2016; <sup>1</sup>Bogacheva et al., 2018; <sup>1</sup>Bogacheva, Bulakh, Bukharova, and Egorova, 2020).

#### ***Blasiphalia pseudogrisella* (A.H. Sm.) Redhead<sup>1</sup>**

≡ *Rickenella pseudogrisella* (A.H. Sm.) Gulden<sup>2</sup>

EASTERN EUROPE: **Komi Republic** (<sup>1</sup>Palamarchuk and Kirillov, 2016; <sup>1</sup>Palamarchuk, 2016a; <sup>1</sup>Palamarchuk, 2016b); **Yamalo-Nenets Autonomous Okrug** (<sup>2</sup>Knudsen and Mukhin, 1998; <sup>2</sup>Karatygin, Nezdoinog, Novozhilov, and Zhurbenko, 1999).

SIBERIA: **Khanty-Mansi Autonomous Okrug** (<sup>1</sup>Zvyagina and Vasina, 2015).

#### ***Bogbodia uda* (Pers.) Redhead<sup>1</sup>**

≡ *Agaricus udus* Pers.<sup>2</sup> ≡ *Hypholoma udum* (Pers.) Quél.<sup>3</sup> ≡ *Naematoloma udum* (Pers.) P. Karst.<sup>4</sup> ≡ *Psilocybe uda* (Pers.) Gillet<sup>5</sup>

EASTERN EUROPE: **Kaliningrad Oblast** (<sup>5</sup>Neuhoff, 1922; <sup>3</sup>Dedkov, Volodina, and Gubareva, 2007); **Karelia** (<sup>4</sup>Freindling, 1949; <sup>3</sup>Bondartseva et al., 2001; <sup>3</sup>Predtechenskaya and Ruokolainen, 2013; <sup>3</sup>Krutov et al., 2014); **Kirov Oblast** (<sup>3</sup>Kirillov and Luginina, 2011; <sup>3</sup>Kirillov, 2011; <sup>3</sup>Kirillov, Perevedentseva, and Egoshina, 2011; <sup>3</sup>Stavishenko, Luginina, Kirillov, and Egoshina, 2019); **Komi Republic** (<sup>3</sup>Palamarchuk and Kirillov, 2017; <sup>1</sup>Palamarchuk and Kirillov, 2018a; <sup>1</sup>Palamarchuk, 2020a); **Leningrad Oblast** (<sup>4</sup>Thesleff, 1920; <sup>3</sup>Chastukhin and Nikolaevskaya, 1969; <sup>3</sup>Kovalenko and Morozova, 1999a; <sup>3</sup>Morozova, 2007; <sup>3</sup>Popov et al., 2007); **Mordovia** (<sup>5</sup>Chastukhin, 1948a; <sup>3</sup>Chastukhin and Nikolaevskaya, 1969; <sup>3</sup>Ivoilov and Bolshakov, 2011a; <sup>5</sup>Chastukhin, 2011); **Moscow Oblast** (<sup>3</sup>Gorlenko, Sidorova, and Sidorova, 1989); **Novgorod Oblast** (<sup>3</sup>Kovalenko, Morozova, Nezdoinog, and Popov, 2005; <sup>3</sup>Popov et al., 2013); **Penza Oblast** (<sup>3</sup>Ivanov, 1983); **Perm Krai** (<sup>3</sup>Perevedentseva, 2008; <sup>3</sup>Belkovskaya et al., 2014; <sup>3</sup>Botalov, 2017); **Pskov Oblast** (<sup>3</sup>Popov et al., 2013); **Ryazan Oblast** (<sup>3</sup>Volosnova, 2005; <sup>3</sup>Volosnova, 2014); **Saint Petersburg** (<sup>2</sup>Weinmann, 1828; <sup>2</sup>Weinmann, 1836; <sup>2</sup>Weinmann, 1837; <sup>3</sup>Kovalenko and Morozova, 1999a; <sup>3</sup>Morozova and Smirnov, 2011); **Tatarstan** (<sup>3</sup>Vassiljeva, 1977); **Vologda Oblast** (<sup>3</sup>Kirillova, 2006; <sup>3</sup>Kirillova, 2007); **Yaroslavl Oblast** (<sup>3</sup>Lazareva, 1998a; <sup>3</sup>Lazareva, 2002).

SIBERIA: **Khakassia** (<sup>3</sup>Beglyanova, 1972a); **Khanty-Mansi Autonomous Okrug** (<sup>3</sup>Zvyagina and Baykalova, 2012; <sup>3</sup>Filippova and Thormann, 2014; <sup>3</sup>Filippova, 2014; <sup>3</sup>Filippova, Mourgues, and Philippe, 2014; <sup>3</sup>Filippova, Bulyonkova, and Lapshina, 2015; <sup>1</sup>Zvyagina and Baykalova, 2017); **Krasnoyarsk Krai** (<sup>3</sup>Beglyanova, 1972a); **Tomsk Oblast** (<sup>3</sup>Perova and Gorbunova, 2001; <sup>3</sup>Kudashova, Gashkov, and Kutafjeva, 2013).

FAR EAST: **Chukotka Autonomous Okrug** (<sup>3</sup>Nezdojminogo, 1994; <sup>3</sup>Karatygin, Nezdojminogo, Novozhilov, and Zhurbenko, 1999); **Magadan Oblast** (<sup>3</sup>Sazanova, 2012); **Primorsky Krai** (<sup>3</sup>Bulakh et al., 2016).

***Bolbitius bisporus* E.F. Malysheva**

FAR EAST: **Primorsky Krai** (Malysheva, Malysheva, and Svetasheva, 2015; Bulakh et al., 2016; Malysheva, 2018).

***Bolbitius compactus* Thesleff**

EASTERN EUROPE: **Leningrad Oblast** (Thesleff, 1920).

***Bolbitius coprophilus* (Peck) Hongo**

EASTERN EUROPE: **Astrakhan Oblast** (Rebriev, Aleksandrova, et al., 2012); **Leningrad Oblast** (Kovalenko and Morozova, 1999a; Popov et al., 2007); **Penza Oblast** (Ivanov, 1992 [as *Bolbitius demangei* (Quél.) Sacc. & D. Sacc., redet. in Malysheva, 2018]; Malysheva, Malysheva, and Svetasheva, 2015; Malysheva, 2018); **Rostov Oblast** (Malysheva, Malysheva, and Svetasheva, 2015; Malysheva, 2018; Rebriev, 2018); **Voronezh Oblast** (Sarycheva, Starodubtseva, and Sapelnikova, 2017); **Arid territories** (Rebriev, Rusanov, et al., 2012).

SIBERIA: **Irkutsk Oblast** (Astapenko and Kutafjeva, 1990; Malysheva, Malysheva, and Svetasheva, 2015; Malysheva, 2018).

***Bolbitius lacteus* J.E. Lange**

EASTERN EUROPE: **Leningrad Oblast** (Kovalenko and Morozova, 1999a; Popov et al., 2007); **Moscow Oblast** (Levitskaya, 1998; Levitskaya, 2013); **Pskov Oblast** (Popov et al., 2013); **Samara Oblast** (Malysheva and Malysheva, 2008).

SIBERIA: **Altai Krai** (Gorbunova, 2018a); **Altai Republic** (Gorbunova, 2019).

FAR EAST: **Primorsky Krai** (Malysheva, Malysheva, and Svetasheva, 2015; Bulakh et al., 2016; Malysheva, 2018).

***Bolbitius pallidus* E.F. Malysheva & Svetash.**

EASTERN EUROPE: **Samara Oblast** (Malysheva, Malysheva, and Svetasheva, 2015; Malysheva, 2018).

***Bolbitius pluteoides* M.M. Moser<sup>1</sup>**

≡ *Bolbitius reticulatus* var. *pluteoides* (M.M. Moser) Arnolds<sup>2</sup>

EASTERN EUROPE: **Ryazan Oblast** (<sup>1</sup>Volosnova, 2005); **Samara Oblast** (<sup>2</sup>Malysheva and Malysheva, 2008); **Udmurt Republic** (<sup>1</sup>Kapitonov, 2013).

SIBERIA: **Altai Krai** (<sup>1</sup>Gorbunova, 2018a).

***Bolbitius reticulatus* (Pers.) Ricken<sup>1</sup>**

≡ *Pluteolus reticulatus* (Pers.) Gillet<sup>2</sup> = *Bolbitius aleuriatus* (Fr.) Singer<sup>3</sup> = *Bolbitius reticulatus* var. *aleuriatus* (Fr.) Bon<sup>4</sup>

EASTERN EUROPE: **Leningrad Oblast** (<sup>1</sup>Kovalenko and Morozova, 1999a; <sup>3</sup>Morozova, 2002; <sup>1,3</sup>Popov et al., 2007; <sup>1</sup>Malysheva, Malysheva, and Svetasheva, 2015; <sup>1</sup>Malysheva, 2018); **Lipetsk Oblast** (<sup>3</sup>Afanasyev, Rtishcheva, and Starodubtseva, 2007); **Moscow Oblast** (<sup>1</sup>Voronina et al., 2012; <sup>1</sup>Voronina et al., 2014; <sup>1</sup>Malysheva, Malysheva, and Svetasheva, 2015; <sup>1</sup>Malysheva, 2018); **Pskov Oblast** (<sup>3</sup>Kovalenko, Kolmakov, Morozova, and Popov, 2003; <sup>3</sup>Popov et al., 2013); **Rostov Oblast** (<sup>1</sup>Morozova et al., 2008); **Ryazan Oblast** (<sup>3</sup>Volosnova, 1997; <sup>3</sup>Volosnova, 2014); **Samara Oblast** (<sup>3</sup>Malysheva and Malysheva, 2005b; <sup>3</sup>Malysheva and Malysheva, 2008; <sup>1</sup>Malysheva, Malysheva, and Svetasheva, 2015; <sup>1</sup>Malysheva, 2018); **Sverdlovsk Oblast** (<sup>1</sup>Marina, 2006); **Tatarstan** (<sup>3</sup>Vassiljeva, 1977); **Udmurt Republic** (<sup>1</sup>Kapitonov, 2013); **Voronezh Oblast** (<sup>3</sup>Afanasyev, Rtishcheva, and Starodubtseva, 2007; <sup>1</sup>Sarycheva, Starodubtseva, and Sapelnikova, 2017); **Arid territories** (<sup>1</sup>Rebriev, Rusanov, et al., 2012).

SIBERIA: **Irkutsk Oblast** (<sup>3</sup>Astapenko and Kutafjeva, 1990; <sup>3</sup>Astapenko, 1990a); **Kemerovo Oblast** (<sup>3</sup>Perova and Gorbunova, 2001); **Khanty-Mansi Autonomous Okrug** (<sup>1</sup>Filippova, Bulyonkova, and Lapshina, 2015; <sup>4</sup>Zvyagina and Vasina, 2015); **Krasnoyarsk Krai** (<sup>3</sup>Beglyanova, 1972a; <sup>3</sup>Stepanov, 2012); **Novosibirsk Oblast** (<sup>2,3</sup>Nozdrenko, 1970; <sup>3</sup>Perova and Gorbunova, 2001; <sup>1</sup>Perova and Gorbunova, 2007; <sup>1</sup>Koropachinskiy and Banaev, 2014).

FAR EAST: **Jewish Autonomous Oblast** (<sup>1</sup>Bulakh, Govorova, Nazarova, and Vassiljeva, 2007; <sup>1</sup>Bau, Bulakh, and Govorova, 2011); **Primorsky Krai** (<sup>3</sup>Vassiljeva, 1973; <sup>3</sup>Azbukina et al., 2006; <sup>1</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Malysheva, Malysheva, and Svetasheva, 2015; <sup>1</sup>Bulakh et al., 2016; <sup>1</sup>Malysheva, 2018).

***Bolbitius titubans* (Bull.) Fr.<sup>1</sup>**

≡ *Bolbitius titubans* var. *titubans* (Bull.) Fr.<sup>2</sup> = *Agaricus boltonii* Pers.<sup>3</sup> = *Agaricus vitellinus* Pers.<sup>4</sup> = *Bolbitius boltonii* (Pers.) Fr.<sup>5</sup> = *Bolbitius flavidus* Masseur<sup>6</sup> = *Bolbitius fragilis* (L.) Fr.<sup>7</sup> = *Bolbitius luteolus* Fr.<sup>8</sup> = *Bolbitius titubans* var. *olivaceus* (Quél.) Arnolds<sup>9</sup> = *Bolbitius variicolor* G.F. Atk.<sup>10</sup> = *Bolbitius vitellinus* (Pers.) Fr.<sup>11</sup>

EASTERN EUROPE: **Adygea** (<sup>1</sup>Malysheva, Malysheva, and Svetasheva, 2015; <sup>1</sup>Malysheva, 2018); **Bryansk Oblast** (<sup>11</sup>Kruglikov, 2007); **Crimea** (<sup>1</sup>Sarkina, 2014b); **Kabardino-Balkarian Republic** (<sup>11</sup>Singer, 1931; <sup>11</sup>Shkhagapsov and Krapivina, 2004); **Kaliningrad Oblast** (<sup>11</sup>Dedkov, Volodina, and Gubareva, 2007; <sup>11</sup>Volodina, 2007; <sup>1</sup>Atayev and Volodina, 2020); **Kaluga Oblast** (<sup>11</sup>Sionova, 2012); **Karachay-Cherkess Republic** (<sup>1</sup>Kalamees and Botashev, 2000); **Karelia** (<sup>1</sup>Bondartseva et al., 2001; <sup>2</sup>Krutov et al., 2014); **Kirov Oblast** (<sup>11</sup>Kirillov, 2011; <sup>11</sup>Kirillov, Perevedentseva, and Egoshina, 2011; <sup>1</sup>Stavishenko, Luginina, Kirillov, and Egoshina, 2019); **Komi Republic** (<sup>1</sup>Palamarchuk, 2016a; <sup>1</sup>Palamarchuk, 2016b; <sup>1</sup>Palamarchuk, 2020a); **Leningrad Oblast** (<sup>5,7,11</sup>Thesleff, 1920; <sup>11</sup>Kovalenko and Morozova, 1999a; <sup>11</sup>Morozova and Kovalenko, 2000; <sup>11</sup>Morozova, 2007; <sup>11</sup>Popov et al., 2007; <sup>1</sup>Bondartseva et al., 2015; <sup>1</sup>Malysheva, Malysheva, and Svetasheva, 2015; <sup>1</sup>Zmitrovich et al., 2015; <sup>1</sup>Kalinina, 2018; <sup>1</sup>Malysheva, 2018); **Lipetsk Oblast** (<sup>11</sup>Alferova, 1977; <sup>11</sup>Sarycheva, 1999; <sup>11</sup>Sarycheva et al., 2009; <sup>11</sup>Sarycheva, 2011; <sup>11</sup>Sarycheva, 2014a; <sup>11</sup>Sarycheva, 2016); **Moscow** (<sup>4</sup>Weinmann, 1836; <sup>11</sup>Bucholtz, 1897a); **Moscow Oblast** (<sup>11</sup>Gorlenko, Sidorova, and Sidorova, 1989; <sup>10</sup>Levitskaya, 1995a; <sup>11</sup>Levitskaya, 1995c; <sup>2</sup>Voronina et al., 2012; <sup>10,11</sup>Levitskaya, 2013; <sup>1</sup>Voronina et al., 2014; <sup>1</sup>Malysheva, Malysheva, and Svetasheva, 2015; <sup>1</sup>Malysheva, 2018); **Murmansk Oblast** (<sup>6</sup>Karsten, 1866; <sup>11</sup>Kalamees and Raitviir, 2006); **Nizhny Novgorod Oblast** (<sup>1</sup>Murashkinsky, 1911); **Novgorod Oblast** (<sup>11</sup>Kovalenko, Morozova, Nezdoininogo, and Popov, 2005; <sup>1</sup>Popov et al., 2013); **Orenburg Oblast** (<sup>11</sup>Korshikova, 2006; <sup>11</sup>Desyatova, 2007; <sup>11</sup>Desyatova, 2008); **Penza Oblast** (<sup>11</sup>Ivanov, 1981b; <sup>11</sup>Ivanov, 1982); **Perm Krai** (<sup>11</sup>Stepanova and Sirko, 1977; <sup>1,11</sup>Perevedentseva, 2008); **Pskov Oblast** (<sup>11</sup>Kovalenko and Morozova, 1999b; <sup>11</sup>Kolmakov and Popov, 2005; <sup>1</sup>Popov et al., 2013); **Rostov Oblast** (<sup>1</sup>Malysheva, Malysheva, and Svetasheva, 2015; <sup>1</sup>Malysheva, 2018; <sup>1</sup>Rebriev, 2018); **Ryazan Oblast** (<sup>11</sup>Volosnova, 1997; <sup>11</sup>Volosnova, 2014); **Saint Petersburg** (<sup>4</sup>Weinmann, 1828; <sup>3</sup>Weinmann, 1836; <sup>4</sup>Weinmann, 1837; <sup>11</sup>Kovalenko and Morozova, 1999a; <sup>11</sup>Kotkova, Morozova, and Popov, 2007; <sup>1</sup>Morozova and Smirnov, 2011; <sup>1</sup>Morozova, Kovalenko, Rebriev, and Malysheva, 2014; <sup>1</sup>Zhukova, Morozova, Volobuev, and Bryantseva, 2017); **Samara Oblast** (<sup>1</sup>Malysheva and Malysheva, 2005b; <sup>1,11</sup>Malysheva and Malysheva, 2008; <sup>1</sup>Malysheva, Malysheva, and Svetasheva, 2015; <sup>1</sup>Malysheva, 2018); **Smolensk Oblast** (<sup>8</sup>Jaczevski, 1898); **Stavropol Krai** (<sup>1</sup>Malysheva, Malysheva, and Svetasheva, 2015; <sup>1</sup>Malysheva, 2018); **Sverdlovsk Oblast** (<sup>1,11</sup>Marina, 2006; <sup>1</sup>Malysheva, Malysheva, and Svetasheva, 2015; <sup>1</sup>Malysheva, 2018); **Tatarstan** (<sup>11</sup>Vassiljeva, 1977; <sup>2</sup>Potapov, Galejev, and Zhukov, 2013; <sup>1</sup>Potapov, 2015b); **Tula Oblast** (<sup>11</sup>Svetasheva, 2004); **Tver Oblast** (<sup>11</sup>Kurochkin, 1993); **Udmurt Republic** (<sup>11</sup>Tychinin and Kuzmina, 2003); **Ulyanovsk Oblast** (<sup>1,11</sup>Ilyukhin, 2010a); **Volgograd Oblast** (<sup>1</sup>Dudka and Vedeneyev, 2015); **Volgoda Oblast** (<sup>1</sup>Kirillova, 2006; <sup>1</sup>Kirillova, 2007; <sup>1</sup>Malysheva, Malysheva, and Svetasheva, 2015; <sup>1</sup>Malysheva, 2018); **Voronezh Oblast** (<sup>11</sup>Sarycheva, Starodubtseva, and Sapelnikova, 2017); **Yaroslavl Oblast** (<sup>11</sup>Lazareva, 1998a; <sup>11</sup>Lazareva, 1998b); **Arid territories** (<sup>1</sup>Rebriev, Rusanov, et al., 2012).

SIBERIA: **Altai Republic** (<sup>11</sup>Kovalenko, 1992; <sup>11</sup>Gorbunova, 1996; <sup>11</sup>Gorbunova, 1997; <sup>11</sup>Gorbunova, 2001b; <sup>1</sup>Malysheva, Malysheva, and Svetasheva, 2015; <sup>1</sup>Malysheva, 2018); **Buryatia** (<sup>11</sup>Petrov, 1991); **Irkutsk Oblast** (<sup>11</sup>Kutafjeva, 1983; <sup>10,11</sup>Petrov, 1991; <sup>11</sup>Bardunov et al., 2005; <sup>11</sup>Petrov, 2008); **Khakassia** (<sup>9</sup>Zauzolkova and Gorbunova, 2013; <sup>9</sup>Zauzolkova, 2015); **Khanty-Mansi Autonomous Okrug** (<sup>9</sup>Zvyagina, Baykalova, and Gorbunova, 2007; <sup>1</sup>Filippova and Bulyonkova, 2017a; <sup>1</sup>Filippova and Bulyonkova, 2017b); **Krasnoyarsk Krai** (<sup>11</sup>Beglyanova, 1972a; <sup>11</sup>Nezdoininogo, 1976a; <sup>1</sup>Malysheva, Malysheva, Kiyashko, et al., 2017); **Novosibirsk Oblast** (<sup>11</sup>Perova, 1977; <sup>11</sup>Gorbunova, 2007; <sup>11</sup>Perova and Gorbunova, 2007; <sup>2</sup>Koropachinskiy and Banaev, 2014); **Tomsk Oblast** (<sup>11</sup>Kosheleva and Kutafjeva, 2004; <sup>11</sup>Kudashova, Gashkov, and Kutafjeva, 2013; <sup>2</sup>Kudashova, Gashkov, and Kutafjeva, 2013).

FAR EAST: **Jewish Autonomous Oblast** (<sup>11</sup>Bulakh, Govorova, Nazarova, and Vassiljeva, 2007); **Khabarovsk Krai** (<sup>11</sup>Azbukina et al., 1986; <sup>11</sup>Azbukina et al., 1989; <sup>11</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Erofeeva and Bulakh, 2015a); **Magadan Oblast** (<sup>2</sup>Sazanova, 2009a; <sup>1</sup>Sazanova and Golodnova, 2015); **Primorsky Krai** (<sup>11</sup>Vassiljeva, 1972; <sup>11</sup>Vassiljeva, 1973; <sup>11</sup>Bulakh, 1977; <sup>11</sup>Bunkina and Nazarova, 1978; <sup>11</sup>Azbukina et al., 1984; <sup>11</sup>Azbukina et al., 1990; <sup>11</sup>Bardunov et al., 2002; <sup>11</sup>Azbukina et al., 2006; <sup>11</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Malysheva, Malysheva, and Svetasheva, 2015; <sup>1</sup>Bulakh et al., 2016; <sup>1</sup>Malysheva, 2018); **Sakhalin Oblast** (<sup>11</sup>Vassiljeva and Nazarova, 1972).



***Boletinellus merulioides* (Schwein.) Murrill**≡ *Gyrodon merulioides* (Schwein.) Singer<sup>1</sup>FAR EAST: **Primorsky Krai** (<sup>1</sup>Vassiljeva, 1956; <sup>1</sup>Vassiljeva, 1973).***Boletinus asiaticus* Singer<sup>1</sup>**≡ *Suillus asiaticus* (Singer) Kretzer & T.D. Bruns<sup>2</sup>

EASTERN EUROPE: **Chelyabinsk Oblast** (<sup>1</sup>Vassilkov, 1952a; <sup>1</sup>Sirko and Stepanova, 1977; <sup>1</sup>Stepanova and Sirko, 1977; <sup>1</sup>Bolshakov, Bogdanov, Knyazev, and Lagunov, 2017); **Karelia** (<sup>1</sup>Predtechenskaya and Ruokolainen, 2014); **Kirov Oblast** (<sup>1</sup>Kirillov, 2011; <sup>1</sup>Kirillov, Perevedentseva, and Egoshina, 2011; <sup>1</sup>Baranova et al., 2014); **Komi Republic** (<sup>2</sup>Palamarchuk, 2016a; <sup>2</sup>Palamarchuk, 2016b; <sup>1</sup>Dyogteva, 2019; <sup>1</sup>Palamarchuk et al., 2019); **Leningrad Oblast** (<sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Popov et al., 2007); **Perm Krai** (<sup>1</sup>Psurtseva, Kiyashko, Gachkova, and Belova, 2007; <sup>1</sup>Perevedentseva, 2008; <sup>1</sup>Shepel, 2008; <sup>2</sup>Belkovskaya et al., 2014; <sup>1</sup>Baklanov, 2018); **Sverdlovsk Oblast** (<sup>1</sup>Tomilin, 1965; <sup>1</sup>Stepanova and Sirko, 1977; <sup>1</sup>Shiryaeva, 2015a); **Udmurt Republic** (<sup>1</sup>Tychinin and Kuzmina, 2003; <sup>1</sup>Baranova, 2012).

SIBERIA: **Altai Krai** (<sup>1</sup>Gorbunova, 2018a); **Altai Republic** (<sup>1</sup>Singer, 1938e; <sup>1</sup>Gorbunova, 1996; <sup>1</sup>Gorbunova, 1997; <sup>1</sup>Gorbunova, 2001b; <sup>1</sup>Perova and Gorbunova, 2001); **Buryatia** (<sup>1</sup>Nezdojminogo, 1970a; <sup>1</sup>Penzina and Petrov, 1994; <sup>1</sup>Heklau and Dörfelt, 2017); **Irkutsk Oblast** (<sup>1</sup>Beglyanova, 1972a; <sup>1</sup>Kutafjeva, 1982; <sup>1</sup>Petrov, 1984; <sup>1</sup>Petrov, 1989; <sup>1</sup>Astapenko, 1990a; <sup>1</sup>Astapenko, 1990b; <sup>1</sup>Muzyka, 2002; <sup>1</sup>Petrov, 2008; <sup>1</sup>Muzyka, 2009; <sup>1</sup>Petrov, 2013; <sup>1</sup>Muzyka and Penzina, 2017); **Khakassia** (<sup>1</sup>Beglyanova, 1972a; <sup>1</sup>Zauzolkova, 2015); **Khanty-Mansi Autonomous Okrug** (<sup>1</sup>Zvyagina, Baykalova, and Gorbunova, 2007; <sup>1</sup>Zvyagina and Vasina, 2015); **Krasnoyarsk Krai** (<sup>1</sup>Perova, 1970; <sup>1</sup>Beglyanova, 1972a; <sup>1</sup>Nezdojminogo, 1982a; <sup>1</sup>Lapitskaya, 1990; <sup>1</sup>Pavlov et al., 2007; <sup>1</sup>Kosheleva and Kutafjeva, 2008a; <sup>1</sup>Malysheva, Malysheva, Kiyashko, et al., 2017; <sup>2</sup>Krom and Kapitonov, 2019); **Novosibirsk Oblast** (<sup>1</sup>Perova and Gorbunova, 2001; <sup>1</sup>Perova and Gorbunova, 2007); **Tomsk Oblast** (<sup>1</sup>Singer, 1938e; <sup>1</sup>Perova and Gorbunova, 2001; <sup>1</sup>Kosheleva and Kutafjeva, 2004; <sup>1</sup>Kudashova, Gashkov, and Kutafjeva, 2013); **Baikalia** (<sup>1</sup>Singer, 1938e).

FAR EAST: **Amur Oblast** (<sup>1</sup>Singer, 1938e; <sup>1</sup>Tomilin, 1962; <sup>1</sup>Gordienko, Petrova, and Tarasov, 1981; <sup>1</sup>Nazarova, 1986; <sup>1</sup>Azbukina et al., 1998; <sup>1</sup>Taranina, 2005); **Jewish Autonomous Oblast** (<sup>1</sup>Bulakh, Govorova, Nazarova, and Vassiljeva, 2007; <sup>2</sup>Bau, Bulakh, and Govorova, 2011); **Khabarovsk Krai** (<sup>1</sup>Azbukina et al., 1989; <sup>2</sup>Bulakh, 2013; <sup>2</sup>Bogacheva, Bulakh, Bukharova, and Egorova, 2015); **Magadan Oblast** (<sup>1</sup>Nazarova, 1976; <sup>1</sup>Sazanova, 1996; <sup>1</sup>Sazanova, 2005; <sup>1</sup>Sazanova, 2009a; <sup>1</sup>Sazanova, 2011); **Primorsky Krai** (<sup>1</sup>Vassiljeva, 1956; <sup>1</sup>Vassiljeva, 1973; <sup>2</sup>Bulakh et al., 2016); **Sakhalin Oblast** (<sup>1</sup>Vassiljeva and Nazarova, 1972); **Far East** (<sup>1</sup>Singer, 1942).

***Boletinus grisellus* Peck**FAR EAST: **Magadan Oblast** (Vassilkov, 1952a; Sazanova, 2005; Sazanova, 2009a); **Far East** (Singer, 1942).***Boletinus griseopallidus* Vassilkov**SIBERIA: **Altai Republic** (Gorbunova, 1996; Gorbunova, 1997; Perova and Gorbunova, 2001); **Irkutsk Oblast** (Vassilkov, 1955b).***Boletinus paluster* (Peck) Peck<sup>1</sup>**≡ *Boletus paluster* Peck<sup>2</sup> ≡ *Suillus paluster* (Peck) Kuntze<sup>3</sup>

Peck (1889) himself transferred *Boletus paluster* to *Boletinus paluster*. The latter name is widely accepted as belonging to Suillaceae (Singer, 1986; Klofac and Krisai-Greilhuber, 2014).

EASTERN EUROPE: **Arkhangelsk Oblast** (<sup>2</sup>Ezhov, Zmitrovich, and Ruokolainen, 2019); **Karelia** (<sup>2</sup>Krutov et al., 2014); **Komi Republic** (<sup>1</sup>Bobretsova, 2004; <sup>1</sup>Palamarchuk, 2011b; <sup>3</sup>Palamarchuk, 2012; <sup>3</sup>Palamarchuk, 2016a; <sup>3</sup>Palamarchuk, 2016b); **Leningrad Oblast** (<sup>1</sup>Vassilkov, 1952a; <sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Popov et al., 2007); **Vologda Oblast** (<sup>1</sup>Kutova, 1957); **Yaroslavl Oblast** (<sup>1</sup>Vassilkov, 1952a).

SIBERIA: **Buryatia** (<sup>1</sup>Nezdojminogo, 1970a; <sup>1</sup>Petrov, 1991); **Irkutsk Oblast** (<sup>1</sup>Bardunov et al., 2005); **Khanty-Mansi Autonomous Okrug** (<sup>1</sup>Zvyagina and Baykalova, 2012; <sup>1</sup>Zvyagina and Vasina, 2015; <sup>3</sup>Zvyagina and Baykalova, 2017); **Tomsk Oblast** (<sup>1</sup>Milovidova, 1980; <sup>2</sup>Kudashova, Gashkov, and Kutafjeva, 2013; <sup>2</sup>Kudashova, Gashkov, and Vaishlya, 2016b).

FAR EAST: **Amur Oblast** (<sup>1</sup>Bulakh, Govorova, and Taranina, 2003); **Kamchatka Krai** (<sup>1</sup>Kalamees and Vaasma, 1981; <sup>1</sup>Morozova and Popov, 2008); **Khabarovsk Krai** (<sup>1</sup>Vassiljeva, 1956; <sup>3</sup>Bulakh, Vassiljeva, and Erofeeva, 2010; <sup>2</sup>Bulakh, 2013; <sup>2</sup>Bogacheva, Bulakh, Bukharova, and Egorova, 2015); **Magadan Oblast** (<sup>1</sup>Nazarova, 1976; <sup>1</sup>Sazanova, 1996; <sup>1</sup>Sazanova, 2005; <sup>1</sup>Sazanova, 2009a; <sup>2</sup>Sazanova, 2009b; <sup>2</sup>Sazanova, 2011); **Primorsky Krai** (<sup>1</sup>Vassilkov, 1952a; <sup>1</sup>Vassiljeva, 1973; <sup>2</sup>Bulakh et al., 2016); **Sakhalin Oblast** (<sup>1</sup>Vassiljeva and Nazarova, 1972).

***Boletinus spectabilis* (Peck) Murrill<sup>1</sup>**

≡ *Boletus spectabilis* Peck<sup>2</sup> ≡ *Fuscoboletinus spectabilis* (Peck) Pomerl. & A.H. Sm.<sup>3</sup> ≡ *Suillus spectabilis* (Peck) Kuntze<sup>4</sup> = *Boletinus benoisii* Singer<sup>5</sup>

According to Vassilkov (1952a) type specimen of *Boletinus benoisii* Singer belongs to *Boletinus spectabilis* (Peck) Murrill.

EASTERN EUROPE: **Komi Republic** (<sup>4</sup>Palamarchuk and Kirillov, 2016; <sup>4</sup>Palamarchuk, 2016a; <sup>4</sup>Palamarchuk, 2016b; <sup>1</sup>Dyogteva, 2019; <sup>1</sup>Palamarchuk et al., 2019); **Perm Krai** (<sup>3</sup>Perevedentseva, 2008); **Yamalo-Nenets Autonomous Okrug** (<sup>1</sup>Kazanthseva, 1970; <sup>1</sup>Stepanova and Sirko, 1977).

SIBERIA: **Buryatia** (<sup>1</sup>Nezdojminogo, 1973; <sup>1</sup>Penzina and Petrov, 1994); **Irkutsk Oblast** (<sup>1</sup>Vassilkov, 1952a; <sup>1</sup>Petrov, 1984; <sup>1</sup>Kutafjeva and Astapenko, 1987; <sup>1</sup>Petrov, 1989; <sup>1</sup>Astapenko, 1990a; <sup>1</sup>Astapenko, 1990b; <sup>1</sup>Muzyka, 2002; <sup>1</sup>Petrov, 2008; <sup>1</sup>Muzyka, 2009; <sup>3</sup>Gorbunova and Stepantsova, 2015; <sup>1</sup>Muzyka and Penzina, 2017; <sup>4</sup>Muzyka and Penzina, 2017); **Khanty-Mansi Autonomous Okrug** (<sup>4</sup>Zvyagina, 2012); **Krasnoyarsk Krai** (<sup>1</sup>Beglyanova, 1972a; <sup>1</sup>Beglyanova, 1972b; <sup>1</sup>Lapitskaya, 1990; <sup>3</sup>Kosheleva and Kutafjeva, 2008a); **Novosibirsk Oblast** (<sup>1</sup>Perova and Gorbunova, 2007); **Sakha Republic** (<sup>5</sup>Singer, 1938e; <sup>1</sup>Vassilkov, 1952a); **Tomsk Oblast** (<sup>1</sup>Perova and Gorbunova, 2001; <sup>1</sup>Kudashova, Gashkov, and Kutafjeva, 2013; <sup>3</sup>Kudashova, Gashkov, and Vaishlya, 2016b); **Baikalia** (<sup>1</sup>Vassilkov, 1952a); **Sayans** (<sup>1</sup>Vassilkov, 1952a).

FAR EAST: **Amur Oblast** (<sup>1</sup>Taranina, 2005); **Khabarovsk Krai** (<sup>1</sup>Vassiljeva, 1956; <sup>1</sup>Azbukina et al., 1989; <sup>4</sup>Bulakh, Vassiljeva, and Erofeeva, 2010; <sup>4</sup>Bulakh, 2013; <sup>4</sup>Bogacheva, Bulakh, Bukharova, and Egorova, 2015); **Magadan Oblast** (<sup>1</sup>Nazarova, 1976; <sup>1</sup>Sazanova, 1996; <sup>1</sup>Sazanova, 2005; <sup>2</sup>Sazanova, 2009a; <sup>4</sup>Sazanova, 2009b; <sup>2</sup>Sazanova, 2011); **Primorsky Krai** (<sup>1</sup>Vassilkov, 1952a; <sup>1</sup>Vassiljeva, 1973; <sup>4</sup>Bulakh et al., 2016); **Far East** (<sup>5</sup>Singer, 1942).

***Boletinus subspectabilis* Vassilkov**

SIBERIA: **Irkutsk Oblast** (Vassilkov, 1952a); **Sakha Republic** (Vassilkov, 1952a).

FAR EAST: **Magadan Oblast** (Sazanova, 2009a).

***Boletus aereus* Bull.<sup>1</sup>**

≡ *Boletus edulis* f. *aereus* (Bull.) Vassilkov<sup>2</sup>

EASTERN EUROPE: **Belgorod Oblast** (<sup>1</sup>Fedosova and Kovalenko, 2014; <sup>1</sup>Prisny, 2019); **Crimea** (<sup>1</sup>Sarkina, Prydiuk, and Heluta, 2003; <sup>1</sup>Akulov and Prydiuk, 2007; <sup>1</sup>Yena and Fateryga, 2015; <sup>1</sup>Dovgal and Korzhenevsky, 2018); **Kaliningrad Oblast** (<sup>1</sup>Dedkov, Volodina, and Gubareva, 2007; <sup>1</sup>Dedkov and Grishanov, 2010); **Krasnodar Krai** (<sup>2</sup>Kovalenko, 1980a; <sup>2</sup>Kovalenko, 1980b; <sup>1</sup>Fedosova and Kovalenko, 2014); **Sevastopol** (<sup>1</sup>Sarkina, 2016b; <sup>1</sup>Dovgal and Korzhenevsky, 2018; <sup>1</sup>Sarkina, 2020c); **Stavropol Krai** (<sup>1</sup>Fedosova and Kovalenko, 2014); **Sverdlovsk Oblast** (<sup>1</sup>Stepanova and Sirko, 1977).

FAR EAST: **Primorsky Krai** (<sup>1</sup>Fedosova and Kovalenko, 2014).

***Boletus edulis* Bull.<sup>1</sup>**

≡ *Boletus edulis* f. *edulis* Bull.<sup>2</sup> ≡ *Boletus edulis* var. *edulis* Bull.<sup>3</sup> ≡ *Tubiporus edulis* (Bull.) P. Karst.<sup>4</sup> = *Boletus betulicola* (Vassilkov) Pilát & Dermek<sup>5</sup> = *Boletus clavipes* (Peck) Pilát & Dermek<sup>6</sup> = *Boletus edulis* f. *arcticus* Vassilkov<sup>7</sup> = *Boletus edulis* f. *betulicola* Vassilkov<sup>8</sup> = *Boletus edulis* f. *quercicola* Vassilkov<sup>9</sup> = *Boletus edulis* f. *roseipes* Vassilkov<sup>10</sup> = *Boletus edulis* f. *subaereus* Vassilkov<sup>11</sup> = *Boletus edulis* f. *tardus* Vassilkov<sup>12</sup> = *Boletus edulis* var. *betulicola* Vassilkov<sup>13</sup> = *Boletus edulis* var. *piceicola* Vassilkov<sup>14</sup> = *Boletus edulis* var. *quercicola* Vassilkov<sup>15</sup>

EASTERN EUROPE: **Adygea** (<sup>1</sup>Vassiljeva, 1939; <sup>2</sup>Kovalenko, 1980b); **Arkhangelsk Oblast** (<sup>1</sup>Ezhov, Ershov, Ruokolainen, and Zmitrovich, 2011; <sup>1</sup>Ezhov, 2014; <sup>1</sup>Ezhov, Zmitrovich, and Ruokolainen, 2019); **Bashkortostan** (<sup>1</sup>Stepanova and Sirko, 1977); **Belgorod Oblast** (<sup>8,9</sup>Bedenko, 1979a); **Bryansk Oblast** (<sup>1,8,9</sup>Kruglikov, 2007); **Chechen Republic** (<sup>1</sup>Taysumov, Krapivina, Umarov, and Astamirova, 2012); **Chelyabinsk Oblast** (<sup>1,13</sup>Aleksandrovskaya and Lobanova, 1968; <sup>1</sup>Stepanova and Sirko, 1977); **Chuvash Republic** (<sup>1</sup>Marfin, 2001); **Crimea** (<sup>1</sup>Zerova, 1962; <sup>1</sup>Sarkina, 2001; <sup>1</sup>Dudka et al., 2004; <sup>1</sup>Sarkina, 2011; <sup>1</sup>Sarkina and Prydiuk, 2012; <sup>1</sup>Sarkina and Stavishenko, 2019); **Ivanovo Oblast** (<sup>1</sup>Alyavdina, 1928); **Kabardino-Balkarian Republic** (<sup>1</sup>Singer, 1931; <sup>1</sup>Shkhagapsoev and Krapivina, 2003; <sup>1</sup>Shkhagapsoev and Krapivina, 2004); **Kaliningrad Oblast** (<sup>1</sup>Hennings, 1895; <sup>1,5</sup>Dedkov, Volodina, and Gubareva, 2007; <sup>1,5</sup>Volodina, 2007); **Kaluga Oblast** (<sup>1</sup>Sionova, 2003; <sup>1</sup>Sionova, 2006; <sup>1</sup>Fedosova and Kovalenko, 2014); **Karachay-Cherkess Republic** (<sup>1</sup>Hollós, 1902; <sup>1</sup>Hollós, 1905; <sup>1</sup>Filarszky, 1907; <sup>1</sup>Vassiljeva, 1939; <sup>1,5,6</sup>Kalamees and Botashev, 2000; <sup>1</sup>Fedosova and Kovalenko, 2014); **Karelia** (<sup>1</sup>Freindling, 1949; <sup>1,5</sup>Kovalenko, Morozova, Fomina, and Särkisilta, 1998; <sup>1,5</sup>Bondartseva et al., 2001; <sup>1</sup>Predtechenskaya and Ruokolainen, 2008; <sup>1,5</sup>Predtechenskaya and Ruokolainen, 2013; <sup>1,5</sup>Predtechenskaya, 2013; <sup>1</sup>Fedosova and Kovalenko, 2014; <sup>1,5</sup>Krutov et al., 2014; <sup>1</sup>Predtechenskaya and Ruokolainen, 2014; <sup>5</sup>Predtechenskaya, 2015; <sup>1</sup>Savelev and Kikeeva, 2018); **Kirov Oblast** (<sup>1</sup>Kirillov and Luginina,

2011; <sup>1</sup>Kirillov, 2011; <sup>1</sup>Kirillov, Perevedentseva, and Egoshina, 2011; <sup>1</sup>Stavishenko, Luginina, Kirillov, and Egoshina, 2019); **Komi Republic** (<sup>1,5</sup>Palamarchuk, 2012; <sup>1</sup>Palamarchuk and Kirillov, 2017; <sup>1</sup>Palamarchuk, 2017); **Kostroma Oblast** (<sup>1</sup>Veremyeva, 1986); **Krasnodar Krai** (<sup>1</sup>Vassiljeva, 1939; <sup>2,9,11</sup>Kovalenko, 1980a; <sup>2,9,11</sup>Kovalenko, 1980b; <sup>1</sup>Vaasma, Kalamees, and Raitviir, 1986; <sup>1</sup>Fedosova and Kovalenko, 2014; <sup>1,9</sup>Shumkova, Krivorotov, and Gayday, 2018); **Kursk Oblast** (<sup>1,15</sup>Ryabova and Ignatenko, 1981; <sup>8</sup>Bedenko, 1985); **Leningrad Oblast** (<sup>4</sup>Thesleff, 1920; <sup>1</sup>Ivanov, 1988b; <sup>1</sup>Stolyarskaya, 1993; <sup>1,5,6</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Fomina, 2000; <sup>1</sup>Morozova and Kovalenko, 2000; <sup>1</sup>Fomina, 2001; <sup>1</sup>Morozova, 2007; <sup>1,5,6</sup>Popov et al., 2007; <sup>1</sup>Fedosova and Kovalenko, 2014; <sup>1</sup>Zmitrovich et al., 2015; <sup>1</sup>Kalinina, 2018; <sup>1</sup>Malysheva, Malysheva, Shchepin, and Novozhilov, 2018); **Lipetsk Oblast** (<sup>1</sup>Alferova, 1977; <sup>15</sup>Sarycheva, 1999; <sup>1</sup>Rtishcheva, 1999; <sup>1</sup>Afanasyev, Rtishcheva, and Starodubtseva, 2007; <sup>1,5</sup>Sarycheva et al., 2009; <sup>1,5</sup>Sarycheva, 2011; <sup>1,5</sup>Sarycheva, 2014a; <sup>1,5</sup>Sarycheva, 2016; <sup>1</sup>Sarycheva, Starodubtseva, and Sapelnikova, 2017); **Mari El Republic** (<sup>5</sup>Ivanov, 1988b; <sup>1</sup>Prokhorov, 2007); **Mordovia** (<sup>1</sup>Chastukhin, 1948a; <sup>1</sup>Kuznetsov, 1960; <sup>1</sup>Chastukhin and Nikolaevskaya, 1969; <sup>1</sup>Chastukhin, 2011; <sup>1,5</sup>Ivoilov and Bolshakov, 2011b); **Moscow** (<sup>1</sup>Weinmann, 1836; <sup>1</sup>Burova, 1968); **Moscow Oblast** (<sup>1,5</sup>Gorlenko, Sidorova, and Sidorova, 1989; <sup>1,5</sup>Levitskaya, 1995b; <sup>1</sup>Voronina et al., 2012; <sup>1,5</sup>Levitskaya, 2013; <sup>1</sup>Fedosova and Kovalenko, 2014; <sup>1</sup>Voronina et al., 2014; <sup>1</sup>Sidorova, Alexandrova, and Voronina, 2017); **Murmansk Oblast** (<sup>1</sup>Vanin, 1928; <sup>1</sup>Pystina, Pavlova, and Shestakova, 1969; <sup>8,12</sup>Mikhailovskii, 1975b; <sup>5</sup>Ivanov, 1988b; <sup>7,12</sup>Nezdojminogo, 1997b; <sup>7,12</sup>Karatygin, Nezdojminogo, Novozhilov, and Zhurbenko, 1999; <sup>1</sup>Fedosova and Kovalenko, 2014); **North Ossetia** (<sup>1</sup>Nikolayev, 2001); **Novgorod Oblast** (<sup>1</sup>Rusakov, 1968; <sup>1</sup>Kovalenko, Morozova, Nezdojminogo, and Popov, 2005; <sup>1</sup>Popov et al., 2013); **Orenburg Oblast** (<sup>9</sup>Desyatova, 2008); **Oryol Oblast** (<sup>1</sup>Radygina, Derzhavina, and Tsutsupa, 2014); **Penza Oblast** (<sup>1</sup>Vet, 1943; <sup>1,5</sup>Ivanov, 1981a; <sup>1,5</sup>Ivanov, 1988b; <sup>1</sup>Ivanov, 2019); **Perm Krai** (<sup>6</sup>Perevedentseva, Nezdojminogo, and Kovalenko, 1990; <sup>3,5,6</sup>Perevedentseva, 2008; <sup>1,5</sup>Belkovskaya et al., 2014; <sup>1</sup>Perevedentseva and Shishigin, 2015; <sup>1</sup>Botalov, 2017; <sup>1</sup>Botalov, Perevedentseva, and Shishigin, 2020); **Pskov Oblast** (<sup>1</sup>Kovalenko and Morozova, 1999b; <sup>1</sup>Popov, 2001a; <sup>1</sup>Popov et al., 2013); **Rostov Oblast** (<sup>1</sup>Rusanov et al., 2004; <sup>1</sup>Morozova et al., 2008; <sup>1</sup>Zmitrovich et al., 2008); **Ryazan Oblast** (<sup>1</sup>Volosnova, 1997; <sup>1</sup>Volosnova, 2014); **Saint Petersburg** (<sup>1</sup>Weinmann, 1828; <sup>1</sup>Weinmann, 1837; <sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1,5</sup>Morozova and Smirnov, 2011; <sup>1</sup>Fedosova and Kovalenko, 2014; <sup>1</sup>Morozova, Kovalenko, Rebriev, and Malysheva, 2014; <sup>1</sup>Zhukova, Morozova, Volobuev, and Bryantseva, 2017; <sup>1</sup>Morozova et al., 2020); **Samara Oblast** (<sup>1</sup>Malysheva and Malysheva, 2004; <sup>1</sup>Malysheva and Malysheva, 2008); **Saratov Oblast** (<sup>1</sup>Komirnaya, 1970; <sup>1</sup>Komirnaya, 1975); **Sevastopol** (<sup>1</sup>Sarkina, 2020c); **Smolensk Oblast** (<sup>1</sup>Jaczewski, 1896; <sup>1</sup>Elenew, 1904); **Sverdlovsk Oblast** (<sup>1</sup>Stepanova and Sirko, 1977; <sup>1</sup>Marina, 2006; <sup>5</sup>Marina, 2006; <sup>1</sup>Fedosova and Kovalenko, 2014); **Tatarstan** (<sup>1</sup>Sorokin, 1872; <sup>1</sup>Vassiljeva, 1977; <sup>1</sup>Ivanov, 1988b; <sup>1</sup>Potapov, 2015b); **Tula Oblast** (<sup>1</sup>Svetasheva, 2001; <sup>1,5</sup>Svetasheva, 2004; <sup>1</sup>Fedosova and Kovalenko, 2014); **Tver Oblast** (<sup>1</sup>Chastukhin, 1948b; <sup>1</sup>Chastukhin and Nikolaevskaya, 1969; <sup>2,5,9</sup>Kurochkin, 1993; <sup>1</sup>Mukhina and Garibova, 2010; <sup>1</sup>Mukhina, 2011a; <sup>1</sup>Mukhina, 2011b; <sup>1</sup>Kotkova, 2014; <sup>5</sup>Kurochkin, 2016); **Udmurt Republic** (<sup>1,8</sup>Tychinin and Kuzmina, 2003); **Ulyanovsk Oblast** (<sup>1</sup>Ilyukhin, 2010a; <sup>9</sup>Artemyeva, Maslennikov, and Korepov, 2015); **Vladimir Oblast** (<sup>5</sup>Ivanov, 1988b; <sup>1</sup>Mishulin, Blinov, and Gushchina, 2018); **Volgda Oblast** (<sup>1</sup>Kutova, 1957; <sup>1</sup>Kirillova, 2007; <sup>1</sup>Fedosova and Kovalenko, 2014); **Voronezh Oblast** (<sup>1</sup>Chastukhin, 1952; <sup>1</sup>Chastukhin and Nikolaevskaya, 1969; <sup>1</sup>Afanasyev, Rtishcheva, and Starodubtseva, 2007; <sup>1</sup>Selochnik, 2015; <sup>1</sup>Sarycheva, Starodubtseva, and Sapelnikova, 2017; <sup>1</sup>Kochergina and Furmenkova, 2019); **Yaroslavl Oblast** (<sup>1,5</sup>Lazareva, 1997; <sup>1,5</sup>Lazareva, 1998a); **Arid territories** (<sup>1,9</sup>Rebriev, Rusanov, et al., 2012).

**SIBERIA: Altai Krai** (<sup>5</sup>Gorbunova and Chubarova, 2008; <sup>1</sup>Gorbunova, Vlasenko, and Tzhubarova, 2011); **Altai Republic** (<sup>6</sup>Kovalenko, 1992; <sup>1</sup>Gorbunova, 2001b; <sup>2</sup>Perova and Gorbunova, 2001; <sup>6</sup>Gorbunova, 2001a; <sup>6</sup>Perova and Gorbunova, 2001; <sup>1,5</sup>Gorbunova, 2008; <sup>1</sup>Fedosova and Kovalenko, 2014; <sup>1</sup>Gorbunova, 2017b); **Buryatia** (<sup>8</sup>Nezdojminogo, 1970a; <sup>2,5</sup>Petrov, 1991; <sup>1</sup>Fedosova and Kovalenko, 2014; <sup>8</sup>Krasnopevtseva and Ermakova, 2015; <sup>1</sup>Heklau and Dörfelt, 2017); **Irkutsk Oblast** (<sup>1</sup>Kutafjeva, 1982; <sup>2,6</sup>Petrov, 1984; <sup>1,6</sup>Petrov, 1989; <sup>2,5,6</sup>Petrov, 1991; <sup>1</sup>Muzyka, 2002; <sup>2,5,6</sup>Bardunov et al., 2005; <sup>2,5,6</sup>Petrov, 2008; <sup>8</sup>Muzyka, 2009; <sup>5</sup>Heklau and Dörfelt, 2017); **Khakassia** (<sup>1</sup>Zauzolkova, 2015); **Khanty-Mansi Autonomous Okrug** (<sup>1</sup>Zvyagina, Baykalova, and Gorbunova, 2007; <sup>1,5</sup>Zvyagina, 2008; <sup>1</sup>Shepeleva et al., 2014; <sup>1</sup>Filippova, Bulyonkova, and Lapshina, 2015; <sup>1</sup>Filippova and Bulyonkova, 2017a; <sup>1</sup>Filippova and Bulyonkova, 2017b); **Krasnoyarsk Krai** (<sup>2,8</sup>Beglyanova, 1972a; <sup>8</sup>Nezdojminogo, 1976a; <sup>5</sup>Lapitskaya, 1990; <sup>2</sup>Kosheleva and Kutafjeva, 2008a; <sup>1</sup>Kryuchkova, 2009; <sup>1</sup>Malysheva, Malysheva, Kiyashko, et al., 2017; <sup>1</sup>Krom and Kapitonov, 2019); **Novosibirsk Oblast** (<sup>1</sup>Nozdrenko, 1970; <sup>8</sup>Zaytseva, 1971; <sup>1</sup>Perova, 1977; <sup>2,8</sup>Perova and Gorbunova, 2001; <sup>1</sup>Perova and Gorbunova, 2007; <sup>1</sup>Koropachinskiy and Banaev, 2014); **Sakha Republic** (<sup>1</sup>Fedosova and Kovalenko, 2014); **Sverdlovsk Oblast** (<sup>1</sup>Stepanova and Sirko, 1977); **Tomsk Oblast** (<sup>8,14</sup>Milovidova, 1980; <sup>8</sup>Perova and Gorbunova, 2001; <sup>1</sup>Kosheleva and Kutafjeva, 2004; <sup>1,6</sup>Kudashova, Gashkov, and Kutafjeva, 2013; <sup>1</sup>Vaishlya et al., 2017); **Tuva Republic** (<sup>5</sup>Ondar and Shaulo, 2018).

**FAR EAST: Amur Oblast** (<sup>1</sup>Tomilin, 1962; <sup>1</sup>Gordienko, Petrova, and Tarasov, 1981; <sup>1</sup>Nazarova, 1986; <sup>1</sup>Azbukina et al., 1998; <sup>1</sup>Taranina, 2005; <sup>1</sup>Kochunova, 2019); **Chukotka Autonomous Okrug** (<sup>7</sup>Sazanova, 1993; <sup>7,12</sup>Karatygin,

Nezdojminogo, Novozhilov, and Zhurbenko, 1999; <sup>1</sup>Fedosova and Kovalenko, 2014); **Jewish Autonomous Oblast** (<sup>1</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Erofeeva and Bulakh, 2015b; <sup>1</sup>Bogacheva et al., 2018; <sup>1</sup>Erofeeva, Bukharova, and Bulakh, 2019); **Kamchatka Krai** (<sup>6</sup>Kalamees and Vaasma, 1981; <sup>12</sup>Karatygin, Nezdojminogo, Novozhilov, and Zhurbenko, 1999); **Khabarovsk Krai** (<sup>1</sup>Azbukina et al., 1986; <sup>1</sup>Azbukina et al., 1989; <sup>1</sup>Bulakh, Vassiljeva, and Erofeeva, 2010; <sup>1</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Bulakh, 2013; <sup>1</sup>Bogacheva, Bulakh, Bukharova, and Egorova, 2015; <sup>1</sup>Erofeeva and Bulakh, 2015a; <sup>1</sup>Bogacheva et al., 2018); **Magadan Oblast** (<sup>1</sup>Nazarova, 1976; <sup>5</sup>Sazanova, 1996; <sup>5,7,10</sup>Sazanova, 2005; <sup>1,5,10</sup>Sazanova, 2009a; <sup>1</sup>Sazanova, 2009b; <sup>1,5</sup>Sazanova, 2011; <sup>1</sup>Sazanova, 2012; <sup>1</sup>Sazanova and Golodnova, 2015; <sup>1</sup>Sazanova, 2016); **Primorsky Krai** (<sup>1</sup>Vassiljeva, 1956; <sup>1</sup>Vassiljeva, 1972; <sup>1</sup>Vassiljeva, 1973; <sup>1</sup>Shalapugina, 1976; <sup>1</sup>Bunkina and Nazarova, 1978; <sup>8</sup>Azbukina et al., 1984; <sup>1</sup>Azbukina et al., 1990; <sup>1</sup>Bardunov et al., 2002; <sup>1</sup>Azbukina et al., 2006; <sup>1</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Fedosova and Kovalenko, 2014; <sup>1</sup>Bulakh et al., 2016; <sup>1</sup>Bogacheva et al., 2018; <sup>1</sup>Bogacheva, Bulakh, Bukharova, and Egorova, 2020); **Sakhalin Oblast** (<sup>1</sup>Vassiljeva and Nazarova, 1972).

***Boletus hiratsukae* Nagas.**

FAR EAST: **Primorsky Krai** (Fedosova and Kovalenko, 2014).

***Boletus luridellus* (Murrill) Murrill**

FAR EAST: **Primorsky Krai** (Vassiljeva, 1956; Vassiljeva, 1972; Vassiljeva, 1973).

***Boletus pinophilus* Pilát & Dermek<sup>1</sup>**

= *Boletus edulis* f. *pinicola* (Vittad.) Vassilkov<sup>2</sup> = *Boletus edulis* var. *pinicola* Vittad.<sup>3</sup> = *Boletus pinicola* (Vittad.) A. Venturi<sup>4</sup>

EASTERN EUROPE: **Belgorod Oblast** (<sup>2</sup>Bedenko, 1979a); **Bryansk Oblast** (<sup>2</sup>Kruglikov, 2007); **Chelyabinsk Oblast** (<sup>3</sup>Aleksandrovskaya and Lobanova, 1968); **Kaliningrad Oblast** (<sup>1</sup>Dedkov, Volodina, and Gubareva, 2007; <sup>1</sup>Volodina, 2007); **Kaluga Oblast** (<sup>2</sup>Sionova, 2003; <sup>2</sup>Sionova, 2006); **Karelia** (<sup>1</sup>Bondartseva et al., 2001; <sup>1</sup>Predtechenskaya and Ruokolainen, 2008; <sup>1</sup>Predtechenskaya and Ruokolainen, 2013; <sup>1</sup>Predtechenskaya, 2013; <sup>1</sup>Krutov et al., 2014; <sup>1</sup>Predtechenskaya, 2015; <sup>1</sup>Savelev and Kikeeva, 2018); **Kirov Oblast** (<sup>1</sup>Kirillov and Luginina, 2011; <sup>1</sup>Kirillov, 2011; <sup>1</sup>Kirillov, Perevedentseva, and Egoshina, 2011; <sup>1</sup>Stavishenko, Luginina, Kirillov, and Egoshina, 2019); **Komi Republic** (<sup>1</sup>Palamarchuk, 2012; <sup>1</sup>Palamarchuk and Kirillov, 2017; <sup>1</sup>Palamarchuk, 2017); **Kostroma Oblast** (<sup>4</sup>Burova, 1982); **Leningrad Oblast** (<sup>4</sup>Kalamees and Kovalenko, 1984; <sup>1</sup>Ivanov, 1988b; <sup>4</sup>Stolyarskaya, 1989; <sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Morozova, 2007; <sup>1</sup>Popov et al., 2007; <sup>1</sup>Fedosova and Kovalenko, 2014; <sup>1</sup>Zmitrovich et al., 2015; <sup>1</sup>Malysheva, Malysheva, Shchepin, and Novozhilov, 2018); **Lipetsk Oblast** (<sup>1</sup>Afanasyev, Rtishcheva, and Starodubtseva, 2007; <sup>1</sup>Sarycheva et al., 2009; <sup>1</sup>Sarycheva, 2011; <sup>1</sup>Sarycheva, 2014a; <sup>1</sup>Sarycheva, Starodubtseva, and Sapelnikova, 2017); **Mari El Republic** (<sup>1</sup>Ivanov, 1988b); **Mordovia** (<sup>1</sup>Ivoilov and Bolshakov, 2011b; <sup>1</sup>Bolshakov, 2015); **Moscow Oblast** (<sup>4</sup>Gorlenko, Sidorova, and Sidorova, 1989); **Murmansk Oblast** (<sup>1</sup>Fedosova and Kovalenko, 2014); **Orenburg Oblast** (<sup>1</sup>Desyatova, 2008); **Penza Oblast** (<sup>4</sup>Ivanov, 1981a; <sup>1</sup>Ivanov, 1988b); **Perm Krai** (<sup>1</sup>Perevedentseva, 2008; <sup>1</sup>Belkovskaya et al., 2014; <sup>1</sup>Botalov, 2017); **Pskov Oblast** (<sup>1</sup>Popov, 2001a; <sup>1</sup>Popov et al., 2013); **Rostov Oblast** (<sup>1</sup>Rusanov et al., 2004; <sup>1</sup>Zmitrovich et al., 2008); **Ryazan Oblast** (<sup>1</sup>Volosnova, 2014); **Saint Petersburg** (<sup>1</sup>Morozova and Smirnov, 2011); **Saratov Oblast** (<sup>4</sup>Komirnaya, 1975); **Sverdlovsk Oblast** (<sup>1</sup>Marina, 2006); **Tatarstan** (<sup>1</sup>Bolshakov et al., 2018); **Tula Oblast** (<sup>1</sup>Svetasheva, 2004; <sup>1</sup>Svetasheva, 2005b); **Tver Oblast** (<sup>4</sup>Kurochkin, 1993); **Ulyanovsk Oblast** (<sup>1</sup>Ilyukhin, 2010a); **Vologda Oblast** (<sup>1</sup>Kirillova, 2007; <sup>1</sup>Fedosova and Kovalenko, 2014); **Voronezh Oblast** (<sup>1</sup>Afanasyev, Rtishcheva, and Starodubtseva, 2007; <sup>1</sup>Sarycheva, Starodubtseva, and Sapelnikova, 2017); **Yaroslavl Oblast** (<sup>1</sup>Lazareva, 1998a; <sup>1</sup>Lazareva, 1998b); **Arid territories** (<sup>1</sup>Rebriev, Rusanov, et al., 2012).

SIBERIA: **Altai Krai** (<sup>2</sup>Gorbunova and Perova, 2006); **Buryatia** (<sup>2</sup>Nezdojminogo, 1970a; <sup>4</sup>Petrov, 1991; <sup>4</sup>Penzina and Petrov, 1994); **Irkutsk Oblast** (<sup>1</sup>Astapenko, 1990b; <sup>4</sup>Bardunov et al., 2005; <sup>4</sup>Petrov, 2008; <sup>1</sup>Fedosova and Kovalenko, 2014; <sup>1</sup>Heklau and Dörfelt, 2017); **Khakassia** (<sup>2</sup>Beglyanova, 1972a); **Khanty-Mansi Autonomous Okrug** (<sup>1</sup>Zvyagina, Baykalova, and Gorbunova, 2007; <sup>1</sup>Makarova, Makarov, Zvyagina, and Bobrikov, 2015); **Krasnoyarsk Krai** (<sup>2</sup>Beglyanova, 1972a; <sup>4</sup>Lapitskaya, 1990; <sup>2</sup>Kosheleva and Kutafjeva, 2008a; <sup>1</sup>Krom and Kapitonov, 2019); **Novosibirsk Oblast** (<sup>1</sup>Gorbunova, 2007; <sup>1</sup>Perova and Gorbunova, 2007; <sup>1</sup>Koropachinskiy and Banaev, 2014); **Tomsk Oblast** (<sup>2</sup>Milovidova, 1980; <sup>2</sup>Perova and Gorbunova, 2001; <sup>1</sup>Kudashova, Gashkov, and Kutafjeva, 2013; <sup>1</sup>Vaishlya et al., 2017).

***Boletus reticulatus* Schaeff.<sup>1</sup>**

≡ *Boletus edulis* f. *reticulatus* (Schaeff.) Vassilkov<sup>2</sup> = *Boletus aestivalis* (Paulet) Fr.<sup>3</sup>

EASTERN EUROPE: **Adygea** (<sup>3</sup>Sopina, 2001a); **Belgorod Oblast** (<sup>2</sup>Bedenko, 1979a); **Crimea** (<sup>1</sup>Dudka et al., 2004; <sup>1</sup>Akulov and Pryidiuk, 2007; <sup>1</sup>Sarkina, 2011; <sup>1</sup>Sarkina and Pryidiuk, 2012; <sup>1</sup>Sarkina and Stavishenko, 2019); **Kaliningrad Oblast** (<sup>1</sup>Dedkov, Volodina, and Gubareva, 2007); **Karachay-Cherkess Republic** (<sup>1</sup>Fedosova and Kovalenko, 2014); **Karelia** (<sup>3</sup>Kovalenko, Morozova, Fomina, and Särkisilta, 1998; <sup>1</sup>Fedosova and Kovalenko, 2014; <sup>3</sup>Krutov et al., 2014); **Kirov Oblast** (<sup>1</sup>Svetasheva et al., 2017); **Krasnodar Krai** (<sup>3</sup>Psurtseva, Kiyashko, Gachkova, and Belova, 2007; <sup>1</sup>Fedosova and Kovalenko, 2014; <sup>1</sup>Shumkova, Krivorotov, and Gayday, 2018); **Leningrad Oblast** (<sup>1</sup>Kalinina, 2018); **Lipetsk Oblast** (<sup>1</sup>Sarycheva et al., 2009; <sup>1</sup>Sarycheva, 2011; <sup>1</sup>Sarycheva, 2014a; <sup>1</sup>Sarycheva, 2016); **Mordovia** (<sup>1</sup>Ivoilov and Bolshakov, 2011b); **Moscow Oblast** (<sup>1</sup>Levitskaya, 1995a; <sup>3</sup>Levitskaya, 2013; <sup>1</sup>Fedosova and Kovalenko, 2014); **Penza Oblast** (<sup>3</sup>Ivanov, 1981a; <sup>3</sup>Ivanov, 1988b; <sup>1</sup>Fedosova and Kovalenko, 2014; <sup>1</sup>Ivanov, 2019); **Perm Krai** (<sup>1</sup>Perevedentseva, 2008); **Pskov Oblast** (<sup>1</sup>Kalinina, Bolshakov, and Bulyonkova, 2020); **Ryazan Oblast** (<sup>1</sup>Volosnova, 2005; <sup>1</sup>Volosnova, 2014); **Saint Petersburg** (<sup>1</sup>Geltman, 2018a); **Saratov Oblast** (<sup>3</sup>Komirnaya, 1975; <sup>3</sup>Ivanov, 1988b); **Sevastopol** (<sup>1</sup>Sarkina, 2016b; <sup>1</sup>Sarkina, 2020c); **Tatarstan** (<sup>1</sup>Potapov, 2015b; <sup>1</sup>Potapov, 2016b); **Tula Oblast** (<sup>3</sup>Svetasheva, 2004; <sup>1</sup>Svetasheva, 2013; <sup>1</sup>Fedosova and Kovalenko, 2014); **Ulyanovsk Oblast** (<sup>1</sup>Ilyukhin, 2009; <sup>1</sup>Svetasheva et al., 2017); **Volgograd Oblast** (<sup>1</sup>Dudka and Vedeneyev, 2014); **Yaroslavl Oblast** (<sup>3</sup>Lazareva, 1998a; <sup>3</sup>Lazareva, 1998b); **Arid territories** (<sup>1</sup>Rebriev, Rusanov, et al., 2012).

SIBERIA: **Khakassia** (<sup>1</sup>Zauzolkova, 2015; <sup>1</sup>Zauzolkova and Gorbunova, 2016); **Tomsk Oblast** (<sup>1</sup>Kudashova, Gashkov, and Kutafjeva, 2013; <sup>1</sup>Kudashova, Gashkov, and Vaishlya, 2016b).

FAR EAST: **Primorsky Krai** (<sup>1</sup>Fedosova and Kovalenko, 2014).

#### ***Boletus speciosus* Frost**

EASTERN EUROPE: **Krasnodar Krai** (Kovalenko, 1980a; Kovalenko, 1980b).

FAR EAST: **Primorsky Krai** (Bau, Bulakh, and Govorova, 2011; Bulakh et al., 2016; Bogacheva et al., 2018).

#### ***Boletus subclavatosporus* Snell**

EASTERN EUROPE: **Krasnodar Krai** (Kovalenko, 1980a; Kovalenko, 1980b).

#### ***Boletus tomentososquamulosus* Lj.N. Vassiljeva**

FAR EAST: **Primorsky Krai** (Vassiljeva, 1959; Vassiljeva, 1973; Bunkina and Nazarova, 1978; Azbukina et al., 2006; Bau, Bulakh, and Govorova, 2011).

#### ***Boletus vassilkovii* M.M. Nazarova**

FAR EAST: **Primorsky Krai** (Nazarova, 1967).

#### ***Boletus violaceofuscus* W.F. Chiu**

FAR EAST: **Jewish Autonomous Oblast** (Bau, Bulakh, and Govorova, 2011; Erofeeva, 2016; Bogacheva et al., 2018; Erofeeva, Bukharova, and Bulakh, 2019); **Primorsky Krai** (Kovalenko and Nezdoinog, 1989; Fedosova and Kovalenko, 2014; Bogacheva et al., 2018).

#### ***Bonomyces sinopicus* (Fr.) Vizzini<sup>1</sup>**

≡ *Clitocybe sinopica* (Fr.) P. Kumm.<sup>2</sup> = *Clitocybe sinopica* var. *rimosa* H.E. Bigelow<sup>3</sup> = *Clitocybe subsinopica* Harmaja<sup>4</sup>

EASTERN EUROPE: **Belgorod Oblast** (<sup>2</sup>Bedenko, 1980); **Kaliningrad Oblast** (<sup>2</sup>Dedkov, Volodina, and Gubareva, 2007); **Karelia** (<sup>2</sup>Krutov et al., 2014); **Komi Republic** (<sup>2</sup>Palamarchuk, 2012; <sup>2</sup>Palamarchuk and Kirillov, 2017); **Leningrad Oblast** (<sup>2</sup>Thesleff, 1920; <sup>2</sup>Harmaja, 1969; <sup>2,4</sup>Kovalenko and Morozova, 1999a; <sup>2</sup>Morozova and Kovalenko, 2000; <sup>2</sup>Morozova, 2007; <sup>2,4</sup>Popov et al., 2007; <sup>3</sup>Zmitrovich et al., 2015); **Moscow Oblast** (<sup>2</sup>Gorlenko, Sidorova, and Sidorova, 1989; <sup>2</sup>Vishnevsky, 1998); **Penza Oblast** (<sup>2</sup>Ivanov, 1981a); **Ryazan Oblast** (<sup>2</sup>Volosnova, 2014); **Saint Petersburg** (<sup>2</sup>Kovalenko and Morozova, 1999a; <sup>2</sup>Morozova and Smirnov, 2011; <sup>2</sup>Morozova et al., 2020); **Smolensk Oblast** (<sup>2</sup>Burova, 1969); **Tatarstan** (<sup>2</sup>Vassiljeva, 1977); **Tula Oblast** (<sup>2</sup>Svetasheva, 2004; <sup>2</sup>Svetasheva, 2008; <sup>2</sup>Shcherbakov, 2010); **Ulyanovsk Oblast** (<sup>2</sup>Ilyukhin, 2009; <sup>2</sup>Ilyukhin, 2010a); **Vologda Oblast** (<sup>2</sup>Kirillova, 2007; <sup>2</sup>Kirillova, 2009).

SIBERIA: **Altai Krai** (<sup>2</sup>Gorbunova and Perova, 2006); **Altai Republic** (<sup>2</sup>Zhukov, 1979; <sup>2</sup>Gorbunova, 2001a; <sup>2</sup>Gorbunova, 2008); **Khakassia** (<sup>2</sup>Beglyanova, 1972a; <sup>2</sup>Zauzolkova, 2015); **Krasnoyarsk Krai** (<sup>2</sup>Beglyanova, 1972a; <sup>2</sup>Beglyanova, 1972b; <sup>1</sup>Krom and Kapitonov, 2019); **Novosibirsk Oblast** (<sup>2</sup>Nozdrenko, 1970; <sup>2</sup>Perova and Gorbunova, 2001; <sup>2</sup>Perova and Gorbunova, 2007; <sup>2</sup>Koropachinskiy and Banaev, 2014); **Tomsk Oblast** (<sup>2</sup>Perova and Gorbunova, 2001; <sup>2</sup>Kudashova, Gashkov, and Kutafjeva, 2013).

FAR EAST: **Amur Oblast** (<sup>2</sup>Taranina, 2005); **Chukotka Autonomous Okrug** (<sup>2</sup>Sazanova, 1993); **Magadan Oblast** (<sup>2</sup>Nazarova, 1976; <sup>2</sup>Sazanova, 2005; <sup>2</sup>Sazanova, 2009a; <sup>2</sup>Sazanova, 2012); **Primorsky Krai** (<sup>2</sup>Vassiljeva, 1973; <sup>2</sup>Bulakh et al., 2016).

***Britzelmayria multipedata* (Peck) D. Wächt. & A. Melzer**

≡ *Psathyrella multipedata* (Peck) A.H. Sm.<sup>1</sup> = *Psathyra stipatissima* J.E. Lange<sup>2</sup>

EASTERN EUROPE: **Leningrad Oblast** (<sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Popov et al., 2007); **Lipetsk Oblast** (<sup>1</sup>Sarycheva et al., 2009; <sup>1</sup>Sarycheva, 2011; <sup>1</sup>Sarycheva, 2014a; <sup>1</sup>Sarycheva, 2016); **Penza Oblast** (<sup>1</sup>Ivanov, 1989); **Perm Krai** (<sup>1</sup>Perevedentseva, 2008); **Saint Petersburg** (<sup>1</sup>Kotkova, Morozova, and Popov, 2005); **Tula Oblast** (<sup>1</sup>Svetasheva, 2004); **Tver Oblast** (<sup>2</sup>Chastukhin, 1948b; <sup>1</sup>Chastukhin and Nikolaevskaya, 1969; <sup>1</sup>Mukhina, 2011a; <sup>1</sup>Kotkova, 2014); **Ulyanovsk Oblast** (<sup>1</sup>Ilyukhin, 2009); **Yaroslavl Oblast** (<sup>1</sup>Lazareva, 1998a; <sup>1</sup>Lazareva, 1998b).

SIBERIA: **Irkutsk Oblast** (<sup>1</sup>Kutafjeva and Astapenko, 1988; <sup>1</sup>Astapenko, 1990a; <sup>1</sup>Muzyka, 2009); **Khakassia** (<sup>1</sup>Beglyanova, 1972a; <sup>1</sup>Zauzolkova, 2015); **Khanty-Mansi Autonomous Okrug** (<sup>1</sup>Filippova, Bulyonkova, and Lapshina, 2015); **Krasnoyarsk Krai** (<sup>1</sup>Krom and Kapitonov, 2019); **Novosibirsk Oblast** (<sup>1</sup>Perova and Gorbunova, 2001; <sup>1</sup>Perova and Gorbunova, 2007; <sup>1</sup>Koropachinskiy and Banaev, 2014).

FAR EAST: **Khabarovsk Krai** (<sup>1</sup>Bulakh, 2013; <sup>1</sup>Bogacheva, Bulakh, Bukharova, and Egorova, 2015); **Primorsky Krai** (<sup>1</sup>Vassiljeva, 1972; <sup>1</sup>Vassiljeva, 1973; <sup>1</sup>Bunkina and Nazarova, 1978; <sup>1</sup>Azbukina et al., 2006; <sup>1</sup>Bau, Bulakh, and Govorova, 2011).

***Buchwaldoboletus hemichrysus* (Berk. & M.A. Curtis) Pilát<sup>1</sup>**

≡ *Pulveroboletus hemichrysus* (Berk. & M.A. Curtis) Singer<sup>2</sup>

SIBERIA: **Tomsk Oblast** (<sup>1</sup>Kudashova, Gashkov, and Vaishlya, 2016a; <sup>1</sup>Kudashova, Gashkov, and Vaishlya, 2016b; <sup>1</sup>Vaishlya et al., 2017).

FAR EAST: **Primorsky Krai** (<sup>2</sup>Bardunov et al., 2002).

***Buchwaldoboletus lignicola* (Kallenb.) Pilát<sup>1</sup>**

≡ *Phlebopus lignicola* (Kallenb.) M.M. Moser<sup>2</sup> ≡ *Pulveroboletus lignicola* (Kallenb.) E.A. Dick & Snell<sup>3</sup>

EASTERN EUROPE: **Leningrad Oblast** (<sup>1</sup>Geltman et al., 2018; <sup>1</sup>Geltman, 2018b); **Saint Petersburg** (<sup>1</sup>Geltman, 2018a).

SIBERIA: **Buryatia** (<sup>1</sup>Heklau and Dörfelt, 2017).

FAR EAST: **Amur Oblast** (<sup>1</sup>Kochunova, 2019); **Khabarovsk Krai** (<sup>3</sup>Azbukina et al., 1986; <sup>1</sup>Bau, Bulakh, and Govorova, 2011); **Primorsky Krai** (<sup>2</sup>Vassiljeva, 1973; <sup>2</sup>Bunkina and Nazarova, 1978; <sup>3</sup>Azbukina et al., 1984; <sup>3</sup>Bardunov et al., 2002; <sup>1</sup>Azbukina et al., 2006; <sup>1</sup>Bau, Bulakh, and Govorova, 2011).

***Buchwaldoboletus sphaerocephalus* (Barla) Watling & T.H. Li<sup>1</sup>**

= *Phlebopus sulfureus* (Quél.) Singer<sup>2</sup>

EASTERN EUROPE: **Crimea** (<sup>1</sup>Sarkina and Prydiuk, 2012); **Rostov Oblast** (<sup>1</sup>Svetasheva et al., 2017).

FAR EAST: **Primorsky Krai** (<sup>2</sup>Vassiljeva, 1956; <sup>2</sup>Vassiljeva, 1973; <sup>2</sup>Bunkina and Nazarova, 1978; <sup>1</sup>Azbukina et al., 2006; <sup>1</sup>Bau, Bulakh, and Govorova, 2011).

***Butyriboletus appendiculatus* (Schaeff.) D. Arora & J.L. Frank<sup>1</sup>**

≡ *Boletus appendiculatus* Schaeff.<sup>2</sup>

EASTERN EUROPE: **Adygea** (<sup>2</sup>Sopina, 2001a); **Crimea** (<sup>2</sup>Sarkina, 2001; <sup>2</sup>Dudka et al., 2004; <sup>2</sup>Akulov and Prydiuk, 2007; <sup>2</sup>Sarkina, 2010b; <sup>2</sup>Sarkina and Prydiuk, 2012; <sup>2</sup>Sarkina, 2013; <sup>2</sup>Sarkina, 2014b; <sup>2</sup>Sarkina and Mironova, 2015; <sup>2</sup>Sarkina, 2016a); **Kaliningrad Oblast** (<sup>2</sup>Dedkov, Volodina, and Gubareva, 2007; <sup>2</sup>Dedkov and Grishanov, 2010); **Karachay-Cherkess Republic** (<sup>2</sup>Kalamees and Botashev, 2000); **Krasnodar Krai** (<sup>2</sup>Kovalenko, 1980a; <sup>2</sup>Kovalenko, 1980b; <sup>2</sup>Vaasma, Kalamees, and Raitviir, 1986; <sup>2</sup>Sopina, 2001a); **Kursk Oblast** (<sup>2</sup>Ryabova and Ignatenko, 1981); **Lipetsk Oblast** (<sup>2</sup>Sarycheva et al., 2009; <sup>2</sup>Sarycheva, 2014a; <sup>2</sup>Shcherbakov, 2014; <sup>2</sup>Sarycheva, 2016); **Penza Oblast** (<sup>2</sup>Ivanov, 1992; <sup>2</sup>Ivanov, 2013a); **Saratov Oblast** (<sup>2</sup>Komirnaya, 1975; <sup>2</sup>Shlyakhtin, 2006); **Sevastopol** (<sup>2</sup>Sarkina, 2016b; <sup>1</sup>Sarkina, 2020c); **Arid territories** (<sup>2</sup>Rebriev, Rusanov, et al., 2012).

FAR EAST: **Primorsky Krai** (<sup>2</sup>Vassiljeva, 1956; <sup>2</sup>Vassiljeva, 1972; <sup>2</sup>Vassiljeva, 1973; <sup>2</sup>Azbukina et al., 1990; <sup>2</sup>Bardunov et al., 2002).

***Butyriboletus fechtneri* (Velen.) D. Arora & J.L. Frank<sup>1</sup>**≡ *Boletus fechtneri* Velen.<sup>2</sup>

EASTERN EUROPE: **Adygea** (<sup>2</sup>Vaasma, Kalamees, and Raitviir, 1986; <sup>2</sup>Zamotajlov, Sirotyuk (Kuvaeva), Akatova, and Lipka, 2012); **Belgorod Oblast** (<sup>2</sup>Bedenko, 1979a; <sup>1</sup>Prisny, 2019); **Crimea** (<sup>2</sup>Akulov and Prydiuk, 2007; <sup>1</sup>Sarkina, 2020a); **Karachay-Cherkess Republic** (<sup>2</sup>Kalamees and Botashev, 2000); **Krasnodar Krai** (<sup>2</sup>Kovalenko, 1980a; <sup>2</sup>Kovalenko, 1980b); **Sevastopol** (<sup>1</sup>Sarkina, 2020c).

***Butyriboletus pseudoregius* (Heinr. Huber) D. Arora & J.L. Frank**EASTERN EUROPE: **Sevastopol** (Sarkina, 2020c).***Butyriboletus regius* (Krombh.) D. Arora & J.L. Frank<sup>1</sup>**≡ *Boletus regius* Krombh.<sup>2</sup>

EASTERN EUROPE: **Crimea** (<sup>2</sup>Sarkina, 2001; <sup>2</sup>Sarkina, Prydiuk, and Heluta, 2003; <sup>2</sup>Dudka et al., 2004; <sup>2</sup>Akulov and Prydiuk, 2007; <sup>2</sup>Sarkina, 2010b; <sup>2</sup>Sarkina and Prydiuk, 2012; <sup>2</sup>Sarkina, 2013; <sup>2</sup>Yena and Fateryga, 2015; <sup>1</sup>Sarkina and Stavishenko, 2019); **Krasnodar Krai** (<sup>2</sup>Kovalenko, 1980a; <sup>2</sup>Kovalenko, 1980b).

FAR EAST: **Primorsky Krai** (<sup>2</sup>Vassiljeva, 1956; <sup>2</sup>Vassiljeva, 1973; <sup>2</sup>Bardunov et al., 2002).

***Callistosporium heimii* (Singer) Singer**≡ *Collybia heimii* Singer<sup>1</sup>EASTERN EUROPE: **Krasnodar Krai** (<sup>1</sup>Singer, 1937; <sup>1</sup>Vassiljeva, 1939).***Callistosporium luteo-olivaceum* (Berk. & M.A. Curtis) Singer**

EASTERN EUROPE: **Kaliningrad Oblast** (Dedkov, Volodina, and Gubareva, 2007; Volodina, 2007); **Perm Krai** (Perevedentseva, 2008; Belkovskaya et al., 2014); **Sverdlovsk Oblast** (Marina, 2006).

***Callistosporium pinicola* Arnolds**EASTERN EUROPE: **Moscow Oblast** (Voronina et al., 2012; Voronina et al., 2014).***Caloboletus calopus* (Pers.) Vizzini<sup>1</sup>**≡ *Boletus calopus* Pers.<sup>2</sup>

EASTERN EUROPE: **Adygea** (<sup>2</sup>Vaasma, Kalamees, and Raitviir, 1986; <sup>2</sup>Zamotajlov, Sirotyuk (Kuvaeva), Akatova, and Lipka, 2012); **Belgorod Oblast** (<sup>2</sup>Bedenko, 1980); **Kaliningrad Oblast** (<sup>2</sup>Dedkov, Volodina, and Gubareva, 2007; <sup>2</sup>Dedkov and Grishanov, 2010); **Karachay-Cherkess Republic** (<sup>2</sup>Vassiljeva, 1939; <sup>2</sup>Kalamees and Botashev, 2000); **Krasnodar Krai** (<sup>2</sup>Vassiljeva, 1939); **Lipetsk Oblast** (<sup>2</sup>Sarycheva, 1999; <sup>2</sup>Sarycheva et al., 2009; <sup>2</sup>Sarycheva, 2014a; <sup>2</sup>Shcherbakov, 2014; <sup>2</sup>Sarycheva, 2016); **Penza Oblast** (<sup>2</sup>Ivanov, 2013a); **Saratov Oblast** (<sup>2</sup>Komirnaya, 1975); **Sevastopol** (<sup>1</sup>Sarkina, 2020c); **Urals** (<sup>2</sup>Stepanova and Sirko, 1977).

FAR EAST: **Jewish Autonomous Oblast** (<sup>2</sup>Bulakh, Govorova, Nazarova, and Vassiljeva, 2007; <sup>2</sup>Bau, Bulakh, and Govorova, 2011; <sup>2</sup>Bogacheva et al., 2018); **Primorsky Krai** (<sup>2</sup>Vassiljeva, 1956; <sup>2</sup>Vassiljeva, 1972; <sup>2</sup>Vassiljeva, 1973; <sup>2</sup>Azbukina et al., 2006; <sup>2</sup>Bau, Bulakh, and Govorova, 2011; <sup>2</sup>Bulakh et al., 2016; <sup>2</sup>Bogacheva et al., 2018).

***Caloboletus inedulius* (Murrill) Vizzini**≡ *Boletus inedulius* (Murrill) Murrill<sup>1</sup>FAR EAST: **Amur Oblast** (<sup>1</sup>Tomilin, 1962); **Primorsky Krai** (<sup>1</sup>Vassiljeva, 1959; <sup>1</sup>Vassiljeva, 1973).***Caloboletus radicans* (Pers.) Vizzini<sup>1</sup>**≡ *Boletus radicans* Pers.<sup>2</sup> = *Boletus sanguineipes* Panzera<sup>3</sup>

EASTERN EUROPE: **Bashkortostan** (<sup>2</sup>Mirkin, 2011); **Belgorod Oblast** (<sup>2</sup>Bedenko, 1979a); **Chuvash Republic** (<sup>1</sup>Gafurova, Ignatov, Tolpysheva, and Svetasheva, 2020); **Crimea** (<sup>2</sup>Sarkina, 2010b; <sup>2</sup>Sarkina and Prydiuk, 2012; <sup>2</sup>Sarkina, 2013; <sup>2</sup>Sarkina and Mironova, 2015); **Kaliningrad Oblast** (<sup>2</sup>Dedkov, Volodina, and Gubareva, 2007); **Lipetsk Oblast** (<sup>2</sup>Sarycheva et al., 2009; <sup>2</sup>Shcherbakov, 2014); **Mordovia** (<sup>1</sup>Silaeva et al., 2015; <sup>1</sup>Silaeva et al., 2016; <sup>1</sup>Silaeva, 2017); **Moscow Oblast** (<sup>1</sup>Varlygina, Zubakin, Nikitsky, and Sviridov, 2018); **Orenburg Oblast** (<sup>2</sup>Desyatova, 2008); **Penza Oblast** (<sup>2</sup>Ivanov, 1981a; <sup>2</sup>Ivanov, 2013a); **Perm Krai** (<sup>2</sup>Perevedentseva, 2008; <sup>2</sup>Shepel', 2008; <sup>2</sup>Baklanov, 2018); **Saint Petersburg** (<sup>2</sup>Geltman, 2018a); **Samara Oblast** (<sup>2</sup>Malysheva and Malysheva, 2004; <sup>2</sup>Malysheva and Malysheva, 2008); **Saratov Oblast** (<sup>2</sup>Komirnaya, 1975); **Sevastopol** (<sup>2</sup>Sarkina, 2016b; <sup>1</sup>Sarkina, 2020c); **Tatarstan**

(<sup>1</sup>Potapov, 2016b); **Tula Oblast** (<sup>2</sup>Svetasheva, 2004; <sup>2</sup>Svetasheva, 2005b; <sup>2</sup>Shcherbakov, 2010); **Volgograd Oblast** (<sup>2</sup>Svetasheva, 2015; <sup>3</sup>Rebriev, Popov, and Svetasheva, 2015; <sup>3</sup>Svetasheva, 2015).

***Calocybe albella* (Fr.) Bon**

≡ *Tricholoma albellum* (Fr.) Quél.<sup>1</sup>

EASTERN EUROPE: **Smolensk Oblast** (<sup>1</sup>Jaczewski, 1898); **Voronezh Oblast** (<sup>1</sup>Chastukhin and Nikolaevskaya, 1953).

SIBERIA: **Khakassia** (<sup>1</sup>Saccardo, 1896).

***Calocybe carnea* (Bull.) Donk<sup>1</sup>**

≡ *Agaricus carneus* Bull.<sup>2</sup> ≡ *Calocybe carnea* (Bull.) Kühner<sup>3</sup> ≡ *Rugosomyces carneus* (Bull.) Bon<sup>4</sup> ≡ *Tricholoma carneum* (Bull.) P. Kumm.<sup>5</sup>

EASTERN EUROPE: **Kaliningrad Oblast** (<sup>1</sup>Atayev and Volodina, 2020); **Karelia** (<sup>1</sup>Bondartseva et al., 2001; <sup>1</sup>Krutov et al., 2014); **Mordovia** (<sup>1</sup>Ivoilov and Bolshakov, 2011a); **Moscow** (<sup>5</sup>Hennings, 1905; <sup>2</sup>Mosolov, 1906); **Moscow Oblast** (<sup>1</sup>Vishnevsky, 1998; <sup>4</sup>Voronina et al., 2012; <sup>4</sup>Voronina et al., 2014); **Novgorod Oblast** (<sup>4</sup>Kovalenko, Morozova, Nezdoininogo, and Popov, 2005; <sup>4</sup>Popov et al., 2013); **Pskov Oblast** (<sup>4</sup>Kolmakov and Popov, 2005; <sup>4</sup>Popov et al., 2013); **Samara Oblast** (<sup>1</sup>Malysheva and Malysheva, 2004; <sup>1</sup>Malysheva and Malysheva, 2007; <sup>1</sup>Malysheva and Malysheva, 2008); **Tver Oblast** (<sup>4</sup>Morozova, Aleksandrova, Popov, and Malysheva, 2016).

SIBERIA: **Altai Republic** (<sup>1</sup>Gorbunova, 2001a; <sup>1</sup>Gorbunova, 2008); **Novosibirsk Oblast** (<sup>4</sup>Koropachinskiy and Banaev, 2014).

FAR EAST: **Primorsky Krai** (<sup>3</sup>Vassiljeva, 1973; <sup>3</sup>Bunkina and Nazarova, 1978; <sup>1</sup>Azbukina et al., 2006; <sup>1</sup>Bau, Bulakh, and Govorova, 2011).

***Calocybe caucasica* Singer<sup>1</sup>**

≡ *Rugosomyces causicus* (Singer) Kalamees<sup>2</sup>

EASTERN EUROPE: **Krasnodar Krai** (<sup>1</sup>Vassiljeva, 1939 [as *Tricholoma chrysenteron* subsp. *alpestre* (Britzelm.) Singer, redet. in Singer, 1962]; <sup>2</sup>Singer, 1943 [as *Calocybe alpestris* (Britzelm.) Singer, redet. in Kalamees, 2004]; <sup>1</sup>Singer, 1962a; <sup>2</sup>Kalamees, 2004).

SIBERIA: **Altai Republic** (<sup>2</sup>Singer, 1943 [as *Calocybe alpestris* (Britzelm.) Singer, redet. in Kalamees, 2004]; <sup>2</sup>Kalamees, 2004; <sup>2</sup>Kalamees, 2008).

***Calocybe chrysenteron* (Bull.) Singer<sup>1</sup>**

≡ *Lyophyllum chrysenteron* (Bull.) Kühner & Romagn.<sup>2</sup> ≡ *Rugosomyces chrysenteron* (Bull.) Bon<sup>3</sup> = *Agaricus cerinus* Pers.<sup>4</sup> = *Calocybe cerina* (Pers.) Donk<sup>5</sup> = *Calocybe cerina* (Pers.) Kühner<sup>6</sup> = *Calocybe cerina* (Pers.) Singer<sup>7</sup> = *Rugosomyces cerinus* (Pers.) Bon<sup>8</sup> = *Tricholoma cerinum* (Pers.) P. Kumm.<sup>9</sup>

EASTERN EUROPE: **Bryansk Oblast** (<sup>1</sup>Kruglikov, 2007); **Karelia** (<sup>1</sup>Krutov et al., 2014); **Leningrad Oblast** (<sup>4</sup>Weinmann, 1836; <sup>9</sup>Thesleff, 1920; <sup>8</sup>Kovalenko and Morozova, 1999a; <sup>8</sup>Morozova and Kovalenko, 2000; <sup>3</sup>Morozova, 2002; <sup>3,8</sup>Popov et al., 2007); **Lipetsk Oblast** (<sup>2</sup>Afanasyev, Rtishcheva, and Starodubtseva, 2007; <sup>3</sup>Sarycheva, Starodubtseva, and Sapelnikova, 2017); **Murmansk Oblast** (<sup>9</sup>Pystina, Pavlova, and Shestakova, 1969); **Penza Oblast** (<sup>1</sup>Ivanov, 1983; <sup>3</sup>Kalamees, 2004); **Perm Krai** (<sup>1</sup>Perevedentseva, 2008); **Rostov Oblast** (<sup>3</sup>Morozova et al., 2008); **Ryazan Oblast** (<sup>1</sup>Volosnova, 2014); **Saint Petersburg** (<sup>4</sup>Weinmann, 1828; <sup>4</sup>Weinmann, 1836; <sup>4</sup>Weinmann, 1837); **Samara Oblast** (<sup>1</sup>Malysheva and Malysheva, 2008); **Tatarstan** (<sup>5</sup>Vassiljeva, 1977; <sup>3</sup>Kalamees, 2004); **Udmurt Republic** (<sup>2</sup>Tychinin and Kuzmina, 2003); **Voronezh Oblast** (<sup>2</sup>Afanasyev, Rtishcheva, and Starodubtseva, 2007; <sup>3</sup>Sarycheva, Starodubtseva, and Sapelnikova, 2017); **Arid territories** (<sup>3</sup>Rebriev, Rusanov, et al., 2012).

SIBERIA: **Altai Krai** (<sup>3</sup>Gorbunova, 2018a); **Altai Republic** (<sup>7</sup>Singer, 1943; <sup>1</sup>Gorbunova, 2008; <sup>3</sup>Gorbunova, 2017a; <sup>3</sup>Gorbunova, 2019); **Buryatia** (<sup>6</sup>Nezdoininogo, 1973; <sup>6</sup>Petrov, 1991); **Irkutsk Oblast** (<sup>6</sup>Petrov, 1984; <sup>6</sup>Petrov, 1991; <sup>7</sup>Petrov, 2008; <sup>3</sup>Gorbunova and Stepantsova, 2015); **Krasnoyarsk Krai** (<sup>1,5</sup>Beglyanova, 1972a; <sup>3</sup>Kalamees, 2004); **Novosibirsk Oblast** (<sup>1</sup>Gorbunova, 2007; <sup>3</sup>Koropachinskiy and Banaev, 2014); **Sverdlovsk Oblast** (<sup>5</sup>Stepanova and Sirko, 1977).

FAR EAST: **Amur Oblast** (<sup>1</sup>Kochunova, 2019); **Khabarovsk Krai** (<sup>1,6</sup>Azbukina et al., 1986; <sup>1</sup>Azbukina et al., 1989; <sup>6</sup>Azbukina et al., 1989; <sup>1</sup>Bau, Bulakh, and Govorova, 2011; <sup>3</sup>Erofeeva and Bulakh, 2016); **Magadan Oblast** (<sup>1</sup>Nazarova, 1976; <sup>1</sup>Sazanova, 2009a; <sup>1</sup>Sazanova, 2011); **Primorsky Krai** (<sup>6</sup>Vassiljeva, 1973; <sup>6</sup>Bunkina and Nazarova, 1978; <sup>5</sup>Azbukina et al., 1990; <sup>5</sup>Bardunov et al., 2002; <sup>7</sup>Azbukina et al., 2006; <sup>1</sup>Bau, Bulakh, and Govorova, 2011); **Sakhalin Oblast** (<sup>6</sup>Vassiljeva and Nazarova, 1972).



***Calocybe favrei* (R. Haller Aar. & R. Haller Suhr) Bon**

≡ *Lyophyllum favrei* (R. Haller Aar. & R. Haller Suhr) R. Haller Aar. & R. Haller Suhr<sup>1</sup>

EASTERN EUROPE: **Crimea** (<sup>1</sup>Moser, 1993; <sup>1</sup>Sarkina, 2001; <sup>1</sup>Dudka et al., 2004; <sup>1</sup>Sarkina, 2011).

***Calocybe gambosa* (Fr.) Donk<sup>1</sup>**

≡ *Calocybe gambosa* (Fr.) Singer<sup>2</sup> ≡ *Calocybe gambosa* f. *gambosa* (Fr.) Donk<sup>3</sup> ≡ *Calocybe gambosa* var. *gambosa* (Fr.) Donk<sup>4</sup> ≡ *Calocybe georgii* var. *gambosa* (Fr.) Kalamees<sup>5</sup> ≡ *Lyophyllum gambosum* (Fr.) Singer<sup>6</sup> ≡ *Tricholoma gambosum* (Fr.) P. Kumm.<sup>7</sup> = *Calocybe georgii* (L.) Kühner<sup>8</sup>

EASTERN EUROPE: **Belgorod Oblast** (<sup>2</sup>Bedenko, 1979a; <sup>3</sup>Kalamees, 2004); **Bryansk Oblast** (<sup>1</sup>Kruglikov, 2007); **Crimea** (<sup>6</sup>Sarkina, 2001; <sup>1</sup>Dudka et al., 2004; <sup>1</sup>Sarkina, 2011; <sup>1</sup>Sarkina and Prydiuk, 2012); **Kaliningrad Oblast** (<sup>5</sup>Atayev and Volodina, 2020); **Karachay-Cherkess Republic** (<sup>2</sup>Onipchenko and Kaverina, 1989; <sup>1</sup>Kalamees and Botashev, 2000); **Karelia** (<sup>1</sup>Krutov et al., 2014); **Kirov Oblast** (<sup>1</sup>Kirillov, 2011; <sup>1</sup>Kirillov, Perevedentseva, and Egoshina, 2011; <sup>1</sup>Stavishenko, Luginina, Kirillov, and Egoshina, 2019); **Komi Republic** (<sup>1</sup>Palamarchuk and Kirillov, 2017); **Krasnodar Krai** (<sup>1</sup>Kovalenko, 1980a; <sup>2</sup>Kovalenko, 1980b; <sup>3</sup>Kalamees, 2004); **Leningrad Oblast** (<sup>1</sup>Kovalenko and Morozova, 1999a; <sup>3</sup>Kalamees, 2004; <sup>2</sup>Morozova, 2007; <sup>2</sup>Popov et al., 2007); **Lipetsk Oblast** (<sup>6</sup>Sarycheva, 1999; <sup>1</sup>Sarycheva et al., 2009; <sup>1</sup>Sarycheva, 2011; <sup>1</sup>Sarycheva, 2014a; <sup>1</sup>Sarycheva, 2016); **Mordovia** (<sup>1</sup>Ivoilov and Bolshakov, 2011a); **Moscow Oblast** (<sup>2</sup>Gorlenko, Sidorova, and Sidorova, 1989; <sup>2</sup>Levitskaya, 1995b; <sup>1,8</sup>Vishnevsky, 1998; <sup>1</sup>Levitskaya, 2013); **Murmansk Oblast** (<sup>7</sup>Pystina, Pavlova, and Shestakova, 1969; <sup>3</sup>Kalamees, 2004); **North Ossetia** (<sup>2</sup>Nikolayev, 2001); **Novgorod Oblast** (<sup>2</sup>Kovalenko, Morozova, Nezdoyminogo, and Popov, 2005; <sup>2</sup>Popov et al., 2013); **Orenburg Oblast** (<sup>1</sup>Desyatova, 2007; <sup>1</sup>Desyatova, 2008); **Penza Oblast** (<sup>2</sup>Ivanov, 1981a; <sup>2</sup>Ivanov, 1999; <sup>3</sup>Kalamees, 2004); **Perm Krai** (<sup>2</sup>Perevedentseva, 2008); **Pskov Oblast** (<sup>2</sup>Popov et al., 2013); **Rostov Oblast** (<sup>1,2</sup>Vyshchepan, 1992; <sup>1</sup>Shiryayev, Rebriev, and Knudsen, 2017; <sup>1</sup>Rusanov, Rebriev, and Bulgakov, 2018); **Ryazan Oblast** (<sup>2</sup>Volosnova, 1997; <sup>1</sup>Volosnova, 2014); **Saint Petersburg** (<sup>1</sup>Kovalenko and Morozova, 1999a; <sup>3</sup>Kalamees, 2004; <sup>2</sup>Kotkova, Morozova, and Popov, 2007; <sup>2</sup>Morozova and Smirnov, 2011; <sup>1</sup>Morozova, Kovalenko, Rebriev, and Malysheva, 2014; <sup>2</sup>Morozova et al., 2020); **Tatarstan** (<sup>7</sup>Vassiljeva, 1977); **Tula Oblast** (<sup>1</sup>Svetasheva, 2004; <sup>1</sup>Svetasheva, 2005b; <sup>1</sup>Svetasheva, 2013); **Tver Oblast** (<sup>2</sup>Kurochkin, 1993); **Udmurt Republic** (<sup>2</sup>Tychinin, 1990; <sup>1</sup>Tychinin and Kuzmina, 2003); **Ulyanovsk Oblast** (<sup>1</sup>Ilyukhin, 2010a); **Vologda Oblast** (<sup>1</sup>Kirillova, 2007; <sup>1</sup>Kirillova, 2009); **Voronezh Oblast** (<sup>7</sup>Chastukhin and Nikolaevskaya, 1969; <sup>1</sup>Sarycheva, Starodubtseva, and Sapelnikova, 2017); **Yaroslavl Oblast** (<sup>2</sup>Lazareva, 1998a); **Arid territories** (<sup>1</sup>Rebriev, Rusanov, et al., 2012).

SIBERIA: **Altai Republic** (<sup>1</sup>Perova and Gorbunova, 2001; <sup>2</sup>Gorbunova, 2001b; <sup>3</sup>Kalamees, 2004); **Irkutsk Oblast** (<sup>2</sup>Petrov, 1984; <sup>2</sup>Petrov, 1991; <sup>2</sup>Muzyka, 2002; <sup>2</sup>Petrov, 2008; <sup>1</sup>Heklau and Dörfelt, 2017); **Khakassia** (<sup>1</sup>Beglyanova, 1972a; <sup>1</sup>Zauzolkova, 2015); **Khanty-Mansi Autonomous Okrug** (<sup>2</sup>Filippova and Bulyonkova, 2017a; <sup>2</sup>Filippova and Bulyonkova, 2017b); **Krasnoyarsk Krai** (<sup>1</sup>Beglyanova, 1972a; <sup>1</sup>Nezdoyminogo, 1982a; <sup>3</sup>Kalamees, 2004; <sup>4</sup>Malysheva, Malysheva, Kiyashko, et al., 2017); **Novosibirsk Oblast** (<sup>1</sup>Perova, 1977; <sup>1</sup>Perova and Gorbunova, 2001; <sup>1</sup>Koropachinskiy and Banaev, 2014); **Tomsk Oblast** (<sup>2</sup>Agaphonova, Kutafjeva, and Gashkov, 2007; <sup>2</sup>Agaphonova, Kutafjeva, and Gashkov, 2009b; <sup>1</sup>Kudashova, Gashkov, and Kutafjeva, 2013; <sup>1</sup>Vaishlya et al., 2017).

FAR EAST: **Jewish Autonomous Oblast** (<sup>1</sup>Bulakh, Govorova, Nazarova, and Vassiljeva, 2007; <sup>1</sup>Bau, Bulakh, and Govorova, 2011); **Primorsky Krai** (<sup>7</sup>Vassiljeva, 1973; <sup>7</sup>Azbukina et al., 1990; <sup>2</sup>Bardunov et al., 2002; <sup>1</sup>Azbukina et al., 2006; <sup>1</sup>Bau, Bulakh, and Govorova, 2011).

***Calocybe gangraenosa* (Fr.) V. Hofst., Moncalvo, Redhead & Vilgalys**

≡ *Lyophyllum gangraenosum* (Fr.) Gulden<sup>1</sup> = *Lyophyllum fumatofoetens* Secr. ex Jul. Schäff.<sup>2</sup> = *Lyophyllum leucophaeatum* (P. Karst.) P. Karst.<sup>3</sup>

EASTERN EUROPE: **Leningrad Oblast** (<sup>1</sup>Morozova, 2002; <sup>3</sup>Kalamees, 2004; <sup>1</sup>Popov et al., 2007); **Penza Oblast** (<sup>3</sup>Kalamees, 2004); **Saint Petersburg** (<sup>3</sup>Morozova and Smirnov, 2011); **Volgograd Oblast** (<sup>3</sup>Kalamees, 2004).

SIBERIA: **Altai Republic** (<sup>3</sup>Singer, 1943; <sup>3</sup>Kalamees, 2004); **Irkutsk Oblast** (<sup>3</sup>Astapenko and Kutafjeva, 1990; <sup>3</sup>Kalamees, 2004); **Novosibirsk Oblast** (<sup>3</sup>Koropachinskiy and Banaev, 2014).

FAR EAST: **Jewish Autonomous Oblast** (<sup>2,3</sup>Bulakh, Govorova, Nazarova, and Vassiljeva, 2007; <sup>3</sup>Bau, Bulakh, and Govorova, 2011); **Khbarovsk Krai** (<sup>3</sup>Azbukina et al., 1986; <sup>3</sup>Kalamees, 2004; <sup>3</sup>Bau, Bulakh, and Govorova, 2011; <sup>3</sup>Bulakh, 2013; <sup>3</sup>Bogacheva, Bulakh, Bukharova, and Egorova, 2015); **Primorsky Krai** (<sup>3</sup>Vassiljeva, 1973; <sup>3</sup>Bunkina and Nazarova, 1978; <sup>3</sup>Kalamees, 2004; <sup>3</sup>Azbukina et al., 2006; <sup>3</sup>Bau, Bulakh, and Govorova, 2011).

***Calocybe graveolens* (Pers.) Singer**

SIBERIA: **Tomsk Oblast** (Kudashova, Gashkov, and Vaishlya, 2016a).

***Calocybe ionides* (Bull.) Donk<sup>1</sup>**

≡ *Calocybe ionides* (Bull.) Kühner<sup>2</sup> ≡ *Lyophyllum ionides* (Bull.) Kühner & Romagn.<sup>3</sup> ≡ *Rugosomyces ionides* (Bull.) Bon<sup>4</sup> ≡ *Tricholoma ionides* (Bull.) P. Kumm.<sup>5</sup>

EASTERN EUROPE: **Crimea** (<sup>3</sup>Sarkina, 2001; <sup>1</sup>Dudka et al., 2004; <sup>1</sup>Sarkina, 2010b; <sup>1</sup>Sarkina and Prydiuk, 2012; <sup>1</sup>Sarkina and Mironova, 2015); **Karachay-Cherkess Republic** (<sup>1</sup>Kalamees and Botashev, 2000; <sup>1</sup>Onipchenko et al., 2013); **Lipetsk Oblast** (<sup>3</sup>Sarycheva, 1999; <sup>2</sup>Sarycheva et al., 2009; <sup>1</sup>Sarycheva, 2011; <sup>1</sup>Sarycheva, 2014a; <sup>1</sup>Sarycheva, 2016); **Mordovia** (<sup>5</sup>Kuznetsov, 1960; <sup>4</sup>Kalamees, 2004; <sup>1</sup>Ivoilov and Bolshakov, 2011a); **Penza Oblast** (<sup>1</sup>Ivanov, 1983); **Perm Krai** (<sup>2</sup>Perevedentseva, 2008); **Rostov Oblast** (<sup>4</sup>Rusanov, Rebriev, and Bulgakov, 2018); **Samara Oblast** (<sup>1</sup>Malysheva and Malysheva, 2005b; <sup>1</sup>Malysheva and Malysheva, 2008); **Sevastopol** (<sup>1</sup>Sarkina, 2016b; <sup>1</sup>Sarkina, 2020c); **Tatarstan** (<sup>1</sup>Vassiljeva, 1977; <sup>4</sup>Potapov, Galejev, and Zhukov, 2013; <sup>1</sup>Potapov, 2015b; <sup>4</sup>Nazirov, Gorshkov, Ivanov, and Rogova, 2016); **Ulyanovsk Oblast** (<sup>1</sup>Ilyukhin, 2010a); **Volgograd Oblast** (<sup>4</sup>Kalamees, 2004); **Arid territories** (<sup>4</sup>Rebriev, Rusanov, et al., 2012).

SIBERIA: **Altai Krai** (<sup>1</sup>Gorbunova and Perova, 2006); **Altai Republic** (<sup>1</sup>Gorbunova, 1996; <sup>1</sup>Gorbunova, 1997; <sup>1</sup>Perova and Gorbunova, 2001); **Khakassia** (<sup>4</sup>Zauzolkova and Gorbunova, 2013; <sup>4</sup>Zauzolkova, 2015); **Krasnoyarsk Krai** (<sup>1</sup>Beglyanova, 1972a); **Novosibirsk Oblast** (<sup>4</sup>Koropachinskiy and Banaev, 2014).

FAR EAST: **Amur Oblast** (<sup>1</sup>Taranina, 2005; <sup>4</sup>Kochunova and Erofeeva, 2017; <sup>1</sup>Kochunova, 2019); **Khabarovsk Krai** (<sup>1</sup>Azbukina et al., 1986; <sup>1</sup>Bau, Bulakh, and Govorova, 2011); **Primorsky Krai** (<sup>2</sup>Vassiljeva, 1973; <sup>2</sup>Bardunov et al., 2002; <sup>4</sup>Kalamees, 2004; <sup>1</sup>Bau, Bulakh, and Govorova, 2011).

***Calocybe naucoria* (Murrill) Singer<sup>1</sup>**

≡ *Rugosomyces naucoria* (Murrill) Boffelli<sup>2</sup> = *Calocybe fallax* Redhead & Singer<sup>3</sup> = *Calocybe fallax* Singer<sup>4</sup> = *Rugosomyces fallax* Bon<sup>5</sup> = *Tricholoma fallax* Sacc.<sup>6</sup>

EASTERN EUROPE: **Karelia** (<sup>3</sup>Predtechenskaya and Ruokolainen, 2013); **Komi Republic** (<sup>3</sup>Palamarchuk (Bobretsova), 2009; <sup>3</sup>Palamarchuk, 2012; <sup>3</sup>Palamarchuk and Kirillov, 2017); **Krasnodar Krai** (<sup>5</sup>Kalamees, 2004); **Leningrad Oblast** (<sup>5</sup>Kalamees, 2004); **Moscow Oblast** (<sup>3</sup>Gorlenko, Sidorova, and Sidorova, 1989; <sup>3</sup>Vishnevsky, 1998); **Murmansk Oblast** (<sup>5</sup>Kalamees, 2004); **Novgorod Oblast** (<sup>5</sup>Kovalenko, Morozova, Nezdoininogo, and Popov, 2005; <sup>5</sup>Popov et al., 2013); **Perm Krai** (<sup>5</sup>Kalamees, 2004; <sup>4</sup>Perevedentseva, 2008); **Samara Oblast** (<sup>4</sup>Malysheva and Malysheva, 2004; <sup>3</sup>Malysheva and Malysheva, 2008); **Sverdlovsk Oblast** (<sup>3</sup>Marina, 2006); **Tatarstan** (<sup>5</sup>Kalamees, 2004); **Arid territories** (<sup>3</sup>Rebriev, Rusanov, et al., 2012).

SIBERIA: **Altai Krai** (<sup>2</sup>Gorbunova, 2018a); **Altai Republic** (<sup>1</sup>Singer, 1943; <sup>5</sup>Kalamees, 2004); **Irkutsk Oblast** (<sup>1</sup>Petrov, 1991; <sup>5</sup>Kalamees, 2004; <sup>1</sup>Petrov, 2008); **Khakassia** (<sup>2</sup>Zauzolkova, 2015; <sup>2</sup>Zauzolkova and Gorbunova, 2016); **Krasnoyarsk Krai** (<sup>4</sup>Beglyanova, 1972a; <sup>6</sup>Beglyanova, 1972b; <sup>5</sup>Kalamees, 2004).

FAR EAST: **Kamchatka Krai** (<sup>1</sup>Kalamees and Vaasma, 1981; <sup>5</sup>Kalamees, 2004); **Khabarovsk Krai** (<sup>1</sup>Azbukina et al., 1989; <sup>5</sup>Kalamees, 2004; <sup>3</sup>Erofeeva and Bulakh, 2015a); **Primorsky Krai** (<sup>3</sup>Bau, Bulakh, and Govorova, 2011); **Sakhalin Oblast** (<sup>5</sup>Kalamees, 2004).

***Calocybe obscurissima* (A. Pearson) M.M. Moser<sup>1</sup>**

≡ *Rugosomyces obscurissimus* (A. Pearson) Bon<sup>2</sup>

EASTERN EUROPE: **Moscow Oblast** (<sup>1</sup>Levitskaya, 1995b; <sup>1</sup>Vishnevsky, 1998; <sup>2</sup>Levitskaya, 2013); **Pskov Oblast** (<sup>2</sup>Kalinina, Bolshakov, and Bulyonkova, 2020).

SIBERIA: **Altai Krai** (<sup>2</sup>Gorbunova, 2018a); **Krasnoyarsk Krai** (<sup>2</sup>Malysheva, Malysheva, Kiyashko, et al., 2017).

***Calocybe onychina* (Fr.) Donk<sup>1</sup>**

≡ *Lyophyllum onychinum* (Fr.) Kühner & Romagn. ex Contu<sup>2</sup> ≡ *Rugosomyces onychinus* (Fr.) Raithel.<sup>3</sup>

EASTERN EUROPE: **Bryansk Oblast** (<sup>1</sup>Kruglikov, 2007); **Murmansk Oblast** (<sup>1</sup>Mikhailovskii, 1975a; <sup>3</sup>Kalamees, 2004).

SIBERIA: **Irkutsk Oblast** (<sup>3</sup>Kalamees, 2004); **Khakassia** (<sup>3</sup>Zauzolkova, 2015; <sup>3</sup>Zauzolkova and Gorbunova, 2016); **Khanty-Mansi Autonomous Okrug** (<sup>2</sup>Zvyagina and Baykalova, 2017).

FAR EAST: **Magadan Oblast** (<sup>1</sup>Sazanova, 2009a; <sup>1</sup>Sazanova, 2009b; <sup>1</sup>Sazanova, 2011).

***Calocybe vasilievae* (Singer) Singer**

≡ *Clitocybe vasilievae* Singer<sup>1</sup>

SIBERIA: **Altai Republic** (<sup>1</sup>Singer, 1941; <sup>1</sup>Singer, 1943).

***Camarophylloopsis phaeophylla* (Romagn.) Arnolds**

EASTERN EUROPE: **Leningrad Oblast** (Popov et al., 2007; Kovalenko, Malysheva, and Morozova, 2012); **Novgorod Oblast** (Morozova, Popov, and Fedosova, 2014); **Samara Oblast** (Malysheva and Malysheva, 2008); **Tula Oblast** (Svetasheva, 2018).

***Camarophylloopsis schulzeri* (Bres.) Herink<sup>1</sup>**

≡ *Aeruginospora schulzeri* (Bres.) M.M. Moser<sup>2</sup>

EASTERN EUROPE: **Belgorod Oblast** (<sup>2</sup>Bedenko, 1979a); **Leningrad Oblast** (<sup>1</sup>Popov et al., 2007; <sup>1</sup>Kovalenko, Malysheva, and Morozova, 2012); **Pskov Oblast** (<sup>1</sup>Kovalenko, Malysheva, and Morozova, 2012; <sup>1</sup>Popov et al., 2013); **Sverdlovsk Oblast** (<sup>1</sup>Marina, 2006); **Tatarstan** (<sup>1</sup>Nazirov, Gorshkov, Ivanov, and Rogova, 2016; <sup>1</sup>Potapov, 2016a); **Tula Oblast** (<sup>1</sup>Svetasheva, 2004; <sup>1</sup>Svetasheva, 2005b; <sup>1</sup>Shcherbakov, 2010; <sup>1</sup>Kovalenko, Malysheva, and Morozova, 2012; <sup>1</sup>Svetasheva, 2018).

***Campanella boninensis* (S. Ito & S. Imai) Parmasto**

FAR EAST: **Primorsky Krai** (Azbukina et al., 1984; Bau, Bulakh, and Govorova, 2011).

***Campanella tristis* (G. Stev.) Segedin**

FAR EAST: **Jewish Autonomous Oblast** (Bau, Bulakh, and Govorova, 2011); **Primorsky Krai** (Bulakh, 2003; Azbukina et al., 2006; Bau, Bulakh, and Govorova, 2011).

***Cantharellopsis prescottii* (Weinm.) Kuyper<sup>1</sup>**

≡ *Cantharellus prescottii* Weinm.<sup>2</sup> ≡ *Gerronema prescottii* (Weinm.) Redhead<sup>3</sup>

EASTERN EUROPE: **Komi Republic** (<sup>1</sup>Shiryayeva and Palamarchuk, 2019); **Leningrad Oblast** (<sup>3</sup>Morozova and Kovalenko, 2000; <sup>3</sup>Popov et al., 2007); **Lipetsk Oblast** (<sup>1</sup>Sarycheva, 2014a; <sup>1</sup>Sarycheva, 2016); **Novgorod Oblast** (<sup>1</sup>Morozova, 2012; <sup>1</sup>Morozova, Popov, and Fedosova, 2014); **Saint Petersburg** (<sup>2</sup>Weinmann, 1832); **Sverdlovsk Oblast** (<sup>1</sup>Shiryayeva and Palamarchuk, 2019); **Vologda Oblast** (<sup>1</sup>Suslova et al., 2013).

FAR EAST: **Primorsky Krai** (<sup>1</sup>Bulakh et al., 2016).

***Cantharellula umbonata* (J.F. Gmel.) Singer<sup>1</sup>**

≡ *Cantharellus umbonatus* (J.F. Gmel.) Pers.<sup>2</sup>

EASTERN EUROPE: **Belgorod Oblast** (<sup>1</sup>Bedenko, 1980); **Kaliningrad Oblast** (<sup>1</sup>Dedkov, Volodina, and Gubareva, 2007); **Kaluga Oblast** (<sup>1</sup>Sionova, 2012); **Karelia** (<sup>1</sup>Bondartseva et al., 2001; <sup>1</sup>Predtechenskaya and Ruokolainen, 2013; <sup>1</sup>Krutov et al., 2014; <sup>1</sup>Predtechenskaya, 2015; <sup>1</sup>Savelev and Kikeeva, 2020); **Kirov Oblast** (<sup>1</sup>Kirillov, 2011; <sup>1</sup>Kirillov, Perevedentseva, and Egoshina, 2011; <sup>1</sup>Stavishenko, Luginina, Kirillov, and Egoshina, 2019); **Komi Republic** (<sup>1</sup>Karatygin, Nezdojminogo, Novozhilov, and Zhurbenko, 1999; <sup>1</sup>Bobretsova, 2004; <sup>1</sup>Palamarchuk, 2011b; <sup>1</sup>Palamarchuk, 2012; <sup>1</sup>Palamarchuk, 2016a; <sup>1</sup>Palamarchuk, 2016b; <sup>1</sup>Palamarchuk and Kirillov, 2017; <sup>1</sup>Palamarchuk, 2017); **Kostroma Oblast** (<sup>1</sup>Burova, 1982); **Kursk Oblast** (<sup>1</sup>Bedenko, 1987); **Leningrad Oblast** (<sup>2</sup>Thesleff, 1920; <sup>1</sup>Singer, 1943; <sup>1</sup>Kalamees and Kovalenko, 1984; <sup>1</sup>Stolyarskaya, 1989; <sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Morozova, 2007; <sup>1</sup>Popov et al., 2007; <sup>1</sup>Zmitrovich et al., 2015); **Lipetsk Oblast** (<sup>1</sup>Sarycheva et al., 2009); **Mordovia** (<sup>1</sup>Bolshakov, 2015); **Moscow Oblast** (<sup>1</sup>Levitskaya, 1995b; <sup>1</sup>Vishnevsky, 1998; <sup>1</sup>Levitskaya, 2013); **Murmansk Oblast** (<sup>1</sup>Nezdojminogo, 1997b; <sup>1</sup>Karatygin, Nezdojminogo, Novozhilov, and Zhurbenko, 1999); **Penza Oblast** (<sup>1</sup>Ivanov, 1981a); **Perm Krai** (<sup>1</sup>Perevedentseva, 2008; <sup>1</sup>Belkovskaya et al., 2014; <sup>1</sup>Botalov, 2017; <sup>1</sup>Botalov and Perevedentseva, 2020); **Pskov Oblast** (<sup>1</sup>Kolmakov and Popov, 2005; <sup>1</sup>Popov et al., 2013); **Ryazan Oblast** (<sup>1</sup>Volosnova, 1997; <sup>1</sup>Volosnova, 2014); **Saint Petersburg** (<sup>2</sup>Weinmann, 1828; <sup>2</sup>Weinmann, 1836; <sup>2</sup>Weinmann, 1837; <sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Morozova and Smirnov, 2011; <sup>1</sup>Morozova et al., 2020); **Sverdlovsk Oblast** (<sup>1</sup>Tomilin, 1965; <sup>1</sup>Stepanova and Sirko, 1977; <sup>1</sup>Marina, 2006); **Tatarstan** (<sup>1</sup>Potapov, 2016b); **Tula Oblast** (<sup>1</sup>Svetasheva, 2004); **Tver Oblast** (<sup>1</sup>Kurochkin, 1993); **Udmurt Republic** (<sup>1</sup>Tychinin and Kuzmina, 2003); **Vologda Oblast** (<sup>2</sup>Kutova, 1957; <sup>1</sup>Kirillova, 2007; <sup>1</sup>Kirillova, 2009); **Voronezh Oblast** (<sup>1</sup>Bedenko, 1987); **Yaroslavl Oblast** (<sup>1</sup>Lazareva, 1998a).

SIBERIA: **Altai Krai** (<sup>1</sup>Gorbunova, 2018a); **Altai Republic** (<sup>1</sup>Gorbunova, 2010); **Buryatia** (<sup>1</sup>Nezdojminogo, 1970a); **Irkutsk Oblast** (<sup>1</sup>Petrov, 1984; <sup>1</sup>Muzyka, 2002; <sup>1</sup>Bardunov et al., 2005; <sup>1</sup>Petrov, 2008; <sup>1</sup>Muzyka, 2009; <sup>1</sup>Gorbunova and Stepantsova, 2015; <sup>1</sup>Muzyka and Penzina, 2017); **Khanty-Mansi Autonomous Okrug** (<sup>1</sup>Filippova, Bulyonkova, and Lapshina, 2015; <sup>1</sup>Zvyagina and Vasina, 2015; <sup>1</sup>Zvyagina and Baykalova, 2017); **Krasnoyarsk Krai** (<sup>1</sup>Beglyanova, 1972a; <sup>1</sup>Nezdojminogo, 1976a; <sup>1</sup>Kryuchkova, 2009; <sup>1</sup>Gorbunova, 2016); **Novosibirsk Oblast** (<sup>1</sup>Perova and Gorbunova, 2001; <sup>1</sup>Perova and Gorbunova, 2007); **Tomsk Oblast** (<sup>1</sup>Perova, 1972; <sup>1</sup>Perova and Gorbunova, 2001; <sup>1</sup>Kudashova, Gashkov, and Kutafjeva, 2013; <sup>1</sup>Vaishlya et al., 2017).

FAR EAST: **Amur Oblast** (<sup>1</sup>Kochunova and Erofeeva, 2017); **Chukotka Autonomous Okrug** (<sup>1</sup>Sazanova, 1993); **Jewish Autonomous Oblast** (<sup>1</sup>Bulakh, Govorova, Nazarova, and Vassiljeva, 2007; <sup>1</sup>Bau, Bulakh, and Govorova, 2011); **Khabarovsk Krai** (<sup>1</sup>Bulakh, Vassiljeva, and Erofeeva, 2010; <sup>1</sup>Erofeeva and Bulakh, 2015a); **Magadan Oblast** (<sup>1</sup>Nazarova, 1976; <sup>1</sup>Sazanova, 1996; <sup>1</sup>Sazanova, 2005; <sup>1</sup>Sazanova, 2009a; <sup>1</sup>Sazanova, 2009b; <sup>1</sup>Sazanova, 2011; <sup>1</sup>Sazanova and Golodnova, 2015; <sup>1</sup>Sazanova, 2016).

***Catathelasma imperiale* (P. Karst.) Singer<sup>1</sup>**

≡ *Armillaria imperialis* P. Karst.<sup>2</sup> ≡ *Clitocybe imperialis* (P. Karst.) Ricken<sup>3</sup>

EASTERN EUROPE: **Crimea** (<sup>1</sup>Sarkina, 2001; <sup>1</sup>Sarkina, Prydiuk, and Heluta, 2003; <sup>1</sup>Dudka et al., 2004; <sup>1</sup>Sarkina and Prydiuk, 2012); **Kaliningrad Oblast** (<sup>3</sup>Dedkov, Volodina, and Gubareva, 2007; <sup>1</sup>Dedkov and Grishanov, 2010); **Leningrad Oblast** (<sup>2</sup>Thesleff, 1920).

FAR EAST: **Sakhalin Oblast** (<sup>1</sup>Eremin, 2005; <sup>1</sup>Eremin, 2019).

***Catathelasma ventricosum* (Peck) Singer**

SIBERIA: **Buryatia** (Nezdojminogo, 1970a; Petrov, 1991).

FAR EAST: **Jewish Autonomous Oblast** (Shlotgauer and Rubtsova, 2006; Bulakh, Govorova, Nazarova, and Vassiljeva, 2007; Bau, Bulakh, and Govorova, 2011; Shlotgauer and Rubtsova, 2019); **Khabarovsk Krai** (Bulakh, 2013; Bogacheva, Bulakh, Bukharova, and Egorova, 2015); **Primorsky Krai** (Vassiljeva, 1973; Azbukina et al., 2006; Bau, Bulakh, and Govorova, 2011; Bulakh et al., 2016); **Sakhalin Oblast** (Vassiljeva and Nazarova, 1972).

***Cercopemyces rickenii* (Bohus) Dima & L. Nagy**

≡ *Floccularia rickenii* (Bohus) Wasser<sup>1</sup> ≡ *Floccularia rickenii* (Bohus) Wasser ex Bon<sup>2</sup>

EASTERN EUROPE: **Rostov Oblast** (<sup>2</sup>Fedyeva, 2014); **Volgograd Oblast** (<sup>1</sup>Rebriev, Popov, Pridyuk, and Svetasheva, 2014; <sup>1</sup>Svetasheva, 2015); **Arid territories** (<sup>2</sup>Rebriev, Rusanov, et al., 2012).

***Chaetocalathus craterellus* (Durieu & Lév.) Singer<sup>1</sup>**

= *Pleurotellus patelloides* P.D. Orton<sup>2</sup>

EASTERN EUROPE: **Crimea** (<sup>1</sup>Sarkina and Prydiuk, 2012); **Krasnodar Krai** (<sup>1</sup>Kovalenko, 1980a; <sup>1</sup>Kovalenko, 1980b); **Moscow Oblast** (<sup>1</sup>Vishnevsky, 1998).

SIBERIA: **Sverdlovsk Oblast** (<sup>2</sup>Mukhin, 1993); **Yamalo-Nenets Autonomous Okrug** (<sup>2</sup>Mukhin, 1993).

***Chalciporus piperatus* (Bull.) Bataille<sup>1</sup>**

≡ *Boletus piperatus* Bull.<sup>2</sup> ≡ *Ixocomus piperatus* (Bull.) Quél.<sup>3</sup> ≡ *Suillus piperatus* (Bull.) Kuntze<sup>4</sup> = *Chalciporus amarellus* (Quél.) Bataille<sup>5</sup>

EASTERN EUROPE: **Arkhangelsk Oblast** (<sup>2</sup>Lebedeva, 1933); **Belgorod Oblast** (<sup>4</sup>Bedenko, 1979a); **Bryansk Oblast** (<sup>4</sup>Kruglikov, 2007); **Chelyabinsk Oblast** (<sup>2</sup>Aleksandrovskaya and Lobanova, 1968; <sup>4</sup>Stepanova and Sirko, 1977); **Ivanovo Oblast** (<sup>2</sup>Alyavdina, 1928); **Kaliningrad Oblast** (<sup>2</sup>Neuhoff, 1922; <sup>1</sup>Dedkov, Volodina, and Gubareva, 2007; <sup>1</sup>Volodina, 2007; <sup>1</sup>Atayev and Volodina, 2020); **Kaluga Oblast** (<sup>1</sup>Sionova, 2003); **Karachay-Cherkess Republic** (<sup>1</sup>Kalamees and Botashev, 2000); **Karelia** (<sup>1</sup>Kovalenko, Morozova, Fomina, and Särkisilta, 1998; <sup>1</sup>Bondartseva et al., 2001; <sup>1</sup>Predtechenskaya and Ruokolainen, 2013; <sup>1</sup>Krutov et al., 2014; <sup>1</sup>Predtechenskaya and Ruokolainen, 2014); **Kirov Oblast** (<sup>1</sup>Kirillov, 2011; <sup>1</sup>Kirillov, Perevedentseva, and Egoshina, 2011; <sup>1</sup>Stavishenko, Luginina, Kirillov, and Egoshina, 2019); **Komi Republic** (<sup>1</sup>Bobretsova, 2004; <sup>1</sup>Palamarchuk, 2012; <sup>1</sup>Palamarchuk, 2016a; <sup>1</sup>Palamarchuk, 2016b; <sup>1</sup>Palamarchuk and Kirillov, 2017; <sup>1</sup>Palamarchuk, 2017); **Kostroma Oblast** (<sup>4</sup>Burova, 1982); **Krasnodar Krai** (<sup>5</sup>Vaasma, Kalamees, and Raitviir, 1986); **Leningrad Oblast** (<sup>2</sup>Thesleff, 1920; <sup>1</sup>Kalamees and Kovalenko, 1984; <sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Fomina, 2000; <sup>1</sup>Fomina, 2001; <sup>1</sup>Morozova, 2007; <sup>1</sup>Popov et al., 2007; <sup>1</sup>Zmitrovich et al., 2015; <sup>1</sup>Kalinina, 2018); **Lipetsk Oblast** (<sup>4</sup>Alferova, 1977; <sup>4</sup>Rtishcheva, 1999; <sup>4</sup>Sarycheva, 1999; <sup>1</sup>Afanasyev, Rtishcheva, and Starodubtseva, 2007; <sup>1</sup>Sarycheva et al., 2009; <sup>1</sup>Sarycheva, 2011; <sup>1</sup>Sarycheva, 2014a; <sup>1</sup>Sarycheva, 2016; <sup>1</sup>Sarycheva, Starodubtseva, and Sapelnikova, 2017); **Mordovia** (<sup>1</sup>Ivoilov and Bolshakov, 2011b; <sup>1</sup>Bolshakov, 2015); **Moscow** (<sup>2</sup>Weinmann, 1836; <sup>2</sup>Bucholtz, 1897a; <sup>2</sup>Bucholtz, 1897b; <sup>2</sup>Bucholtz, 1897c; <sup>2</sup>Mosolov, 1906; <sup>2</sup>Burova, 1968); **Moscow Oblast** (<sup>4</sup>Gorlenko, Sidorova, and Sidorova, 1989; <sup>1</sup>Levitskaya, 1995b; <sup>1</sup>Voronina et al., 2012; <sup>1</sup>Levitskaya, 2013; <sup>1</sup>Voronina et al., 2014); **Murmansk Oblast** (<sup>4</sup>Mikhailovskii, 1975b); **North Ossetia** (<sup>1</sup>Nikolayev, 2001); **Novgorod Oblast** (<sup>1</sup>Kovalenko, Morozova, Nezdojminogo, and Popov, 2005; <sup>1</sup>Popov et al., 2013); **Oryol Oblast** (<sup>2</sup>Radygina, Derzhavina, and Tsutsupa, 2014); **Penza Oblast** (<sup>1</sup>Ivanov, 1981a); **Perm Krai** (<sup>1</sup>Perevedentseva, 2008; <sup>1</sup>Belkovskaya et al., 2014; <sup>1</sup>Perevedentseva and Shishigin, 2014; <sup>1</sup>Perevedentseva and Shishigin, 2015; <sup>1</sup>Botalov, 2017); **Pskov Oblast** (<sup>1</sup>Popov, 2001a; <sup>1</sup>Popov et al., 2013); **Ryazan Oblast** (<sup>1</sup>Volosnova, 1997; <sup>1</sup>Volosnova, 2014); **Saint**

**Petersburg** (<sup>2</sup>Weinmann, 1828; <sup>2</sup>Weinmann, 1837; <sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Morozova and Smirnov, 2011; <sup>1</sup>Morozova et al., 2020); **Smolensk Oblast** (<sup>2</sup>Jaczewski, 1896); **Sverdlovsk Oblast** (<sup>4</sup>Stepanova and Sirko, 1977; <sup>1</sup>Marina, 2006); **Tatarstan** (<sup>4</sup>Vassiljeva, 1977; <sup>1</sup>Potapov, 2015b); **Tula Oblast** (<sup>1</sup>Svetasheva, 2004; <sup>1</sup>Svetasheva, 2013); **Tver Oblast** (<sup>1</sup>Kurochkin, 1993; <sup>1</sup>Mukhina, 2011a; <sup>1</sup>Mukhina, 2011b; <sup>1</sup>Kotkova, 2014); **Udmurt Republic** (<sup>4</sup>Tychinin and Kuzmina, 2003); **Vologda Oblast** (<sup>2</sup>Kutova, 1957; <sup>1</sup>Kirillova, 2007); **Voronezh Oblast** (<sup>4</sup>Rtishcheva, 1999; <sup>1</sup>Afanasyev, Rtishcheva, and Starodubtseva, 2007; <sup>1</sup>Sarycheva, Starodubtseva, and Sapelnikova, 2017); **Yaroslavl Oblast** (<sup>1</sup>Lazareva, 1997; <sup>1</sup>Lazareva, 1998a); **Arid territories** (<sup>1</sup>Rebriev, Rusanov, et al., 2012).

SIBERIA: **Altai Krai** (<sup>4</sup>Gorbunova and Perova, 2006; <sup>1</sup>Gorbunova and Chubarova, 2008; <sup>1</sup>Gorbunova, Vlasenko, and Tzhubarova, 2011); **Altai Republic** (<sup>4</sup>Gorbunova, 2008; <sup>1</sup>Gorbunova, 2017b); **Buryatia** (<sup>4</sup>Nezdojminogo, 1970a); **Irkutsk Oblast** (<sup>4</sup>Kutafjeva, 1982; <sup>1</sup>Petrov, 1984; <sup>1</sup>Petrov, 1989; <sup>1</sup>Astapenko, 1990b; <sup>1</sup>Muzyka, 2002; <sup>1</sup>Bardunov et al., 2005; <sup>1</sup>Petrov, 2008); **Khakassia** (<sup>4</sup>Beglyanova, 1972a; <sup>1</sup>Zauzolkova, 2015); **Khanty-Mansi Autonomous Okrug** (<sup>1</sup>Filippova, Bulyonkova, and Lapshina, 2015; <sup>1</sup>Filippova and Bulyonkova, 2017a; <sup>1</sup>Filippova and Bulyonkova, 2017b; <sup>1</sup>Zvyagina and Baykalova, 2017); **Krasnoyarsk Krai** (<sup>4</sup>Beglyanova, 1972a; <sup>4</sup>Nezdojminogo, 1976a; <sup>4</sup>Lapitskaya, 1990; <sup>1</sup>Krom and Kapitonov, 2019); **Novosibirsk Oblast** (<sup>4</sup>Zaytseva, 1971; <sup>4</sup>Perova and Gorbunova, 2001; <sup>1</sup>Gorbunova, 2007; <sup>4</sup>Perova and Gorbunova, 2007; <sup>1</sup>Koropachinskiy and Banaev, 2014); **Tomsk Oblast** (<sup>4</sup>Perova, 1972; <sup>4</sup>Milovidova, 1980; <sup>4</sup>Perova and Gorbunova, 2001; <sup>1</sup>Kosheleva and Kutafjeva, 2004; <sup>5</sup>Agaphonova, Kutafjeva, and Gashkov, 2009a; <sup>1,5</sup>Kudashova, Gashkov, and Kutafjeva, 2013; <sup>1</sup>Vaishlya et al., 2017); **Yamalo-Nenets Autonomous Okrug** (<sup>1</sup>Tarchevskaya, 1990).

FAR EAST: **Jewish Autonomous Oblast** (<sup>1</sup>Bulakh, Govorova, Nazarova, and Vassiljeva, 2007; <sup>1</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Erofeeva, Bukharova, and Bulakh, 2019); **Khabarovsk Krai** (<sup>3</sup>Vassiljeva, 1956; <sup>4</sup>Azbukina et al., 1986; <sup>4</sup>Azbukina et al., 1989; <sup>1</sup>Bulakh, Vassiljeva, and Erofeeva, 2010; <sup>1</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Bulakh, 2013; <sup>1</sup>Bogacheva, Bulakh, Bukharova, and Egorova, 2015; <sup>1</sup>Erofeeva and Bulakh, 2015a); **Magadan Oblast** (<sup>1</sup>Sazanova, 1996; <sup>1</sup>Sazanova, 2005; <sup>1</sup>Sazanova, 2009a; <sup>1</sup>Sazanova, 2009b; <sup>1</sup>Sazanova, 2011; <sup>1</sup>Sazanova and Golodnova, 2015); **Primorsky Krai** (<sup>3</sup>Vassiljeva, 1956; <sup>4</sup>Vassiljeva, 1972; <sup>4</sup>Vassiljeva, 1973; <sup>4</sup>Shalapugina, 1976; <sup>4</sup>Bunkina and Nazarova, 1978; <sup>4</sup>Azbukina et al., 1984; <sup>1</sup>Azbukina et al., 2006; <sup>2</sup>Bau, Bulakh, Zhuang, and Li, 2007; <sup>1</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Bulakh et al., 2016; <sup>1</sup>Bogacheva, Bulakh, Bukharova, and Egorova, 2020); **Sakhalin Oblast** (<sup>4</sup>Vassiljeva and Nazarova, 1972).

### ***Chalciporus rubinus* (W.G. Sm.) Singer<sup>1</sup>**

≡ *Rubinoboletus rubinus* (W.G. Sm.) Pilát & Dermek<sup>2</sup>

EASTERN EUROPE: **Mordovia** (<sup>2</sup>Silaeva et al., 2012; <sup>2</sup>Silaeva et al., 2013; <sup>2</sup>Ivoilov and Bolshakov, 2014; <sup>2</sup>Ivoilov and Bolshakov, 2015; <sup>2</sup>Silaeva et al., 2016; <sup>2</sup>Silaeva, 2017); **Penza Oblast** (<sup>1</sup>Ivanov, 1985; <sup>2</sup>Ivanov, 2013a); **Volgograd Oblast** (<sup>2</sup>Rebriev, Svetasheva, Popov, and Zmitrovich, 2013; <sup>2</sup>Rebriev, Popov, Pridyuk, and Svetasheva, 2014; <sup>2</sup>Svetasheva, 2015; <sup>2</sup>Rebriev, 2016; <sup>2</sup>Baranova and Salagaev, 2017).

FAR EAST: **Amur Oblast** (<sup>2</sup>Streltsov, 2009; <sup>2</sup>Senchik and Malikova, 2019).

### ***Chamaemyces fracidus* (Fr.) Donk**

EASTERN EUROPE: **Crimea** (Dudka et al., 2004; Sarkina, 2011); **Perm Krai** (Perevedentseva, 2008; Shepel', 2008); **Rostov Oblast** (Rusanov, Rebriev, and Bulgakov, 2018); **Samara Oblast** (Malysheva and Malysheva, 2008); **Sverdlovsk Oblast** (Shiryayeva and Palamarchuk, 2019); **Arid territories** (Rebriev, Rusanov, et al., 2012).

SIBERIA: **Altai Republic** (Gorbunova, 2006).

### ***Cheimonophyllum candidissimum* (Sacc.) Singer<sup>1</sup>**

≡ *Nothopanus candidissimus* (Sacc.) Kühner<sup>2</sup>

According to Petersen and Krisai-Greilhuber (1999), *Nothopanus* (with type *Agaricus eugrammus* Mont.) is a synonym of *Pleurotus*. *Cheimonophyllum candidissimum* (Sacc.) Singer is a good distinct species belongs to Cyphellaceae (Matheny et al., 2006).

EASTERN EUROPE: **Karelia** (<sup>1</sup>Predtechenskaya and Ruokolainen, 2013; <sup>1</sup>Krutov et al., 2014); **Komi Republic** (<sup>2</sup>Palamarchuk, 2020b); **Leningrad Oblast** (<sup>1</sup>Kalamees and Kovalenko, 1984; <sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Zmitrovich, 2003; <sup>1</sup>Zmitrovich, Malysheva, Malysheva, and Spirin, 2004; <sup>1</sup>Popov et al., 2007; <sup>1</sup>Psurtseva, Kiyashko, Gachkova, and Belova, 2007; <sup>1</sup>Zmitrovich et al., 2015; <sup>1</sup>Kalinina, 2018); **Novgorod Oblast** (<sup>1</sup>Kovalenko, Morozova, Nezdojminogo, and Popov, 2005; <sup>1</sup>Malysheva, Malysheva, and Zmitrovich, 2007; <sup>1</sup>Popov et al., 2013; <sup>1</sup>Baklan, 2015); **Pskov Oblast** (<sup>1</sup>Kalinina, Bolshakov, and Bulyonkova, 2020); **Ryazan Oblast** (<sup>1</sup>Volosnova, 2014); **Saint Petersburg** (<sup>1</sup>Morozova and Kovalenko, 2000; <sup>1</sup>Zmitrovich, Malysheva, Malysheva, and Spirin, 2004; <sup>1</sup>Kotkova, Morozova, and Popov, 2006; <sup>1</sup>Morozova and Smirnov, 2011); **Samara Oblast** (<sup>1</sup>Malysheva and Malysheva, 2008); **Sverdlovsk**

**Oblast** (<sup>2</sup>Shiryayeva and Palamarchuk, 2019); **Vologda Oblast** (<sup>1</sup>Kirillova, 2007; <sup>1</sup>Kirillova, 2009); **Yaroslavl Oblast** (<sup>1</sup>Lazareva, 1997; <sup>1</sup>Lazareva, 1998a).

SIBERIA: **Khanty-Mansi Autonomous Okrug** (<sup>1</sup>Zvyagina and Baykalova, 2017).

FAR EAST: **Jewish Autonomous Oblast** (<sup>1</sup>Bulakh, Govorova, Nazarova, and Vassiljeva, 2007; <sup>1</sup>Bau, Bulakh, and Govorova, 2011); **Khabarovsk Krai** (<sup>1</sup>Bulakh, Vassiljeva, and Erofeeva, 2010); **Primorsky Krai** (<sup>1</sup>Azbukina et al., 1990; <sup>1</sup>Bardunov et al., 2002; <sup>1</sup>Bau, Bulakh, and Govorova, 2011).

**Chiuia virens** (W.F. Chiu) Y.C. Li & Zhu L. Yang

≡ *Tylopilus virens* (W.F. Chiu) Hongo<sup>1</sup>

FAR EAST: **Primorsky Krai** (<sup>1</sup>Bulakh, 2008; <sup>1</sup>Bogacheva et al., 2018).

**Chlorophyllum abruptibulbum** (R. Heim) Vellinga

SIBERIA: **Tomsk Oblast** (Kudashova, Gashkov, and Kutafjeva, 2013; Kudashova, Gashkov, and Vaishlya, 2016b).

**Chlorophyllum brunneum** (Farl. & Burt) Vellinga<sup>1</sup>

= *Macrolepiota rhacodes* var. *hortensis* Pilát ex Wasser<sup>2</sup>

EASTERN EUROPE: **Kaliningrad Oblast** (<sup>1</sup>Atayev and Volodina, 2020); **Komi Republic** (<sup>1</sup>Palamarchuk, 2020b); **Lipetsk Oblast** (<sup>1</sup>Sarycheva, Starodubtseva, and Sapelnikova, 2017); **Rostov Oblast** (<sup>2</sup>Zmitrovich et al., 2008); **Ryazan Oblast** (<sup>1</sup>Volosnova, 2014); **Tula Oblast** (<sup>2</sup>Svetasheva, 2004; <sup>2</sup>Svetasheva, 2005b); **Voronezh Oblast** (<sup>1</sup>Sarycheva, Starodubtseva, and Sapelnikova, 2017); **Arid territories** (<sup>1</sup>Rebriev, Rusanov, et al., 2012).

SIBERIA: **Tomsk Oblast** (<sup>1</sup>Kudashova, Gashkov, and Kutafjeva, 2013).

**Chlorophyllum molybdites** (G. Mey.) Massee

FAR EAST: **Primorsky Krai** (Wasser and Zakordonets, 1986; Bulakh, Wasser, Nazarova, and Nezdoino, 1990; Bulakh et al., 2016).

**Chlorophyllum olivieri** (Barla) Vellinga<sup>1</sup>

≡ *Macrolepiota olivieri* (Barla) Wasser<sup>2</sup>

EASTERN EUROPE: **Kaliningrad Oblast** (<sup>2</sup>Dedkov, Volodina, and Gubareva, 2007); **Penza Oblast** (<sup>2</sup>Ivanov, 1988a); **Rostov Oblast** (<sup>1</sup>Fedyayeva, 2014; <sup>1</sup>Rusanov, Rebriev, and Bulgakov, 2018); **Saint Petersburg** (<sup>1</sup>Morozova et al., 2020); **Tatarstan** (<sup>1</sup>Potapov, 2015b); **Udmurt Republic** (<sup>1</sup>Kapitonov, 2013); **Arid territories** (<sup>1</sup>Rebriev, Rusanov, et al., 2012).

FAR EAST: **Primorsky Krai** (<sup>1</sup>Bulakh et al., 2016).

**Chlorophyllum rhacodes** (Vittad.) Vellinga<sup>1</sup>

≡ *Lepiota rhacodes* (Vittad.) Quél.<sup>2</sup> ≡ *Leucocoprinus rhacodes* (Vittad.) Pat.<sup>3</sup> ≡ *Macrolepiota rhacodes* (Vittad.) Singer<sup>4</sup> ≡ *Macrolepiota rhacodes* var. *rhacodes* (Vittad.) Singer<sup>5</sup>

EASTERN EUROPE: **Belgorod Oblast** (<sup>4</sup>Bedenko, 1979a; <sup>4</sup>Psurtseva, Belova, and Ryabusheva, 2003); **Bryansk Oblast** (<sup>4</sup>Kruglikov, 2007); **Crimea** (<sup>4</sup>Wasser, 1980; <sup>4</sup>Sarkina, 2001; <sup>4</sup>Dudka et al., 2004; <sup>4</sup>Sarkina, 2010b; <sup>4</sup>Sarkina, 2011; <sup>4</sup>Sarkina and Prydiuk, 2012; <sup>4</sup>Sarkina, 2014b; <sup>1</sup>Sarkina and Mironova, 2015); **Kabardino-Balkarian Republic** (<sup>4</sup>Shkhagapsoev and Krapivina, 2003; <sup>4</sup>Shkhagapsoev and Krapivina, 2004); **Kaliningrad Oblast** (<sup>4</sup>Dedkov, Volodina, and Gubareva, 2007); **Kaluga Oblast** (<sup>4</sup>Sionova, 2003); **Karachay-Cherkess Republic** (<sup>3</sup>Vassiljeva, 1939; <sup>4</sup>Onipchenko and Kaverina, 1989; <sup>5</sup>Kalamees and Botashev, 2000); **Karelia** (<sup>4</sup>Ivanter and Kuznetsov, 2007; <sup>1</sup>Predtechenskaya and Ruokolainen, 2013; <sup>1</sup>Krutov et al., 2014; <sup>1</sup>Savelev and Kikeeva, 2018; <sup>1</sup>Kuznetsov, 2020); **Kirov Oblast** (<sup>1</sup>Kirillov, 2011; <sup>1</sup>Kirillov, Perevedentseva, and Egoshina, 2011); **Krasnodar Krai** (<sup>3</sup>Vassiljeva, 1939); **Kursk Oblast** (<sup>4</sup>Baranov, 2002; <sup>4</sup>Konechnaya et al., 2017); **Leningrad Oblast** (<sup>2</sup>Thesleff, 1920; <sup>4</sup>Kovalenko and Morozova, 1999a; <sup>4</sup>Morozova and Kovalenko, 2000; <sup>1</sup>Popov et al., 2007; <sup>1</sup>Zmitrovich et al., 2015); **Lipetsk Oblast** (<sup>4</sup>Rtishcheva, 1999; <sup>4</sup>Sarycheva, 1999; <sup>4</sup>Afanasyev, Rtishcheva, and Starodubtseva, 2007; <sup>1</sup>Sarycheva et al., 2009; <sup>1</sup>Sarycheva, 2011; <sup>1</sup>Sarycheva, 2014a; <sup>1</sup>Sarycheva, 2016); **Mordovia** (<sup>1</sup>Ivoilov and Bolshakov, 2011a; <sup>4</sup>Bolshakov, 2015); **Moscow** (<sup>2</sup>Hennings, 1905; <sup>2</sup>Mosolov, 1906); **Moscow Oblast** (<sup>4</sup>Gorlenko, Sidorova, and Sidorova, 1989; <sup>4</sup>Levitskaya, 1995c; <sup>4</sup>Levitskaya, 2013; <sup>1</sup>Voronina et al., 2014); **North Ossetia** (<sup>4</sup>Nikolayev, 2001); **Novgorod Oblast** (<sup>4</sup>Morozova, 2012; <sup>1</sup>Popov et al., 2013); **Orenburg Oblast** (<sup>4</sup>Desyatova, 2008); **Oryol Oblast** (<sup>4</sup>Radygina, Derzhavina, and Tsutsupa, 2014); **Penza Oblast** (<sup>4</sup>Ivanov, 1982); **Perm Krai** (<sup>1</sup>Perevedentseva, 2008; <sup>1</sup>Belkovskaya et al., 2014); **Pskov Oblast** (<sup>1</sup>Popov et al., 2013); **Rostov Oblast** (<sup>4</sup>Rusanov et al., 2004; <sup>1</sup>Psurtseva, Kiyashko, Gachkova, and Belova, 2007; <sup>4</sup>Morozova et al., 2008; <sup>4</sup>Zmitrovich et al., 2008; <sup>1</sup>Rebriev, 2018); **Ryazan Oblast** (<sup>4</sup>Volosnova, 1997; <sup>1</sup>Volosnova, 2014); **Saint**

**Petersburg** (<sup>4</sup>Morozova and Smirnov, 2011); **Samara Oblast** (<sup>4</sup>Malysheva and Malysheva, 2005b; <sup>4</sup>Malysheva and Malysheva, 2008); **Smolensk Oblast** (<sup>2</sup>Jaczewski, 1896); **Sverdlovsk Oblast** (<sup>4</sup>Stepanova and Sirko, 1977; <sup>4</sup>Marina, 2006); **Tatarstan** (<sup>4</sup>Vassiljeva, 1977; <sup>4</sup>Shchepovskikh, Bojko, Gorshkov, and Rogova, 2006; <sup>1</sup>Potapov, 2015b); **Tula Oblast** (<sup>4</sup>Svetasheva, 2001; <sup>5</sup>Svetasheva, 2004); **Tver Oblast** (<sup>4</sup>Kurochkin, 1993); **Udmurt Republic** (<sup>4</sup>Tychinin, 1990; <sup>4</sup>Tychinin and Kuzmina, 2003); **Ulyanovsk Oblast** (<sup>5</sup>Ilyukhin, 2009; <sup>5</sup>Ilyukhin, 2010a); **Voronezh Oblast** (<sup>2</sup>Chastukhin, 1952; <sup>2</sup>Chastukhin and Nikolaevskaya, 1953; <sup>2</sup>Chastukhin and Nikolaevskaya, 1969; <sup>4</sup>Rtishcheva, 1999; <sup>4</sup>Afanasyev, Rtishcheva, and Starodubtseva, 2007); **Yaroslavl Oblast** (<sup>4</sup>Lazareva, 1998a; <sup>4</sup>Lazareva, 1998b).

SIBERIA: **Altai Krai** (<sup>4</sup>Gorbunova and Perova, 2006; <sup>1</sup>Gorbunova, 2018a); **Altai Republic** (<sup>4</sup>Wasser, 1980; <sup>4</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>4</sup>Gorbunova, 2001b); **Irkutsk Oblast** (<sup>4</sup>Astapenko and Kutafjeva, 1990; <sup>4</sup>Muzyka, 2002); **Khakassia** (<sup>4</sup>Zauzolkova, 2015); **Khanty-Mansi Autonomous Okrug** (<sup>1</sup>Zvyagina and Baykalova, 2017); **Krasnoyarsk Krai** (<sup>4</sup>Beglyanova, 1972a; <sup>4</sup>Wasser, 1980; <sup>4</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1</sup>Kosheleva and Kutafjeva, 2008a; <sup>4</sup>Stepanov, 2012); **Novosibirsk Oblast** (<sup>1</sup>Perova and Gorbunova, 2007; <sup>4</sup>Yudkin and Shaulo, 2008; <sup>1</sup>Koropachinskiy and Banaev, 2014); **Tomsk Oblast** (<sup>2</sup>Perova, 1972; <sup>2</sup>Milovidova, 1980; <sup>1</sup>Kudashova, Gashkov, and Kutafjeva, 2013; <sup>1</sup>Kudashova, Gashkov, and Vaishlya, 2016b).

FAR EAST: **Kamchatka Krai** (<sup>4</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990); **Primorsky Krai** (<sup>4</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>4</sup>Bardunov et al., 2002; <sup>1</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Malysheva, Svetasheva, and Bulakh, 2013); **Sakhalin Oblast** (<sup>4</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990).

### ***Chromosera citrinopallida* (A.H. Sm. & Hesler) Vizzini & Ercole**

≡ *Gliophorus citrinopallidus* (A.H. Sm. & Hesler) Kovalenko<sup>1</sup> ≡ *Hygrocybe citrinopallida* (A.H. Sm. & Hesler) Kobayasi<sup>2</sup>

EASTERN EUROPE: **Murmansk Oblast** (<sup>1</sup>Kovalenko, 1999; <sup>2</sup>Karatygin, Nezdojminogo, Novozhilov, and Zhurbenko, 1999); **Yamalo-Nenets Autonomous Okrug** (<sup>1</sup>Kovalenko, 1999; <sup>2</sup>Karatygin, Nezdojminogo, Novozhilov, and Zhurbenko, 1999; <sup>2</sup>Nezdojminogo, 2001).

SIBERIA: **Krasnoyarsk Krai** (<sup>2</sup>Gorbunova, 2016).

### ***Chromosera cyanophylla* (Fr.) Redhead, Ammirati & Norvell<sup>1</sup>**

≡ *Omphalina cyanophylla* (Fr.) Quél.<sup>2</sup>

EASTERN EUROPE: **Novgorod Oblast** (<sup>1</sup>Vetkin et al., 2015; <sup>1</sup>Svetasheva et al., 2017); **Udmurt Republic** (<sup>1</sup>Kapitonov, 2013).

SIBERIA: **Altai Krai** (<sup>1</sup>Gorbunova and Chubarova, 2008; <sup>1</sup>Gorbunova, Vlasenko, and Tzhubarova, 2011; <sup>1</sup>Shmakov and Silantjeva, 2016); **Novosibirsk Oblast** (<sup>2</sup>Perova, 1982; <sup>2</sup>Perova and Gorbunova, 2001; <sup>2</sup>Perova and Gorbunova, 2007; <sup>2</sup>Yudkin and Shaulo, 2008; <sup>2</sup>Glupov and Shaulo, 2018).

FAR EAST: **Amur Oblast** (<sup>2</sup>Nazarova, 1978; <sup>2</sup>Nazarova, 1986); **Primorsky Krai** (<sup>2</sup>Vassiljeva, 1973; <sup>2</sup>Bunkina and Nazarova, 1978; <sup>2</sup>Nazarova, 1978; <sup>2</sup>Azbukina et al., 1984; <sup>2</sup>Azbukina et al., 2006; <sup>1</sup>Bau, Bulakh, and Govorova, 2011).

### ***Chromosera lilacina* (P. Karst.) Vizzini & Ercole**

≡ *Gliophorus lilacinus* (P. Karst.) Kovalenko<sup>1</sup> ≡ *Hygrocybe lilacina* (P. Karst.) M.M. Moser<sup>2</sup>

EASTERN EUROPE: **Murmansk Oblast** (<sup>1</sup>Kovalenko, 1999); **Yamalo-Nenets Autonomous Okrug** (<sup>2</sup>Knudsen and Mukhin, 1998; <sup>1</sup>Kovalenko, 1999; <sup>2</sup>Karatygin, Nezdojminogo, Novozhilov, and Zhurbenko, 1999).

FAR EAST: **Chukotka Autonomous Okrug** (<sup>1</sup>Kovalenko, 1999); **Magadan Oblast** (<sup>1</sup>Kovalenko, 1989; <sup>1</sup>Kovalenko, 1995; <sup>1</sup>Sazanova, 2005; <sup>2</sup>Sazanova, 2009a).

### ***Chromosera xanthochroa* (P.D. Orton) Vizzini & Ercole**

≡ *Gliophorus xanthochrous* (P.D. Orton) Kovalenko<sup>1</sup> ≡ *Hygrocybe xanthochroa* (P.D. Orton) M.M. Moser<sup>2</sup>

EASTERN EUROPE: **Yamalo-Nenets Autonomous Okrug** (<sup>2</sup>Knudsen and Mukhin, 1998; <sup>1</sup>Kovalenko, 1999; <sup>2</sup>Karatygin, Nezdojminogo, Novozhilov, and Zhurbenko, 1999; <sup>2</sup>Nezdojminogo, 2001).

FAR EAST: **Magadan Oblast** (<sup>2</sup>Nazarova, 1976; <sup>1</sup>Kovalenko, 1989; <sup>1</sup>Kovalenko, 1995; <sup>1</sup>Sazanova, 2005; <sup>2</sup>Sazanova, 2009a).

### ***Chroogomphus helveticus* (Singer) M.M. Moser**

EASTERN EUROPE: **Perm Krai** (Perevedentseva, Shilkova, and Botalov, 2011).

SIBERIA: **Khanty-Mansi Autonomous Okrug** (Zvyagina and Baykalova, 2017); **Krasnoyarsk Krai** (Lapitskaya, 1990).

***Chroogomphus purpurascens* (Lj.N. Vassiljeva) M.M. Nazarova<sup>1</sup>**

≡ *Gomphidius purpurascens* Lj.N. Vassiljeva<sup>2</sup>

EASTERN EUROPE: **Kirov Oblast** (<sup>1</sup>Li, Yang, and Tolgor, 2009; <sup>1</sup>Scambler et al., 2018); **Perm Krai** (<sup>1</sup>Perevedentseva, Shilkova, and Botalov, 2011).

SIBERIA: **Altai Republic** (<sup>1</sup>Gorbunova, 2001a); **Khanty-Mansi Autonomous Okrug** (<sup>1</sup>Zvyagina and Baykalova, 2017); **Novosibirsk Oblast** (<sup>1</sup>Koropachinskiy and Banaev, 2014).

FAR EAST: **Khabarovsk Krai** (<sup>1</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Erofeeva and Bulakh, 2016); **Magadan Oblast** (<sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdoinog, 1990; <sup>1</sup>Sazanova, 2005; <sup>1</sup>Sazanova, 2009a); **Primorsky Krai** (<sup>2</sup>Vassiljeva, 1950; <sup>2</sup>Vassiljeva, 1956; <sup>2</sup>Vassiljeva, 1973; <sup>2</sup>Bulakh, 1977; <sup>2</sup>Bunkina and Nazarova, 1978; <sup>2</sup>Azbukina et al., 1984; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdoinog, 1990; <sup>2</sup>Azbukina et al., 2006; <sup>1</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Bulakh et al., 2016).

***Chroogomphus rutilus* (Schaeff.) O.K. Mill.<sup>1</sup>**

≡ *Agaricus rutilus* Schaeff.<sup>2</sup> ≡ *Chroogomphus rutilus* var. *rutilus* (Schaeff.) O.K. Mill.<sup>3</sup> ≡ *Gomphidius rutilus* (Schaeff.) S. Lundell<sup>4</sup> = *Chroogomphus corallinus* O.K. Mill. & Watling<sup>5</sup> = *Gomphidius viscidus* (L.) Fr.<sup>6</sup>

EASTERN EUROPE: **Adygea** (<sup>1</sup>Sopina, 2001a); **Bashkortostan** (<sup>1</sup>Stepanova and Sirko, 1977); **Belgorod Oblast** (<sup>1</sup>Bedenko, 1979a); **Bryansk Oblast** (<sup>4</sup>Kruglikov, 2007); **Crimea** (<sup>4</sup>Sarkina, 2001; <sup>1</sup>Dudka et al., 2004; <sup>1</sup>Akulov and Pryidiuk, 2007; <sup>1</sup>Sarkina, 2010b; <sup>1</sup>Sarkina, 2011; <sup>1</sup>Sarkina and Pryidiuk, 2012; <sup>1</sup>Sarkina, 2013; <sup>1</sup>Sarkina, 2014b; <sup>1</sup>Sarkina and Mironova, 2015; <sup>1</sup>Sarkina, 2016a); **Kabardino-Balkarian Republic** (<sup>6</sup>Singer, 1931; <sup>4</sup>Shkhagapsoev and Krapivina, 2004); **Kaliningrad Oblast** (<sup>1</sup>Dedkov, Volodina, and Gubareva, 2007; <sup>1</sup>Volodina, 2007); **Kaluga Oblast** (<sup>4</sup>Sionova, 2003); **Karachay-Cherkess Republic** (<sup>1</sup>Kalamees and Botashev, 2000); **Karelia** (<sup>6</sup>Freindling, 1949; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdoinog, 1990; <sup>1</sup>Kovalenko, Morozova, Fomina, and Särkisilta, 1998; <sup>1</sup>Bondartseva et al., 2001; <sup>1</sup>Predtechenskaya and Ruokolainen, 2013; <sup>1</sup>Krutov et al., 2014; <sup>1</sup>Savelev and Kikeeva, 2018); **Kirov Oblast** (<sup>1</sup>Kirillov and Luginina, 2011; <sup>1</sup>Kirillov, 2011; <sup>1</sup>Kirillov, Perevedentseva, and Egoshina, 2011; <sup>1</sup>Scambler et al., 2018; <sup>1</sup>Stavishenko, Luginina, Kirillov, and Egoshina, 2019); **Komi Republic** (<sup>1</sup>Bobretsova, 2004; <sup>1</sup>Palamarchuk, 2012; <sup>1</sup>Palamarchuk, 2017; <sup>1</sup>Palamarchuk and Kirillov, 2018a); **Krasnodar Krai** (<sup>6</sup>Vassiljeva, 1939; <sup>1</sup>Kovalenko, 1980a; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdoinog, 1990); **Kursk Oblast** (<sup>6</sup>Ryabova and Ignatenko, 1981); **Leningrad Oblast** (<sup>6</sup>Thesleff, 1920; <sup>1</sup>Kalamees and Kovalenko, 1984; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdoinog, 1990; <sup>1</sup>Stolyarskaya, 1993; <sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Morozova, 2007; <sup>1</sup>Popov et al., 2007; <sup>1</sup>Zmitrovich et al., 2015); **Lipetsk Oblast** (<sup>1</sup>Alferova, 1977; <sup>1</sup>Sarycheva, 1999; <sup>4</sup>Rtishcheva, 1999; <sup>1</sup>Afanasyev, Rtishcheva, and Starodubtseva, 2007; <sup>1</sup>Sarycheva et al., 2009; <sup>1</sup>Sarycheva, 2011; <sup>1</sup>Sarycheva, 2014a; <sup>1</sup>Sarycheva, 2016; <sup>1</sup>Sarycheva, Starodubtseva, and Sapelnikova, 2017); **Mordovia** (<sup>6</sup>Chastukhin, 1948a; <sup>6</sup>Kuznetsov, 1960; <sup>4</sup>Chastukhin and Nikolaevskaya, 1969; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdoinog, 1990; <sup>1</sup>Ivoilov and Bolshakov, 2011b; <sup>6</sup>Chastukhin, 2011; <sup>6</sup>Ivoilov and Bolshakov, 2011b); **Moscow** (<sup>6</sup>Bucholtz, 1897b; <sup>6</sup>Bucholtz, 1897c; <sup>6</sup>Mosolov, 1906); **Moscow Oblast** (<sup>1</sup>Gorlenko, Sidorova, and Sidorova, 1989; <sup>1</sup>Levitskaya, 1995b; <sup>1</sup>Levitskaya, 2013; <sup>1</sup>Voronina et al., 2014); **North Ossetia** (<sup>1</sup>Nikolayev, 2001); **Novgorod Oblast** (<sup>1</sup>Kovalenko, Morozova, Nezdoinog, and Popov, 2005; <sup>1</sup>Popov et al., 2013); **Orenburg Oblast** (<sup>1</sup>Desyatova, 2008); **Oryol Oblast** (<sup>1</sup>Radygina, Derzhavina, and Tsutsupa, 2014); **Penza Oblast** (<sup>1</sup>Ivanov, 1981a); **Perm Krai** (<sup>1</sup>Perevedentseva, 2008; <sup>1</sup>Belkovskaya et al., 2014; <sup>1</sup>Perevedentseva and Shishigin, 2015; <sup>1</sup>Botalov, 2017; <sup>1</sup>Botalov and Perevedentseva, 2018); **Pskov Oblast** (<sup>1</sup>Popov, 2001a; <sup>1</sup>Popov et al., 2013); **Rostov Oblast** (<sup>1</sup>Rusanov et al., 2004; <sup>1</sup>Zmitrovich et al., 2008); **Ryazan Oblast** (<sup>1</sup>Volosnova, 1997; <sup>1</sup>Volosnova, 2014); **Saint Petersburg** (<sup>2</sup>Weinmann, 1836; <sup>2</sup>Weinmann, 1837; <sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Morozova and Kovalenko, 2000; <sup>1</sup>Kotkova, Morozova, and Popov, 2006; <sup>1</sup>Morozova and Smirnov, 2011; <sup>1</sup>Morozova et al., 2020); **Samara Oblast** (<sup>1</sup>Malysheva and Malysheva, 2005b; <sup>1</sup>Malysheva and Malysheva, 2008); **Sevastopol** (<sup>1</sup>Sarkina, 2016b; <sup>1</sup>Sarkina, 2020b; <sup>1</sup>Sarkina, 2020c); **Sverdlovsk Oblast** (<sup>4</sup>Tomilin, 1965; <sup>1</sup>Stepanova and Sirko, 1977; <sup>1</sup>Marina, 2006); **Tatarstan** (<sup>4</sup>Vassiljeva, 1977; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdoinog, 1990; <sup>1</sup>Potapov, 2015b); **Tula Oblast** (<sup>1</sup>Svetasheva, 2001; <sup>1</sup>Svetasheva, 2004); **Tver Oblast** (<sup>1</sup>Kurochkin, 1993); **Udmurt Republic** (<sup>4</sup>Tychinin and Kuzmina, 2003); **Ulyanovsk Oblast** (<sup>1</sup>Ilyukhin, 2009; <sup>1</sup>Ilyukhin, 2010a); **Vladimir Oblast** (<sup>3</sup>Mishulin, Blinov, and Gushchina, 2018); **Vologda Oblast** (<sup>6</sup>Kutova, 1957; <sup>1</sup>Kirillova, 2007); **Voronezh Oblast** (<sup>6</sup>Chastukhin and Nikolaevskaya, 1953; <sup>4</sup>Chastukhin and Nikolaevskaya, 1969; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdoinog, 1990; <sup>4</sup>Rtishcheva, 1999; <sup>1</sup>Afanasyev, Rtishcheva, and Starodubtseva, 2007; <sup>1</sup>Sarycheva, Starodubtseva, and Sapelnikova, 2017); **Yaroslavl Oblast** (<sup>1</sup>Lazareva, 1997; <sup>1</sup>Lazareva, 1998a); **Arid territories** (<sup>1</sup>Rebriev, Rusanov, et al., 2012); **Northern Caucasus** (<sup>1</sup>Kovalenko, 1980b).

SIBERIA: **Altai Krai** (<sup>1</sup>Gorbunova and Perova, 2006); **Altai Republic** (<sup>6</sup>Singer, 1938e; <sup>1</sup>Kovalenko, 1992; <sup>4</sup>Gorbunova, 1996; <sup>4</sup>Gorbunova, 1997; <sup>1</sup>Perova and Gorbunova, 2001; <sup>1</sup>Gorbunova, 2008); **Buryatia** (<sup>4</sup>Nezdoinog, 1970a; <sup>1</sup>Penzina and Petrov, 1994); **Irkutsk Oblast** (<sup>1</sup>Kutafjeva, 1982; <sup>1</sup>Petrov, 1984; <sup>1</sup>Kutafjeva and Astapenko,



1989; <sup>1</sup>Petrov, 1989; <sup>1</sup>Astapenko, 1990b; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdjominogo, 1990; <sup>1</sup>Muzyka, 2002; <sup>1</sup>Bardunov et al., 2005; <sup>1</sup>Petrov, 2008; <sup>4</sup>Muzyka, 2009; <sup>1</sup>Heklau and Dörfelt, 2017; <sup>1</sup>Muzyka and Penzina, 2017); **Khakassia** (<sup>4</sup>Beglyanova, 1972a; <sup>1</sup>Zauzolkova, 2015); **Khanty-Mansi Autonomous Okrug** (<sup>1</sup>Zvyagina, Baykalova, and Gorbunova, 2007; <sup>1</sup>Filippova, Bulyonkova, and Lapshina, 2015; <sup>1</sup>Filippova and Bulyonkova, 2017a; <sup>1</sup>Filippova and Bulyonkova, 2017b); **Krasnoyarsk Krai** (<sup>6</sup>Kalchbrenner, 1878; <sup>6</sup>Thümen, 1878; <sup>6</sup>Saccardo, 1889; <sup>6</sup>Singer, 1938e; <sup>4</sup>Perova, 1970; <sup>4</sup>Beglyanova, 1972a; <sup>4</sup>Nezdjominogo, 1976a; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdjominogo, 1990; <sup>1</sup>Lapitskaya, 1990; <sup>1</sup>Pavlov et al., 2007; <sup>4</sup>Kosheleva and Kutafjeva, 2008a; <sup>1</sup>Zauzolkova, 2012; <sup>1</sup>Kryuchkova, 2014a; <sup>1</sup>Zauzolkova, 2015; <sup>1</sup>Malysheva, Malysheva, Kiyashko, et al., 2017; <sup>1</sup>Krom and Kapitonov, 2019); **Novosibirsk Oblast** (<sup>6</sup>Singer, 1938e; <sup>1</sup>Perova and Gorbunova, 2001; <sup>1</sup>Gorbunova, 2007; <sup>1</sup>Perova and Gorbunova, 2007; <sup>1</sup>Koropachinskiy and Banaev, 2014); **Sverdlovsk Oblast** (<sup>1</sup>Stepanova and Sirko, 1977); **Tomsk Oblast** (<sup>4</sup>Milovidova, 1980; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdjominogo, 1990; <sup>1</sup>Perova and Gorbunova, 2001; <sup>1</sup>Kosheleva and Kutafjeva, 2004; <sup>5</sup>Agaphonova, Kutafjeva, and Gashkov, 2009a; <sup>1,5</sup>Kudashova, Gashkov, and Kutafjeva, 2013; <sup>1</sup>Vaishlya et al., 2017); **Zabaykalsky Krai** (<sup>6</sup>Karsten, 1911).

FAR EAST: **Amur Oblast** (<sup>4</sup>Vassiljeva, 1956; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdjominogo, 1990; <sup>1</sup>Taranina, 2005; <sup>1</sup>Kochunova and Erofeeva, 2017; <sup>1</sup>Kochunova, 2019); **Khabarovsk Krai** (<sup>1</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Erofeeva, 2016); **Magadan Oblast** (<sup>1</sup>Sazanova, 1996; <sup>1</sup>Sazanova, 2005; <sup>1</sup>Sazanova, 2009a; <sup>1</sup>Sazanova, 2011; <sup>1</sup>Sazanova and Golodnova, 2015); **Primorsky Krai** (<sup>4</sup>Vassiljeva, 1956; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdjominogo, 1990; <sup>1</sup>Bau, Bulakh, and Govorova, 2011).

### ***Chroogomphus sibiricus* (Singer) O.K. Mill.<sup>1</sup>**

≡ *Gomphidius sibiricus* Singer<sup>2</sup>

SIBERIA: **Altai Krai** (<sup>1</sup>Gorbunova, 2018b); **Altai Republic** (<sup>2</sup>Singer, 1938e; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdjominogo, 1990; <sup>1</sup>Gorbunova, 2001a; <sup>2</sup>Gorbunova, 2001b; <sup>2</sup>Perova and Gorbunova, 2001; <sup>2</sup>Gorbunova, 2008; <sup>1</sup>Gorbunova, 2017a; <sup>1</sup>Gorbunova, 2017b; <sup>1</sup>Maneev, Achimova, Sedelnikova, and Gorbunova, 2017); **Buryatia** (<sup>2</sup>Nezdjominogo, 1970a; <sup>2</sup>Petrov, 1991); **Irkutsk Oblast** (<sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdjominogo, 1990); **Krasnoyarsk Krai** (<sup>1</sup>Krom and Kapitonov, 2019); **Tomsk Oblast** (<sup>1</sup>Kudashova, Gashkov, and Vaishlya, 2016a; <sup>1</sup>Vaishlya et al., 2017).

FAR EAST: **Primorsky Krai** (<sup>2</sup>Vassiljeva, 1956; <sup>2</sup>Vassiljeva, 1973; <sup>2</sup>Bunkina and Nazarova, 1978; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdjominogo, 1990; <sup>2</sup>Azbukina et al., 2006; <sup>1</sup>Bau, Bulakh, and Govorova, 2011).

### ***Chroogomphus tomentosus* (Murrill) O.K. Mill.<sup>1</sup>**

≡ *Gomphidius tomentosus* Murrill<sup>2</sup>

EASTERN EUROPE: **Perm Krai** (<sup>1</sup>Perevedentseva, 2008).

SIBERIA: **Altai Republic** (<sup>1</sup>Gorbunova, 2008; <sup>1</sup>Gorbunova, 2010); **Krasnoyarsk Krai** (<sup>2</sup>Lapitskaya, 1990); **Novosibirsk Oblast** (<sup>1</sup>Koropachinskiy and Banaev, 2014).

FAR EAST: **Primorsky Krai** (<sup>2</sup>Vassiljeva, 1956; <sup>2</sup>Vassiljeva, 1973; <sup>1</sup>Azbukina et al., 1990; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdjominogo, 1990; <sup>1</sup>Bardunov et al., 2002; <sup>1</sup>Kozhevnikov, 2008); **Sakhalin Oblast** (<sup>1</sup>Eremin, 2005; <sup>1</sup>Eremin, 2019).

### ***Chrysomphalina chrysophylla* (Fr.) Cléménçon<sup>1</sup>**

≡ *Armiliariella chrysophylla* (Fr.) Singer<sup>2</sup> ≡ *Gerronema chrysophyllum* (Fr.) Singer<sup>3</sup> ≡ *Omphalia chrysophylla* (Fr.) Gillet<sup>4</sup> ≡ *Omphalina chrysophylla* (Fr.) Murrill<sup>5</sup>

EASTERN EUROPE: **Karachay-Cherkess Republic** (<sup>4</sup>Vassiljeva, 1939); **Komi Republic** (<sup>1</sup>Palamarchuk, 2016a; <sup>1</sup>Palamarchuk, 2016b; <sup>1</sup>Dyogteva, 2019; <sup>1</sup>Palamarchuk et al., 2019); **Krasnodar Krai** (<sup>4</sup>Vassiljeva, 1939); **Leningrad Oblast** (<sup>4</sup>Thesleff, 1920; <sup>3</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Popov et al., 2007); **Lipetsk Oblast** (<sup>5</sup>Afanasyev, Rtishcheva, and Starodubtseva, 2007); **Voronezh Oblast** (<sup>5</sup>Afanasyev, Rtishcheva, and Starodubtseva, 2007; <sup>1</sup>Sarycheva, Starodubtseva, and Sapelnikova, 2017).

SIBERIA: **Altai Republic** (<sup>2</sup>Singer, 1943; <sup>3</sup>Gorbunova, 2001b; <sup>3</sup>Perova and Gorbunova, 2001); **Irkutsk Oblast** (<sup>3</sup>Kutafjeva and Astapenko, 1988; <sup>3</sup>Astapenko, 1990a); **Khanty-Mansi Autonomous Okrug** (<sup>1</sup>Vasin and Vasina, 2013; <sup>1</sup>Zvyagina and Baykalova, 2017); **Krasnoyarsk Krai** (<sup>3</sup>Beglyanova, 1972a; <sup>1</sup>Kosheleva and Kutafjeva, 2008b; <sup>1</sup>Kryuchkova, 2009; <sup>1</sup>Stepanov, 2012; <sup>1</sup>Malysheva, Malysheva, Kiyashko, et al., 2017; <sup>1</sup>Krom and Kapitonov, 2019); **Tomsk Oblast** (<sup>3,5</sup>Perova and Gorbunova, 2001; <sup>1</sup>Kudashova, Gashkov, and Kutafjeva, 2013; <sup>1</sup>Kudashova, Gashkov, and Vaishlya, 2016b); **Yamalo-Nenets Autonomous Okrug** (<sup>3</sup>Tarчевskaya, 1990).

FAR EAST: **Amur Oblast** (<sup>3</sup>Nazarova, 1986; <sup>1</sup>Kochunova, 2016); **Jewish Autonomous Oblast** (<sup>3</sup>Bulakh, Govorova, Nazarova, and Vassiljeva, 2007); **Khabarovsk Krai** (<sup>5</sup>Azbukina et al., 1986; <sup>3</sup>Azbukina et al., 1989; <sup>1</sup>Bau, Bulakh, and

Govorova, 2011; <sup>1</sup>Erofeeva and Bulakh, 2015a); **Primorsky Krai** (<sup>5</sup>Vassiljeva, 1973; <sup>3</sup>Bulakh, 1977; <sup>3</sup>Azbukina et al., 1984; <sup>1</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Bulakh et al., 2016); **Sakhalin Oblast** (<sup>5</sup>Vassiljeva and Nazarova, 1972).

***Chrysomphalina grossula* (Pers.) Norvell, Redhead & Ammirati<sup>1</sup>**

≡ *Gerronema grossulum* (Pers.) Singer<sup>2</sup> = *Omphalina abiegna* (Berk. & Broome) Singer<sup>3</sup> = *Omphalina wynneae* (Berk. & Broome) S. Ito<sup>4</sup>

EASTERN EUROPE: **Karachay-Cherkess Republic** (<sup>1</sup>Malysheva and Svetasheva, 2011; <sup>1</sup>Onipchenko et al., 2013); **Moscow** (<sup>1</sup>Muchnik et al., 2020).

SIBERIA: **Krasnoyarsk Krai** (<sup>4</sup>Beglyanova, 1972a; <sup>3</sup>Beglyanova, 1972b; <sup>4</sup>Beglyanova, 1972c).

FAR EAST: **Primorsky Krai** (<sup>2</sup>Azbukina et al., 1984; <sup>1</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Bulakh et al., 2016).

***Clitocella fallax* (Quél.) Kluting, T.J. Baroni & Bergemann<sup>1</sup>**

≡ *Rhodocybe fallax* (Quél.) Singer<sup>2</sup> ≡ *Rhodopaxillus fallax* (Quél.) Maire<sup>3</sup>

EASTERN EUROPE: **Adygea** (<sup>2</sup>Sopina, 2001a); **Karachay-Cherkess Republic** (<sup>3</sup>Vassiljeva, 1939); **Moscow Oblast** (<sup>2</sup>Gorlenko, Sidorova, and Sidorova, 1989); **Ryazan Oblast** (<sup>2</sup>Volosnova, 2005; <sup>2</sup>Volosnova, 2014); **Arid territories** (<sup>2</sup>Rebriev, Rusanov, et al., 2012).

SIBERIA: **Altai Krai** (<sup>1</sup>Gorbunova, 2018a); **Altai Republic** (<sup>1</sup>Gorbunova, 2019); **Irkutsk Oblast** (<sup>2</sup>Petrov, 1986; <sup>2</sup>Petrov, 1991); **Krasnoyarsk Krai** (<sup>2</sup>Beglyanova, 1972a; <sup>2</sup>Beglyanova, 1972b).

FAR EAST: **Jewish Autonomous Oblast** (<sup>2</sup>Bulakh, Govorova, Nazarova, and Vassiljeva, 2007; <sup>2</sup>Bau, Bulakh, and Govorova, 2011); **Khabarovsk Krai** (<sup>2</sup>Azbukina et al., 1986; <sup>2</sup>Bau, Bulakh, and Govorova, 2011); **Primorsky Krai** (<sup>2</sup>Vassiljeva, 1972; <sup>2</sup>Vassiljeva, 1973; <sup>2</sup>Bunkina and Nazarova, 1978; <sup>2</sup>Azbukina et al., 2006; <sup>2</sup>Bau, Bulakh, and Govorova, 2011).

***Clitocella mundula* (Lasch) Kluting, T.J. Baroni & Bergemann**

≡ *Rhodocybe mundula* (Lasch) Singer<sup>1</sup> ≡ *Rhodopaxillus mundulus* (Lasch) Konrad & Maubl.<sup>2</sup>

EASTERN EUROPE: **Belgorod Oblast** (<sup>1</sup>Bedenko, 1979a); **Krasnodar Krai** (<sup>2</sup>Vassiljeva, 1939); **Leningrad Oblast** (<sup>1</sup>Morozova, 2007; <sup>1</sup>Popov et al., 2007); **Orenburg Oblast** (<sup>1</sup>Desyatova, 2008); **Samara Oblast** (<sup>1</sup>Malysheva and Malysheva, 2008); **Tatarstan** (<sup>1</sup>Vassiljeva, 1977).

SIBERIA: **Khakassia** (<sup>1</sup>Beglyanova, 1972a); **Krasnoyarsk Krai** (<sup>1</sup>Beglyanova, 1972a; <sup>1</sup>Beglyanova, 1972b).

FAR EAST: **Khabarovsk Krai** (<sup>1</sup>Azbukina et al., 1986); **Primorsky Krai** (<sup>1</sup>Bunkina and Nazarova, 1978; <sup>1</sup>Azbukina et al., 2006); **Sakhalin Oblast** (<sup>1</sup>Vassiljeva and Nazarova, 1972).

***Clitocella popinalis* (Fr.) Kluting, T.J. Baroni & Bergemann<sup>1</sup>**

≡ *Rhodocybe popinalis* (Fr.) Singer<sup>2</sup>

EASTERN EUROPE: **Crimea** (<sup>2</sup>Moser, 1993; <sup>2</sup>Sarkina, 2001; <sup>2</sup>Dudka et al., 2004; <sup>2</sup>Sarkina, 2011); **Kaliningrad Oblast** (<sup>2</sup>Dedkov, Volodina, and Gubareva, 2007); **Perm Krai** (<sup>2</sup>Perevedentseva, 2008); **Rostov Oblast** (<sup>2</sup>Morozova et al., 2008); **Ryazan Oblast** (<sup>2</sup>Volosnova, 2014); **Samara Oblast** (<sup>2</sup>Malysheva and Malysheva, 2008); **Arid territories** (<sup>2</sup>Rebriev, Rusanov, et al., 2012).

SIBERIA: **Altai Krai** (<sup>1</sup>Gorbunova, 2018a); **Altai Republic** (<sup>1</sup>Gorbunova, 2019); **Krasnoyarsk Krai** (<sup>2</sup>Beglyanova, 1972a; <sup>2</sup>Karatygin, Nezdojminogo, Novozhilov, and Zhurbenko, 1999); **Novosibirsk Oblast** (<sup>2</sup>Perova and Gorbunova, 2007; <sup>2</sup>Koropachinskiy and Banaev, 2014); **Sakha Republic** (<sup>2</sup>Karatygin, Nezdojminogo, Novozhilov, and Zhurbenko, 1999); **Tomsk Oblast** (<sup>2</sup>Kudashova, Gashkov, and Kutafjeva, 2013; <sup>1</sup>Kudashova, Gashkov, and Vaishlya, 2016b).

FAR EAST: **Khabarovsk Krai** (<sup>2</sup>Bau, Bulakh, and Govorova, 2011); **Primorsky Krai** (<sup>2</sup>Vassiljeva, 1973; <sup>2</sup>Bunkina and Nazarova, 1978; <sup>2</sup>Azbukina et al., 2006; <sup>2</sup>Bau, Bulakh, and Govorova, 2011; <sup>2</sup>Bulakh et al., 2016).

***Clitocybe acicola* Singer**

SIBERIA: **Altai Republic** (Singer, 1943; Singer, 1990).

***Clitocybe agrestis* Harmaja**

EASTERN EUROPE: **Komi Republic** (Palamarchuk and Kirillov, 2017; Palamarchuk, 2017); **Ryazan Oblast** (Malysheva and Volosnova, 2008; Volosnova, 2014); **Samara Oblast** (Malysheva and Malysheva, 2004; Malysheva and Malysheva, 2008); **Tula Oblast** (Svetasheva, 2004; Svetasheva, 2008); **Udmurt Republic** (Kapitonov, 2013).

SIBERIA: **Khanty-Mansi Autonomous Okrug** (Filippova and Bulyonkova, 2017a; Filippova and Bulyonkova, 2017b).

***Clitocybe albocinerea* Rea**SIBERIA: **Altai Republic** (Singer, 1943).***Clitocybe albofragrans* (Harmaja) Kuyper**EASTERN EUROPE: **Kaliningrad Oblast** (Atayev and Volodina, 2020); **Leningrad Oblast** (Morozova and Kovalenko, 2000; Morozova, 2007; Popov et al., 2007); **Moscow Oblast** (Vishnevsky, 1998); **Saint Petersburg** (Kotkova, Morozova, and Popov, 2005); **Samara Oblast** (Malysheva and Malysheva, 2008); **Sverdlovsk Oblast** (Marina, 2006); **Yaroslavl Oblast** (Lazareva, 1998a).SIBERIA: **Khanty-Mansi Autonomous Okrug** (Filippova and Bulyonkova, 2017a; Filippova and Bulyonkova, 2017b); **Baikalia** (Psurtseva, Kiyashko, Gachkova, and Belova, 2007).***Clitocybe amarescens* Harmaja**EASTERN EUROPE: **Komi Republic** (Palamarchuk and Kirillov, 2017); **Rostov Oblast** (Morozova et al., 2008); **Arid territories** (Rebriev, Rusanov, et al., 2012).SIBERIA: **Khanty-Mansi Autonomous Okrug** (Filippova and Bulyonkova, 2017a; Filippova and Bulyonkova, 2017b).***Clitocybe angustissima* (Lasch) P. Kumm.<sup>1</sup>**≡ *Agaricus angustissimus* Lasch<sup>2</sup>EASTERN EUROPE: **Kaliningrad Oblast** (<sup>1</sup>Dedkov, Volodina, and Gubareva, 2007); **Karelia** (<sup>1</sup>Czerepanova, Perfiljeva, and Tobias, 1982); **Leningrad Oblast** (<sup>1</sup>Thesleff, 1920; <sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Popov et al., 2007); **Rostov Oblast** (<sup>1</sup>Vyshchepan, 1992); **Arid territories** (<sup>1</sup>Rebriev, Rusanov, et al., 2012).SIBERIA: **Krasnoyarsk Krai** (<sup>2</sup>Thümen, 1878; <sup>1</sup>Beglyanova, 1972a; <sup>1</sup>Zauzolkova, 2015).FAR EAST: **Jewish Autonomous Oblast** (<sup>1</sup>Bulakh, Govorova, Nazarova, and Vassiljeva, 2007; <sup>1</sup>Bau, Bulakh, and Govorova, 2011); **Primorsky Krai** (<sup>1</sup>Vassiljeva, 1973; <sup>1</sup>Bunkina and Nazarova, 1978; <sup>1</sup>Azbukina et al., 1984; <sup>1</sup>Azbukina et al., 2006; <sup>1</sup>Bau, Bulakh, and Govorova, 2011).***Clitocybe anisata* Velen.**EASTERN EUROPE: **Volgograd Oblast** (Burova and Nezdojminogo, 1982).***Clitocybe augeana* (Mont.) Sacc.<sup>1</sup>**≡ *Clitocybe dealbata* var. *augeana* (Mont.) Raithehl.<sup>2</sup>EASTERN EUROPE: **Leningrad Oblast** (<sup>2</sup>Kovalenko and Morozova, 1999a; <sup>2</sup>Popov et al., 2007); **Rostov Oblast** (<sup>1</sup>Rebriev, 2018); **Saint Petersburg** (<sup>1</sup>Singer, 1943); **Arid territories** (<sup>1</sup>Rebriev, Rusanov, et al., 2012).***Clitocybe bresadolana* Singer<sup>1</sup>**≡ *Infundibulicybe bresadolana* (Singer) Harmaja<sup>2</sup>EASTERN EUROPE: **Adygea** (<sup>1</sup>Zamotajlov, Sirotjuk (Kuvaeva), Akatova, and Lipka, 2012); **Karelia** (<sup>1</sup>Predtechenskaya and Ruokolainen, 2013); **Komi Republic** (<sup>2</sup>Palamarchuk, 2016a; <sup>2</sup>Palamarchuk, 2016b); **Krasnodar Krai** (<sup>1</sup>Singer, 1937; <sup>1</sup>Vassiljeva, 1939; <sup>1</sup>Harmaja, 1969); **Murmansk Oblast** (<sup>1</sup>Mikhailovskii, 1975b; <sup>1</sup>Karatygin, Nezdojminogo, Novozhilov, and Zhurbenko, 1999).SIBERIA: **Altai Republic** (<sup>1</sup>Harmaja, 1969; <sup>1</sup>Gorbunova, 2019); **Irkutsk Oblast** (<sup>1</sup>Petrov, 1991; <sup>1</sup>Muzyka, 2002; <sup>1</sup>Petrov, 2008).***Clitocybe bresadoliano-affinis* Singer**SIBERIA: **Altai Republic** (Singer, 1943).***Clitocybe brumalis* (Fr.) Quél.**EASTERN EUROPE: **Belgorod Oblast** (Bedenko, 1980); **Kaluga Oblast** (Sionova, 2012); **Karelia** (Freindling, 1949; Krutov et al., 2014); **Leningrad Oblast** (Thesleff, 1920; Kovalenko and Morozova, 1999a; Popov et al., 2007); **Lipetsk Oblast** (Alferova, 1977; Sarycheva, 1999; Sarycheva et al., 2009; Sarycheva, 2011; Sarycheva, 2014a; Sarycheva, 2016); **Mordovia** (Kuznetsov, 1960; Chastukhin, 2011; Ivoilov and Bolshakov, 2011a); **Moscow Oblast** (Gorlenko, Sidorova, and Sidorova, 1989; Levitskaya, 1995b; Vishnevsky, 1998; Levitskaya, 2013); **Perm Krai** (Perevedentseva, 2008; Belkovskaya et al., 2014; Botalov, 2017; Botalov and Perevedentseva, 2020); **Rostov Oblast** (Rusanov, Rebriev, and Bulgakov, 2018); **Ryazan Oblast** (Volosnova, 1997); **Saint Petersburg** (Kovalenko and Morozova, 1999a);

**Sverdlovsk Oblast** (Stepanova and Sirko, 1977); **Tula Oblast** (Svetasheva, 2004; Svetasheva, 2008); **Udmurt Republic** (Tychinin and Kuzmina, 2003); **Arid territories** (Rebriev, Rusanov, et al., 2012).

SIBERIA: **Altai Krai** (Gorbunova, 2018a); **Altai Republic** (Singer, 1943); **Irkutsk Oblast** (Kutafjeva and Astapenko, 1988); **Krasnoyarsk Krai** (Beglyanova, 1972a; Zauzolkova, 2012; Zauzolkova, 2015); **Novosibirsk Oblast** (Perova and Gorbunova, 2001; Perova and Gorbunova, 2007).

FAR EAST: **Magadan Oblast** (Sazanova, 2009a); **Primorsky Krai** (Bulakh, 1977; Azbukina et al., 1984; Bau, Bulakh, and Govorova, 2011).

***Clitocybe cacabus* (Fr.) Gillet**

EASTERN EUROPE: **Perm Krai** (Perevedentseva, 2008).

***Clitocybe calcarea* Velen.**

SIBERIA: **Altai Republic** (Singer, 1943).

***Clitocybe catinus* (Fr.) Quéf.**

EASTERN EUROPE: **Kaliningrad Oblast** (Dedkov, Volodina, and Gubareva, 2007; Volodina, 2007); **Leningrad Oblast** (Popov et al., 2007); **Moscow Oblast** (Levitskaya, 2006; Levitskaya, 2013); **Perm Krai** (Perevedentseva, 2008; Belkovskaya et al., 2014); **Saint Petersburg** (Kovalenko and Morozova, 1999a; Morozova, Kovalenko, Rebriev, and Malysheva, 2014); **Samara Oblast** (Malysheva and Malysheva, 2004; Malysheva and Malysheva, 2007; Malysheva and Malysheva, 2008); **Tula Oblast** (Svetasheva, 2008; Svetasheva et al., 2017); **Yaroslavl Oblast** (Lazareva, 1998a).

SIBERIA: **Altai Krai** (Gorbunova, 2018a); **Altai Republic** (Gorbunova, 1997; Gorbunova, 2001b; Perova and Gorbunova, 2001); **Irkutsk Oblast** (Gorbunova and Stepantsova, 2015).

***Clitocybe collina* (Velen.) Klán**

EASTERN EUROPE: **Rostov Oblast** (Rebriev, 2018); **Arid territories** (Rebriev, Rusanov, et al., 2012).

FAR EAST: **Primorsky Krai** (Bulakh et al., 2016).

***Clitocybe concava* (Scop.) Gillet**

EASTERN EUROPE: **Penza Oblast** (Ivanov, 1981a).

SIBERIA: **Krasnoyarsk Krai** (Beglyanova, 1972a; Nezdoininogo and Zhurbenko, 1996; Nezdoininogo, 1997a; Karatygin, Nezdoininogo, Novozhilov, and Zhurbenko, 1999).

***Clitocybe costata* Kühner & Romagn.**

EASTERN EUROPE: **Crimea** (Dudka et al., 2004; Sarkina, 2011; Sarkina and Mironova, 2015); **Kaliningrad Oblast** (Volodina, 2007); **Sevastopol** (Sarkina, 2016b); **Tula Oblast** (Svetasheva, 2004; Svetasheva, 2005b; Svetasheva, 2008; Shcherbakov, 2010; Svetasheva, Sheremetyeva, and Lakomov, 2019); **Ulyanovsk Oblast** (Ilyukhin, 2010a; Ilyukhin, 2010b).

SIBERIA: **Khakassia** (Zauzolkova and Gorbunova, 2013; Zauzolkova, 2015).

***Clitocybe diatrete* (Fr.) P. Kumm.<sup>1</sup>**

≡ *Agaricus diatretus* Fr.<sup>2</sup>

EASTERN EUROPE: **Kaliningrad Oblast** (<sup>1</sup>Dedkov, Volodina, and Gubareva, 2007); **Karelia** (<sup>1</sup>Bondartseva et al., 2001; <sup>1</sup>Krutov et al., 2014); **Leningrad Oblast** (<sup>1</sup>Thesleff, 1920; <sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Popov et al., 2007; <sup>1</sup>Zmitrovich et al., 2015); **Mordovia** (<sup>1</sup>Chastukhin, 1948a; <sup>1</sup>Chastukhin and Nikolaevskaya, 1969; <sup>1</sup>Chastukhin, 2011; <sup>1</sup>Ivoilov and Bolshakov, 2011a); **Perm Krai** (<sup>1</sup>Perevedentseva, 2008; <sup>1</sup>Belkovskaya et al., 2014; <sup>1</sup>Botalov, 2017; <sup>1</sup>Botalov and Perevedentseva, 2020); **Pskov Oblast** (<sup>1</sup>Popov et al., 2013); **Saint Petersburg** (<sup>2</sup>Weinmann, 1836; <sup>2</sup>Weinmann, 1837; <sup>1</sup>Morozova and Smirnov, 2011); **Sverdlovsk Oblast** (<sup>1</sup>Marina, 2006); **Tula Oblast** (<sup>1</sup>Svetasheva, 2008); **Yaroslavl Oblast** (<sup>1</sup>Lazareva, 1998a); **Arid territories** (<sup>1</sup>Rebriev, Rusanov, et al., 2012).

SIBERIA: **Altai Krai** (<sup>1</sup>Gorbunova, 2018a); **Altai Republic** (<sup>1</sup>Singer, 1943; <sup>1</sup>Gorbunova, 2019); **Buryatia** (<sup>1</sup>Nezdoininogo, 1973; <sup>1</sup>Petrov, 1991); **Irkutsk Oblast** (<sup>1</sup>Kutafjeva, 1983; <sup>1</sup>Astapenko, 1990a); **Khanty-Mansi Autonomous Okrug** (<sup>1</sup>Filippova and Bulyonkova, 2017a; <sup>1</sup>Filippova and Bulyonkova, 2017b); **Krasnoyarsk Krai** (<sup>1</sup>Nezdoininogo, 1997a; <sup>1</sup>Karatygin, Nezdoininogo, Novozhilov, and Zhurbenko, 1999); **Kurgan Oblast** (<sup>1</sup>Bystrushkin, 2016); **Sakha Republic** (<sup>1</sup>Karatygin, Nezdoininogo, Novozhilov, and Zhurbenko, 1999); **Tomsk Oblast** (<sup>1</sup>Agaphonova, Kutafjeva, and Gashkov, 2007); **Zabaykalsky Krai** (<sup>1</sup>Karsten, 1906).

FAR EAST: **Chukotka Autonomous Okrug** (<sup>1</sup>Nezdojminogo, 1997a; <sup>1</sup>Karatygin, Nezdojminogo, Novozhilov, and Zhurbenko, 1999); **Magadan Oblast** (<sup>1</sup>Sazanova and Golodnova, 2015); **Primorsky Krai** (<sup>1</sup>Vassiljeva, 1973; <sup>1</sup>Bunkina and Nazarova, 1978; <sup>1</sup>Azbukina et al., 2006; <sup>1</sup>Bau, Bulakh, and Govorova, 2011).

### *Clitocybe dicolor* (Pers.) Murrill

EASTERN EUROPE: **Chelyabinsk Oblast** (Stepanova and Sirko, 1977); **Kursk Oblast** (Bedenko, 1987); **Leningrad Oblast** (Nezdojminogo, 1967; Chastukhin and Nikolaevskaya, 1969; Kovalenko and Morozova, 1999a; Popov et al., 2007); **Moscow Oblast** (Voronina et al., 2014); **Perm Krai** (Perevedentseva, 2008; Belkovskaya et al., 2014); **Tula Oblast** (Svetasheva, 2004; Svetasheva, 2008; Shcherbakov, 2010); **Voronezh Oblast** (Bedenko, 1987).

SIBERIA: **Krasnoyarsk Krai** (Beglyanova, 1972a).

### *Clitocybe diosma* Einhell.

SIBERIA: **Khanty-Mansi Autonomous Okrug** (Filippova and Bulyonkova, 2017a; Filippova and Bulyonkova, 2017b).

### *Clitocybe ditopa* (Fr.) Gillet

EASTERN EUROPE: **Kaliningrad Oblast** (Dedkov, Volodina, and Gubareva, 2007); **Kaluga Oblast** (Sionova, 2012); **Moscow Oblast** (Levitskaya, 1995b; Vishnevsky, 1998; Levitskaya, 2013; Voronina et al., 2014); **Novgorod Oblast** (Svetasheva et al., 2017); **Perm Krai** (Perevedentseva, 2008); **Ryazan Oblast** (Volosnova, 2014); **Sverdlovsk Oblast** (Marina, 2006); **Tula Oblast** (Svetasheva, 2004; Svetasheva, 2008); **Yaroslavl Oblast** (Lazareva, 1998a); **Arid territories** (Rebriev, Rusanov, et al., 2012).

SIBERIA: **Khakassia** (Zauzolkova, 2015; Zauzolkova and Gorbunova, 2016); **Krasnoyarsk Krai** (Beglyanova, 1972a; Nezdojminogo and Zhurbenko, 1996; Nezdojminogo, 1997a; Karatygin, Nezdojminogo, Novozhilov, and Zhurbenko, 1999); **Novosibirsk Oblast** (Perova and Gorbunova, 2001; Perova and Gorbunova, 2007); **Tomsk Oblast** (Perova, 1972; Perova and Gorbunova, 2001; Kudashova, Gashkov, and Kutafjeva, 2013).

FAR EAST: **Chukotka Autonomous Okrug** (Karatygin, Nezdojminogo, Novozhilov, and Zhurbenko, 1999); **Primorsky Krai** (Bau, Bulakh, and Govorova, 2011); **Sakhalin Oblast** (Vassiljeva and Nazarova, 1972).

### *Clitocybe dryadicola* (J. Favre) Harmaja

EASTERN EUROPE: **Arkhangelsk Oblast** (Ezhov, Gavrilov, and Zmitrovich, 2014; Zmitrovich and Ezhov, 2015; Ezhov, Zmitrovich, and Ershov, 2016; Shiryaev, Zmitrovich, and Ezhov, 2018).

SIBERIA: **Krasnoyarsk Krai** (Nezdojminogo and Zhurbenko, 1996; Nezdojminogo, 1997a; Karatygin, Nezdojminogo, Novozhilov, and Zhurbenko, 1999).

### *Clitocybe fasciculata* H.E. Bigelow & A.H. Sm.<sup>1</sup>

= *Lepista caespitosa* (Bres.) Singer<sup>2</sup> = *Rhodopaxillus caespitosus* (Bres.) Singer<sup>3</sup>

EASTERN EUROPE: **Belgorod Oblast** (<sup>2</sup>Bedenko, 1980); **Lipetsk Oblast** (<sup>2</sup>Alferova, 1977; <sup>2</sup>Sarycheva, 1999; <sup>2</sup>Sarycheva et al., 2009; <sup>2</sup>Sarycheva, 2011; <sup>2</sup>Sarycheva, 2016); **Ryazan Oblast** (<sup>2</sup>Volosnova, 2005; <sup>2</sup>Volosnova, 2014).

SIBERIA: **Altai Krai** (<sup>2</sup>Gorbunova and Perova, 2006); **Altai Republic** (<sup>3</sup>Singer, 1939; <sup>3</sup>Singer, 1943); **Irkutsk Oblast** (<sup>2</sup>Petrov, 1984; <sup>2</sup>Petrov, 1991; <sup>2</sup>Petrov, 2008); **Krasnoyarsk Krai** (<sup>2</sup>Beglyanova, 1972a; <sup>2</sup>Beglyanova, 1972b); **Novosibirsk Oblast** (<sup>2</sup>Perova and Gorbunova, 2001; <sup>2</sup>Perova and Gorbunova, 2007; <sup>2</sup>Koropachinskiy and Banaev, 2014); **Tomsk Oblast** (<sup>2</sup>Agaphonova, Kutafjeva, and Gashkov, 2009b; <sup>2</sup>Kudashova, Gashkov, and Kutafjeva, 2013; <sup>1</sup>Kudashova, Gashkov, and Vaishlya, 2016b).

FAR EAST: **Amur Oblast** (<sup>2</sup>Bulakh, Govorova, and Taranina, 2003; <sup>2</sup>Taranina, 2005; <sup>2</sup>Bogacheva et al., 2018; <sup>1</sup>Kochunova, 2019); **Jewish Autonomous Oblast** (<sup>2</sup>Bulakh, Govorova, Nazarova, and Vassiljeva, 2007; <sup>2</sup>Bau, Bulakh, and Govorova, 2011; <sup>2</sup>Bogacheva et al., 2018); **Khбаровsk Krai** (<sup>2</sup>Azbukina et al., 1986; <sup>2</sup>Bau, Bulakh, Zhuang, and Li, 2007; <sup>2</sup>Bau, Bulakh, and Govorova, 2011; <sup>2</sup>Bogacheva et al., 2018); **Primorsky Krai** (<sup>2</sup>Vassiljeva, 1972; <sup>2</sup>Vassiljeva, 1973; <sup>2</sup>Bunkina and Nazarova, 1978; <sup>2</sup>Azbukina et al., 1984; <sup>2</sup>Azbukina et al., 2006; <sup>2</sup>Bau, Bulakh, and Govorova, 2011; <sup>2</sup>Bulakh et al., 2016; <sup>2</sup>Bogacheva et al., 2018).

### *Clitocybe fennica* Harmaja

SIBERIA: **Khanty-Mansi Autonomous Okrug** (Zvyagina and Baykalova, 2017).

*Clitocybe festiva* J. Favre

EASTERN EUROPE: **Arkhangelsk Oblast** (Ezhov, Zmitrovich, and Ershov, 2016; Shiryaev, Zmitrovich, and Ezhov, 2018); **Perm Krai** (Perevedentseva, 2008).

SIBERIA: **Krasnoyarsk Krai** (Nezdojminogo and Zhurbenko, 1996; Nezdojminogo, 1997a; Gorbunova, 2016); **Sakha Republic** (Karatygin, Nezdojminogo, Novozhilov, and Zhurbenko, 1999; Nezdojminogo, 2003).

*Clitocybe festivoidea* Lamoure

FAR EAST: **Chukotka Autonomous Okrug** (Karatygin, Nezdojminogo, Novozhilov, and Zhurbenko, 1999).

*Clitocybe foetens* Melot

EASTERN EUROPE: **Samara Oblast** (Malysheva and Malysheva, 2008).

SIBERIA: **Khakassia** (Zauzolkova, 2015; Zauzolkova and Gorbunova, 2016); **Khanty-Mansi Autonomous Okrug** (Filippova and Bulyonkova, 2017a; Filippova and Bulyonkova, 2017b).

*Clitocybe fragrans* (With.) P. Kumm.<sup>1</sup>

≡ *Agaricus fragrans* With.<sup>2</sup>

EASTERN EUROPE: **Kaliningrad Oblast** (<sup>1</sup>Dedkov, Volodina, and Gubareva, 2007; <sup>1</sup>Volodina, 2007; <sup>1</sup>Atayev and Volodina, 2020); **Kaluga Oblast** (<sup>1</sup>Sionova, 2012); **Karachay-Cherkess Republic** (<sup>1</sup>Kalamees and Botashev, 2000); **Karelia** (<sup>1</sup>Freindling, 1949 [as *Clitocybe suaveolens* (Schumach.) P. Kumm., redet. in Bondartseva et al., 2001]; <sup>1</sup>Bondartseva et al., 2001; <sup>1</sup>Krutov et al., 2014); **Kirov Oblast** (<sup>1</sup>Kirillov, 2011; <sup>1</sup>Kirillov, Perevedentseva, and Egoshina, 2011); **Komi Republic** (<sup>1</sup>Palamarchuk and Kirillov, 2017); **Krasnodar Krai** (<sup>1</sup>Kovalenko, 1980a; <sup>1</sup>Kovalenko, 1980b); **Kursk Oblast** (<sup>1</sup>Baranov, 2002); **Leningrad Oblast** (<sup>1</sup>Thesleff, 1920; <sup>1</sup>Harmaja, 1969; <sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Popov et al., 2007); **Lipetsk Oblast** (<sup>1</sup>Sarycheva, 2011; <sup>1</sup>Sarycheva, 2014a); **Moscow** (<sup>2</sup>Bucholtz, 1897b; <sup>2</sup>Bucholtz, 1897c; <sup>2</sup>Mosolov, 1906); **Moscow Oblast** (<sup>1</sup>Gorlenko, Sidorova, and Sidorova, 1989; <sup>1</sup>Vishnevsky, 1998; <sup>1</sup>Levitskaya, 2006; <sup>1</sup>Levitskaya, 2013); **Murmansk Oblast** (<sup>1</sup>Mikhailovskii, 1975b; <sup>1</sup>Karatygin, Nezdojminogo, Novozhilov, and Zhurbenko, 1999); **Perm Krai** (<sup>1</sup>Perevedentseva, 2008; <sup>1</sup>Perevedentseva and Shishigin, 2014); **Ryazan Oblast** (<sup>1</sup>Volosnova, 2005; <sup>1</sup>Volosnova, 2014); **Saint Petersburg** (<sup>2</sup>Weinmann, 1836; <sup>2</sup>Weinmann, 1837; <sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Morozova and Kovalenko, 2000; <sup>1</sup>Kotkova, Morozova, and Popov, 2005; <sup>1</sup>Kotkova, Morozova, and Popov, 2006; <sup>1</sup>Morozova, Kovalenko, Rebriev, and Malysheva, 2014; <sup>1</sup>Morozova et al., 2020); **Sverdlovsk Oblast** (<sup>1</sup>Marina, 2006); **Tula Oblast** (<sup>1</sup>Svetasheva, 2001; <sup>1</sup>Svetasheva, 2004; <sup>1</sup>Svetasheva, 2008); **Udmurt Republic** (<sup>1</sup>Kapitonov, 2008); **Voronezh Oblast** (<sup>1</sup>Chastukhin and Nikolaevskaya, 1953; <sup>1</sup>Chastukhin and Nikolaevskaya, 1969).

SIBERIA: **Altai Republic** (<sup>1</sup>Kovalenko, 1992; <sup>1</sup>Gorbunova, 2001b; <sup>1</sup>Perova and Gorbunova, 2001); **Irkutsk Oblast** (<sup>1</sup>Petrov, 1984; <sup>1</sup>Astapenko and Kutafjeva, 1990; <sup>1</sup>Petrov, 1991; <sup>1</sup>Petrov, 2008; <sup>1</sup>Gorbunova and Stepanтова, 2015); **Khakassia** (<sup>1</sup>Beglyanova, 1972a; <sup>1</sup>Zauzolkova and Gorbunova, 2013; <sup>1</sup>Zauzolkova, 2015); **Krasnoyarsk Krai** (<sup>2</sup>Thümen, 1878; <sup>1</sup>Beglyanova, 1972a; <sup>1</sup>Krom and Kapitonov, 2019); **Novosibirsk Oblast** (<sup>1</sup>Koropachinskiy and Banaev, 2014); **Tomsk Oblast** (<sup>1</sup>Kudashova, Gashkov, and Kutafjeva, 2013); **Zabaykalsky Krai** (<sup>1</sup>Karsten, 1911).

FAR EAST: **Jewish Autonomous Oblast** (<sup>1</sup>Bau, Bulakh, and Govorova, 2011); **Kamchatka Krai** (<sup>1</sup>Kalamees and Vaasma, 1981); **Khabarovsk Krai** (<sup>1</sup>Bulakh, 2013; <sup>1</sup>Bogacheva, Bulakh, Bukharova, and Egorova, 2015); **Magadan Oblast** (<sup>1</sup>Sazanova, 2009a; <sup>1</sup>Sazanova, 2011; <sup>1</sup>Sazanova and Golodnova, 2015); **Primorsky Krai** (<sup>1</sup>Azbukina et al., 1984; <sup>1</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Bulakh et al., 2016).

*Clitocybe fusc squamula* J.E. Lange

EASTERN EUROPE: **Samara Oblast** (Malysheva and Malysheva, 2008).

*Clitocybe globispora* Harmaja

SIBERIA: **Khanty-Mansi Autonomous Okrug** (Filippova and Bulyonkova, 2017a; Filippova and Bulyonkova, 2017b).

*Clitocybe harmajae* Lamoure

EASTERN EUROPE: **Rostov Oblast** (Rusanov, Rebriev, and Bulgakov, 2018); **Tula Oblast** (Svetasheva, 2004; Svetasheva, 2008; Shcherbakov, 2010); **Arid territories** (Rebriev, Rusanov, et al., 2012).

*Clitocybe houghtonii* (W. Phillips) Dennis

EASTERN EUROPE: **Samara Oblast** (Malysheva and Malysheva, 2008 [as *Clitocybe salmonilamella* H.E. Bigelow, redet. in Morozova and Popov, 2014]; Morozova and Popov, 2008 [as *Clitocybe salmonilamella* H.E. Bigelow, redet. in Morozova and Popov, 2014]).

***Clitocybe hyacinthina* Singer**SIBERIA: **Altai Republic** (Singer, 1943).***Clitocybe hydrogramma* (Bull.) P. Kumm.<sup>1</sup>**≡ *Omphalia hydrogramma* (Bull.) Gillet<sup>2</sup>EASTERN EUROPE: **Kaliningrad Oblast** (<sup>2</sup>Dedkov, Volodina, and Gubareva, 2007); **Perm Krai** (<sup>1</sup>Perevedentseva, 2008); **Rostov Oblast** (<sup>1</sup>Morozova et al., 2008); **Tver Oblast** (<sup>1</sup>Mukhina, 2011a; <sup>1</sup>Kotkova, 2014).SIBERIA: **Irkutsk Oblast** (<sup>1</sup>Petrov, 1984).FAR EAST: **Jewish Autonomous Oblast** (<sup>1</sup>Bulakh, Govorova, Nazarova, and Vassiljeva, 2007; <sup>1</sup>Bau, Bulakh, and Govorova, 2011); **Primorsky Krai** (<sup>1</sup>Bogacheva, Bulakh, Bukharova, and Egorova, 2020).***Clitocybe icmadophila* (Fr.) H.E. Bigelow**≡ *Agaricus epichysium* β *icmadophilus* Fr.<sup>1</sup>EASTERN EUROPE: **Saint Petersburg** (<sup>1</sup>Weinmann, 1836; <sup>1</sup>Weinmann, 1837).***Clitocybe infundibuliformis* (Schaeff.) QuéL.<sup>1</sup>**≡ *Agaricus infundibuliformis* Schaeff.<sup>2</sup>EASTERN EUROPE: **Adygea** (<sup>1</sup>Vassiljeva, 1939); **Arkhangelsk Oblast** (<sup>1</sup>Lebedeva, 1933); **Bashkortostan** (<sup>1</sup>Stepanova and Sirko, 1977); **Chelyabinsk Oblast** (<sup>1</sup>Sirko and Stepanova, 1977; <sup>1</sup>Stepanova and Sirko, 1977); **Crimea** (<sup>1</sup>Sarkina, 2001; <sup>1</sup>Sarkina and Stavishenko, 2019); **Kaliningrad Oblast** (<sup>1</sup>Hennings, 1895); **Karachay-Cherkess Republic** (<sup>1</sup>Vassiljeva, 1939); **Karelia** (<sup>2</sup>Karsten, 1866; <sup>2</sup>Karsten, 1876); **Krasnodar Krai** (<sup>1</sup>Vassiljeva, 1939); **Leningrad Oblast** (<sup>1</sup>Thesleff, 1920); **Mordovia** (<sup>1</sup>Chastukhin, 1948a; <sup>1</sup>Kuznetsov, 1960; <sup>1</sup>Chastukhin and Nikolaevskaya, 1969; <sup>1</sup>Chastukhin, 2011; <sup>1</sup>Ivoilov and Bolshakov, 2011a); **Moscow** (<sup>2</sup>Bucholtz, 1897a; <sup>2</sup>Bucholtz, 1897b; <sup>2</sup>Bucholtz, 1897c; <sup>2</sup>Mosolov, 1906; <sup>1</sup>Burova, 1968); **Moscow Oblast** (<sup>1</sup>Heyden, 1899); **Saratov Oblast** (<sup>1</sup>Lebedeva, 1927; <sup>1</sup>Komirnaya, 1970); **Sevastopol** (<sup>1</sup>Sarkina, 2016b; <sup>1</sup>Sarkina, 2020c); **Smolensk Oblast** (<sup>1</sup>Jaczewski, 1896; <sup>1</sup>Burova, 1969); **Sverdlovsk Oblast** (<sup>1</sup>Tomilin, 1965; <sup>1</sup>Stepanova and Sirko, 1977); **Tatarstan** (<sup>1</sup>Vassiljeva, 1977); **Tver Oblast** (<sup>1</sup>Chastukhin, 1948b; <sup>1</sup>Chastukhin and Nikolaevskaya, 1969; <sup>1</sup>Kotkova, 2014); **Vologda Oblast** (<sup>1</sup>Kutova, 1957); **Voronezh Oblast** (<sup>1</sup>Chastukhin, 1952; <sup>1</sup>Chastukhin and Nikolaevskaya, 1953; <sup>1</sup>Chastukhin and Nikolaevskaya, 1969; <sup>1</sup>Kochergina and Furmenkova, 2019); **Yamalo-Nenets Autonomous Okrug** (<sup>1</sup>Kazantseva, 1972; <sup>1</sup>Stepanova and Sirko, 1977).SIBERIA: **Buryatia** (<sup>1</sup>Nezdojminogo, 1970a); **Krasnoyarsk Krai** (<sup>1</sup>Perova, 1970); **Tomsk Oblast** (<sup>1</sup>Perova, 1972; <sup>1</sup>Milovidova, 1980); **Zabaykalsky Krai** (<sup>1</sup>Karsten, 1906).FAR EAST: **Amur Oblast** (<sup>1</sup>Tomilin, 1962); **Primorsky Krai** (<sup>1</sup>Shalapugina, 1976); **Sakhalin Oblast** (<sup>1</sup>Vassiljeva and Nazarova, 1972).***Clitocybe karsteniana* Lebedeva**SIBERIA: **Sakha Republic** (Lebedjeva, 1924).***Clitocybe laricicola* Singer**SIBERIA: **Altai Republic** (Singer, 1943; Harmaja, 1969).***Clitocybe lituus* (Fr.) Métrod**SIBERIA: **Khakassia** (Zauzolkova and Gorbunova, 2013; Zauzolkova, 2015).***Clitocybe lixivia* (Fr.) Singer**SIBERIA: **Altai Republic** (Singer, 1943).***Clitocybe marginella* Harmaja**EASTERN EUROPE: **Komi Republic** (Palamarchuk and Kirillov, 2017); **Rostov Oblast** (Morozova et al., 2008); **Ryazan Oblast** (Volosnova, 2014); **Arid territories** (Rebriev, Rusanov, et al., 2012).***Clitocybe martiorum* J. Favre<sup>1</sup>**≡ *Lepista martiorum* (J. Favre) Bon<sup>2</sup>EASTERN EUROPE: **Moscow Oblast** (<sup>2</sup>Voronina et al., 2012; <sup>2</sup>Voronina et al., 2014); **Ryazan Oblast** (<sup>1</sup>Volosnova, 2014).

***Clitocybe metachroa* (Fr.) P. Kumm.<sup>1</sup>**

≡ *Agaricus metachrous* Fr.<sup>2</sup> = *Agaricus mortuosus* (Fr.) Fr.<sup>3</sup> = *Clitocybe mortuosa* (Fr.) Gillet<sup>4</sup>

EASTERN EUROPE: **Crimea** (<sup>1</sup>Sarkina and Mironova, 2015); **Kaliningrad Oblast** (<sup>1</sup>Dedkov, Volodina, and Gubareva, 2007; <sup>1</sup>Volodina, 2007; <sup>1</sup>Atayev and Volodina, 2020); **Kaluga Oblast** (<sup>1</sup>Sionova, 2012); **Karelia** (<sup>1</sup>Krutov et al., 2014); **Kirov Oblast** (<sup>1</sup>Kirillov, 2011; <sup>1</sup>Kirillov, Perevedentseva, and Egoshina, 2011; <sup>1</sup>Stavishenko, Luginina, Kirillov, and Egoshina, 2019); **Komi Republic** (<sup>1</sup>Bobretsova, 2004; <sup>1</sup>Palamarchuk, 2012); **Leningrad Oblast** (<sup>1</sup>Thesleff, 1920; <sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Popov et al., 2007); **Lipetsk Oblast** (<sup>1</sup>Sarycheva et al., 2009; <sup>1</sup>Sarycheva, 2014a; <sup>1</sup>Sarycheva, 2016); **Moscow** (<sup>2</sup>Bucholtz, 1897b; <sup>2</sup>Bucholtz, 1897c; <sup>2</sup>Mosolov, 1906); **Moscow Oblast** (<sup>1</sup>Vishnevsky, 1998; <sup>1</sup>Levitskaya, 2006; <sup>1</sup>Levitskaya, 2013; <sup>1</sup>Voronina et al., 2014); **Murmansk Oblast** (<sup>1</sup>Pystina, Pavlova, and Shestakova, 1969); **Perm Krai** (<sup>1</sup>Perevedentseva, 2008; <sup>1</sup>Belkovskaya et al., 2014; <sup>1</sup>Perevedentseva and Shishigin, 2014; <sup>1</sup>Botalov, 2017; <sup>1</sup>Botalov and Perevedentseva, 2020); **Ryazan Oblast** (<sup>1</sup>Volosnova, 2014); **Saint Petersburg** (<sup>2</sup>Weinmann, 1828; <sup>2</sup>Weinmann, 1836; <sup>2</sup>Weinmann, 1837; <sup>1</sup>Morozova and Smirnov, 2011; <sup>1</sup>Morozova et al., 2020); **Samara Oblast** (<sup>1</sup>Malysheva and Malysheva, 2008); **Sverdlovsk Oblast** (<sup>1</sup>Marina, 2006); **Tula Oblast** (<sup>1</sup>Svetasheva, 2001; <sup>1</sup>Svetasheva, 2004; <sup>1</sup>Svetasheva, 2008); **Udmurt Republic** (<sup>1</sup>Tychinin, 1990; <sup>1</sup>Tychinin and Kuzmina, 2003); **Ulyanovsk Oblast** (<sup>1</sup>Ilyukhin, 2010a; <sup>1</sup>Ilyukhin, 2010b); **Yamalo-Nenets Autonomous Okrug** (<sup>1</sup>Karatygin, Nezdojminogo, Novozhilov, and Zhurbenko, 1999).

SIBERIA: **Altai Krai** (<sup>1</sup>Gorbunova and Perova, 2006; <sup>1</sup>Gorbunova, 2018a); **Irkutsk Oblast** (<sup>1</sup>Astapenko and Kutafjeva, 1990); **Khakassia** (<sup>1</sup>Zauzolkova and Gorbunova, 2013; <sup>1</sup>Zauzolkova, 2015); **Khanty-Mansi Autonomous Okrug** (<sup>1</sup>Filippova and Bulyonkova, 2017a; <sup>1</sup>Filippova and Bulyonkova, 2017b); **Krasnoyarsk Krai** (<sup>3</sup>Thümen, 1878; <sup>1</sup>Beglyanova, 1972a; <sup>4</sup>Beglyanova, 1972a; <sup>1</sup>Nezdojminogo, 1997a; <sup>1</sup>Karatygin, Nezdojminogo, Novozhilov, and Zhurbenko, 1999; <sup>1</sup>Pavlov et al., 2007; <sup>1</sup>Kosheleva and Kutafjeva, 2008a; <sup>1</sup>Zauzolkova, 2015; <sup>1</sup>Malysheva, Malysheva, Kiyashko, et al., 2017); **Novosibirsk Oblast** (<sup>1</sup>Koropachinskiy and Banaev, 2014); **Sakha Republic** (<sup>1,4</sup>Karatygin, Nezdojminogo, Novozhilov, and Zhurbenko, 1999; <sup>4</sup>Nezdojminogo, 2003); **Tomsk Oblast** (<sup>1</sup>Agaphonova, Kutafjeva, and Gashkov, 2009b; <sup>1</sup>Kudashova, Gashkov, and Kutafjeva, 2013).

FAR EAST: **Sakhalin Oblast** (<sup>1</sup>Vassiljeva and Nazarova, 1972).

***Clitocybe nana* (Masse) Sacc. & Trotter**

≡ *Laccaria nana* Masee<sup>1</sup>

EASTERN EUROPE: **Karelia** (<sup>1</sup>Singer, 1938b; <sup>1</sup>Freindling, 1949; <sup>1</sup>Bondartseva et al., 2001; <sup>1</sup>Krutov et al., 2014).

***Clitocybe nebularis* (Batsch) P. Kumm.<sup>1</sup>**

≡ *Agaricus nebularis* Batsch<sup>2</sup> ≡ *Lepista nebularis* (Batsch) Harmaja<sup>3</sup> = *Clitocybe alba* (Bataille) Singer<sup>4</sup>

EASTERN EUROPE: **Adygea** (<sup>3</sup>Vaasma, Kalamees, and Raitviir, 1986; <sup>1</sup>Kummer, 2007); **Bashkortostan** (<sup>1</sup>Stepanova and Sirko, 1977); **Bryansk Oblast** (<sup>1</sup>Kruglikov, 2007); **Chelyabinsk Oblast** (<sup>1</sup>Aleksandrovskaya and Lobanova, 1968); **Crimea** (<sup>1</sup>Zerova, 1962; <sup>3</sup>Moser, 1993; <sup>1</sup>Sarkina, 2001; <sup>3</sup>Dudka et al., 2004; <sup>3</sup>Sarkina, 2010b; <sup>3</sup>Sarkina, 2011; <sup>3</sup>Sarkina and Prydiuk, 2012; <sup>3</sup>Sarkina, 2013; <sup>3</sup>Sarkina and Mironova, 2015; <sup>1</sup>Sarkina and Stavishenko, 2019); **Kabardino-Balkarian Republic** (<sup>1</sup>Shkhagapsoev and Krapivina, 2003; <sup>1,4</sup>Shkhagapsoev and Krapivina, 2004); **Kaliningrad Oblast** (<sup>3</sup>Dedkov, Volodina, and Gubareva, 2007; <sup>3</sup>Volodina, 2007; <sup>1</sup>Atayev and Volodina, 2020); **Kaluga Oblast** (<sup>1</sup>Sionova, 2003; <sup>1</sup>Sionova, 2006); **Karelia** (<sup>1</sup>Freindling, 1949; <sup>3</sup>Kovalenko, Morozova, Fomina, and Särkisilta, 1998; <sup>3</sup>Bondartseva et al., 2001; <sup>1</sup>Predtechenskaya and Ruokolainen, 2013; <sup>1</sup>Krutov et al., 2014; <sup>1</sup>Predtechenskaya, 2015; <sup>1</sup>Savelev and Kikeeva, 2020); **Komi Republic** (<sup>1</sup>Palamarchuk, 2012); **Kostroma Oblast** (<sup>1</sup>Burova, 1982); **Krasnodar Krai** (<sup>3</sup>Kovalenko, 1980a; <sup>3</sup>Kovalenko, 1980b); **Kursk Oblast** (<sup>1</sup>Ryabova and Ignatenko, 1981; <sup>3</sup>Soshnina, 2001; <sup>1</sup>Baranov, 2002; <sup>3</sup>Soshnina, 2014); **Leningrad Oblast** (<sup>1</sup>Thesleff, 1920; <sup>1</sup>Harmaja, 1969; <sup>3</sup>Stolyarskaya, 1989; <sup>3</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Morozova, 2007; <sup>1</sup>Popov et al., 2007; <sup>1</sup>Psurtseva, Kiyashko, Gachkova, and Belova, 2007; <sup>1</sup>Zmitrovich et al., 2015); **Lipetsk Oblast** (<sup>1</sup>Alferova, 1977; <sup>1</sup>Rtishcheva, 1999; <sup>1</sup>Sarycheva, 1999; <sup>3</sup>Afanasyev, Rtishcheva, and Starodubtseva, 2007; <sup>1</sup>Sarycheva et al., 2009; <sup>1</sup>Sarycheva, 2011; <sup>1</sup>Sarycheva, 2014a; <sup>1</sup>Sarycheva, 2016; <sup>1</sup>Sarycheva, Starodubtseva, and Sapelnikova, 2017); **Mari El Republic** (<sup>1</sup>Prokhorov, 2007); **Mordovia** (<sup>1</sup>Kuznetsov, 1960; <sup>1</sup>Chastukhin, 2011; <sup>1</sup>Ivoilov and Bolshakov, 2011a); **Moscow Oblast** (<sup>3</sup>Gorlenko, Sidorova, and Sidorova, 1989; <sup>3</sup>Levitskaya, 1995b; <sup>1</sup>Vishnevsky, 1998; <sup>3</sup>Levitskaya, 2013; <sup>1</sup>Voronina et al., 2014; <sup>1</sup>Sidorova, Alexandrova, and Voronina, 2017); **North Ossetia** (<sup>3</sup>Nikolayev, 2001); **Novgorod Oblast** (<sup>1</sup>Morozova, 2012; <sup>1</sup>Popov et al., 2013); **Orenburg Oblast** (<sup>1</sup>Desyatova, 2008); **Penza Oblast** (<sup>3</sup>Ivanov, 1981a; <sup>3</sup>Ivanov, 1981b); **Perm Krai** (<sup>3</sup>Perevedentseva, 2008; <sup>1</sup>Belkovskaya et al., 2014); **Pskov Oblast** (<sup>1</sup>Popov et al., 2013); **Rostov Oblast** (<sup>1</sup>Psurtseva, Kiyashko, Gachkova, and Belova, 2007; <sup>1</sup>Morozova et al., 2008; <sup>1</sup>Zmitrovich et al., 2008); **Ryazan Oblast** (<sup>3</sup>Volosnova, 1997; <sup>1</sup>Volosnova, 2014); **Saint Petersburg** (<sup>2</sup>Weinmann, 1828; <sup>2</sup>Weinmann, 1836; <sup>2</sup>Weinmann, 1837; <sup>1</sup>Morozova and Smirnov, 2011; <sup>1</sup>Morozova, Kovalenko, Rebriev, and Malysheva, 2014; <sup>1</sup>Morozova et al., 2020); **Smolensk Oblast** (<sup>1</sup>Jaczewski, 1895);



**Sverdlovsk Oblast** (<sup>1</sup>Stepanova and Sirko, 1977; <sup>4</sup>Stepanova and Sirko, 1977; <sup>1</sup>Marina, 2006); **Tatarstan** (<sup>1</sup>Vassiljeva, 1977; <sup>1</sup>Potapov, 2015b; <sup>1</sup>Potapov, 2016a); **Tula Oblast** (<sup>1</sup>Svetasheva, 2001; <sup>3</sup>Svetasheva, 2004; <sup>1</sup>Svetasheva, 2008); **Tver Oblast** (<sup>3</sup>Kurochkin, 1993; <sup>1</sup>Mukhina, 2011a; <sup>1</sup>Mukhina, 2011b; <sup>1</sup>Kotkova, 2014; <sup>1</sup>Kurochkin and Medvedev, 2015; <sup>1</sup>Kurochkin, 2016); **Udmurt Republic** (<sup>1</sup>Tychinin, 1990; <sup>1</sup>Tychinin and Kuzmina, 2003); **Ulyanovsk Oblast** (<sup>1</sup>Ilyukhin, 2009; <sup>1</sup>Ilyukhin, 2010a); **Vologda Oblast** (<sup>1</sup>Kutova, 1957); **Voronezh Oblast** (<sup>1</sup>Chastukhin and Nikolaevskaya, 1953; <sup>1</sup>Rtishcheva, 1999; <sup>3</sup>Afanasyev, Rtishcheva, and Starodubtseva, 2007; <sup>1</sup>Sarycheva, Starodubtseva, and Sapelnikova, 2017; <sup>1</sup>Kochergina and Furmenkova, 2019); **Yaroslavl Oblast** (<sup>3</sup>Lazareva, 1998a); **Arid territories** (<sup>1</sup>Rebriev, Rusanov, et al., 2012).

SIBERIA: **Altai Krai** (<sup>3</sup>Gorbunova and Perova, 2006); **Altai Republic** (<sup>1</sup>Gorbunova, 1996; <sup>1</sup>Gorbunova, 1997; <sup>3</sup>Gorbunova, 2001b); **Buryatia** (<sup>1</sup>Nezdojminogo, 1970a; <sup>1</sup>Petrov, 1991); **Irkutsk Oblast** (<sup>1</sup>Kutafjeva, 1983; <sup>1</sup>Petrov, 1991; <sup>1</sup>Petrov, 2008); **Khanty-Mansi Autonomous Okrug** (<sup>1</sup>Filippova, Bulyonkova, and Lapshina, 2015; <sup>1</sup>Filippova and Bulyonkova, 2017a; <sup>1</sup>Filippova and Bulyonkova, 2017b; <sup>1</sup>Zvyagina and Baykalova, 2017); **Krasnoyarsk Krai** (<sup>1</sup>Beglyanova, 1972a; <sup>3</sup>Pavlov et al., 2007; <sup>1</sup>Zauzolkova, 2015; <sup>1</sup>Krom and Kapitonov, 2019); **Novosibirsk Oblast** (<sup>1</sup>Perova and Gorbunova, 2007; <sup>1</sup>Koropachinskiy and Banaev, 2014); **Sverdlovsk Oblast** (<sup>1</sup>Stepanova and Sirko, 1977); **Tomsk Oblast** (<sup>1</sup>Perova, 1972; <sup>1</sup>Milovidova, 1980; <sup>1,3</sup>Agaphonova, Kutafjeva, and Gashkov, 2007; <sup>1</sup>Kudashova, Gashkov, and Kutafjeva, 2013; <sup>1</sup>Vaishlya et al., 2017); **Yamalo-Nenets Autonomous Okrug** (<sup>3</sup>Tarchevskaya, 1990).

FAR EAST: **Amur Oblast** (<sup>1</sup>Taranina, 2005); **Jewish Autonomous Oblast** (<sup>3</sup>Bulakh, Govorova, Nazarova, and Vassiljeva, 2007; <sup>1</sup>Bau, Bulakh, and Govorova, 2011); **Khabarovsk Krai** (<sup>1</sup>Azbukina et al., 1986; <sup>1</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Bulakh, 2013; <sup>1</sup>Bogacheva, Bulakh, Bukharova, and Egorova, 2015; <sup>1</sup>Erofeeva and Bulakh, 2015a); **Primorsky Krai** (<sup>1</sup>Vassiljeva, 1972; <sup>1</sup>Vassiljeva, 1973; <sup>1</sup>Bulakh, 1977; <sup>1</sup>Bunkina and Nazarova, 1978; <sup>1</sup>Azbukina et al., 1984; <sup>1</sup>Azbukina et al., 1990; <sup>1</sup>Bardunov et al., 2002; <sup>3</sup>Azbukina et al., 2006; <sup>1</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Bulakh et al., 2016).

### *Clitocybe odora* (Bull.) P. Kumm.<sup>1</sup>

= *Agaricus odoratus* Bull.<sup>2</sup> = *Clitocybe odora* var. *odora* (Bull.) P. Kumm.<sup>3</sup> = *Clitocybe odora* var. *alba* J.E. Lange<sup>4</sup>

EASTERN EUROPE: **Bashkortostan** (<sup>1</sup>Stepanova and Sirko, 1977); **Belgorod Oblast** (<sup>1</sup>Bedenko, 1979a); **Bryansk Oblast** (<sup>1</sup>Kruglikov, 2007); **Chelyabinsk Oblast** (<sup>1</sup>Sirko and Stepanova, 1977; <sup>1</sup>Stepanova and Sirko, 1977; <sup>1</sup>Psurtseva, Kiyashko, Gachkova, and Belova, 2007); **Crimea** (<sup>1</sup>Moser, 1993; <sup>1</sup>Sarkina, 2001; <sup>1</sup>Dudka et al., 2004; <sup>1</sup>Sarkina, 2010b; <sup>1</sup>Sarkina, 2011; <sup>1</sup>Sarkina and Prydiuk, 2012; <sup>1</sup>Sarkina, 2013; <sup>1</sup>Sarkina, 2014b; <sup>1</sup>Sarkina and Mironova, 2015; <sup>1</sup>Sarkina and Stavishenko, 2019); **Kabardino-Balkarian Republic** (<sup>1</sup>Shkhagapsoev and Krapivina, 2003; <sup>1</sup>Shkhagapsoev and Krapivina, 2004); **Kaliningrad Oblast** (<sup>1</sup>Dedkov, Volodina, and Gubareva, 2007); **Kaluga Oblast** (<sup>1</sup>Sionova, 2003); **Karachay-Cherkess Republic** (<sup>1</sup>Kalamees and Botashev, 2000); **Karelia** (<sup>2</sup>Karsten, 1866; <sup>2</sup>Karsten, 1876; <sup>1</sup>Karsten, 1889; <sup>1</sup>Freindling, 1949; <sup>1</sup>Kovalenko, Morozova, Fomina, and Särkisilta, 1998; <sup>1</sup>Bondartseva et al., 2001; <sup>1</sup>Predtechenskaya, 2013; <sup>1</sup>Krutov et al., 2014; <sup>1</sup>Predtechenskaya, 2015); **Kirov Oblast** (<sup>1</sup>Kirillov, 2011; <sup>1</sup>Kirillov, Perevedentseva, and Egoshina, 2011; <sup>1</sup>Stavishenko, Luginina, Kirillov, and Egoshina, 2019); **Komi Republic** (<sup>1</sup>Bobretsova, 2004; <sup>1</sup>Palamarchuk, 2012; <sup>1</sup>Palamarchuk, 2016a; <sup>1</sup>Palamarchuk, 2016b; <sup>1</sup>Palamarchuk and Kirillov, 2017; <sup>1</sup>Palamarchuk, 2017); **Krasnodar Krai** (<sup>1</sup>Kovalenko, 1980a; <sup>1</sup>Kovalenko, 1980b); **Kursk Oblast** (<sup>1</sup>Bedenko, 1987); **Leningrad Oblast** (<sup>1</sup>Thesleff, 1920; <sup>1</sup>Harmaja, 1969; <sup>1</sup>Kalamees and Kovalenko, 1984; <sup>1</sup>Stolyarskaya, 1989; <sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Morozova and Kovalenko, 2000; <sup>1</sup>Morozova, 2007; <sup>1</sup>Popov et al., 2007; <sup>1</sup>Zmitrovich et al., 2015); **Lipetsk Oblast** (<sup>1</sup>Alferova, 1977; <sup>1</sup>Rtishcheva, 1999; <sup>1</sup>Sarycheva, 1999; <sup>1</sup>Afanasyev, Rtishcheva, and Starodubtseva, 2007; <sup>1</sup>Sarycheva et al., 2009; <sup>1</sup>Sarycheva, 2011; <sup>1</sup>Sarycheva, 2014a; <sup>1</sup>Sarycheva, 2016; <sup>1</sup>Sarycheva, Starodubtseva, and Sapelnikova, 2017); **Moscow Oblast** (<sup>1</sup>Gorlenko, Sidorova, and Sidorova, 1989; <sup>1</sup>Levitskaya, 1995b; <sup>1</sup>Vishnevsky, 1998; <sup>1</sup>Levitskaya, 2013; <sup>1</sup>Voronina et al., 2014; <sup>1</sup>Sidorova, Alexandrova, and Voronina, 2017); **Novgorod Oblast** (<sup>1</sup>Kovalenko, Morozova, Nezdojminogo, and Popov, 2005; <sup>1</sup>Psurtseva, Kiyashko, Gachkova, and Belova, 2007; <sup>1</sup>Popov et al., 2013); **Oryol Oblast** (<sup>1</sup>Radygina, Derzhavina, and Tsutsupa, 2014); **Penza Oblast** (<sup>1</sup>Ivanov, 1981a; <sup>1</sup>Ivanov, 1981b); **Perm Krai** (<sup>1</sup>Perevedentseva, 2008; <sup>1</sup>Belkovskaya et al., 2014; <sup>1</sup>Perevedentseva and Shishigin, 2015); **Pskov Oblast** (<sup>1</sup>Popov, 2001a; <sup>1</sup>Popov et al., 2013); **Rostov Oblast** (<sup>1</sup>Morozova et al., 2008); **Ryazan Oblast** (<sup>1</sup>Volosnova, 1997; <sup>1</sup>Volosnova, 2014); **Saint Petersburg** (<sup>2</sup>Weinmann, 1828; <sup>2</sup>Weinmann, 1836; <sup>2</sup>Weinmann, 1837; <sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Morozova and Smirnov, 2011; <sup>1</sup>Morozova et al., 2020); **Samara Oblast** (<sup>1</sup>Malysheva and Malysheva, 2005b; <sup>1</sup>Malysheva and Malysheva, 2008); **Sevastopol** (<sup>1</sup>Sarkina, 2016b; <sup>1</sup>Sarkina, 2020b); **Smolensk Oblast** (<sup>1</sup>Jaczewski, 1896); **Sverdlovsk Oblast** (<sup>1</sup>Stepanova and Sirko, 1977; <sup>1</sup>Marina, 2006); **Tatarstan** (<sup>1</sup>Vassiljeva, 1977); **Tula Oblast** (<sup>1</sup>Svetasheva, 2004; <sup>1</sup>Svetasheva, 2008); **Tver Oblast** (<sup>1</sup>Kurochkin, 1993); **Udmurt Republic** (<sup>1</sup>Tychinin, 1990; <sup>1</sup>Tychinin and Kuzmina, 2003); **Ulyanovsk Oblast** (<sup>1</sup>Ilyukhin, 2009; <sup>1,4</sup>Ilyukhin, 2010a); **Volgograd Oblast** (<sup>1</sup>Stauchan and Vedeneyev, 2015); **Vologda Oblast** (<sup>1</sup>Kirillova, 2007; <sup>1</sup>Kirillova, 2009); **Voronezh Oblast** (<sup>1</sup>Chastukhin, 1952; <sup>1</sup>Chastukhin and Nikolaevskaya, 1953; <sup>1</sup>Chastukhin and Nikolaevskaya, 1969;

<sup>1</sup>Bedenko, 1987; <sup>1</sup>Rtishcheva, 1999; <sup>1</sup>Afanasyev, Rtishcheva, and Starodubtseva, 2007; <sup>1</sup>Sarycheva, Starodubtseva, and Sapelnikova, 2017; <sup>1</sup>Kochergina and Furmenkova, 2019); **Yamalo-Nenets Autonomous Okrug** (<sup>1</sup>Stepanova and Sirko, 1977); **Yaroslavl Oblast** (<sup>1</sup>Lazareva, 1997; <sup>1</sup>Lazareva, 1998a); **Arid territories** (<sup>1</sup>Rebriev, Rusanov, et al., 2012).

SIBERIA: **Altai Republic** (<sup>1</sup>Gorbunova, 2001b; <sup>1</sup>Perova and Gorbunova, 2001); **Buryatia** (<sup>1</sup>Nezdojminogo, 1973; <sup>3</sup>Petrov, 1991); **Irkutsk Oblast** (<sup>4</sup>Petrov, 1984; <sup>1</sup>Kutafjeva, 1989; <sup>1</sup>Petrov, 1989; <sup>3,4</sup>Petrov, 1991; <sup>3,4</sup>Petrov, 2008; <sup>1</sup>Gorbunova and Stepanova, 2015); **Khanty-Mansi Autonomous Okrug** (<sup>1</sup>Zvyagina, 2008; <sup>1</sup>Shepeleva et al., 2014; <sup>1</sup>Zvyagina and Vasina, 2015; <sup>1</sup>Filippova and Bulyonkova, 2017a; <sup>1</sup>Filippova and Bulyonkova, 2017b); **Krasnoyarsk Krai** (<sup>1</sup>Kalchbrenner, 1878; <sup>2</sup>Thümen, 1878; <sup>1</sup>Beglyanova, 1972a; <sup>1</sup>Nezdojminogo, 1982a; <sup>1</sup>Kosheleva and Kutafjeva, 2008a; <sup>1</sup>Kosheleva and Kutafjeva, 2008b; <sup>1</sup>Kosheleva, 2010; <sup>1</sup>Zauzolkova, 2012; <sup>1</sup>Zauzolkova, 2015; <sup>1</sup>Malysheva, Malysheva, Kiyashko, et al., 2017; <sup>1</sup>Krom and Kapitonov, 2019); **Kurgan Oblast** (<sup>1</sup>Stepanova and Sirko, 1977); **Novosibirsk Oblast** (<sup>1</sup>Perova, 1977; <sup>1</sup>Perova and Gorbunova, 2007; <sup>1</sup>Koropachinskiy and Banaev, 2014); **Tomsk Oblast** (<sup>1</sup>Perova, 1972; <sup>1</sup>Agaphonova, Kutafjeva, and Gashkov, 2007; <sup>1</sup>Kudashova, Gashkov, and Kutafjeva, 2013); **Yamalo-Nenets Autonomous Okrug** (<sup>1</sup>Tarchevskaya, 1990).

FAR EAST: **Amur Oblast** (<sup>1</sup>Nazarova, 1986; <sup>1</sup>Azbukina et al., 1998; <sup>1</sup>Taranina, 2005; <sup>1</sup>Kochunova, 2019); **Chukotka Autonomous Okrug** (<sup>1</sup>Sazanova, 1993); **Jewish Autonomous Oblast** (<sup>1</sup>Bulakh, Govorova, Nazarova, and Vassiljeva, 2007; <sup>1</sup>Bau, Bulakh, and Govorova, 2011); **Kamchatka Krai** (<sup>1</sup>Kalamees and Vaasma, 1981); **Khabarovsk Krai** (<sup>1</sup>Azbukina et al., 1986; <sup>1</sup>Azbukina et al., 1989; <sup>1</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Erofeeva and Bulakh, 2015a); **Magadan Oblast** (<sup>1</sup>Nazarova, 1976; <sup>1</sup>Sazanova, 2005; <sup>1</sup>Sazanova, 2009a); **Primorsky Krai** (<sup>1</sup>Vassiljeva, 1973; <sup>1</sup>Shalapugina, 1976; <sup>1</sup>Bunkina and Nazarova, 1978; <sup>1</sup>Azbukina et al., 1984; <sup>1</sup>Azbukina et al., 2006; <sup>1</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Bulakh et al., 2016); **Sakhalin Oblast** (<sup>1</sup>Vassiljeva and Nazarova, 1972).

#### *Clitocybe paxillus* Gulden

SIBERIA: **Sakha Republic** (Karatygin, Nezdojminogo, Novozhilov, and Zhurbenko, 1999; Nezdojminogo, 2003).

FAR EAST: **Chukotka Autonomous Okrug** (Nezdojminogo, 1997a; Karatygin, Nezdojminogo, Novozhilov, and Zhurbenko, 1999).

#### *Clitocybe pellucida* Velen.

EASTERN EUROPE: **Karelia** (Freindling, 1949; Bondartseva et al., 2001; Krutov et al., 2014).

#### *Clitocybe phaeophthalma* (Pers.) Kuyper

EASTERN EUROPE: **Crimea** (Moser, 1993; Sarkina, 2001; Dudka et al., 2004; Sarkina, 2011; Sarkina and Mironova, 2015); **Karachay-Cherkess Republic** (Malysheva and Svetasheva, 2011); **Krasnodar Krai** (Kiyashko, 2009); **Sverdlovsk Oblast** (Shiryayeva and Palamarchuk, 2019); **Tula Oblast** (Shcherbakov, 2010; Svetasheva et al., 2017); **Arid territories** (Rebriev, Rusanov, et al., 2012).

#### *Clitocybe phyllophila* (Pers.) P. Kumm.<sup>1</sup>

≡ *Agaricus phyllophilus* Pers.<sup>2</sup> = *Agaricus cerussatus* Fr.<sup>3</sup> = *Clitocybe cerussata* (Fr.) P. Kumm.<sup>4</sup> = *Clitocybe cerussata* var. *difformis* (Schumach.) P. Karst.<sup>5</sup> = *Clitocybe cerussata* var. *pithyophila* (Fr.) J.E. Lange<sup>6</sup> = *Clitocybe pithyophila* (Fr.) Gillet<sup>7</sup>

EASTERN EUROPE: **Arkhangelsk Oblast** (<sup>4</sup>Lebedeva, 1933); **Belgorod Oblast** (<sup>1</sup>Bedenko, 1979a; <sup>7</sup>Bedenko, 1980); **Bryansk Oblast** (<sup>4</sup>Kruglikov, 2007); **Chelyabinsk Oblast** (<sup>4</sup>Aleksandrovskaya and Lobanova, 1968; <sup>4</sup>Sirko and Stepanova, 1977; <sup>4</sup>Stepanova and Sirko, 1977); **Crimea** (<sup>4</sup>Zerova, 1962; <sup>4</sup>Dudka et al., 2004; <sup>4</sup>Sarkina, 2010b; <sup>4</sup>Sarkina, 2011; <sup>4</sup>Sarkina and Prydiuk, 2012; <sup>1</sup>Sarkina, 2014b; <sup>1</sup>Sarkina and Stavishenko, 2019); **Kaliningrad Oblast** (<sup>4</sup>Dedkov, Volodina, and Gubareva, 2007; <sup>4</sup>Volodina, 2007); **Karelia** (<sup>1</sup>Krutov et al., 2014); **Kirov Oblast** (<sup>1</sup>Stavishenko, Luginina, Kirillov, and Egoshina, 2019); **Leningrad Oblast** (<sup>3</sup>Weinmann, 1836; <sup>4,5,7</sup>Thesleff, 1920; <sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1,4</sup>Popov et al., 2007); **Lipetsk Oblast** (<sup>4</sup>Rtishcheva, 1999; <sup>4</sup>Sarycheva, 1999; <sup>4</sup>Afanasyev, Rtishcheva, and Starodubtseva, 2007; <sup>1</sup>Sarycheva et al., 2009; <sup>1</sup>Sarycheva, 2011; <sup>4</sup>Sarycheva, 2014a; <sup>1</sup>Sarycheva, 2016; <sup>1</sup>Sarycheva, Starodubtseva, and Sapelnikova, 2017); **Mordovia** (<sup>6</sup>Chastukhin, 1948a; <sup>4,7</sup>Kuznetsov, 1960; <sup>4</sup>Chastukhin and Nikolaevskaya, 1969; <sup>1</sup>Ivoilov and Bolshakov, 2011a; <sup>6</sup>Chastukhin, 2011); **Moscow Oblast** (<sup>4,7</sup>Gorlenko, Sidorova, and Sidorova, 1989; <sup>1</sup>Levitskaya, 1995b; <sup>4</sup>Levitskaya, 1998; <sup>1,4,7</sup>Vishnevsky, 1998; <sup>1,4,7</sup>Levitskaya, 2013; <sup>1</sup>Voronina et al., 2014); **Murmansk Oblast** (<sup>1</sup>Pystina, Pavlova, and Shestakova, 1969; <sup>4</sup>Berlina, 2005); **Penza Oblast** (<sup>4</sup>Ivanov, 1981a); **Perm Krai** (<sup>1,4</sup>Perevedentseva, 2008; <sup>1</sup>Belkovskaya et al., 2014; <sup>4</sup>Botalov, 2017; <sup>4</sup>Botalov and Perevedentseva, 2020); **Pskov Oblast** (<sup>1</sup>Kalinina, Bolshakov, and Bulyonkova, 2020); **Ryazan Oblast** (<sup>4</sup>Volosnova, 1997; <sup>1</sup>Volosnova, 2014); **Saint Petersburg** (<sup>2</sup>Weinmann, 1828; <sup>2,3</sup>Weinmann, 1836; <sup>2,3</sup>Weinmann, 1837; <sup>4</sup>Kovalenko and Morozova, 1999a; <sup>4</sup>Kotkova, Morozova, and Popov, 2005; <sup>1</sup>Morozova, Kovalenko, Rebriev, and Malysheva, 2014; <sup>1</sup>Morozova et

al., 2020); **Samara Oblast** (<sup>1</sup>Malysheva and Malysheva, 2004; <sup>1</sup>Malysheva and Malysheva, 2008); **Smolensk Oblast** (<sup>4</sup>Jaczewski, 1896); **Sverdlovsk Oblast** (<sup>1,4</sup>Stepanova and Sirko, 1977; <sup>1</sup>Marina, 2006); **Tula Oblast** (<sup>1</sup>Svetasheva, 2004; <sup>1</sup>Svetasheva, 2008; <sup>1</sup>Svetasheva, 2013); **Tver Oblast** (<sup>4</sup>Chastukhin, 1948b; <sup>4</sup>Chastukhin and Nikolaevskaya, 1969; <sup>4</sup>Kurochkin, 1993; <sup>4</sup>Mukhina, 2011a; <sup>1</sup>Kotkova, 2014; <sup>1</sup>Kurochkin, 2016); **Udmurt Republic** (<sup>4</sup>Tychinin, 1990; <sup>4</sup>Tychinin and Kuzmina, 2003); **Ulyanovsk Oblast** (<sup>1</sup>Ilyukhin, 2009; <sup>1</sup>Ilyukhin, 2010a); **Volgograd Oblast** (<sup>4</sup>Burova and Nezdoininogo, 1980); **Vologda Oblast** (<sup>1</sup>Kirillova, 2007; <sup>1</sup>Kirillova, 2009); **Voronezh Oblast** (<sup>4</sup>Chastukhin, 1952; <sup>4</sup>Chastukhin and Nikolaevskaya, 1953; <sup>4</sup>Chastukhin and Nikolaevskaya, 1969; <sup>4</sup>Rtishcheva, 1999; <sup>4</sup>Afanasyev, Rtishcheva, and Starodubtseva, 2007; <sup>1</sup>Sarycheva, Starodubtseva, and Sapelnikova, 2017); **Yamalo-Nenets Autonomous Okrug** (<sup>1</sup>Stepanova and Sirko, 1977; <sup>1</sup>Karatygin, Nezdoininogo, Novozhilov, and Zhurbenko, 1999); **Yaroslavl Oblast** (<sup>4</sup>Lazareva, 1998a); **Arid territories** (<sup>1</sup>Rebriev, Rusanov, et al., 2012).

SIBERIA: **Altai Republic** (<sup>4</sup>Gorbunova, 2008); **Irkutsk Oblast** (<sup>4</sup>Kutafjeva and Astapenko, 1987; <sup>4</sup>Astapenko, 1990a; <sup>1</sup>Gorbunova and Stepantsova, 2015); **Khakassia** (<sup>1</sup>Zauzolkova and Gorbunova, 2013; <sup>1</sup>Zauzolkova, 2015); **Krasnoyarsk Krai** (<sup>4</sup>Thümen, 1882; <sup>1</sup>Perova, 1970; <sup>1,4</sup>Beglyanova, 1972a; <sup>1</sup>Zauzolkova, 2012; <sup>1</sup>Zauzolkova, 2015; <sup>1</sup>Krom and Kapitonov, 2019); **Novosibirsk Oblast** (<sup>4</sup>Perova and Gorbunova, 2001; <sup>1</sup>Perova and Gorbunova, 2007; <sup>1</sup>Koropachinskiy and Banaev, 2014); **Sverdlovsk Oblast** (<sup>1</sup>Stepanova and Sirko, 1977); **Tomsk Oblast** (<sup>1,4</sup>Perova, 1972; <sup>4</sup>Milovidova, 1980; <sup>1,4</sup>Perova and Gorbunova, 2001; <sup>1</sup>Kudashova, Gashkov, and Kutafjeva, 2013); **Yamalo-Nenets Autonomous Okrug** (<sup>4</sup>Tarchevskaya, 1990).

FAR EAST: **Amur Oblast** (<sup>4</sup>Nazarova, 1986); **Chukotka Autonomous Okrug** (<sup>4</sup>Sazanova, 1993); **Khabarovsk Krai** (<sup>4</sup>Azbukina et al., 1986; <sup>4</sup>Azbukina et al., 1989; <sup>1</sup>Bau, Bulakh, and Govorova, 2011); **Magadan Oblast** (<sup>4</sup>Sazanova, 1996; <sup>1,4</sup>Sazanova, 2005; <sup>1</sup>Sazanova, 2009a; <sup>1</sup>Sazanova, 2011; <sup>1</sup>Sazanova and Golodnova, 2015); **Primorsky Krai** (<sup>4</sup>Vassiljeva, 1972; <sup>4</sup>Vassiljeva, 1973; <sup>4</sup>Azbukina et al., 1984; <sup>4</sup>Azbukina et al., 2006; <sup>1</sup>Bau, Bulakh, and Govorova, 2011).

### *Clitocybe pinetorum* Velen.

EASTERN EUROPE: **Belgorod Oblast** (Bedenko, 1979a).

SIBERIA: **Krasnoyarsk Krai** (Beglyanova, 1972a).

### *Clitocybe pinophila* (Peck) Sacc.

EASTERN EUROPE: **Mordovia** (Ivoilov and Bolshakov, 2011a).

### *Clitocybe rivulosa* (Pers.) P. Kumm.<sup>1</sup>

= *Clitocybe dealbata* var. *dealbata* (Sowerby) P. Kumm.<sup>2</sup>

EASTERN EUROPE: **Belgorod Oblast** (<sup>1</sup>Bedenko, 1979a); **Bryansk Oblast** (<sup>1</sup>Kruglikov, 2007); **Crimea** (<sup>1</sup>Sarkina and Mironova, 2015); **Kaliningrad Oblast** (<sup>1</sup>Dedkov, Volodina, and Gubareva, 2007; <sup>1</sup>Volodina, 2007; <sup>1</sup>Atayev and Volodina, 2020); **Leningrad Oblast** (<sup>1</sup>Thesleff, 1920; <sup>1,2</sup>Kovalenko and Morozova, 1999a; <sup>1,2</sup>Popov et al., 2007); **Lipetsk Oblast** (<sup>1</sup>Sarycheva et al., 2009); **Moscow Oblast** (<sup>1</sup>Levitskaya, 1995b; <sup>1</sup>Levitskaya, 2013; <sup>1</sup>Sidorova, Alexandrova, and Voronina, 2017); **Murmansk Oblast** (<sup>1</sup>Mikhailovskii, 1975b; <sup>1</sup>Karatygin, Nezdoininogo, Novozhilov, and Zhurbenko, 1999); **Penza Oblast** (<sup>1</sup>Ivanov, 1999); **Rostov Oblast** (<sup>1</sup>Vyshchepan, 1992; <sup>1</sup>Rebriev, 2018); **Ryazan Oblast** (<sup>1</sup>Volosnova, 2014); **Saint Petersburg** (<sup>1,2</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Morozova and Smirnov, 2011; <sup>1</sup>Zhukova, Morozova, Volobuev, and Bryantseva, 2017; <sup>1</sup>Morozova et al., 2020); **Sevastopol** (<sup>1</sup>Sarkina, 2016b; <sup>1</sup>Sarkina, 2020b); **Tula Oblast** (<sup>1</sup>Svetasheva, 2004; <sup>1</sup>Svetasheva, 2008); **Udmurt Republic** (<sup>1</sup>Kapitonov, 2013); **Yamalo-Nenets Autonomous Okrug** (<sup>1</sup>Karatygin, Nezdoininogo, Novozhilov, and Zhurbenko, 1999; <sup>1</sup>Nezdoininogo, 2001); **Arid territories** (<sup>1</sup>Rebriev, Rusanov, et al., 2012).

SIBERIA: **Altai Krai** (<sup>1</sup>Gorbunova and Perova, 2006); **Altai Republic** (<sup>1</sup>Gorbunova, 2008); **Irkutsk Oblast** (<sup>1</sup>Gorbunova and Stepantsova, 2015); **Krasnoyarsk Krai** (<sup>1</sup>Zauzolkova, 2012; <sup>1</sup>Zauzolkova, 2015); **Kurgan Oblast** (<sup>1</sup>Bystrushkin, 2016); **Novosibirsk Oblast** (<sup>1</sup>Gorbunova, 2007; <sup>1</sup>Koropachinskiy and Banaev, 2014); **Yamalo-Nenets Autonomous Okrug** (<sup>1</sup>Karatygin, Nezdoininogo, Novozhilov, and Zhurbenko, 1999).

FAR EAST: **Magadan Oblast** (<sup>1</sup>Sazanova, 2009a; <sup>1</sup>Sazanova and Golodnova, 2015); **Primorsky Krai** (<sup>1</sup>Bulakh et al., 2016).

### *Clitocybe robusta* Peck

EASTERN EUROPE: **Sverdlovsk Oblast** (Marina, 2006).

SIBERIA: **Kurgan Oblast** (Bystrushkin, 2016).

***Clitocybe rufuloalutacea* Métrod ex Bon<sup>1</sup>**≡ *Clitocybe rufuloalutacea* Métrod<sup>2</sup>EASTERN EUROPE: **Belgorod Oblast** (<sup>1</sup>Bedenko, 1980); **Chelyabinsk Oblast** (<sup>1</sup>Stepanova and Sirko, 1977; <sup>2</sup>Sirko and Stepanova, 1977).***Clitocybe smaragdina* (Berk.) H.E. Bigelow & A.H. Sm.**≡ *Omphalina smaragdina* (Berk.) Malençon & Bertault<sup>1</sup>EASTERN EUROPE: **Murmansk Oblast** (<sup>1</sup>Nezdojminogo, 1997b; <sup>1</sup>Karatygin, Nezdojminogo, Novozhilov, and Zhurbenko, 1999).***Clitocybe squamulosa* (Pers.) P. Kumm.<sup>1</sup>**≡ *Agaricus squamulosus* Pers.<sup>2</sup> ≡ *Infundibulicybe squamulosa* (Pers.) Harmaja<sup>3</sup>EASTERN EUROPE: **Belgorod Oblast** (<sup>1</sup>Bedenko, 1980); **Kursk Oblast** (<sup>1</sup>Baranov, 2002); **Leningrad Oblast** (<sup>2</sup>Weinmann, 1836; <sup>1</sup>Thesleff, 1920; <sup>1</sup>Harmaja, 1969; <sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Popov et al., 2007; <sup>1</sup>Psurtseva, Kiyashko, Gachkova, and Belova, 2007; <sup>1</sup>Zmitrovich et al., 2015); **Lipetsk Oblast** (<sup>1</sup>Sarycheva et al., 2009; <sup>1</sup>Sarycheva, 2011); **Mordovia** (<sup>1</sup>Kuznetsov, 1960; <sup>1</sup>Ivoilov and Bolshakov, 2011a); **Murmansk Oblast** (<sup>1</sup>Harmaja, 1969; <sup>1</sup>Mikhailovskii, 1975b; <sup>1</sup>Karatygin, Nezdojminogo, Novozhilov, and Zhurbenko, 1999); **Novgorod Oblast** (<sup>1</sup>Kovalenko, Morozova, Nezdojminogo, and Popov, 2005; <sup>1</sup>Psurtseva, Kiyashko, Gachkova, and Belova, 2007; <sup>1</sup>Popov et al., 2013); **Perm Krai** (<sup>1</sup>Perevedentseva, 2008; <sup>1</sup>Botalov, 2017; <sup>1</sup>Botalov and Perevedentseva, 2020); **Ryazan Oblast** (<sup>1</sup>Volosnova, 2014); **Saint Petersburg** (<sup>2</sup>Weinmann, 1837; <sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Morozova and Kovalenko, 2000; <sup>1</sup>Kotkova, Morozova, and Popov, 2006); **Tatarstan** (<sup>1</sup>Vassiljeva, 1977); **Tula Oblast** (<sup>1</sup>Svetasheva, 2004; <sup>1</sup>Svetasheva, 2008; <sup>1</sup>Shcherbakov, 2010); **Vologda Oblast** (<sup>1</sup>Kirillova, 2007; <sup>1</sup>Kirillova, 2009); **Yamalo-Nenets Autonomous Okrug** (<sup>1</sup>Karatygin, Nezdojminogo, Novozhilov, and Zhurbenko, 1999; <sup>1</sup>Nezdojminogo, 2001); **Yaroslavl Oblast** (<sup>1</sup>Lazareva, 1997; <sup>1</sup>Lazareva, 1998a).SIBERIA: **Altai Krai** (<sup>1</sup>Gorbunova and Chubarova, 2008; <sup>1</sup>Gorbunova, Vlasenko, and Tzhubarova, 2011); **Altai Republic** (<sup>1</sup>Gorbunova, 2001a; <sup>1</sup>Gorbunova, 2001b; <sup>1</sup>Perova and Gorbunova, 2001; <sup>1</sup>Gorbunova, 2010); **Buryatia** (<sup>1</sup>Nezdojminogo, 1973; <sup>1</sup>Petrov, 1991); **Irkutsk Oblast** (<sup>1</sup>Petrov, 1984; <sup>1</sup>Astapenko and Kutafjeva, 1990; <sup>1</sup>Petrov, 1991; <sup>1</sup>Petrov, 2008); **Khakassia** (<sup>1</sup>Zauzolkova and Gorbunova, 2013; <sup>1</sup>Zauzolkova, 2015); **Khanty-Mansi Autonomous Okrug** (<sup>3</sup>Filippova and Bulyonkova, 2017a; <sup>3</sup>Filippova and Bulyonkova, 2017b); **Krasnoyarsk Krai** (<sup>1</sup>Beglyanova, 1972a; <sup>1</sup>Nezdojminogo, 1976a; <sup>1</sup>Lapitskaya, 1993; <sup>1</sup>Zauzolkova, 2012; <sup>1</sup>Zauzolkova, 2015); **Zabaykalsky Krai** (<sup>1</sup>Karsten, 1906).FAR EAST: **Amur Oblast** (<sup>1</sup>Azbukina et al., 1998); **Khabarovsk Krai** (<sup>1</sup>Bau, Bulakh, and Govorova, 2011); **Primorsky Krai** (<sup>1</sup>Vassiljeva, 1973; <sup>1</sup>Bulakh, 1977; <sup>1</sup>Azbukina et al., 1984; <sup>1</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Bulakh et al., 2016).***Clitocybe steppicola* Singer**SIBERIA: **Altai Republic** (Singer, 1943).***Clitocybe strigosa* Harmaja**EASTERN EUROPE: **Komi Republic** (Palamarchuk, 2016a; Palamarchuk, 2016b); **Leningrad Oblast** (Harmaja, 1969; Kovalenko and Morozova, 1999a; Popov et al., 2007).FAR EAST: **Primorsky Krai** (Bunkina and Nazarova, 1978; Azbukina et al., 2006; Bau, Bulakh, and Govorova, 2011).***Clitocybe suaveolens* (Schumach.) P. Kumm.<sup>1</sup>**≡ *Agaricus suaveolens* Schumach.<sup>2</sup>EASTERN EUROPE: **Crimea** (<sup>1</sup>Sarkina, 2001; <sup>1</sup>Dudka et al., 2004; <sup>1</sup>Sarkina, 2010b); **Kabardino-Balkarian Republic** (<sup>1</sup>Singer, 1931); **Kaluga Oblast** (<sup>1</sup>Sionova, 2003); **Kursk Oblast** (<sup>1</sup>Soshnina, 2001); **Lipetsk Oblast** (<sup>1</sup>Alferova, 1977; <sup>1</sup>Sarycheva, 1999; <sup>1</sup>Sarycheva et al., 2009; <sup>1</sup>Sarycheva, 2011; <sup>1</sup>Sarycheva, 2014a; <sup>1</sup>Sarycheva, 2016); **Ryazan Oblast** (<sup>1</sup>Volosnova, 1997); **Saint Petersburg** (<sup>2</sup>Weinmann, 1828; <sup>2</sup>Weinmann, 1836; <sup>2</sup>Weinmann, 1837); **Smolensk Oblast** (<sup>1</sup>Jaczewski, 1896); **Tatarstan** (<sup>1</sup>Vassiljeva, 1977); **Tver Oblast** (<sup>1</sup>Kurochkin, 1993); **Udmurt Republic** (<sup>1</sup>Tychinin, 1990; <sup>1</sup>Tychinin and Kuzmina, 2003).SIBERIA: **Altai Krai** (<sup>1</sup>Gorbunova and Perova, 2006); **Altai Republic** (<sup>1</sup>Gorbunova, 2001b; <sup>1</sup>Perova and Gorbunova, 2001); **Irkutsk Oblast** (<sup>1</sup>Petrov, 1984; <sup>1</sup>Petrov, 1991; <sup>1</sup>Petrov, 2008); **Khakassia** (<sup>1</sup>Zauzolkova and Gorbunova, 2013; <sup>1</sup>Zauzolkova, 2015); **Krasnoyarsk Krai** (<sup>1</sup>Kalchbrenner, 1878; <sup>2</sup>Thümen, 1878; <sup>1</sup>Beglyanova,

1972a; <sup>1</sup>Lapitskaya, 1993); **Novosibirsk Oblast** (<sup>1</sup>Koropachinskiy and Banaev, 2014); **Tomsk Oblast** (<sup>1</sup>Agaphonova, Kutafjeva, and Gashkov, 2009b; <sup>1</sup>Kudashova, Gashkov, and Kutafjeva, 2013); **Yamalo-Nenets Autonomous Okrug** (<sup>1</sup>Tarчевskaya, 1990).

FAR EAST: **Amur Oblast** (<sup>1</sup>Bulakh, Govorova, and Taranina, 2003; <sup>1</sup>Taranina, 2005); **Jewish Autonomous Oblast** (<sup>1</sup>Erofeeva, Bukharova, and Bulakh, 2019); **Khabarovsk Krai** (<sup>1</sup>Azbukina et al., 1986; <sup>1</sup>Azbukina et al., 1989; <sup>1</sup>Bau, Bulakh, and Govorova, 2011); **Primorsky Krai** (<sup>1</sup>Vassiljeva, 1973; <sup>1</sup>Shalapugina, 1976; <sup>1</sup>Azbukina et al., 1984; <sup>1</sup>Azbukina et al., 1990; <sup>1</sup>Bardunov et al., 2002; <sup>1</sup>Bau, Bulakh, and Govorova, 2011).

***Clitocybe subalutacea* (Batsch) P. Kumm.<sup>1</sup>**

≡ *Agaricus subalutaceus* Batsch<sup>2</sup>

EASTERN EUROPE: **Chelyabinsk Oblast** (<sup>1</sup>Stepanova and Sirko, 1977); **Crimea** (<sup>1</sup>Sarkina, 2001; <sup>1</sup>Dudka et al., 2004); **Leningrad Oblast** (<sup>1</sup>Thesleff, 1920; <sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Morozova and Kovalenko, 2000; <sup>1</sup>Popov et al., 2007); **Moscow Oblast** (<sup>1</sup>Levitskaya, 1995b; <sup>1</sup>Vishnevsky, 1998; <sup>1</sup>Levitskaya, 2013); **Perm Krai** (<sup>1</sup>Perevedentseva, 2008); **Saint Petersburg** (<sup>2</sup>Weinmann, 1836; <sup>2</sup>Weinmann, 1837; <sup>1</sup>Kovalenko and Morozova, 1999a); **Sevastopol** (<sup>1</sup>Sarkina, 2016b; <sup>1</sup>Sarkina, 2020c); **Udmurt Republic** (<sup>1</sup>Tychinin and Kuzmina, 2003).

SIBERIA: **Altai Republic** (<sup>1</sup>Kovalenko, 1992; <sup>1</sup>Perova and Gorbunova, 2001); **Irkutsk Oblast** (<sup>1</sup>Petrov, 1991; <sup>1</sup>Petrov, 2008); **Yamalo-Nenets Autonomous Okrug** (<sup>1</sup>Tarчевskaya, 1990).

FAR EAST: **Amur Oblast** (<sup>1</sup>Bulakh, Govorova, and Taranina, 2003); **Jewish Autonomous Oblast** (<sup>1</sup>Bulakh, Govorova, Nazarova, and Vassiljeva, 2007; <sup>1</sup>Bau, Bulakh, and Govorova, 2011); **Primorsky Krai** (<sup>1</sup>Vassiljeva, 1973; <sup>1</sup>Bunkina and Nazarova, 1978; <sup>1</sup>Azbukina et al., 2006; <sup>1</sup>Bau, Bulakh, and Govorova, 2011).

***Clitocybe subbulbipes* Murrill**

EASTERN EUROPE: **Krasnodar Krai** (Vassiljeva, 1939); **Samara Oblast** (Malysheva and Malysheva, 2008).

***Clitocybe subcordispora* Harmaja<sup>1</sup>**

= *Clitocybe pseudo-obbata* (J.E. Lange) Kuyper<sup>2</sup>

EASTERN EUROPE: **Komi Republic** (<sup>1</sup>Palamarchuk, 2020b); **Samara Oblast** (<sup>1</sup>Malysheva and Malysheva, 2008); **Yaroslavl Oblast** (<sup>2</sup>Lazareva, 1998a).

***Clitocybe subhirta* Peck**

FAR EAST: **Sakhalin Oblast** (Singer, 1943).

***Clitocybe subhygrophana* Singer**

SIBERIA: **Altai Republic** (Singer, 1943).

***Clitocybe subinvoluta* (Batsch) Sacc.**

EASTERN EUROPE: **Tula Oblast** (Svetasheva, 2008).

SIBERIA: **Irkutsk Oblast** (Astapenko, 1990a).

FAR EAST: **Sakhalin Oblast** (Vassiljeva and Nazarova, 1972).

***Clitocybe subspadicea* (J.E. Lange) Bon & Chevassut**

EASTERN EUROPE: **Novgorod Oblast** (Svetasheva et al., 2017); **Tula Oblast** (Svetasheva et al., 2017).

SIBERIA: **Khanty-Mansi Autonomous Okrug** (Filippova and Bulyonkova, 2017a; Filippova and Bulyonkova, 2017b).

***Clitocybe subsquamulosa* Singer**

SIBERIA: **Altai Republic** (Singer, 1943).

***Clitocybe truncicola* (Peck) Sacc.**

EASTERN EUROPE: **Novgorod Oblast** (Kovalenko, Morozova, Nezdoyminogo, and Popov, 2005; Popov et al., 2013); **Arid territories** (Rebriev, Rusanov, et al., 2012).

***Clitocybe umbilicata* P. Kumm.<sup>1</sup>**

≡ *Omphalina umbilicata* (P. Kumm.) Quél.<sup>2</sup>

EASTERN EUROPE: **Crimea** (<sup>1</sup>Sarkina and Mironova, 2015); **Kaluga Oblast** (<sup>1</sup>Sionova, 2012); **Kursk Oblast** (<sup>1,2</sup>Bedenko, 1987); **Lipetsk Oblast** (<sup>1</sup>Sarycheva et al., 2009; <sup>1</sup>Sarycheva, 2014a; <sup>1</sup>Sarycheva, 2016); **Perm Krai**

(<sup>1</sup>Perevedentseva, 2008); **Rostov Oblast** (<sup>1</sup>Rusanov, Rebriev, and Bulgakov, 2018); **Sverdlovsk Oblast** (<sup>1</sup>Stepanova and Sirko, 1977); **Tula Oblast** (<sup>1</sup>Svetasheva, 2004; <sup>1</sup>Svetasheva, 2008; <sup>1</sup>Shcherbakov, 2010); **Voronezh Oblast** (<sup>1,2</sup>Bedenko, 1987); **Arid territories** (<sup>1</sup>Rebriev, Rusanov, et al., 2012).

SIBERIA: **Krasnoyarsk Krai** (<sup>1</sup>Beglyanova, 1972a); **Yamalo-Nenets Autonomous Okrug** (<sup>1</sup>Tarчевskaya, 1990).

***Clitocybe ventosa* (Fr.) Singer<sup>1</sup>**

≡ *Omphalia ventosa* (Fr.) Gillet<sup>2</sup> ≡ *Omphalina ventosa* (Fr.) Quél.<sup>3</sup>

EASTERN EUROPE: **Krasnodar Krai** (<sup>2</sup>Vassiljeva, 1939).

SIBERIA: **Altai Republic** (<sup>1</sup>Singer, 1943); **Krasnoyarsk Krai** (<sup>3</sup>Beglyanova, 1972a).

FAR EAST: **Khabarovsk Krai** (<sup>3</sup>Azbukina et al., 1989); **Primorsky Krai** (<sup>3</sup>Vassiljeva, 1972; <sup>3</sup>Vassiljeva, 1973).

***Clitocybe vibecina* (Fr.) Quél.<sup>1</sup>**

= *Clitocybe langei* Singer<sup>2</sup> = *Clitocybe langei* Singer ex Hora<sup>3</sup>

EASTERN EUROPE: **Kaliningrad Oblast** (<sup>1</sup>Dedkov, Volodina, and Gubareva, 2007; <sup>1</sup>Volodina, 2007; <sup>1</sup>Atayev and Volodina, 2020); **Kaluga Oblast** (<sup>1</sup>Sionova, 2012); **Karelia** (<sup>1</sup>Singer, 1943; <sup>1</sup>Freindling, 1949; <sup>1</sup>Bondartseva et al., 2001; <sup>1</sup>Krutov et al., 2014); **Kirov Oblast** (<sup>1</sup>Kirillov and Luginina, 2011; <sup>1</sup>Stavishenko, Luginina, Kirillov, and Egoshina, 2019); **Komi Republic** (<sup>1</sup>Karatygin, Nezdoininogo, Novozhilov, and Zhurbenko, 1999; <sup>1</sup>Bobretsova, 2004; <sup>1</sup>Palamarchuk, 2012; <sup>1</sup>Palamarchuk, 2016a; <sup>1</sup>Palamarchuk, 2016b; <sup>1</sup>Palamarchuk and Kirillov, 2017); **Leningrad Oblast** (<sup>1</sup>Thesleff, 1920; <sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Morozova and Kovalenko, 2000; <sup>1</sup>Popov et al., 2007; <sup>1</sup>Zmitrovich et al., 2015); **Lipetsk Oblast** (<sup>3</sup>Alferova, 1977); **Moscow Oblast** (<sup>1</sup>Levitskaya, 2006; <sup>1</sup>Levitskaya, 2013); **Novgorod Oblast** (<sup>1</sup>Svetasheva et al., 2017); **Oryol Oblast** (<sup>1</sup>Radygina, Derzhavina, and Tsutsupa, 2014); **Perm Krai** (<sup>1</sup>Perevedentseva, 2008; <sup>1</sup>Belkovskaya et al., 2014; <sup>1</sup>Botalov, 2017; <sup>1</sup>Botalov and Perevedentseva, 2020); **Ryazan Oblast** (<sup>1</sup>Volosnova, 2014); **Saint Petersburg** (<sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Morozova and Smirnov, 2011; <sup>1</sup>Morozova et al., 2020); **Sverdlovsk Oblast** (<sup>1</sup>Marina, 2006); **Tatarstan** (<sup>1</sup>Singer, 1943); **Tula Oblast** (<sup>1,3</sup>Svetasheva, 2004; <sup>1,3</sup>Svetasheva, 2008); **Udmurt Republic** (<sup>1</sup>Tychinin and Kuzmina, 2003); **Yaroslavl Oblast** (<sup>1</sup>Lazareva, 1998a); **Arid territories** (<sup>1</sup>Rebriev, Rusanov, et al., 2012).

SIBERIA: **Altai Krai** (<sup>1</sup>Gorbunova and Perova, 2006); **Buryatia** (<sup>3</sup>Nezdoininogo, 1970a; <sup>3</sup>Petrov, 1991); **Irkutsk Oblast** (<sup>1</sup>Kutafjeva, 1983; <sup>1</sup>Petrov, 1984; <sup>1</sup>Petrov, 1989; <sup>1</sup>Petrov, 1991; <sup>1</sup>Petrov, 2008); **Khanty-Mansi Autonomous Okrug** (<sup>1</sup>Filippova and Bulyonkova, 2017a; <sup>1</sup>Filippova and Bulyonkova, 2017b); **Krasnoyarsk Krai** (<sup>1,3</sup>Beglyanova, 1972a; <sup>2</sup>Beglyanova, 1972b); **Novosibirsk Oblast** (<sup>1</sup>Perova and Gorbunova, 2001; <sup>1</sup>Perova and Gorbunova, 2007; <sup>1</sup>Koropachinskiy and Banaev, 2014); **Tomsk Oblast** (<sup>1</sup>Perova, 1972; <sup>1</sup>Perova and Gorbunova, 2001; <sup>1</sup>Kudashova, Gashkov, and Kutafjeva, 2013); **Yamalo-Nenets Autonomous Okrug** (<sup>3</sup>Tarчевskaya, 1990; <sup>1</sup>Karatygin, Nezdoininogo, Novozhilov, and Zhurbenko, 1999).

FAR EAST: **Magadan Oblast** (<sup>1</sup>Sazanova and Golodnova, 2015; <sup>1</sup>Sazanova, 2015); **Primorsky Krai** (<sup>1</sup>Bulakh, 1977; <sup>1,2</sup>Azbukina et al., 1984; <sup>1</sup>Bau, Bulakh, and Govorova, 2011).

***Clitocybula abundans* (Peck) Singer**

EASTERN EUROPE: **Komi Republic** (Bobretsova, 2004; Palamarchuk, 2012; Palamarchuk and Kirillov, 2018a); **Ulyanovsk Oblast** (Ilyukhin, 2009).

SIBERIA: **Krasnoyarsk Krai** (Krom and Kapitonov, 2019).

***Clitocybula lacerata* (Scop.) Métrod<sup>1</sup>**

≡ *Fayodia lacerata* (Scop.) Singer<sup>2</sup>

EASTERN EUROPE: **Adygea** (<sup>2</sup>Vassiljeva, 1939); **Belgorod Oblast** (<sup>1</sup>Bedenko, 1980); **Karachay-Cherkess Republic** (<sup>1</sup>Kalamees and Botashev, 2000); **Komi Republic** (<sup>1</sup>Bobretsova, 2004; <sup>1</sup>Palamarchuk, 2012); **Krasnodar Krai** (<sup>2</sup>Vassiljeva, 1939); **Sverdlovsk Oblast** (<sup>1</sup>Marina, 2006).

SIBERIA: **Altai Krai** (<sup>1</sup>Gorbunova, 2018a); **Altai Republic** (<sup>2</sup>Singer, 1943; <sup>1</sup>Kovalenko, 1992; <sup>1</sup>Gorbunova, 2001b; <sup>1</sup>Perova and Gorbunova, 2001; <sup>1</sup>Malysheva, Morozova, and Contu, 2011; <sup>1</sup>Antonín et al., 2019); **Irkutsk Oblast** (<sup>1</sup>Petrov, 1984; <sup>1</sup>Petrov, 1991; <sup>1</sup>Petrov, 2008); **Khanty-Mansi Autonomous Okrug** (<sup>1</sup>Zvyagina and Baykalova, 2017); **Krasnoyarsk Krai** (<sup>1</sup>Beglyanova, 1972a; <sup>1</sup>Malysheva, Malysheva, Kiyashko, et al., 2017); **Novosibirsk Oblast** (<sup>1</sup>Perova and Gorbunova, 2007); **Tomsk Oblast** (<sup>1</sup>Perova, 1972; <sup>1</sup>Kudashova, Gashkov, and Kutafjeva, 2013).

FAR EAST: **Khabarovsk Krai** (<sup>1</sup>Azbukina et al., 1986; <sup>1</sup>Azbukina et al., 1989; <sup>1</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Erofeeva and Bulakh, 2015a); **Primorsky Krai** (<sup>2</sup>Vassiljeva, 1972; <sup>2</sup>Vassiljeva, 1973; <sup>2</sup>Bunkina and Nazarova, 1978; <sup>1</sup>Azbukina et al., 1984; <sup>1</sup>Bardunov et al., 2002; <sup>1</sup>Azbukina et al., 2006; <sup>1</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Malysheva, Morozova, and Contu, 2011; <sup>1</sup>Antonín et al., 2019).

***Clitocybula tilieti* (Singer) Singer<sup>1</sup>**≡ *Fayodia tilieti* Singer<sup>2</sup>EASTERN EUROPE: **Mordovia** (<sup>2</sup>Singer, 1943; <sup>2</sup>Antonín, 2004; <sup>1</sup>Antonín et al., 2019).***Clitopaxillus alexandri* (Gillet) G. Moreno, Vizzini, Consiglio & P. Alvarado**≡ *Clitocybe alexandri* (Gillet) Gillet<sup>1</sup>EASTERN EUROPE: **Belgorod Oblast** (<sup>1</sup>Psurtseva, Belova, and Ryabusheva, 2003; <sup>1</sup>Psurtseva, Kiyashko, Gachkova, and Belova, 2007); **Crimea** (<sup>1</sup>Sarkina, 2001; <sup>1</sup>Dudka et al., 2004; <sup>1</sup>Sarkina, 2010b; <sup>1</sup>Sarkina and Prydiuk, 2012; <sup>1</sup>Sarkina, 2013); **Kaluga Oblast** (<sup>1</sup>Sionova, 2012); **Rostov Oblast** (<sup>1</sup>Rusanov, Rebriev, and Bulgakov, 2018); **Ryazan Oblast** (<sup>1</sup>Volosnova, 1997); **Sverdlovsk Oblast** (<sup>1</sup>Marina, 2006); **Udmurt Republic** (<sup>1</sup>Kapitonov, 2013); **Arid territories** (<sup>1</sup>Rebriev, Rusanov, et al., 2012).SIBERIA: **Irkutsk Oblast** (<sup>1</sup>Kutafjeva, 1983; <sup>1</sup>Petrov, 1984; <sup>1</sup>Petrov, 1991; <sup>1</sup>Muzyka, 2002; <sup>1</sup>Petrov, 2008); **Krasnoyarsk Krai** (<sup>1</sup>Beglyanova, 1972a).***Clitopilopsis hirneola* (Fr.) Kühner<sup>1</sup>**≡ *Agaricus hirneolus* Fr.<sup>2</sup> ≡ *Clitocybe hirneola* (Fr.) P. Kumm.<sup>3</sup> ≡ *Rhodocybe hirneola* (Fr.) P.D. Orton<sup>4</sup>EASTERN EUROPE: **Kaliningrad Oblast** (<sup>4</sup>Dedkov, Volodina, and Gubareva, 2007; <sup>4</sup>Volodina, 2007); **Karelia** (<sup>4</sup>Bondartseva et al., 2001; <sup>4</sup>Krutov et al., 2014); **Komi Republic** (<sup>4</sup>Palamarchuk and Kirillov, 2017); **Kursk Oblast** (<sup>4</sup>Baranov, 2002); **Leningrad Oblast** (<sup>3</sup>Thesleff, 1920; <sup>4</sup>Kovalenko and Morozova, 1999a; <sup>4</sup>Popov et al., 2007); **Lipetsk Oblast** (<sup>3</sup>Alferova, 1977); **Moscow Oblast** (<sup>4</sup>Gorlenko, Sidorova, and Sidorova, 1989); **Novgorod Oblast** (<sup>4</sup>Kovalenko, Morozova, Nezdoininogo, and Popov, 2005; <sup>4</sup>Psurtseva, Kiyashko, Gachkova, and Belova, 2007; <sup>4</sup>Popov et al., 2013); **Perm Krai** (<sup>4</sup>Perevedentseva, 2008); **Ryazan Oblast** (<sup>4</sup>Volosnova, 1997; <sup>4</sup>Volosnova, 2014); **Saint Petersburg** (<sup>2</sup>Weinmann, 1828; <sup>2</sup>Weinmann, 1836; <sup>2</sup>Weinmann, 1837; <sup>4</sup>Morozova and Smirnov, 2011).SIBERIA: **Altai Republic** (<sup>1</sup>Gorbunova, 2017b); **Irkutsk Oblast** (<sup>4</sup>Astapenko and Kutafjeva, 1990); **Krasnoyarsk Krai** (<sup>4</sup>Nezdoininogo, 1982a).***Clitopilus caelatus* (Fr.) Vila & Contu<sup>1</sup>**≡ *Rhodocybe caelata* (Fr.) Maire<sup>2</sup>EASTERN EUROPE: **Crimea** (<sup>2</sup>Sarkina, 2014b; <sup>2</sup>Sarkina and Mironova, 2015); **Kirov Oblast** (<sup>2</sup>Kirillov, 2011; <sup>2</sup>Kirillov, Perevedentseva, and Egoshina, 2011; <sup>2</sup>Baranova et al., 2014); **Komi Republic** (<sup>1</sup>Palamarchuk, 2020b); **Perm Krai** (<sup>2</sup>Perevedentseva, 2008); **Pskov Oblast** (<sup>2</sup>Popov et al., 2013); **Rostov Oblast** (<sup>2</sup>Morozova et al., 2008); **Saint Petersburg** (<sup>2</sup>Morozova and Smirnov, 2011); **Samara Oblast** (<sup>2</sup>Malysheva and Malysheva, 2008); **Arid territories** (<sup>2</sup>Rebriev, Rusanov, et al., 2012).SIBERIA: **Altai Krai** (<sup>2</sup>Gorbunova and Perova, 2006; <sup>2</sup>Gorbunova, 2006; <sup>1</sup>Gorbunova, 2018a); **Altai Republic** (<sup>2</sup>Gorbunova, 2006; <sup>2</sup>Gorbunova, 2008; <sup>2</sup>Gorbunova, 2010; <sup>1</sup>Gorbunova, 2017b); **Khakassia** (<sup>2</sup>Zauzolkova, 2015; <sup>2</sup>Zauzolkova and Gorbunova, 2016); **Khanty-Mansi Autonomous Okrug** (<sup>2</sup>Filippova, Bulyonkova, and Lapshina, 2015); **Novosibirsk Oblast** (<sup>2</sup>Koropachinskiy and Banaev, 2014).FAR EAST: **Jewish Autonomous Oblast** (<sup>2</sup>Bulakh, Govorova, Nazarova, and Vassiljeva, 2007; <sup>2</sup>Bau, Bulakh, and Govorova, 2011); **Primorsky Krai** (<sup>2</sup>Vassiljeva, 1973; <sup>2</sup>Bulakh et al., 2016); **Sakhalin Oblast** (<sup>2</sup>Vassiljeva and Nazarova, 1972).***Clitopilus cystidiatus* Hauskn. & Noordel.**EASTERN EUROPE: **Tula Oblast** (Svetasheva et al., 2017).SIBERIA: **Novosibirsk Oblast** (Koropachinskiy and Banaev, 2014).***Clitopilus geminus* (Paulet) Noordel. & Co-David**≡ *Rhodocybe gemina* (Paulet) Kuyper & Noordel.<sup>1</sup>EASTERN EUROPE: **Arid territories** (<sup>1</sup>Rebriev, Rusanov, et al., 2012).SIBERIA: **Novosibirsk Oblast** (<sup>1</sup>Koropachinskiy and Banaev, 2014).***Clitopilus hobsonii* (Berk.) P.D. Orton**EASTERN EUROPE: **Komi Republic** (Palamarchuk (Bobretsova), 2009; Palamarchuk, 2012; Palamarchuk and Kirillov, 2018a).SIBERIA: **Krasnoyarsk Krai** (Psurtseva, Kiyashko, Gachkova, and Belova, 2007; Kosheleva and Kutafjeva, 2008b; Volkova (Kosheleva), 2009; Kosheleva, 2010).

*Clitopilus jaczewskii* LebedevaEASTERN EUROPE: **Arkhangelsk Oblast** (Lebedeva, 1933).*Clitopilus pinsitus* (Fr.) Joss.≡ *Agaricus pinsitus* Fr.<sup>1</sup>EASTERN EUROPE: **Moscow** (<sup>1</sup>Weinmann, 1836).*Clitopilus piperitus* (G. Stev.) Noordel. & Co-DavidEASTERN EUROPE: **Saint Petersburg** (Dudka, Malysheva, Malysheva, and Zhukova, 2018).*Clitopilus prunulus* (Scop.) P. Kumm.<sup>1</sup>≡ *Agaricus prunulus* Scop.<sup>2</sup> = *Clitopilus orcella* (Bull.) P. Kumm.<sup>3</sup>

EASTERN EUROPE: **Adygea** (<sup>1</sup>Kovalenko, 1980b; <sup>1</sup>Sopina, 2001a); **Belgorod Oblast** (<sup>1</sup>Bedenko, 1980); **Chechen Republic** (<sup>1</sup>Taysumov, Krapivina, Umarov, and Astamirova, 2012); **Crimea** (<sup>1</sup>Sarkina, 2001; <sup>1</sup>Dudka et al., 2004; <sup>1</sup>Sarkina, 2011; <sup>1</sup>Sarkina and Prydiuk, 2012; <sup>1</sup>Sarkina, 2014b; <sup>1</sup>Sarkina, 2016a; <sup>1</sup>Sarkina and Stavishenko, 2019); **Kabardino-Balkarian Republic** (<sup>1</sup>Shkhagapsoev and Krapivina, 2004); **Kaliningrad Oblast** (<sup>1</sup>Dedkov, Volodina, and Gubareva, 2007; <sup>1</sup>Volodina, 2007; <sup>1</sup>Atayev and Volodina, 2020); **Kaluga Oblast** (<sup>1</sup>Sionova, 2012); **Karachay-Cherkess Republic** (<sup>1</sup>Hollós, 1902; <sup>1</sup>Hollós, 1905; <sup>1</sup>Filarszky, 1907); **Karelia** (<sup>1</sup>Bondartseva et al., 2001; <sup>1</sup>Krutov et al., 2014); **Kirov Oblast** (<sup>1</sup>Kirillov, 2011; <sup>1</sup>Kirillov, Perevedentseva, and Egoshina, 2011); **Komi Republic** (<sup>1</sup>Bobretsova, 2004; <sup>1</sup>Palamarchuk, 2012; <sup>1</sup>Palamarchuk and Kirillov, 2017); **Krasnodar Krai** (<sup>1</sup>Kovalenko, 1980a; <sup>1</sup>Kovalenko, 1980b; <sup>1</sup>Sopina, 2001a); **Leningrad Oblast** (<sup>1,3</sup>Thesleff, 1920; <sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Morozova and Kovalenko, 2000; <sup>1</sup>Morozova, 2007; <sup>1</sup>Popov et al., 2007; <sup>1</sup>Psurtseva, Kiyashko, Gachkova, and Belova, 2007; <sup>1</sup>Zmitrovich et al., 2015); **Lipetsk Oblast** (<sup>1</sup>Sarycheva et al., 2009; <sup>1</sup>Sarycheva, 2011; <sup>1</sup>Sarycheva, 2016); **Mordovia** (<sup>1</sup>Chastukhin, 1948a; <sup>1</sup>Chastukhin and Nikolaevskaya, 1969); **Moscow Oblast** (<sup>1</sup>Gorlenko, Sidorova, and Sidorova, 1989; <sup>1</sup>Levitskaya, 1995c; <sup>1</sup>Levitskaya, 2013); **North Ossetia** (<sup>1</sup>Nikolayev, 2001); **Novgorod Oblast** (<sup>1</sup>Kovalenko, Morozova, Nezdojminogo, and Popov, 2005; <sup>1</sup>Popov et al., 2013); **Orenburg Oblast** (<sup>1</sup>Desyatova, 2008); **Penza Oblast** (<sup>1</sup>Ivanov, 1982); **Perm Krai** (<sup>1</sup>Perevedentseva, 2008; <sup>1</sup>Botalov, 2017); **Pskov Oblast** (<sup>1</sup>Popov et al., 2013); **Ryazan Oblast** (<sup>1</sup>Volosnova, 1997; <sup>1</sup>Volosnova, 2014); **Saint Petersburg** (<sup>2</sup>Weinmann, 1828; <sup>2</sup>Weinmann, 1836; <sup>2</sup>Weinmann, 1837; <sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Morozova and Smirnov, 2011; <sup>1</sup>Morozova, Kovalenko, Rebriev, and Malysheva, 2014; <sup>1</sup>Morozova et al., 2020); **Samara Oblast** (<sup>1</sup>Malysheva and Malysheva, 2005b; <sup>1</sup>Malysheva and Malysheva, 2008); **Sevastopol** (<sup>1</sup>Sarkina, 2020c); **Sverdlovsk Oblast** (<sup>1</sup>Stepanova and Sirko, 1977; <sup>1</sup>Marina, 2006); **Tatarstan** (<sup>1</sup>Potapov, Galejev, and Zhukov, 2013; <sup>1</sup>Potapov, 2015b); **Tula Oblast** (<sup>1</sup>Svetasheva, 2004; <sup>1</sup>Svetasheva, 2013); **Tver Oblast** (<sup>1</sup>Kurochkin, 1993; <sup>1</sup>Mukhina, 2011a; <sup>1</sup>Mukhina, 2011b; <sup>1</sup>Kotkova, 2014; <sup>1</sup>Kurochkin and Medvedev, 2015); **Udmurt Republic** (<sup>1</sup>Tychinin, 1990; <sup>1</sup>Tychinin and Kuzmina, 2003); **Ulyanovsk Oblast** (<sup>1</sup>Ilyukhin, 2010a; <sup>1</sup>Ilyukhin, 2010b); **Vologda Oblast** (<sup>1</sup>Kirillova, 2006; <sup>1</sup>Kirillova, 2007); **Voronezh Oblast** (<sup>1</sup>Sarycheva, Starodubtseva, and Sapelnikova, 2017); **Yaroslavl Oblast** (<sup>1</sup>Lazareva, 1998a; <sup>1</sup>Lazareva, 1998b); **Arid territories** (<sup>1</sup>Rebriev, Rusanov, et al., 2012).

SIBERIA: **Altai Krai** (<sup>1</sup>Gorbunova and Perova, 2006; <sup>1</sup>Gorbunova and Chubarova, 2008; <sup>1</sup>Gorbunova, Vlasenko, and Tzhubarova, 2011); **Altai Republic** (<sup>1</sup>Gorbunova, 2003; <sup>1</sup>Gorbunova, 2010); **Irkutsk Oblast** (<sup>1</sup>Petrov, 1986; <sup>1</sup>Astapenko and Kutafjeva, 1990; <sup>1</sup>Petrov, 1991; <sup>1</sup>Petrov, 2008); **Khanty-Mansi Autonomous Okrug** (<sup>1</sup>Filippova, Bulyonkova, and Lapshina, 2015; <sup>1</sup>Filippova and Bulyonkova, 2017a; <sup>1</sup>Filippova and Bulyonkova, 2017b); **Krasnoyarsk Krai** (<sup>1</sup>Beglyanova, 1972a); **Novosibirsk Oblast** (<sup>1</sup>Perova and Gorbunova, 2001; <sup>1</sup>Perova and Gorbunova, 2007; <sup>1</sup>Koropachinskiy and Banaev, 2014); **Tomsk Oblast** (<sup>1</sup>Perova and Gorbunova, 2001; <sup>1</sup>Kudashova, Gashkov, and Kutafjeva, 2013; <sup>1</sup>Vaishlya et al., 2017).

FAR EAST: **Amur Oblast** (<sup>1</sup>Kochunova, 2019); **Jewish Autonomous Oblast** (<sup>1</sup>Erofeeva, Bukharova, and Bulakh, 2019); **Khabarovsk Krai** (<sup>1</sup>Azbukina et al., 1986; <sup>1</sup>Azbukina et al., 1989; <sup>1</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Bulakh, 2013; <sup>1</sup>Bogacheva, Bulakh, Bukharova, and Egorova, 2015; <sup>1</sup>Erofeeva and Bulakh, 2015a; <sup>1</sup>Bogacheva et al., 2018); **Magadan Oblast** (<sup>1</sup>Sazanova, 2005; <sup>1</sup>Sazanova, 2009a); **Primorsky Krai** (<sup>1</sup>Vassiljeva, 1972; <sup>1</sup>Vassiljeva, 1973; <sup>1</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Bogacheva et al., 2018; <sup>1</sup>Bogacheva, Bulakh, Bukharova, and Egorova, 2020).

*Clitopilus scyphoides* (Fr.) Singer<sup>1</sup>

≡ *Agaricus scyphoides* Fr.<sup>2</sup> ≡ *Clitocybe scyphoides* (Fr.) P.D. Orton<sup>3</sup> ≡ *Clitopilus scyphoides* var. *scyphoides* (Fr.) Singer<sup>4</sup> ≡ *Omphalia scyphoides* (Fr.) P. Kumm.<sup>5</sup> ≡ *Omphalina scyphoides* (Fr.) Qué.<sup>6</sup> = *Clitopilus cretatus* (Berk. & Broome) Sacc.<sup>7</sup> = *Clitopilus intermedius* Romagn.<sup>8</sup> = *Clitopilus scyphoides* f. *omphaliiformis* (Joss.) Noordel.<sup>9</sup> = *Clitopilus scyphoides* var. *intermedius* (Romagn.) Noordel.<sup>10</sup> = *Clitopilus scyphoides* var. *reductus* (Noordel.) E. Ludw.<sup>11</sup>



EASTERN EUROPE: **Karelia** (<sup>4</sup>Krutov et al., 2014); **Komi Republic** (<sup>1</sup>Palamarchuk and Kirillov, 2017); **Krasnodar Krai** (<sup>8</sup>Kovalenko, 1980a; <sup>8</sup>Kovalenko, 1980b); **Leningrad Oblast** (<sup>5</sup>Thesleff, 1920; <sup>11</sup>Morozova, 2007; <sup>4,11</sup>Popov et al., 2007); **Lipetsk Oblast** (<sup>6</sup>Sarycheva, 2016); **Novgorod Oblast** (<sup>1</sup>Popov et al., 2013); **Penza Oblast** (<sup>1,7</sup>Ivanov, 1999); **Perm Krai** (<sup>10</sup>Perevedentseva, 2008); **Pskov Oblast** (<sup>1</sup>Popov et al., 2013; <sup>1</sup>Morozova et al., 2015); **Rostov Oblast** (<sup>1</sup>Rebriev, 2018); **Ryazan Oblast** (<sup>1,9</sup>Volosnova, 2014); **Saint Petersburg** (<sup>2</sup>Weinmann, 1836; <sup>2</sup>Weinmann, 1837; <sup>1</sup>Morozova et al., 2020); **Samara Oblast** (<sup>1</sup>Malysheva and Malysheva, 2005b; <sup>1</sup>Malysheva and Malysheva, 2007; <sup>1</sup>Malysheva and Malysheva, 2008); **Sverdlovsk Oblast** (<sup>1</sup>Marina, 2006); **Tver Oblast** (<sup>1</sup>Morozova, Aleksandrova, Popov, and Malysheva, 2016); **Ulyanovsk Oblast** (<sup>1</sup>Ilyukhin, 2010a); **Arid territories** (<sup>1</sup>Rebriev, Rusanov, et al., 2012).

SIBERIA: **Altai Republic** (<sup>4</sup>Gorbunova, 2006); **Khakassia** (<sup>4</sup>Gorbunova and Majnagasheva, 2013); **Krasnoyarsk Krai** (<sup>2</sup>Thümen, 1878; <sup>1</sup>Beglyanova, 1972a; <sup>3</sup>Beglyanova, 1972b); **Novosibirsk Oblast** (<sup>8</sup>Perova, 1982; <sup>8</sup>Perova and Gorbunova, 2001; <sup>4</sup>Gorbunova, 2006; <sup>10</sup>Perova and Gorbunova, 2007; <sup>4</sup>Koropachinskiy and Banaev, 2014).

FAR EAST: **Chukotka Autonomous Okrug** (<sup>2</sup>Berkeley and Curtis, 1978).

### *Clitopilus vilis* (Fr.) Sacc.

EASTERN EUROPE: **Leningrad Oblast** (Thesleff, 1920).

### *Collybia alboflavida* (Peck) Kauffman

≡ *Melanoleuca alboflavida* (Peck) Murrill<sup>1</sup> ≡ *Tricholoma alboflavidum* (Peck) Sacc.<sup>2</sup>

EASTERN EUROPE: **Adygea** (<sup>1</sup>Vassiljeva, 1939); **Kabardino-Balkarian Republic** (<sup>2</sup>Singer, 1931); **Krasnodar Krai** (<sup>1</sup>Vassiljeva, 1939).

### *Collybia cirrhata* (Schumach.) Quél.<sup>1</sup>

≡ *Agaricus cirrhatus* (Pers.) Fr.<sup>2</sup> ≡ *Agaricus cirrhatus* Schumach.<sup>3</sup> = *Agaricus ocellatus* Fr.<sup>4</sup> = *Collybia amanitae* (Batsch) Kreisel<sup>5</sup> = *Collybia ocellata* (Fr.) P. Kumm.<sup>6</sup>

EASTERN EUROPE: **Adygea** (<sup>1</sup>Vaasma, Kalamees, and Raitviir, 1986; <sup>1</sup>Psurtseva, Kiyashko, Gachkova, and Belova, 2007); **Bashkortostan** (<sup>1</sup>Stepanova and Sirko, 1977); **Belgorod Oblast** (<sup>1</sup>Bedenko, 1980); **Chelyabinsk Oblast** (<sup>1</sup>Sirko and Stepanova, 1977; <sup>1</sup>Stepanova and Sirko, 1977; <sup>1</sup>Psurtseva, Kiyashko, Gachkova, and Belova, 2007); **Kaluga Oblast** (<sup>1</sup>Sionova, 2012); **Karachay-Cherkess Republic** (<sup>1</sup>Kalamees and Botashev, 2000); **Karelia** (<sup>1</sup>Freindling, 1949; <sup>1</sup>Bondartseva et al., 2001; <sup>1</sup>Krutov et al., 2014; <sup>1</sup>Savelev and Kikeeva, 2020); **Kirov Oblast** (<sup>1</sup>Stavishenko, Luginina, Kirillov, and Egoshina, 2019); **Komi Republic** (<sup>1</sup>Palamarchuk, 2011b; <sup>1</sup>Palamarchuk, 2012; <sup>1</sup>Palamarchuk, 2016a; <sup>1</sup>Palamarchuk, 2016b; <sup>1</sup>Palamarchuk, 2017); **Krasnodar Krai** (<sup>1</sup>Kovalenko, 1980a; <sup>1</sup>Kovalenko, 1980b); **Leningrad Oblast** (<sup>1</sup>Thesleff, 1920; <sup>1</sup>Nezdojminogo, 1967; <sup>1</sup>Chastukhin and Nikolaevskaya, 1969; <sup>1</sup>Kalamees and Kovalenko, 1984; <sup>1</sup>Stolyarskaya, 1993; <sup>1,6</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Morozova, 2007; <sup>1,6</sup>Popov et al., 2007; <sup>1</sup>Psurtseva, Kiyashko, Gachkova, and Belova, 2007; <sup>1</sup>Zmitrovich et al., 2015); **Lipetsk Oblast** (<sup>1</sup>Sarycheva et al., 2009); **Mordovia** (<sup>1</sup>Kuznetsov, 1960; <sup>1</sup>Ivoilov and Bolshakov, 2011a); **Moscow** (<sup>1</sup>Burova, 1968); **Moscow Oblast** (<sup>1,6</sup>Gorlenko, Sidorova, and Sidorova, 1989; <sup>1</sup>Levitskaya, 1995b; <sup>1,6</sup>Vishnevsky, 1998; <sup>1</sup>Levitskaya, 2013; <sup>1</sup>Voronina et al., 2014); **Murmansk Oblast** (<sup>2</sup>Karsten, 1866); **Novgorod Oblast** (<sup>1</sup>Kovalenko, Morozova, Nezdojminogo, and Popov, 2005; <sup>1</sup>Popov et al., 2013); **Orenburg Oblast** (<sup>1</sup>Desyatova, 2008); **Perm Krai** (<sup>1</sup>Perevedentseva, 2008; <sup>1</sup>Belkovskaya et al., 2014; <sup>1</sup>Botalov, 2015; <sup>1</sup>Botalov, 2017); **Pskov Oblast** (<sup>1</sup>Popov et al., 2013); **Rostov Oblast** (<sup>1</sup>Morozova et al., 2008; <sup>1</sup>Zmitrovich et al., 2008); **Ryazan Oblast** (<sup>1</sup>Volosnova, 2005; <sup>1</sup>Volosnova, 2014); **Saint Petersburg** (<sup>4</sup>Weinmann, 1828; <sup>4</sup>Weinmann, 1836; <sup>4</sup>Weinmann, 1837; <sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Kotkova, Morozova, and Popov, 2005; <sup>1</sup>Morozova and Smirnov, 2011; <sup>1</sup>Morozova et al., 2020); **Smolensk Oblast** (<sup>1</sup>Jaczewski, 1898); **Sverdlovsk Oblast** (<sup>1</sup>Tomilin, 1965; <sup>1</sup>Stepanova and Sirko, 1977; <sup>1</sup>Marina, 2006); **Tatarstan** (<sup>1</sup>Vassiljeva, 1977); **Tula Oblast** (<sup>1</sup>Svetasheva, 2004); **Tver Oblast** (<sup>1</sup>Kurochkin, 1993); **Udmurt Republic** (<sup>1</sup>Tychinin, 1990); **Vologda Oblast** (<sup>5</sup>Kirillova, 2007; <sup>1</sup>Kirillova, 2009); **Voronezh Oblast** (<sup>1</sup>Chastukhin, 1952; <sup>1</sup>Chastukhin and Nikolaevskaya, 1953; <sup>1</sup>Chastukhin and Nikolaevskaya, 1969; <sup>1</sup>Sarycheva, Starodubtseva, and Sapelnikova, 2017); **Yamalo-Nenets Autonomous Okrug** (<sup>1</sup>Karatygin, Nezdojminogo, Novozhilov, and Zhurbenko, 1999); **Yaroslavl Oblast** (<sup>1</sup>Lazareva, 1997; <sup>1</sup>Lazareva, 1998a); **Arid territories** (<sup>1,6</sup>Rebriev, Rusanov, et al., 2012).

SIBERIA: **Altai Republic** (<sup>1</sup>Gorbunova, 2008; <sup>1</sup>Gorbunova, 2010; <sup>1</sup>Gorbunova, 2017a); **Buryatia** (<sup>1</sup>Nezdojminogo, 1970a); **Irkutsk Oblast** (<sup>1</sup>Kutafjeva, 1983; <sup>1</sup>Petrov, 1984; <sup>1</sup>Petrov, 1989; <sup>1</sup>Bardunov et al., 2005; <sup>1</sup>Petrov, 2008; <sup>1</sup>Gorbunova and Stepanova, 2015; <sup>1</sup>Muzyka and Penzina, 2017); **Kemerovo Oblast** (<sup>1</sup>Perova and Gorbunova, 2001); **Khakassia** (<sup>1</sup>Beglyanova, 1972a; <sup>1</sup>Zauzolkova, 2015); **Khanty-Mansi Autonomous Okrug** (<sup>1</sup>Zvyagina, Baykalova, and Gorbunova, 2007; <sup>1</sup>Zvyagina, 2008; <sup>1</sup>Filippova and Thormann, 2014; <sup>1</sup>Filippova, 2014; <sup>1</sup>Filippova, Mourgues, and Philippe, 2014; <sup>1</sup>Shepeleva et al., 2014; <sup>1</sup>Filippova, Bulyonkova, and Lapshina, 2015; <sup>1</sup>Filippova and

Bulyonkova, 2017a; <sup>1</sup>Filippova and Bulyonkova, 2017b); **Krasnoyarsk Krai** (<sup>3</sup>Thümen, 1878; <sup>1</sup>Beglyanova, 1972a; <sup>1</sup>Nezdojminogo, 1976a; <sup>1</sup>Lapitskaya, 1993; <sup>1</sup>Kosheleva and Kutafjeva, 2008a; <sup>1</sup>Kryuchkova, 2009; <sup>1</sup>Gorbunova, 2016); **Novosibirsk Oblast** (<sup>1</sup>Koropachinskiy and Banaev, 2014); **Sakha Republic** (<sup>1</sup>Karatygin, Nezdojminogo, Novozhilov, and Zhurbenko, 1999); **Tomsk Oblast** (<sup>1</sup>Perova and Gorbunova, 2001; <sup>1</sup>Kosheleva and Kutafjeva, 2004; <sup>1</sup>Agaphonova, Kutafjeva, and Gashkov, 2007; <sup>1</sup>Kudashova, Gashkov, and Kutafjeva, 2013); **Tyva Republic** (<sup>1</sup>Gorbunova, 2015); **Yamalo-Nenets Autonomous Okrug** (<sup>1</sup>Kapitonov, 2015); **Zabaykalsky Krai** (<sup>1</sup>Karsten, 1906).

FAR EAST: **Amur Oblast** (<sup>1</sup>Gordienko, Petrova, and Tarasov, 1981; <sup>1</sup>Azbukina et al., 1998); **Chukotka Autonomous Okrug** (<sup>1</sup>Sazanova, 1993; <sup>1</sup>Karatygin, Nezdojminogo, Novozhilov, and Zhurbenko, 1999); **Jewish Autonomous Oblast** (<sup>1</sup>Bulakh, Govorova, Nazarova, and Vassiljeva, 2007; <sup>1</sup>Bau, Bulakh, and Govorova, 2011); **Kamchatka Krai** (<sup>1</sup>Kalamees and Vaasma, 1981); **Khabarovsk Krai** (<sup>1</sup>Bulakh, 2013; <sup>1</sup>Bogacheva, Bulakh, Bukharova, and Egorova, 2015; <sup>1</sup>Erofeeva and Bulakh, 2015a); **Magadan Oblast** (<sup>1</sup>Nazarova, 1976; <sup>1</sup>Sazanova, 1996; <sup>1,6</sup>Sazanova, 2005; <sup>1,6</sup>Sazanova, 2009a; <sup>1</sup>Sazanova, 2011; <sup>1</sup>Sazanova and Golodnova, 2015); **Primorsky Krai** (<sup>1</sup>Vassiljeva, 1973; <sup>1</sup>Bunkina and Nazarova, 1978; <sup>1</sup>Azbukina et al., 1984; <sup>1</sup>Azbukina et al., 2006; <sup>1</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Bulakh et al., 2016); **Sakhalin Oblast** (<sup>1</sup>Vassiljeva and Nazarova, 1972).

### *Collybia cookei* (Bres.) J.D. Arnold

EASTERN EUROPE: **Adygea** (Vaasma, Kalamees, and Raitviir, 1986; Kummer, 2007; Psurtseva, Kiyashko, Gachkova, and Belova, 2007); **Belgorod Oblast** (Bedenko, 1980); **Chelyabinsk Oblast** (Sirko and Stepanova, 1977; Stepanova and Sirko, 1977; Psurtseva, Kiyashko, Gachkova, and Belova, 2007); **Crimea** (Dudka et al., 2004; Sarkina and Prydiuk, 2012); **Karachay-Cherkess Republic** (Kalamees and Botashev, 2000); **Karelia** (Bondartseva et al., 2001; Krutov et al., 2014); **Kirov Oblast** (Kirillov and Luginina, 2011; Kirillov, 2011; Kirillov, Perevedentseva, and Egoshina, 2011; Stavishenko, Luginina, Kirillov, and Egoshina, 2019); **Komi Republic** (Bobretsova, 2004; Palamarchuk, 2012; Palamarchuk and Kirillov, 2017); **Krasnodar Krai** (Kovalenko, 1980a; Kovalenko, 1980b); **Kursk Oblast** (Baranov, 2002); **Leningrad Oblast** (Stolyarskaya, 1993; Kovalenko and Morozova, 1999a; Morozova, 2007; Popov et al., 2007; Psurtseva, Kiyashko, Gachkova, and Belova, 2007; Zmitrovich et al., 2015); **Moscow Oblast** (Gorlenko, Sidorova, and Sidorova, 1989; Vishnevsky, 1998; Levitskaya, 2006; Levitskaya, 2013); **Penza Oblast** (Ivanov, 1983); **Perm Krai** (Perevedentseva, Nezdojminogo, and Kovalenko, 1990; Perevedentseva, 2008; Belkovskaya et al., 2014; Perevedentseva and Shishigin, 2014; Botalov, 2017); **Rostov Oblast** (Zmitrovich et al., 2008); **Ryazan Oblast** (Volosnova, 1997; Volosnova, 2014); **Saint Petersburg** (Psurtseva, Kiyashko, Gachkova, and Belova, 2007; Morozova, Kovalenko, Rebriev, and Malysheva, 2014; Morozova et al., 2020); **Sverdlovsk Oblast** (Marina, 2006); **Tatarstan** (Vassiljeva, 1977); **Tula Oblast** (Svetasheva, 2004); **Yaroslavl Oblast** (Lazareva, 1998a); **Arid territories** (Rebriev, Rusanov, et al., 2012).

SIBERIA: **Altai Krai** (Gorbunova and Perova, 2006); **Irkutsk Oblast** (Kutafjeva, 1983; Petrov, 1984; Petrov, 1989; Petrov, 1991; Petrov, 2008); **Khanty-Mansi Autonomous Okrug** (Filippova, Bulyonkova, and Lapshina, 2015; Zvyagina and Vasina, 2015; Filippova and Bulyonkova, 2017a; Filippova and Bulyonkova, 2017b); **Krasnoyarsk Krai** (Beglyanova, 1972a); **Novosibirsk Oblast** (Perova, 1977; Perova and Gorbunova, 2001; Perova and Gorbunova, 2007); **Tomsk Oblast** (Perova, 1972; Perova and Gorbunova, 2001; Kudashova, Gashkov, and Kutafjeva, 2013).

FAR EAST: **Amur Oblast** (Nazarova, 1986; Bulakh, Govorova, and Taranina, 2003; Taranina, 2005); **Jewish Autonomous Oblast** (Erofeeva, Bukharova, and Bulakh, 2019); **Kamchatka Krai** (Kalamees and Vaasma, 1981; Psurtseva, Kiyashko, Gachkova, and Belova, 2007); **Khabarovsk Krai** (Azbukina et al., 1989); **Magadan Oblast** (Nazarova, 1976; Sazanova, 2005; Sazanova, 2009a; Sazanova, 2009b; Sazanova, 2011); **Primorsky Krai** (Vassiljeva, 1972; Vassiljeva, 1973; Bunkina and Nazarova, 1978; Azbukina et al., 1984; Azbukina et al., 1990; Bardunov et al., 2002; Azbukina et al., 2006; Bau, Bulakh, and Govorova, 2011; Bulakh et al., 2016).

### *Collybia nummularia* (Lam.) Gillet

EASTERN EUROPE: **Adygea** (Vaasma, Kalamees, and Raitviir, 1986).

SIBERIA: **Novosibirsk Oblast** (Zaytseva, 1971).

### *Collybia pusilla* Lebedeva

EASTERN EUROPE: **Stavropol Krai** (Lebedeva, 1930); **Arid territories** (Rebriev, Rusanov, et al., 2012).

### *Collybia tuberosa* (Bull.) P. Kumm.<sup>1</sup>

≡ *Agaricus tuberosus* Bull.<sup>2</sup>

EASTERN EUROPE: **Belgorod Oblast** (<sup>1</sup>Bedenko, 1979a); **Chelyabinsk Oblast** (<sup>1</sup>Sirko and Stepanova, 1977; <sup>1</sup>Stepanova and Sirko, 1977; <sup>1</sup>Psurtseva, Kiyashko, Gachkova, and Belova, 2007); **Crimea** (<sup>1</sup>Moser, 1993; <sup>1</sup>Sarkina,

2001; <sup>1</sup>Dudka et al., 2004; <sup>1</sup>Sarkina and Prydiuk, 2012); **Kaliningrad Oblast** (<sup>1</sup>Dedkov, Volodina, and Gubareva, 2007); **Karachay-Cherkess Republic** (<sup>1</sup>Kalamees and Botashev, 2000); **Karelia** (<sup>1</sup>Kovalenko, Morozova, Fomina, and Särkisilta, 1998; <sup>1</sup>Bondartseva et al., 2001; <sup>1</sup>Krutov et al., 2014); **Kirov Oblast** (<sup>1</sup>Kirillov, 2011; <sup>1</sup>Kirillov, Perevedentseva, and Egoshina, 2011; <sup>1</sup>Stavishenko, Luginina, Kirillov, and Egoshina, 2019); **Komi Republic** (<sup>1</sup>Palamarchuk, 2016a; <sup>1</sup>Palamarchuk, 2016b; <sup>1</sup>Palamarchuk and Kirillov, 2017; <sup>1</sup>Palamarchuk, 2017); **Leningrad Oblast** (<sup>1</sup>Thesleff, 1920; <sup>1</sup>Nezdojminogo, 1967; <sup>1</sup>Chastukhin and Nikolaevskaya, 1969; <sup>1</sup>Kalamees and Kovalenko, 1984; <sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Morozova, 2007; <sup>1</sup>Popov et al., 2007; <sup>1</sup>Psurtseva, Kiyashko, Gachkova, and Belova, 2007; <sup>1</sup>Zmitrovich et al., 2015); **Mordovia** (<sup>1</sup>Chastukhin, 1948a; <sup>1</sup>Kuznetsov, 1960; <sup>1</sup>Chastukhin and Nikolaevskaya, 1969; <sup>1</sup>Chastukhin, 2011; <sup>1</sup>Ivoilov and Bolshakov, 2011a); **Moscow** (<sup>2</sup>Bucholtz, 1897b; <sup>2</sup>Bucholtz, 1897c; <sup>2</sup>Mosolov, 1906); **Moscow Oblast** (<sup>1</sup>Gorlenko, Sidorova, and Sidorova, 1989; <sup>1</sup>Vishnevsky, 1998; <sup>1</sup>Voronina et al., 2014); **Murmansk Oblast** (<sup>1</sup>Pystina, Pavlova, and Shestakova, 1969; <sup>1</sup>Mikhailovskii, 1975b; <sup>1</sup>Karatygin, Nezdojminogo, Novozhilov, and Zhurbenko, 1999); **Penza Oblast** (<sup>1</sup>Ivanov, 1981a); **Perm Krai** (<sup>1</sup>Perevedentseva, 2008; <sup>1</sup>Belkovskaya et al., 2014; <sup>1</sup>Perevedentseva and Shishigin, 2014; <sup>1</sup>Botalov, 2015; <sup>1</sup>Botalov, Perevedentseva, and Denisov, 2015; <sup>1</sup>Botalov, 2017); **Rostov Oblast** (<sup>1</sup>Zmitrovich et al., 2008); **Ryazan Oblast** (<sup>1</sup>Malysheva and Volosnova, 2008; <sup>1</sup>Volosnova, 2014); **Saint Petersburg** (<sup>2</sup>Weinmann, 1828; <sup>2</sup>Weinmann, 1836; <sup>2</sup>Weinmann, 1837); **Samara Oblast** (<sup>1</sup>Malysheva and Malysheva, 2008); **Smolensk Oblast** (<sup>1</sup>Jaczewski, 1896); **Sverdlovsk Oblast** (<sup>1</sup>Stepanova and Sirko, 1977; <sup>1</sup>Marina, 2006); **Tula Oblast** (<sup>1</sup>Svetasheva et al., 2017); **Tver Oblast** (<sup>1</sup>Kurochkin, 1993); **Vologda Oblast** (<sup>1</sup>Kirillova, 2007; <sup>1</sup>Kirillova, 2009); **Voronezh Oblast** (<sup>1</sup>Chastukhin and Nikolaevskaya, 1953); **Yaroslavl Oblast** (<sup>1</sup>Lazareva, 1998a); **Arid territories** (<sup>1</sup>Rebriev, Rusanov, et al., 2012).

SIBERIA: **Altai Krai** (<sup>1</sup>Gorbunova and Perova, 2006); **Altai Republic** (<sup>1</sup>Kovalenko, 1992; <sup>1</sup>Perova and Gorbunova, 2001); **Buryatia** (<sup>1</sup>Nezdojminogo, 1970a; <sup>1</sup>Petrov, 1991); **Irkutsk Oblast** (<sup>1</sup>Kutafjeva, 1983; <sup>1</sup>Petrov, 1984; <sup>1</sup>Petrov, 1991; <sup>1</sup>Petrov, 2008); **Khanty-Mansi Autonomous Okrug** (<sup>1</sup>Filippova and Bulyonkova, 2017a; <sup>1</sup>Filippova and Bulyonkova, 2017b); **Krasnoyarsk Krai** (<sup>1</sup>Beglyanova, 1972a); **Novosibirsk Oblast** (<sup>1</sup>Perova and Gorbunova, 2001; <sup>1</sup>Perova and Gorbunova, 2007; <sup>1</sup>Koropachinskiy and Banaev, 2014); **Sverdlovsk Oblast** (<sup>1</sup>Stepanova and Sirko, 1977); **Tomsk Oblast** (<sup>1</sup>Perova and Gorbunova, 2001; <sup>1</sup>Kudashova, Gashkov, and Kutafjeva, 2013).

FAR EAST: **Kamchatka Krai** (<sup>1</sup>Kalamees and Vaasma, 1981); **Khabarovsk Krai** (<sup>1</sup>Azbukina et al., 1986; <sup>1</sup>Bau, Bulakh, and Govorova, 2011); **Magadan Oblast** (<sup>1</sup>Sazanova, 2005; <sup>1</sup>Sazanova, 2009a; <sup>1</sup>Sazanova, 2009b; <sup>1</sup>Sazanova, 2011; <sup>1</sup>Sazanova and Golodnova, 2015); **Primorsky Krai** (<sup>1</sup>Vassiljeva, 1973; <sup>1</sup>Bunkina and Nazarova, 1978; <sup>1</sup>Azbukina et al., 1984; <sup>1</sup>Azbukina et al., 2006; <sup>1</sup>Bau, Bulakh, and Govorova, 2011).

### *Collybia velutinopunctata* Lj.N. Vassiljeva

FAR EAST: **Primorsky Krai** (Vassiljeva, 1973; Bunkina and Nazarova, 1978; Azbukina et al., 1990; Bardunov et al., 2002; Azbukina et al., 2006; Kozhevnikov, 2008; Bau, Bulakh, and Govorova, 2011).

### *Connopus acervatus* (Fr.) K.W. Hughes, Mather & R.H. Petersen<sup>1</sup>

≡ *Collybia acervata* (Fr.) P. Kumm.<sup>2</sup> ≡ *Gymnopus acervatus* (Fr.) Murrill<sup>3</sup>

EASTERN EUROPE: **Belgorod Oblast** (<sup>2</sup>Bedenko, 1979a); **Chelyabinsk Oblast** (<sup>2</sup>Stepanova and Sirko, 1977); **Crimea** (<sup>2</sup>Sarkina, 2011; <sup>3</sup>Sarkina, 2014b); **Kabardino-Balkarian Republic** (<sup>2</sup>Shkhagapsoev and Krapivina, 2004); **Kaliningrad Oblast** (<sup>2</sup>Dedkov, Volodina, and Gubareva, 2007; <sup>2</sup>Volodina, 2007); **Karelia** (<sup>2</sup>Bondartseva et al., 2001; <sup>3</sup>Krutov et al., 2014); **Kirov Oblast** (<sup>3</sup>Kirillov, 2011; <sup>3</sup>Kirillov, Perevedentseva, and Egoshina, 2011; <sup>3</sup>Baranova et al., 2014); **Komi Republic** (<sup>2</sup>Bobretsova, 2004; <sup>3</sup>Palamarchuk, 2012; <sup>3</sup>Palamarchuk and Kirillov, 2017; <sup>3</sup>Palamarchuk, 2017; <sup>1</sup>Palamarchuk and Kirillov, 2018a); **Leningrad Oblast** (<sup>2</sup>Thesleff, 1920; <sup>2</sup>Stolyarskaya, 1989; <sup>2</sup>Kovalenko and Morozova, 1999a; <sup>3</sup>Popov et al., 2007; <sup>1</sup>Zmitrovich et al., 2015); **Lipetsk Oblast** (<sup>2</sup>Rtishcheva, 1999; <sup>2</sup>Afanasyev, Rtishcheva, and Starodubtseva, 2007; <sup>3</sup>Sarycheva et al., 2009; <sup>3</sup>Sarycheva, 2011; <sup>3</sup>Sarycheva, 2014a; <sup>3</sup>Sarycheva, 2016; <sup>3</sup>Sarycheva, Starodubtseva, and Sapelnikova, 2017); **Moscow** (<sup>2</sup>Burova, 1968); **Moscow Oblast** (<sup>2</sup>Gorlenko, Sidorova, and Sidorova, 1989; <sup>2</sup>Vishnevsky, 1998); **Novgorod Oblast** (<sup>2</sup>Kovalenko, Morozova, Nezdojminogo, and Popov, 2005; <sup>2</sup>Psurtseva, Kiyashko, Gachkova, and Belova, 2007; <sup>3</sup>Popov et al., 2013); **Perm Krai** (<sup>3</sup>Perevedentseva, 2008; <sup>3</sup>Shepel', 2008; <sup>3</sup>Belkovskaya et al., 2014; <sup>3</sup>Baklanov, 2018); **Rostov Oblast** (<sup>3</sup>Rusanov, Rebriev, and Bulgakov, 2018); **Saint Petersburg** (<sup>1</sup>Morozova et al., 2020); **Smolensk Oblast** (<sup>2</sup>Burova, 1969); **Sverdlovsk Oblast** (<sup>2</sup>Marina, 2006); **Tver Oblast** (<sup>2</sup>Kurochkin, 1993); **Udmurt Republic** (<sup>2</sup>Tychinin and Kuzmina, 2003); **Ulyanovsk Oblast** (<sup>2</sup>Ilyukhin, 2010a); **Voronezh Oblast** (<sup>2</sup>Chastukhin, 1952; <sup>2</sup>Rtishcheva, 1999; <sup>2</sup>Afanasyev, Rtishcheva, and Starodubtseva, 2007; <sup>3</sup>Sarycheva, Starodubtseva, and Sapelnikova, 2017); **Yaroslavl Oblast** (<sup>2</sup>Lazareva, 1998a); **Arid territories** (<sup>1</sup>Rebriev, Rusanov, et al., 2012).

SIBERIA: **Altai Krai** (<sup>2</sup>Gorbunova and Chubarova, 2008; <sup>3</sup>Gorbunova, Vlasenko, and Tzhubarova, 2011); **Altai Republic** (<sup>2</sup>Gorbunova, 2001b; <sup>2</sup>Perova and Gorbunova, 2001); **Irkutsk Oblast** (<sup>2</sup>Kutafjeva, 1983); **Khakassia**

(<sup>3</sup>Zauzolkova, 2015); **Khanty-Mansi Autonomous Okrug** (<sup>3</sup>Zvyagina, 2008; <sup>3</sup>Shepeleva et al., 2014; <sup>1</sup>Zvyagina and Baykalova, 2017); **Krasnoyarsk Krai** (<sup>2</sup>Beglyanova, 1972a; <sup>2</sup>Beglyanova, 1972b; <sup>2</sup>Beglyanova, 1972c; <sup>1</sup>Kryuchkova, 2014a; <sup>3</sup>Zauzolkova, 2015); **Novosibirsk Oblast** (<sup>2</sup>Perova and Gorbunova, 2001; <sup>2</sup>Perova and Gorbunova, 2007); **Tomsk Oblast** (<sup>2</sup>Agaphonova, Kutafjeva, and Gashkov, 2009b; <sup>1</sup>Kudashova, Gashkov, and Kutafjeva, 2013; <sup>1</sup>Kudashova, Gashkov, and Vaishlya, 2016b).

FAR EAST: **Khabarovsk Krai** (<sup>3</sup>Bulakh, 2013; <sup>1</sup>Bogacheva, Bulakh, Bukharova, and Egorova, 2015); **Magadan Oblast** (<sup>3</sup>Sazanova, 2012); **Sakhalin Oblast** (<sup>2</sup>Vassiljeva and Nazarova, 1972).

### ***Conocybe albipes* Hauskn.<sup>1</sup>**

≡ *Conocybe apala* var. *albipes* (Hauskn.) Arnolds<sup>2</sup> = *Conocybe lactea* (J.E. Lange) Métrod<sup>3</sup> = *Conocybe lateritia* (Fr.) Kühner<sup>4</sup>

EASTERN EUROPE: **Bryansk Oblast** (<sup>1</sup>Malysheva, 2018); **Kabardino-Balkarian Republic** (<sup>3</sup>Krapivina et al., 2020); **Kaliningrad Oblast** (<sup>3</sup>Volodina, 2007); **Kaluga Oblast** (<sup>3</sup>Sionova, 2012); **Leningrad Oblast** (<sup>4</sup>Singer, 1950a; <sup>3</sup>Stolyarskaya, 1989; <sup>3</sup>Kovalenko and Morozova, 1999a; <sup>3</sup>Popov et al., 2007; <sup>1</sup>Malysheva, 2018); **Lipetsk Oblast** (<sup>1</sup>Sarycheva et al., 2009; <sup>1</sup>Sarycheva, 2011; <sup>1</sup>Sarycheva, 2014a; <sup>1</sup>Sarycheva, 2016); **Moscow Oblast** (<sup>3</sup>Gorlenko, Sidorova, and Sidorova, 1989; <sup>3</sup>Levitskaya, 1995c; <sup>3</sup>Levitskaya, 2013); **Novgorod Oblast** (<sup>1</sup>Malysheva, 2018); **Pskov Oblast** (<sup>3</sup>Kovalenko and Morozova, 1999b; <sup>3</sup>Kolmakov and Popov, 2005; <sup>1</sup>Malysheva, 2018); **Ryazan Oblast** (<sup>2</sup>Malysheva and Volosnova, 2008; <sup>2</sup>Volosnova, 2014; <sup>1</sup>Malysheva, 2018); **Samara Oblast** (<sup>3</sup>Malysheva and Malysheva, 2007); **Udmurt Republic** (<sup>3</sup>Tychinin and Kuzmina, 2003); **Ulyanovsk Oblast** (<sup>3</sup>Ilyukhin, 2010a); **Vologda Oblast** (<sup>3</sup>Kirillova, 2006; <sup>1</sup>Kirillova, 2007); **Yaroslavl Oblast** (<sup>3</sup>Lazareva, 1997).

SIBERIA: **Altai Republic** (<sup>4</sup>Singer, 1950a; <sup>3</sup>Gorbunova, 2001b; <sup>3</sup>Gorbunova, 2003; <sup>3</sup>Gorbunova, 2006); **Irkutsk Oblast** (<sup>3</sup>Kutafjeva and Astapenko, 1987); **Krasnoyarsk Krai** (<sup>3</sup>Beglyanova, 1972a); **Novosibirsk Oblast** (<sup>3</sup>Perova, 1977; <sup>3</sup>Gorbunova, 2006; <sup>3</sup>Gorbunova, 2007).

FAR EAST: **Chukotka Autonomous Okrug** (<sup>3</sup>Karatygin, Nezdoininogo, Novozhilov, and Zhurbenko, 1999); **Jewish Autonomous Oblast** (<sup>1</sup>Bau, Bulakh, and Govorova, 2011); **Khabarovsk Krai** (<sup>3</sup>Azbukina et al., 1989); **Primorsky Krai** (<sup>3</sup>Bulakh, 1977; <sup>3</sup>Azbukina et al., 1984; <sup>1</sup>Bau, Bulakh, and Govorova, 2011).

### ***Conocybe alkovii* E.F. Malysheva**

FAR EAST: **Primorsky Krai** (Malysheva, 2012; Malysheva, 2018).

### ***Conocybe ambigua* Watling<sup>1</sup>**

≡ *Conocybe ambigua* Kühner ex Singer<sup>2</sup> ≡ *Conocybe siliginea* var. *ambigua* Kühner<sup>3</sup>

EASTERN EUROPE: **Leningrad Oblast** (<sup>3</sup>Singer, 1950a; <sup>1</sup>Malysheva, 2018); **Perm Krai** (<sup>1</sup>Perevedentseva, 2008); **Saint Petersburg** (<sup>3</sup>Singer, 1950a; <sup>1</sup>Malysheva, 2018); **Samara Oblast** (<sup>1</sup>Malysheva and Malysheva, 2008; <sup>1</sup>Malysheva, 2018); **Sverdlovsk Oblast** (<sup>1</sup>Marina, 2006 [as *Conocybe siennophylla* (Berk. & Broome) Singer, redet. in Malysheva, 2018]; <sup>1</sup>Malysheva, 2018; <sup>1</sup>Shiryayeva and Malysheva, 2018); **Tatarstan** (<sup>2</sup>Vassiljeva, 1977).

SIBERIA: **Khakassia** (<sup>2</sup>Beglyanova, 1972a); **Krasnoyarsk Krai** (<sup>2</sup>Beglyanova, 1972a; <sup>1</sup>Malysheva, 2018).

FAR EAST: **Primorsky Krai** (<sup>2</sup>Bulakh, 1977; <sup>2</sup>Azbukina et al., 1984; <sup>1</sup>Malysheva, 2018).

### ***Conocybe ammophila* M. Lange**

SIBERIA: **Altai Republic** (Hausknecht, Kalamees, Knudsen, and Mukhin, 2009; Malysheva, 2018).

### ***Conocybe anthracophila* Maire & Kühner ex Kühner & Watling<sup>1</sup>**

≡ *Conocybe anthracophila* (Maire & Kühner) Singer<sup>2</sup>

EASTERN EUROPE: **Penza Oblast** (<sup>2</sup>Ivanov, 1992); **Rostov Oblast** (<sup>1</sup>Rusanov, Rebriev, and Bulgakov, 2018); **Arid territories** (<sup>1</sup>Rebriev, Rusanov, et al., 2012).

SIBERIA: **Novosibirsk Oblast** (<sup>1</sup>Perova, 1977; <sup>2</sup>Perova and Gorbunova, 2001).

### ***Conocybe antipus* (Lasch) Kühner<sup>1</sup>**

≡ *Agaricus antipus* Lasch<sup>2</sup> ≡ *Conocybe antipus* (Lasch) Fayod<sup>3</sup>

EASTERN EUROPE: **Leningrad Oblast** (<sup>3</sup>Kovalenko and Morozova, 1999a; <sup>3</sup>Popov et al., 2007); **Perm Krai** (<sup>3</sup>Perevedentseva, 2008; <sup>3</sup>Malysheva, 2018); **Rostov Oblast** (<sup>3</sup>Malysheva, 2018); **Ryazan Oblast** (<sup>3</sup>Malysheva, 2018); **Saint Petersburg** (<sup>2</sup>Weinmann, 1836); **Samara Oblast** (<sup>3</sup>Malysheva and Malysheva, 2008).

SIBERIA: **Krasnoyarsk Krai** (<sup>1</sup>Beglyanova, 1972a; <sup>3</sup>Malysheva, 2018).

***Conocybe apala* (Fr.) Arnolds<sup>1</sup>**

≡ *Conocybe apala* var. *apala* (Fr.) Arnolds<sup>2</sup> ≡ *Galera apala* (Fr.) Sacc.<sup>3</sup> = *Galera sphaerobasis* (H. Post ex Fr.) Mussat<sup>4</sup>

EASTERN EUROPE: **Bryansk Oblast** (<sup>1</sup>Malysheva, 2018); **Kaliningrad Oblast** (<sup>3</sup>Neuhoff, 1922; <sup>3</sup>Dedkov, Volodina, and Gubareva, 2007); **Karachay-Cherkess Republic** (<sup>1</sup>Malysheva, 2018); **Karelia** (<sup>1</sup>Krutov et al., 2014; <sup>1</sup>Malysheva, 2018); **Komi Republic** (<sup>1</sup>Palamarchuk, 2012; <sup>1</sup>Palamarchuk and Kirillov, 2017); **Krasnodar Krai** (<sup>1</sup>Shumkova, Krivorotov, and Gayday, 2018); **Leningrad Oblast** (<sup>4</sup>Thesleff, 1920; <sup>1</sup>Zmitrovich et al., 2015; <sup>1</sup>Malysheva, 2018); **Moscow** (<sup>1</sup>Muchnik et al., 2020); **Moscow Oblast** (<sup>1</sup>Voronina et al., 2012; <sup>1</sup>Voronina et al., 2014; <sup>1</sup>Malysheva, 2018); **Penza Oblast** (<sup>1</sup>Malysheva, 2018); **Pskov Oblast** (<sup>1</sup>Popov et al., 2013; <sup>1</sup>Malysheva, 2018); **Ryazan Oblast** (<sup>2</sup>Malysheva and Volosnova, 2008; <sup>2</sup>Volosnova, 2014; <sup>1</sup>Malysheva, 2018); **Saint Petersburg** (<sup>1</sup>Malysheva, 2018; <sup>1</sup>Morozova et al., 2020); **Samara Oblast** (<sup>1</sup>Malysheva and Malysheva, 2006; <sup>1</sup>Malysheva and Malysheva, 2007; <sup>1</sup>Malysheva and Malysheva, 2008); **Sverdlovsk Oblast** (<sup>3</sup>Marina, 2006 [as *Conocybe lactea* (J.E. Lange) Métrod; redet. in Shiryayeva and Malysheva, 2018]; <sup>1</sup>Marina, 2006 [as *Conocybe huijsmanii* Watling, redet. in Malysheva, 2018]; <sup>1</sup>Malysheva, 2018; <sup>1</sup>Shiryayeva and Malysheva, 2018); **Tver Oblast** (<sup>1</sup>Kurochkin, 2015; <sup>1</sup>Morozova, Aleksandrova, Popov, and Malysheva, 2016).

SIBERIA: **Altai Republic** (<sup>1</sup>Gorbunova, 2010; <sup>1</sup>Malysheva, 2018); **Khakassia** (<sup>1</sup>Zauzolkova, 2015; <sup>1</sup>Zauzolkova and Gorbunova, 2016); **Khanty-Mansi Autonomous Okrug** (<sup>1</sup>Filippova and Bulyonkova, 2017a; <sup>1</sup>Filippova and Bulyonkova, 2017b); **Novosibirsk Oblast** (<sup>1</sup>Koropachinskiy and Banaev, 2014; <sup>1</sup>Malysheva, 2018); **Tomsk Oblast** (<sup>1</sup>Kudashova, Gashkov, and Kutafjeva, 2013).

FAR EAST: **Magadan Oblast** (<sup>1</sup>Sazanova, 2009a); **Primorsky Krai** (<sup>1</sup>Malysheva, 2018; <sup>1</sup>Bogacheva, Bulakh, Bukharova, and Egorova, 2020).

***Conocybe aurea* (Jul. Schäff.) Hongo**

EASTERN EUROPE: **Rostov Oblast** (Morozova et al., 2008; Malysheva, 2018); **Ryazan Oblast** (Malysheva and Volosnova, 2008; Volosnova, 2014); **Arid territories** (Rebriev, Rusanov, et al., 2012).

SIBERIA: **Khanty-Mansi Autonomous Okrug** (Filippova and Bulyonkova, 2017a; Filippova and Bulyonkova, 2017b).

***Conocybe brachypodii* (Velen.) Hauskn. & Svrček**

EASTERN EUROPE: **Bryansk Oblast** (Malysheva, 2018); **Karachay-Cherkess Republic** (Malysheva, 2018); **Novgorod Oblast** (Malysheva, 2018); **Orenburg Oblast** (Desyatova, 2007; Desyatova, 2008); **Saint Petersburg** (Malysheva, 2018); **Samara Oblast** (Malysheva and Malysheva, 2008; Malysheva, 2018); **Stavropol Krai** (Malysheva, 2011a; Malysheva, 2018).

SIBERIA: **Altai Republic** (Malysheva, 2018); **Khakassia** (Gorbunova and Majnagasheva, 2013).

***Conocybe brunneidisca* (Murrill) Hauskn.**

EASTERN EUROPE: **Adygea** (Malysheva, 2011a; Malysheva, 2018); **Karachay-Cherkess Republic** (Malysheva, 2011a; Malysheva, 2018); **Karelia** (Malysheva, 2018); **Leningrad Oblast** (Malysheva, 2018); **Lipetsk Oblast** (Malysheva, 2018); **Moscow Oblast** (Voronina et al., 2014 [as *Conocybe lenticulospora* Watling, redet. in Malysheva, 2018]; Malysheva, 2018); **Novgorod Oblast** (Malysheva, 2018); **Pskov Oblast** (Morozova et al., 2015; Malysheva, 2018); **Ryazan Oblast** (Malysheva and Volosnova, 2008 [as *Conocybe lenticulospora* Watling, redet. in Malysheva, 2018]; Volosnova, 2014 [as *Conocybe lenticulospora* Watling, redet. in Malysheva, 2018]; Malysheva, 2018); **Saint Petersburg** (Zhukova, Morozova, Volobuev, and Bryantseva, 2017; Malysheva, 2018); **Samara Oblast** (Malysheva and Malysheva, 2008 [as *Conocybe lenticulospora* Watling, redet. in Malysheva, 2018]; Malysheva, 2018); **Sverdlovsk Oblast** (Marina, 2006 [as *Conocybe siennophylla* (Berk. & Broome) Singer, redet. in Shiryayeva and Malysheva, 2018]; Malysheva, 2018; Shiryayeva and Malysheva, 2018); **Vologda Oblast** (Malysheva, 2018).

SIBERIA: **Novosibirsk Oblast** (Malysheva, 2018).

FAR EAST: **Kamchatka Krai** (Hausknecht, Kalamees, Knudsen, and Mukhin, 2009; Malysheva, 2018); **Primorsky Krai** (Malysheva, 2018).

***Conocybe bulbifera* (Kauffman) Romagn.**

EASTERN EUROPE: **Ryazan Oblast** (Volosnova, 1997).

***Conocybe confundens* E.F. Malysheva**

EASTERN EUROPE: **Samara Oblast** (Malysheva, 2017; Malysheva, 2018).

***Conocybe coniferarum* E.F. Malysheva**

FAR EAST: **Primorsky Krai** (Malysheva, 2017; Malysheva, 2018).

***Conocybe cryptocystis* (G.F. Atk.) Singer**

EASTERN EUROPE: **Krasnodar Krai** (Vaasma, Kalamees, and Raitviir, 1986).

***Conocybe dumetorum* (Velen.) Svrček<sup>1</sup>**

= *Conocybe dumetorum* var. *laricina* (Kühner) Hauskn.<sup>2</sup> = *Conocybe dumetorum* var. *phaeoleiospora* Hauskn.<sup>3</sup>

EASTERN EUROPE: **Karachay-Cherkess Republic** (<sup>2</sup>Malysheva, 2011a; <sup>2</sup>Malysheva, 2018); **Leningrad Oblast** (<sup>3</sup>Malysheva, 2018); **Novgorod Oblast** (<sup>3</sup>Malysheva, 2018); **Perm Krai** (<sup>1</sup>Perevedentseva, Shilkova, and Botalov, 2011; <sup>1</sup>Botalov, Perevedentseva, and Shishigin, 2020); **Pskov Oblast** (<sup>2</sup>Morozova et al., 2015; <sup>2</sup>Malysheva, 2018); **Samara Oblast** (<sup>1</sup>Malysheva and Malysheva, 2006; <sup>1</sup>Malysheva and Malysheva, 2007; <sup>1</sup>Malysheva and Malysheva, 2008); **Sverdlovsk Oblast** (<sup>2,3</sup>Malysheva, 2018; <sup>2,3</sup>Shiryayeva and Malysheva, 2018).

SIBERIA: **Altai Krai** (<sup>1</sup>Gorbunova and Perova, 2006; <sup>1</sup>Gorbunova, 2006); **Novosibirsk Oblast** (<sup>1</sup>Perova and Gorbunova, 2001; <sup>1</sup>Perova and Gorbunova, 2007).

***Conocybe dunensis* T.J. Wallace**

EASTERN EUROPE: **Ryazan Oblast** (Volosnova, 2005).

***Conocybe echinata* (Velen.) Singer<sup>1</sup>**

= *Conocybe sordida* Kühner & Watling<sup>2</sup>

EASTERN EUROPE: **Leningrad Oblast** (<sup>2</sup>Popov et al., 2007; <sup>1</sup>Malysheva, 2018); **Novgorod Oblast** (<sup>2</sup>Kovalenko, Morozova, Nezdoyminogo, and Popov, 2005; <sup>1</sup>Malysheva, Malysheva, and Zmitrovich, 2007; <sup>2</sup>Popov et al., 2013; <sup>1</sup>Malysheva, 2018); **Orenburg Oblast** (<sup>1</sup>Desyatova, 2007 [as *Conocybe rickeniana* P.D. Orton, redet. in Malysheva, 2018]; <sup>1</sup>Malysheva, 2018); **Pskov Oblast** (<sup>2</sup>Kovalenko and Morozova, 1999b; <sup>1</sup>Malysheva, 2018); **Rostov Oblast** (<sup>1</sup>Morozova et al., 2008; <sup>1</sup>Malysheva, 2018); **Saint Petersburg** (<sup>2</sup>Kotkova, Morozova, and Popov, 2005; <sup>1</sup>Malysheva, 2018); **Samara Oblast** (<sup>2</sup>Malysheva and Malysheva, 2004; <sup>1</sup>Malysheva and Malysheva, 2008; <sup>1</sup>Malysheva, 2018); **Sverdlovsk Oblast** (<sup>1</sup>Malysheva, 2018; <sup>1</sup>Shiryayeva and Malysheva, 2018); **Arid territories** (<sup>1</sup>Rebriev, Rusanov, et al., 2012).

SIBERIA: **Altai Republic** (<sup>1</sup>Singer, 1945 [as *Conocybe albocinerea* Singer, redet. in Malysheva, 2018]; <sup>1</sup>Singer, 1950a [as *Conocybe albocinerea* Singer, redet. in Malysheva, 2018]; <sup>1</sup>Singer, 1950b [as *Conocybe albocinerea* Singer, redet. in Malysheva, 2018]; <sup>1</sup>Hausknecht, Kalamees, Knudsen, and Mukhin, 2009; <sup>1</sup>Malysheva, 2018); **Buryatia** (<sup>1</sup>Nezdoyminogo, 1973 [as *Conocybe brunneola* Kühner ex Kühner & Watling, redet. in Malysheva, 2018]; <sup>1</sup>Petrov, 2013; <sup>1</sup>Malysheva, 2018); **Tomsk Oblast** (<sup>1</sup>Kudashova, Gashkov, and Kutafjeva, 2013).

***Conocybe enderlei* Hauskn.<sup>1</sup>**

≡ *Conocybe enderlei* var. *enderlei* Hauskn.<sup>2</sup> = *Conocybe enderlei* var. *variispora* Hauskn.<sup>3</sup>

EASTERN EUROPE: **Leningrad Oblast** (<sup>3</sup>Malysheva, 2018); **Penza Oblast** (<sup>3</sup>Malysheva, 2018); **Pskov Oblast** (<sup>1</sup>Morozova et al., 2015; <sup>2</sup>Malysheva, 2018); **Sverdlovsk Oblast** (<sup>2</sup>Malysheva, 2018; <sup>2</sup>Shiryayeva and Malysheva, 2018).

***Conocybe farinacea* Watling**

EASTERN EUROPE: **Novgorod Oblast** (Malysheva, Malysheva, and Zmitrovich, 2006; Malysheva, Malysheva, and Zmitrovich, 2007; Malysheva, 2018).

***Conocybe fuscimarginata* (Murrill) Singer**

EASTERN EUROPE: **Karachay-Cherkess Republic** (Malysheva, 2011a; Malysheva, 2018); **Leningrad Oblast** (Malysheva, 2018); **Moscow Oblast** (Levitskaya, 1995c [as *Conocybe antipus* (Lasch) Fayod, redet. in Malysheva, 2018]; Levitskaya, 2013 [as *Conocybe antipus* (Lasch) Fayod, redet. in Malysheva, 2018]; Malysheva, 2018); **Ryazan Oblast** (Malysheva, 2018); **Sverdlovsk Oblast** (Marina, 2006 [as *Conocybe lactea* (J.E. Lange) Métrod, redet. in Shiryayeva and Malysheva, 2018]; Malysheva, 2018; Shiryayeva and Malysheva, 2018); **Arid territories** (Rebriev, Rusanov, et al., 2012).

***Conocybe gigasperma* Enderle & Hauskn.**

EASTERN EUROPE: **Ryazan Oblast** (Malysheva and Volosnova, 2008; Volosnova, 2014; Malysheva, 2018).

SIBERIA: **Khakassia** (Hausknecht, Kalamees, Knudsen, and Mukhin, 2009; Malysheva, 2018); **Krasnoyarsk Krai** (Malysheva, 2018); **Novosibirsk Oblast** (Malysheva, 2018); **Sakha Republic** (Hausknecht, Kalamees, Knudsen, and Mukhin, 2009; Malysheva, 2018).

***Conocybe graminis* Hauskn.**

SIBERIA: **Sakha Republic** (Hausknecht, Kalamees, Knudsen, and Mukhin, 2009; Malysheva, 2018).

***Conocybe haglundii* Hauskn.**

EASTERN EUROPE: **Leningrad Oblast** (Malysheva, 2018); **Orenburg Oblast** (Desyatova, 2007 [as *Conocybe spiculoides* Kühner & Watling, redet. in Malysheva, 2018]; Desyatova, 2008 [as *Conocybe spiculoides* Kühner & Watling, redet. in Malysheva, 2018]; Malysheva, 2018).

***Conocybe halophila* Singer**

EASTERN EUROPE: **Krasnodar Krai** (Malysheva, 2018).

***Conocybe hausknechtii* E.F. Malysheva**

EASTERN EUROPE: **Karachay-Cherkess Republic** (Malysheva, 2013; Malysheva, 2018).

FAR EAST: **Primorsky Krai** (Malysheva, 2018).

***Conocybe herbarum* Hauskn.**

EASTERN EUROPE: **Orenburg Oblast** (Malysheva, 2018); **Volgograd Oblast** (Rebriev, Popov, Pridyuk, and Svetasheva, 2014; Svetasheva, Popov, Rebriev, and Pridyuk, 2014; Svetasheva, 2015).

***Conocybe hexagonospora* Métrod ex Hauskn. & Enderle**

EASTERN EUROPE: **Karachay-Cherkess Republic** (Malysheva, 2011a; Malysheva, 2018); **Karelia** (Malysheva, 2018); **Sverdlovsk Oblast** (Malysheva, 2018; Shiryaeva and Malysheva, 2018); **Yamalo-Nenets Autonomous Okrug** (Malysheva, 2018).

FAR EAST: **Primorsky Krai** (Malysheva, 2018).

***Conocybe hornana* Singer & Hauskn.**

EASTERN EUROPE: **Novgorod Oblast** (Malysheva, 2018); **Ryazan Oblast** (Malysheva, 2018).

***Conocybe incarnata* (Jul. Schäff.) Hauskn. & Arnolds**

FAR EAST: **Khabarovsk Krai** (Bulakh, 2008; Bau, Bulakh, and Govorova, 2011); **Primorsky Krai** (Bulakh, 2008).

***Conocybe incerta* E.F. Malysheva**

SIBERIA: **Krasnoyarsk Krai** (Malysheva, 2017; Malysheva, Malysheva, Kiyashko, et al., 2017; Malysheva, 2018).

***Conocybe inocybeoides* Watling**

EASTERN EUROPE: **Penza Oblast** (Ivanov and Nezdoyminogo, 1990); **Yaroslavl Oblast** (Lazareva, 1998a; Lazareva, 1998b).

***Conocybe intrusa* (Peck) Singer**

FAR EAST: **Primorsky Krai** (Bulakh, 2008; Malysheva, 2018).

***Conocybe juniana* (Velen.) Hauskn. & Svrček<sup>1</sup>**

≡ *Conocybe juniana* var. *juniana* (Velen.) Hauskn. & Svrček<sup>2</sup> = *Conocybe juniana* var. *subsejuncta* Hauskn.<sup>3</sup>

EASTERN EUROPE: **Adygea** (<sup>1</sup>Kiyashko, 2009; <sup>1</sup>Malysheva, 2011a; <sup>1</sup>Malysheva, 2018); **Karachay-Cherkess Republic** (<sup>1</sup>Malysheva, 2011a; <sup>1</sup>Malysheva, 2018); **Karelia** (<sup>1</sup>Malysheva, 2018); **Krasnodar Krai** (<sup>1</sup>Kiyashko, 2009; <sup>1</sup>Malysheva, 2011a; <sup>1</sup>Malysheva, 2018); **Leningrad Oblast** (<sup>1</sup>Morozova, 2007; <sup>1</sup>Popov et al., 2007; <sup>1</sup>Malysheva, 2018); **Novgorod Oblast** (<sup>1</sup>Malysheva, Malysheva, and Zmitrovich, 2007; <sup>1</sup>Malysheva, 2018); **Pskov Oblast** (<sup>1</sup>Morozova et al., 2015; <sup>1</sup>Malysheva, 2018); **Rostov Oblast** (<sup>1</sup>Morozova et al., 2008; <sup>1</sup>Malysheva, 2018); **Ryazan Oblast** (<sup>1</sup>Malysheva and Volosnova, 2008; <sup>1</sup>Volosnova, 2014; <sup>1</sup>Malysheva, 2018); **Saint Petersburg** (<sup>1</sup>Kotkova, Morozova, and Popov, 2006; <sup>1</sup>Kotkova, Morozova, and Popov, 2007; <sup>1</sup>Malysheva, 2018); **Samara Oblast** (<sup>1</sup>Malysheva and Malysheva, 2007; <sup>1</sup>Malysheva and Malysheva, 2008; <sup>1</sup>Malysheva, 2018); **Sverdlovsk Oblast** (<sup>1</sup>Malysheva, 2018; <sup>2,3</sup>Shiryaeva and Malysheva, 2018); **Tatarstan** (<sup>1</sup>Malysheva, 2018); **Arid territories** (<sup>1</sup>Rebriev, Rusanov, et al., 2012).

SIBERIA: **Altai Krai** (<sup>1</sup>Gorbunova, 2018a); **Altai Republic** (<sup>1</sup>Malysheva, 2018; <sup>1</sup>Gorbunova, 2019); **Irkutsk Oblast** (<sup>1</sup>Malysheva, 2018); **Krasnoyarsk Krai** (<sup>2</sup>Gorbunova, 2016).

FAR EAST: **Primorsky Krai** (<sup>1</sup>Malysheva, 2018).

***Conocybe leporina* (Velen.) Singer**

SIBERIA: **Sakha Republic** (Hausknecht, Kalamees, Knudsen, and Mukhin, 2009; Malysheva, 2018).

***Conocybe macrocephala* Kühner & Watling<sup>1</sup>**

≡ *Conocybe tenera* f. *macrocephala* Kühner<sup>2</sup>

EASTERN EUROPE: **Krasnodar Krai** (<sup>1</sup>Malysheva, 2011a; <sup>1</sup>Malysheva, 2018); **Leningrad Oblast** (<sup>2</sup>Chastukhin and Nikolaevskaya, 1969; <sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Popov et al., 2007; <sup>1</sup>Malysheva, 2018); **Penza Oblast** (<sup>1</sup>Ivanov and Nezdoininogo, 1990); **Rostov Oblast** (<sup>1</sup>Morozova et al., 2008; <sup>1</sup>Malysheva, 2018); **Ryazan Oblast** (<sup>1</sup>Malysheva and Volosnova, 2008; <sup>1</sup>Volosnova, 2014; <sup>1</sup>Malysheva, 2018); **Samara Oblast** (<sup>1</sup>Malysheva and Malysheva, 2008; <sup>1</sup>Malysheva, 2018); **Stavropol Krai** (<sup>1</sup>Malysheva, 2011a; <sup>1</sup>Malysheva, 2018); **Arid territories** (<sup>1</sup>Rebriev, Rusanov, et al., 2012).

SIBERIA: **Altai Republic** (<sup>1</sup>Malysheva, 2018); **Krasnoyarsk Krai** (<sup>1</sup>Malysheva, Malysheva, Kiyashko, et al., 2017; <sup>1</sup>Malysheva, 2018); **Novosibirsk Oblast** (<sup>1</sup>Koropachinskiy and Banaev, 2014).

FAR EAST: **Khabarovsk Krai** (<sup>1</sup>Azbukina et al., 1989).

***Conocybe macrospora* (G.F. Atk.) Hauskn.<sup>1</sup>**

= *Conocybe rubiginosa* Watling<sup>2</sup>

EASTERN EUROPE: **Karachay-Cherkess Republic** (<sup>1</sup>Malysheva, 2011a; <sup>1</sup>Malysheva, 2018); **Karelia** (<sup>1</sup>Malysheva, 2018); **Moscow Oblast** (<sup>1</sup>Malysheva, 2018); **Samara Oblast** (<sup>1</sup>Malysheva and Malysheva, 2008 [as *Conocybe pseudocrispa* (Hauskn.) Arnolds, redet. in Malysheva, 2018]; <sup>1</sup>Malysheva, 2018); **Stavropol Krai** (<sup>1</sup>Malysheva, 2011a); **Sverdlovsk Oblast** (<sup>1</sup>Malysheva, 2018; <sup>1</sup>Shiryayeva and Malysheva, 2018); **Udmurt Republic** (<sup>1</sup>Kapitonov, 2013); **Yamalo-Nenets Autonomous Okrug** (<sup>2</sup>Karatygin, Nezdoininogo, Novozhilov, and Zhurbenko, 1999).

SIBERIA: **Altai Republic** (<sup>1</sup>Malysheva, 2018); **Buryatia** (<sup>1</sup>Hausknecht, Kalamees, Knudsen, and Mukhin, 2009); **Khakassia** (<sup>1</sup>Zauzolkova, 2015; <sup>1</sup>Zauzolkova and Gorbunova, 2016); **Krasnoyarsk Krai** (<sup>2</sup>Kosheleva and Kutafjeva, 2008a; <sup>1</sup>Malysheva, 2018).

FAR EAST: **Khabarovsk Krai** (<sup>1</sup>Malysheva, 2018).

***Conocybe magnispora* (Murrill) Singer**

FAR EAST: **Khabarovsk Krai** (Hausknecht, Kalamees, Knudsen, and Mukhin, 2009; Malysheva, 2018).

***Conocybe mandshurica* E.F. Malysheva**

FAR EAST: **Primorsky Krai** (Malysheva, 2012; Malysheva, 2018).

***Conocybe merdaria* Arnolds & Hauskn.**

EASTERN EUROPE: **Perm Krai** (Malysheva, 2018).

SIBERIA: **Khakassia** (Zauzolkova, 2015; Zauzolkova and Gorbunova, 2016); **Khanty-Mansi Autonomous Okrug** (Filippova and Bulyonkova, 2017a; Filippova and Bulyonkova, 2017b); **Krasnoyarsk Krai** (Malysheva, Malysheva, Kiyashko, et al., 2017; Malysheva, 2018).

***Conocybe mesospora* Kühner ex Watling<sup>1</sup>**

≡ *Conocybe mesospora* Kühner<sup>2</sup>

EASTERN EUROPE: **Karachay-Cherkess Republic** (<sup>1</sup>Malysheva, 2018); **Karelia** (<sup>1</sup>Malysheva, 2018); **Krasnodar Krai** (<sup>2</sup>Singer, 1950a; <sup>2</sup>Singer, 1950b); **Leningrad Oblast** (<sup>1</sup>Popov et al., 2007); **Moscow Oblast** (<sup>1</sup>Malysheva, 2018); **Novgorod Oblast** (<sup>1</sup>Kovalenko, Morozova, Nezdoininogo, and Popov, 2005; <sup>1</sup>Popov et al., 2013; <sup>1</sup>Malysheva, 2018); **Orenburg Oblast** (<sup>1</sup>Desyatova, 2007; <sup>1</sup>Desyatova, 2008; <sup>1</sup>Malysheva, 2018); **Rostov Oblast** (<sup>1</sup>Morozova et al., 2008; <sup>1</sup>Malysheva, 2018); **Saint Petersburg** (<sup>2</sup>Singer, 1950a; <sup>2</sup>Singer, 1950b; <sup>1</sup>Morozova and Kovalenko, 2000; <sup>1</sup>Kotkova, Morozova, and Popov, 2006; <sup>1</sup>Morozova, Kovalenko, Rebriev, and Malysheva, 2014; <sup>1</sup>Malysheva, 2018); **Samara Oblast** (<sup>1</sup>Malysheva and Malysheva, 2006; <sup>1</sup>Malysheva and Malysheva, 2008; <sup>1</sup>Malysheva, 2018); **Stavropol Krai** (<sup>1</sup>Malysheva, 2018); **Sverdlovsk Oblast** (<sup>1</sup>Marina, 2006); **Tatarstan** (<sup>2</sup>Singer, 1950b; <sup>1</sup>Vassiljeva, 1977); **Tula Oblast** (<sup>1</sup>Svetasheva, 2004; <sup>1</sup>Svetasheva, 2013); **Udmurt Republic** (<sup>1</sup>Kapitonov, 2013); **Ulyanovsk Oblast** (<sup>1</sup>Ilyukhin, 2010a); **Yaroslavl Oblast** (<sup>1</sup>Lazareva, 1998a; <sup>1</sup>Lazareva, 1998b); **Arid territories** (<sup>1</sup>Rebriev, Rusanov, et al., 2012).

SIBERIA: **Altai Republic** (<sup>2</sup>Singer, 1950a; <sup>2</sup>Singer, 1950b; <sup>1</sup>Gorbunova, 1996; <sup>1</sup>Gorbunova, 1997; <sup>1</sup>Gorbunova, 2001b; <sup>1</sup>Perova and Gorbunova, 2001; <sup>1</sup>Malysheva, 2018); **Khanty-Mansi Autonomous Okrug** (<sup>1</sup>Filippova, Bulyonkova, and Lapshina, 2015; <sup>1</sup>Filippova and Bulyonkova, 2017a; <sup>1</sup>Filippova and Bulyonkova, 2017b); **Krasnoyarsk Krai** (<sup>1</sup>Beglyanova, 1972a; <sup>1</sup>Nezdoininogo, 1982a; <sup>1</sup>Malysheva, 2018); **Kurgan Oblast** (<sup>1</sup>Malysheva, 2018); **Novosibirsk**



**Oblast** (<sup>1</sup>Perova and Gorbunova, 2001; <sup>1</sup>Perova and Gorbunova, 2007); **Tomsk Oblast** (<sup>1</sup>Agaphonova, Kutafjeva, and Gashkov, 2009b; <sup>1</sup>Kudashova, Gashkov, and Kutafjeva, 2013).

FAR EAST: **Khabarovsk Krai** (<sup>1</sup>Azbukina et al., 1986; <sup>1</sup>Bau, Bulakh, and Govorova, 2011); **Primorsky Krai** (<sup>1</sup>Vassiljeva, 1973; <sup>1</sup>Bunkina and Nazarova, 1978; <sup>1</sup>Azbukina et al., 2006; <sup>1</sup>Bau, Bulakh, and Govorova, 2011).

***Conocybe mexicana* (Murrill) Watling**

EASTERN EUROPE: **Leningrad Oblast** (Malysheva, 2018).

***Conocybe microspora* (Velen.) Dennis<sup>1</sup>**

≡ *Conocybe microspora* var. *microspora* (Velen.) Dennis<sup>2</sup> = *Conocybe brunneola* Kühner ex Kühner & Watling<sup>3</sup> = *Conocybe mesospora* var. *brunneola* Kühner<sup>4</sup> = *Conocybe microspora* var. *brunneola* (Kühner ex Kühner & Watling) Singer & Hauskn.<sup>5</sup>

EASTERN EUROPE: **Adygea** (<sup>5</sup>Malysheva, 2011a); **Crimea** (<sup>3</sup>Sarkina, 2011); **Krasnodar Krai** (<sup>4</sup>Vassiljeva, 1939; <sup>5</sup>Malysheva, 2018); **Novgorod Oblast** (<sup>2</sup>Malysheva, 2018); **Tula Oblast** (<sup>3</sup>Svetasheva, 2004; <sup>5</sup>Malysheva, 2018).

SIBERIA: **Buryatia** (<sup>3</sup>Petrov, 1991); **Khakassia** (<sup>2</sup>Gorbunova and Majnagasheva, 2013; <sup>1</sup>Zauzolkova, 2015); **Novosibirsk Oblast** (<sup>3</sup>Perova, 1977; <sup>3</sup>Perova and Gorbunova, 2001; <sup>3</sup>Gorbunova, 2006; <sup>3</sup>Perova and Gorbunova, 2007).

***Conocybe monikae* Hauskn.**

EASTERN EUROPE: **Tula Oblast** (Malysheva, 2018).

***Conocybe moseri* Watling<sup>1</sup>**

≡ *Conocybe moseri* var. *moseri* Watling<sup>2</sup> = *Conocybe moseri* var. *bisporigera* Hauskn. & Krisai<sup>3</sup> = *Conocybe moseri* var. *robustior* Hauskn. & H.-J. Hübner<sup>4</sup>

EASTERN EUROPE: **Bryansk Oblast** (<sup>3</sup>Malysheva, 2018); **Karachay-Cherkess Republic** (<sup>1</sup>Malysheva, 2011a; <sup>2,4</sup>Malysheva, 2018); **Leningrad Oblast** (<sup>2</sup>Malysheva, 2018); **Moscow Oblast** (<sup>2,3</sup>Malysheva, 2018); **Novgorod Oblast** (<sup>1</sup>Morozova, Popov, and Fedosova, 2014); **Pskov Oblast** (<sup>1</sup>Morozova et al., 2015; <sup>2</sup>Malysheva, 2018); **Ryazan Oblast** (<sup>1</sup>Malysheva and Volosnova, 2008; <sup>1</sup>Volosnova, 2014; <sup>2</sup>Malysheva, 2018); **Saint Petersburg** (<sup>2</sup>Malysheva, 2018); **Samara Oblast** (<sup>1</sup>Malysheva and Malysheva, 2006; <sup>1</sup>Malysheva and Malysheva, 2007; <sup>1</sup>Malysheva and Malysheva, 2008; <sup>2</sup>Malysheva, 2018); **Tatarstan** (<sup>1</sup>Singer, 1950a [as *Conocybe ochracea* (Kühner) Singer, redet. in redet. in Malysheva, 2018]; <sup>2</sup>Malysheva, 2018).

SIBERIA: **Altai Republic** (<sup>1</sup>Singer, 1950a [as *Conocybe ochracea* (Kühner) Singer, redet. in Malysheva, 2018]; <sup>2</sup>Malysheva, 2018); **Buryatia** (<sup>1</sup>Hausknecht, Kalamees, Knudsen, and Mukhin, 2009).

***Conocybe nigrodisca* Hauskn. & Krisai**

EASTERN EUROPE: **Volgograd Oblast** (Rebriev, Popov, Pridyuk, and Svetasheva, 2014; Svetasheva, Popov, Rebriev, and Pridyuk, 2014).

***Conocybe ochrostriata* Hauskn.<sup>1</sup>**

≡ *Conocybe ochrostriata* var. *ochrostriata* Hauskn.<sup>2</sup> = *Conocybe ochrostriata* var. *favrei* Hauskn.<sup>3</sup>

EASTERN EUROPE: **Adygea** (<sup>3</sup>Malysheva, 2011a; <sup>3</sup>Malysheva, 2018).

FAR EAST: **Kamchatka Krai** (<sup>1</sup>Hausknecht, Kalamees, Knudsen, and Mukhin, 2009; <sup>2</sup>Malysheva, 2018); **Primorsky Krai** (<sup>1</sup>Bulakh et al., 2016; <sup>2</sup>Malysheva, 2018).

***Conocybe olivaceopileata* E.F. Malysheva**

EASTERN EUROPE: **Stavropol Krai** (Malysheva, 2017; Malysheva, 2018).

***Conocybe pallidospora* Kühner & Watling**

EASTERN EUROPE: **Leningrad Oblast** (Malysheva, 2018); **Moscow Oblast** (Voronina et al., 2014; Malysheva, 2018); **Pskov Oblast** (Morozova et al., 2015; Malysheva, 2018).

SIBERIA: **Altai Republic** (Malysheva, 2018); **Irkutsk Oblast** (Gorbunova and Stepantsova, 2015); **Krasnoyarsk Krai** (Malysheva, Malysheva, Kiyashko, et al., 2017; Malysheva, 2018).

***Conocybe pilosella* (Pers.) Kühner**

EASTERN EUROPE: **Adygea** (Sopina, 2001a); **Crimea** (Dudka et al., 2004; Sarkina, 2011); **Moscow Oblast** (Malysheva, 2018); **Perm Krai** (Perevedentseva, 2008; Perevedentseva and Shishigin, 2014); **Samara Oblast**

(Malysheva and Malysheva, 2008; Malysheva, 2018); **Sverdlovsk Oblast** (Malysheva, 2018; Shiryaeva and Malysheva, 2018).

SIBERIA: **Krasnoyarsk Krai** (Gorbunova, 2016).

FAR EAST: **Khabarovsk Krai** (Azbukina et al., 1986); **Primorsky Krai** (Bulakh, 1977; Azbukina et al., 1984; Bau, Bulakh, and Govorova, 2011).

***Conocybe pinetorum* Watling, Esteve-Rav. & G. Moreno**

FAR EAST: **Khabarovsk Krai** (Malysheva, 2018).

***Conocybe praticola* E.F. Malysheva**

FAR EAST: **Primorsky Krai** (Malysheva, 2017; Malysheva, 2018).

***Conocybe pubescens* (Gillet) Kühner**

EASTERN EUROPE: **Adygea** (Vaasma, Kalamees, and Raitviir, 1986); **Belgorod Oblast** (Bedenko, 1980); **Komi Republic** (Palamarchuk, 2020b); **Krasnodar Krai** (Malysheva, 2018); **Moscow Oblast** (Levitskaya, 2013); **Murmansk Oblast** (Malysheva, 2018); **Novgorod Oblast** (Malysheva, 2018); **Penza Oblast** (Malysheva, 2018); **Perm Krai** (Perevedentseva, 2008); **Ryazan Oblast** (Malysheva and Volosnova, 2008; Volosnova, 2014; Malysheva, 2018); **Sverdlovsk Oblast** (Marina, 2006; Malysheva, 2018; Shiryaeva and Malysheva, 2018); **Yamalo-Nenets Autonomous Okrug** (Karatygin, Nezdoininogo, Novozhilov, and Zhurbenko, 1999; Malysheva, 2018).

SIBERIA: **Altai Republic** (Singer, 1950a; Gorbunova, 1997; Perova and Gorbunova, 2001; Malysheva, 2018); **Buryatia** (Nezdoininogo, 1973; Petrov, 1991; Malysheva, 2018); **Krasnoyarsk Krai** (Beglyanova, 1972a); **Novosibirsk Oblast** (Perova, 1977; Perova and Gorbunova, 2001); **Yamalo-Nenets Autonomous Okrug** (Tarchevskaya, 1990).

FAR EAST: **Khabarovsk Krai** (Bulakh, 2008; Bau, Bulakh, and Govorova, 2011); **Magadan Oblast** (Sazanova, 2009a); **Sakhalin Oblast** (Bulakh, 2008; Hausknecht, Kalamees, Knudsen, and Mukhin, 2009).

***Conocybe pulchella* (Velen.) Hauskn. & Svrček<sup>1</sup>**

= *Conocybe digitalina* (Velen.) Singer<sup>2</sup> = *Conocybe pseudopilosella* Kühner & Watling<sup>3</sup>

EASTERN EUROPE: **Bryansk Oblast** (<sup>1</sup>Malysheva, 2018); **Karachay-Cherkess Republic** (<sup>1</sup>Malysheva, 2011a; <sup>1</sup>Malysheva, 2018); **Karelia** (<sup>1</sup>Malysheva, 2018); **Komi Republic** (<sup>1</sup>Palamarchuk, 2011b; <sup>2</sup>Palamarchuk, 2012; <sup>1</sup>Palamarchuk, 2016a; <sup>1</sup>Palamarchuk, 2016b); **Leningrad Oblast** (<sup>1</sup>Malysheva, 2018); **Lipetsk Oblast** (<sup>1</sup>Sarycheva et al., 2009; <sup>1</sup>Sarycheva, 2011; <sup>1</sup>Sarycheva, 2016); **Moscow Oblast** (<sup>1</sup>Levitskaya, 1995c [as *Conocybe subovalis* Kühner & Watling, redet. in Malysheva, 2018]; <sup>3</sup>Levitskaya, 1995c; <sup>2</sup>Voronina et al., 2012; <sup>1</sup>Levitskaya, 2013 [as *Conocybe subovalis* Kühner & Watling, redet. in Malysheva, 2018]; <sup>3</sup>Levitskaya, 2013; <sup>1,2</sup>Voronina et al., 2014; <sup>3</sup>Voronina et al., 2014 [as *Conocybe tenera* (Schaeff.) Fayod, redet. in Malysheva, 2018]; <sup>1</sup>Malysheva, 2018); **Murmansk Oblast** (<sup>1</sup>Malysheva, 2018); **Novgorod Oblast** (<sup>1</sup>Malysheva, 2018); **Pskov Oblast** (<sup>1</sup>Kolmakov and Popov, 2005 [as *Conocybe semiglobata* Kühner & Watling, redet. in Malysheva, 2018]; <sup>1</sup>Morozova et al., 2015; <sup>1</sup>Malysheva, 2018); **Rostov Oblast** (<sup>2</sup>Morozova et al., 2008; <sup>1</sup>Malysheva, 2018); **Ryazan Oblast** (<sup>1</sup>Malysheva, 2018); **Saint Petersburg** (<sup>1</sup>Malysheva, 2018); **Samara Oblast** (<sup>1</sup>Malysheva, 2018); **Sverdlovsk Oblast** (<sup>1</sup>Shiryaeva and Malysheva, 2018); **Arid territories** (<sup>1,2</sup>Rebriev, Rusanov, et al., 2012).

SIBERIA: **Altai Republic** (<sup>3</sup>Gorbunova, 2001b; <sup>3</sup>Perova and Gorbunova, 2001; <sup>3</sup>Gorbunova, 2003; <sup>1</sup>Gorbunova, 2010; <sup>1</sup>Malysheva, 2018); **Novosibirsk Oblast** (<sup>3</sup>Perova, 1982; <sup>3</sup>Perova and Gorbunova, 2001; <sup>1</sup>Perova and Gorbunova, 2007; <sup>1</sup>Malysheva, 2018); **Yamalo-Nenets Autonomous Okrug** (<sup>1</sup>Hausknecht, Kalamees, Knudsen, and Mukhin, 2009; <sup>1</sup>Malysheva, 2018).

FAR EAST: **Kamchatka Krai** (<sup>1</sup>Malysheva, 2018); **Primorsky Krai** (<sup>1</sup>Malysheva, 2018).

***Conocybe pulchra* (Clem.) Kühner**

EASTERN EUROPE: **Novgorod Oblast** (Malysheva, 2018); **Pskov Oblast** (Morozova et al., 2015; Malysheva, 2018); **Sverdlovsk Oblast** (Malysheva, 2018; Shiryaeva and Malysheva, 2018).

FAR EAST: **Khabarovsk Krai** (Malysheva, 2018).

***Conocybe rickeniana* P.D. Orton<sup>1</sup>**

= *Conocybe spicula* (Lasch) Kühner<sup>2</sup>

EASTERN EUROPE: **Crimea** (<sup>1</sup>Dudka et al., 2004; <sup>1</sup>Sarkina, 2011); **Kaluga Oblast** (<sup>1</sup>Malysheva, 2018); **Karachay-Cherkess Republic** (<sup>1</sup>Kalamees and Botashev, 2000; <sup>1</sup>Malysheva, 2011a; <sup>1</sup>Malysheva, 2018); **Komi Republic** (<sup>1</sup>Palamarchuk, 2012); **Leningrad Oblast** (<sup>1</sup>Malysheva, 2018); **Lipetsk Oblast** (<sup>1</sup>Alferova, 1977; <sup>1</sup>Sarycheva, 1999);

<sup>1</sup>Sarycheva et al., 2009; <sup>1</sup>Sarycheva, 2011; <sup>1</sup>Sarycheva, 2014a; <sup>1</sup>Sarycheva, 2016); **Moscow Oblast** (<sup>1</sup>Levitskaya, 1995a; <sup>1</sup>Levitskaya, 2013; <sup>1</sup>Malysheva, 2018); **Murmansk Oblast** (<sup>1</sup>Malysheva, 2018); **Novgorod Oblast** (<sup>1</sup>Kovalenko, Morozova, Nezdojminogo, and Popov, 2005; <sup>1</sup>Popov et al., 2013; <sup>1</sup>Malysheva, 2018); **Orenburg Oblast** (<sup>1</sup>Desyatova, 2008); **Perm Krai** (<sup>1</sup>Malysheva, 2018); **Rostov Oblast** (<sup>1</sup>Malysheva, 2018); **Saint Petersburg** (<sup>2</sup>Singer, 1950a; <sup>1</sup>Morozova, Kovalenko, Rebriev, and Malysheva, 2014; <sup>1</sup>Malysheva, 2018); **Samara Oblast** (<sup>1</sup>Malysheva and Malysheva, 2004; <sup>1</sup>Malysheva and Malysheva, 2008; <sup>1</sup>Malysheva, 2018); **Sevastopol** (<sup>1</sup>Sarkina, 2016b); **Sverdlovsk Oblast** (<sup>1</sup>Marina, 2006; <sup>1</sup>Marina, 2006 [as *Conocybe siennophylla* (Berk. & Broome) Singer, redet. in Shiryaeva and Malysheva, 2018]; <sup>1</sup>Malysheva, 2018; <sup>1</sup>Shiryaeva and Malysheva, 2018); **Tatarstan** (<sup>1</sup>Vassiljeva, 1977; <sup>1</sup>Malysheva, 2018); **Tula Oblast** (<sup>1</sup>Svetasheva, 2004; <sup>1</sup>Malysheva, 2018); **Tver Oblast** (<sup>1</sup>Morozova, Aleksandrova, Popov, and Malysheva, 2016); **Ulyanovsk Oblast** (<sup>1</sup>Ilyukhin, 2010a; <sup>1</sup>Ilyukhin, 2010b; <sup>1</sup>Malysheva, 2018); **Vologda Oblast** (<sup>1</sup>Malysheva, 2018); **Yaroslavl Oblast** (<sup>1</sup>Lazareva, 1998a; <sup>1</sup>Lazareva, 1998b).

SIBERIA: **Altai Krai** (<sup>1</sup>Gorbunova, 2018a); **Altai Republic** (<sup>1</sup>Gorbunova, 2010); **Buryatia** (<sup>1</sup>Malysheva, 2018); **Irkutsk Oblast** (<sup>1</sup>Petrov, 1991; <sup>1</sup>Petrov, 2008); **Khakassia** (<sup>1</sup>Zauzolkova, 2015; <sup>1</sup>Zauzolkova and Gorbunova, 2016); **Krasnoyarsk Krai** (<sup>1</sup>Nezdojminogo, 1982a [as *Conocybe spiculoides* Kühner & Watling, redet. in Malysheva, 2018]; <sup>1</sup>Malysheva, 2018); **Novosibirsk Oblast** (<sup>1</sup>Koropachinskiy and Banaev, 2014).

FAR EAST: **Amur Oblast** (<sup>2</sup>Nazarova, 1986); **Khabarovsk Krai** (<sup>1</sup>Azbukina et al., 1986; <sup>1</sup>Bau, Bulakh, and Govorova, 2011); **Primorsky Krai** (<sup>1</sup>Azbukina et al., 2006; <sup>1</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Malysheva, 2018).

### *Conocybe rickenii* (Jul. Schäff.) Kühner

EASTERN EUROPE: **Komi Republic** (Palamarchuk (Bobretsova), 2009; Palamarchuk, 2012); **Krasnodar Krai** (Kovalenko, 1980a; Kovalenko, 1980b); **Murmansk Oblast** (Mikhailovskii, 1975b; Malysheva, 2018); **Perm Krai** (Perevedentseva, 2008); **Pskov Oblast** (Popov et al., 2013); **Rostov Oblast** (Shiryaev, Rebriev, and Knudsen, 2017; Malysheva, 2018; Rebriev, 2018); **Ryazan Oblast** (Volosnova, 2005); **Tatarstan** (Malysheva, 2018); **Yaroslavl Oblast** (Lazareva, 1998a; Lazareva, 1998b).

SIBERIA: **Altai Republic** (Gorbunova, 2001b; Perova and Gorbunova, 2001; Gorbunova, 2003; Gorbunova, 2006; Gorbunova, 2010); **Buryatia** (Malysheva, 2018); **Novosibirsk Oblast** (Gorbunova, 2006); **Tomsk Oblast** (Milovidova, 1980; Kudashova, Gashkov, and Kutafjeva, 2013).

### *Conocybe rostellata* (Velen.) Hauskn. & Svrček

EASTERN EUROPE: **Karachay-Cherkess Republic** (Malysheva, 2011a; Malysheva, 2018); **Leningrad Oblast** (Malysheva, 2018); **Novgorod Oblast** (Malysheva, 2018); **Perm Krai** (Malysheva, 2018); **Pskov Oblast** (Morozova et al., 2015; Malysheva, 2018); **Saint Petersburg** (Malysheva, 2018); **Vologda Oblast** (Malysheva, 2018).

SIBERIA: **Altai Republic** (Singer, 1950a [as *Conocybe ochracea* (Kühner) Singer, redet. in Malysheva, 2018]; Singer, 1950b [as *Conocybe plumbeitincta* f. *ochracea* (Kühner) Singer, redet. in Malysheva, 2018]; Malysheva, 2018).

FAR EAST: **Khabarovsk Krai** (Hausknecht, Kalamees, Knudsen, and Mukhin, 2009); **Primorsky Krai** (Malysheva, 2018).

### *Conocybe rugispora* E.F. Malysheva

FAR EAST: **Primorsky Krai** (Malysheva, 2012; Malysheva, 2018).

### *Conocybe semiglobata* Kühner & Watling<sup>1</sup>

≡ *Conocybe semiglobata* var. *semiglobata* Kühner & Watling<sup>2</sup> = *Conocybe semiglobata* var. *campanulata* Hauskn.<sup>3</sup>

EASTERN EUROPE: **Adygea** (<sup>1</sup>Malysheva, 2011a; <sup>2</sup>Malysheva, 2018); **Kaliningrad Oblast** (<sup>1</sup>Atayev and Volodina, 2020); **Karachay-Cherkess Republic** (<sup>1</sup>Malysheva, 2011a; <sup>2</sup>Malysheva, 2018); **Komi Republic** (<sup>1</sup>Palamarchuk, 2011b; <sup>1</sup>Palamarchuk, 2016a; <sup>1</sup>Palamarchuk, 2016b); **Leningrad Oblast** (<sup>2,3</sup>Malysheva, 2018); **Moscow Oblast** (<sup>1</sup>Levitskaya, 1998; <sup>1</sup>Levitskaya, 2013; <sup>2,3</sup>Malysheva, 2018); **Novgorod Oblast** (<sup>1</sup>Kovalenko, Morozova, Nezdojminogo, and Popov, 2005; <sup>1</sup>Popov et al., 2013; <sup>2</sup>Malysheva, 2018); **Penza Oblast** (<sup>1</sup>Ivanov and Nezdojminogo, 1990); **Pskov Oblast** (<sup>1</sup>Kolmakov and Popov, 2005; <sup>1</sup>Popov et al., 2013; <sup>1</sup>Morozova et al., 2015; <sup>2</sup>Malysheva, 2018); **Rostov Oblast** (<sup>1</sup>Morozova et al., 2008; <sup>2</sup>Malysheva, 2018); **Ryazan Oblast** (<sup>1</sup>Malysheva and Volosnova, 2008; <sup>1</sup>Volosnova, 2014; <sup>2</sup>Malysheva, 2018); **Samara Oblast** (<sup>1</sup>Malysheva and Malysheva, 2007; <sup>1</sup>Malysheva and Malysheva, 2008; <sup>2,3</sup>Malysheva, 2018); **Stavropol Krai** (<sup>2,3</sup>Malysheva, 2018); **Sverdlovsk Oblast** (<sup>1</sup>Marina, 2006; <sup>2</sup>Malysheva, 2018; <sup>2</sup>Shiryaeva and Malysheva, 2018); **Tver Oblast** (<sup>3</sup>Morozova, Aleksandrova, Popov, and Malysheva, 2016); **Ulyanovsk Oblast** (<sup>1</sup>Ilyukhin, 2010a; <sup>1</sup>Ilyukhin, 2010b; <sup>2</sup>Malysheva, 2018); **Volgograd Oblast** (<sup>2</sup>Malysheva, 2018); **Vologda Oblast** (<sup>1</sup>Kirillova, 2006; <sup>1</sup>Kirillova, 2007); **Yaroslavl Oblast** (<sup>1</sup>Lazareva, 1998a; <sup>1</sup>Lazareva, 1998b); **Arid territories** (<sup>1</sup>Rebriev, Rusanov, et al., 2012).

SIBERIA: **Altai Republic** (<sup>1</sup>Gorbunova, 2019); **Buryatia** (<sup>3</sup>Malysheva, 2018); **Khanty-Mansi Autonomous Okrug** (<sup>1</sup>Filippova, Bulyonkova, and Lapshina, 2015; <sup>1</sup>Filippova and Bulyonkova, 2017a; <sup>1</sup>Filippova and Bulyonkova, 2017b); **Krasnoyarsk Krai** (<sup>1</sup>Karatygin, Nezdoininogo, Novozhilov, and Zhurbenko, 1999; <sup>2</sup>Hausknecht, Kalamees, Knudsen, and Mukhin, 2009; <sup>2</sup>Malysheva, 2018); **Novosibirsk Oblast** (<sup>2</sup>Malysheva, 2018); **Tomsk Oblast** (<sup>1</sup>Agaphonova, Kutafjeva, and Gashkov, 2009b; <sup>1</sup>Kudashova, Gashkov, and Kutafjeva, 2013).

FAR EAST: **Kamchatka Krai** (<sup>3</sup>Hausknecht, Kalamees, Knudsen, and Mukhin, 2009; <sup>3</sup>Malysheva, 2018); **Khabarovsk Krai** (<sup>1</sup>Bau, Bulakh, and Govorova, 2011); **Primorsky Krai** (<sup>1</sup>Bulakh, 1977; <sup>1</sup>Azbukina et al., 1984; <sup>1</sup>Bau, Bulakh, and Govorova, 2011; <sup>3</sup>Malysheva, 2018).

### ***Conocybe siennophylla* (Berk. & Broome) Singer ex Chiari & Papetti**

≡ *Conocybe siennophylla* (Berk. & Broome) Singer<sup>1</sup> = *Conocybe ochracea* f. *alpina* J. Favre<sup>2</sup>

EASTERN EUROPE: **Karachay-Cherkess Republic** (<sup>1</sup>Malysheva, 2011a; <sup>1</sup>Malysheva, 2018); **Leningrad Oblast** (<sup>1</sup>Malysheva, 2018); **Moscow Oblast** (<sup>1</sup>Voronina et al., 2014; <sup>1</sup>Malysheva, 2018); **Novgorod Oblast** (<sup>1</sup>Kovalenko, Morozova, Nezdoininogo, and Popov, 2005; <sup>1</sup>Popov et al., 2013; <sup>1</sup>Malysheva, 2018); **Perm Krai** (<sup>1</sup>Perevedentseva, 2008); **Sevastopol** (<sup>1</sup>Sarkina, 2016b); **Tatarstan** (<sup>1</sup>Vassiljeva, 1977); **Yaroslavl Oblast** (<sup>1</sup>Lazareva, 1998a; <sup>1</sup>Lazareva, 1998b).

SIBERIA: **Altai Republic** (<sup>1</sup>Gorbunova, 2003; <sup>1</sup>Gorbunova, 2006; <sup>1</sup>Gorbunova, 2010); **Krasnoyarsk Krai** (<sup>2</sup>Vassilkov, 1971b; <sup>1</sup>Karatygin, Nezdoininogo, Novozhilov, and Zhurbenko, 1999).

FAR EAST: **Khabarovsk Krai** (<sup>1</sup>Azbukina et al., 1986; <sup>1</sup>Azbukina et al., 1989; <sup>1</sup>Bau, Bulakh, and Govorova, 2011); **Primorsky Krai** (<sup>1</sup>Bulakh, 1977; <sup>1</sup>Azbukina et al., 1984; <sup>1</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Bulakh et al., 2016; <sup>1</sup>Malysheva, 2018).

### ***Conocybe siliginea* (Fr.) Kühner<sup>1</sup>**

≡ *Conocybe siliginea* f. *siliginea* (Fr.) Kühner<sup>2</sup> ≡ *Galera siliginea* (Fr.) Quél.<sup>3</sup>

EASTERN EUROPE: **Belgorod Oblast** (<sup>1</sup>Bedenko, 1980); **Karachay-Cherkess Republic** (<sup>1</sup>Malysheva, 2011a; <sup>1</sup>Malysheva, 2018); **Leningrad Oblast** (<sup>3</sup>Thesleff, 1920; <sup>1</sup>Singer, 1950a); **Moscow Oblast** (<sup>1</sup>Malysheva, 2018); **Novgorod Oblast** (<sup>1</sup>Kovalenko, Morozova, Nezdoininogo, and Popov, 2005; <sup>1</sup>Popov et al., 2013; <sup>1</sup>Malysheva, 2018); **Penza Oblast** (<sup>1</sup>Ivanov, 1982); **Rostov Oblast** (<sup>2</sup>Morozova et al., 2008; <sup>1</sup>Malysheva, 2018; <sup>1</sup>Rebriev, 2018); **Ryazan Oblast** (<sup>2</sup>Malysheva and Volosnova, 2008; <sup>2</sup>Volosnova, 2014; <sup>1</sup>Malysheva, 2018); **Samara Oblast** (<sup>2</sup>Malysheva and Malysheva, 2008; <sup>1</sup>Malysheva, 2018); **Stavropol Krai** (<sup>1</sup>Malysheva, 2018); **Sverdlovsk Oblast** (<sup>1</sup>Malysheva, 2018; <sup>1</sup>Shiryayeva and Malysheva, 2018); **Tatarstan** (<sup>1</sup>Singer, 1950b; <sup>1</sup>Vassiljeva, 1977); **Yamalo-Nenets Autonomous Okrug** (<sup>1</sup>Hausknecht, Kalamees, Knudsen, and Mukhin, 2009); **Arid territories** (<sup>1</sup>Rebriev, Rusanov, et al., 2012).

SIBERIA: **Altai Republic** (<sup>1</sup>Gorbunova, 2001b; <sup>1</sup>Perova and Gorbunova, 2001; <sup>1</sup>Malysheva, 2018); **Irkutsk Oblast** (<sup>1</sup>Petrov, 1991; <sup>1</sup>Petrov, 2008; <sup>1</sup>Hausknecht, Kalamees, Knudsen, and Mukhin, 2009; <sup>1</sup>Malysheva, 2018); **Kemerovo Oblast** (<sup>1</sup>Perova and Gorbunova, 2001); **Krasnoyarsk Krai** (<sup>1</sup>Beglyanova, 1972a; <sup>1</sup>Kosheleva and Kutafjeva, 2008a); **Kurgan Oblast** (<sup>1</sup>Malysheva, 2018); **Novosibirsk Oblast** (<sup>1</sup>Perova, 1977; <sup>1</sup>Perova and Gorbunova, 2001; <sup>1</sup>Perova and Gorbunova, 2007); **Zabaykalsky Krai** (<sup>3</sup>Karsten, 1911).

FAR EAST: **Amur Oblast** (<sup>1</sup>Kochunova, 2019); **Kamchatka Krai** (<sup>1</sup>Hausknecht, Kalamees, Knudsen, and Mukhin, 2009); **Khabarovsk Krai** (<sup>1</sup>Azbukina et al., 1986; <sup>1</sup>Azbukina et al., 1989; <sup>1</sup>Malysheva, 2018); **Primorsky Krai** (<sup>1</sup>Vassiljeva, 1972; <sup>1</sup>Vassiljeva, 1973; <sup>1</sup>Bunkina and Nazarova, 1978; <sup>1</sup>Azbukina et al., 2006; <sup>1</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Malysheva, 2018); **Sakhalin Oblast** (<sup>1</sup>Vassiljeva and Nazarova, 1972).

### ***Conocybe singeriana* Hauskn.**

EASTERN EUROPE: **Karachay-Cherkess Republic** (Malysheva, 2018); **Novgorod Oblast** (Malysheva, 2018); **Pskov Oblast** (Kolmakov and Popov, 2005 [as *Conocybe kuehneriana* Singer, redet. in Malysheva, 2018]; Popov et al., 2013 [as *Conocybe velutipes* (Velen.) Hauskn. & Svrček, redet. in Malysheva, 2018]; Malysheva, 2018); **Saint Petersburg** (Malysheva, 2018); **Samara Oblast** (Malysheva, 2018); **Sverdlovsk Oblast** (Malysheva, 2018; Shiryayeva and Malysheva, 2018); **Udmurt Republic** (Kapitonov, 2013).

SIBERIA: **Irkutsk Oblast** (Malysheva, 2018).

FAR EAST: **Khabarovsk Krai** (Malysheva, 2018).

### ***Conocybe spiculoides* Kühner & Watling**

EASTERN EUROPE: **Yaroslavl Oblast** (Lazareva, 1998a; Lazareva, 1998b).

***Conocybe subalpina* (Singer) Singer & Hauskn.<sup>1</sup>**≡ *Conocybe subpallida* var. *subalpina* (Singer) Arnolds<sup>2</sup>EASTERN EUROPE: **Karachay-Cherkess Republic** (<sup>1</sup>Malysheva, 2011a; <sup>1</sup>Malysheva, 2018); **Leningrad Oblast** (<sup>1</sup>Malysheva, 2018); **Ryazan Oblast** (<sup>1</sup>Malysheva, 2018); **Samara Oblast** (<sup>2</sup>Malysheva and Malysheva, 2008; <sup>1</sup>Malysheva, 2018).***Conocybe subovalis* Kühner & Watling**EASTERN EUROPE: **Leningrad Oblast** (Morozova, 2002 [as *Conocybe kuehneriana* Singer, redet. in Malysheva, 2018]; Malysheva, 2018); **Murmansk Oblast** (Malysheva, 2018); **Novgorod Oblast** (Malysheva, 2018); **Penza Oblast** (Ivanov, 1982); **Perm Krai** (Perevedentseva, 2008); **Saint Petersburg** (Malysheva, 2018); **Vologda Oblast** (Malysheva, 2018).SIBERIA: **Irkutsk Oblast** (Petrov, 1986; Petrov, 1991; Petrov, 2008); **Novosibirsk Oblast** (Koropachinskiy and Banaev, 2014).FAR EAST: **Kamchatka Krai** (Kalamees and Vaasma, 1981); **Primorsky Krai** (Azbukina et al., 1990 [as *Conocybe siennophylla* (Berk. & Broome) Singer, redet. in Bardunov et al., 2002]; Bardunov et al., 2002; Bau, Bulakh, and Govorova, 2011).***Conocybe subpallida* Enderle<sup>1</sup>**≡ *Conocybe subpallida* var. *subpallida* Enderle<sup>2</sup>EASTERN EUROPE: **Pskov Oblast** (<sup>1</sup>Malysheva, 2018); **Rostov Oblast** (<sup>2</sup>Morozova et al., 2008; <sup>1</sup>Malysheva, 2018); **Ryazan Oblast** (<sup>2</sup>Malysheva and Volosnova, 2008; <sup>2</sup>Volosnova, 2014); **Arid territories** (<sup>2</sup>Rebriev, Rusanov, et al., 2012).***Conocybe subpubescens* P.D. Orton**EASTERN EUROPE: **Karachay-Cherkess Republic** (Malysheva, 2018); **Leningrad Oblast** (Malysheva, 2018); **Moscow Oblast** (Malysheva, 2018); **Novgorod Oblast** (Kovalenko, Morozova, Nezdoininogo, and Popov, 2005 [as *Conocybe subovalis* Kühner & Watling, redet. in Malysheva, 2018]; Popov et al., 2013 [as *Conocybe subovalis* Kühner & Watling, redet. in Malysheva, 2018]; Malysheva, 2018); **Penza Oblast** (Ivanov, 1989); **Samara Oblast** (Malysheva, 2018); **Sverdlovsk Oblast** (Malysheva, 2018; Shiryaeva and Malysheva, 2018); **Vologda Oblast** (Malysheva, 2018).SIBERIA: **Novosibirsk Oblast** (Malysheva, 2018).FAR EAST: **Khabarovsk Krai** (Hausknecht, Kalamees, Knudsen, and Mukhin, 2009; Malysheva, 2018); **Primorsky Krai** (Bulakh et al., 2016; Malysheva, 2018).***Conocybe subxerophytica* Singer & Hauskn.<sup>1</sup>**≡ *Conocybe subxerophytica* var. *subxerophytica* Singer & Hauskn.<sup>2</sup>EASTERN EUROPE: **Leningrad Oblast** (<sup>1</sup>Malysheva, 2018); **Rostov Oblast** (<sup>1</sup>Shiryaev, Rebriev, and Knudsen, 2017; <sup>1</sup>Rebriev, 2018); **Samara Oblast** (<sup>1</sup>Malysheva and Malysheva, 2007; <sup>1</sup>Malysheva and Malysheva, 2008; <sup>1</sup>Malysheva, 2018); **Stavropol Krai** (<sup>1</sup>Malysheva, 2018).SIBERIA: **Khakassia** (<sup>2</sup>Hausknecht, Kalamees, Knudsen, and Mukhin, 2009; <sup>1</sup>Malysheva, 2018).***Conocybe tenera* (Schaeff.) Kühner<sup>1</sup>**≡ *Agaricus tener* Schaeff.<sup>2</sup> ≡ *Conocybe tenera* (Schaeff.) Fayod<sup>3</sup> ≡ *Derminus tener* (Schaeff.) J. Schröt.<sup>4</sup> ≡ *Galera tenera* (Schaeff.) P. Kumm.<sup>5</sup>EASTERN EUROPE: **Belgorod Oblast** (<sup>1</sup>Bedenko, 1980); **Chelyabinsk Oblast** (<sup>5</sup>Aleksandrovskaya and Lobanova, 1968); **Crimea** (<sup>1</sup>Dudka et al., 2004; <sup>1</sup>Sarkina, 2011); **Kaliningrad Oblast** (<sup>3</sup>Volodina, 2007); **Kaluga Oblast** (<sup>3</sup>Sionova, 2012); **Karelia** (<sup>3</sup>Freindling, 1949; <sup>3</sup>Bondartseva et al., 2001; <sup>3</sup>Krutov et al., 2014); **Kirov Oblast** (<sup>3</sup>Kirillov and Luginina, 2011; <sup>3</sup>Kirillov, 2011; <sup>3</sup>Kirillov, Perevedentseva, and Egoshina, 2011; <sup>3</sup>Stavishenko, Luginina, Kirillov, and Egoshina, 2019); **Komi Republic** (<sup>3</sup>Palamarchuk, 2012; <sup>3</sup>Palamarchuk and Kirillov, 2017); **Leningrad Oblast** (<sup>5</sup>Thesleff, 1920; <sup>1</sup>Nezdoininogo, 1967; <sup>3</sup>Kovalenko and Morozova, 1999a; <sup>3</sup>Morozova, 2007; <sup>3</sup>Popov et al., 2007; <sup>3</sup>Malysheva, 2018); **Lipetsk Oblast** (<sup>3</sup>Sarycheva et al., 2009; <sup>3</sup>Sarycheva, 2011; <sup>3</sup>Sarycheva, 2014a; <sup>3</sup>Sarycheva, 2016); **Mordovia** (<sup>5</sup>Chastukhin, 1948a); **Moscow** (<sup>4</sup>Bucholtz, 1897b; <sup>4</sup>Bucholtz, 1897c; <sup>4</sup>Mosolov, 1906; <sup>1</sup>Burova, 1968); **Moscow Oblast** (<sup>1</sup>Gorlenko, Sidorova, and Sidorova, 1989; <sup>3</sup>Levitskaya, 1995a; <sup>3</sup>Levitskaya, 2013; <sup>3</sup>Malysheva, 2018); **Murmansk Oblast** (<sup>2</sup>Karsten, 1876); **Nizhny Novgorod Oblast** (<sup>4</sup>Murashkinsky, 1911); **Novgorod Oblast** (<sup>1</sup>Kovalenko and Morozova, 1999b; <sup>3</sup>Kovalenko, Morozova, Nezdoininogo, and Popov, 2005; <sup>3</sup>Popov et al., 2013; <sup>3</sup>Malysheva, 2018); **Penza Oblast** (<sup>3</sup>Malysheva, 2018); **Perm Krai** (<sup>3</sup>Perevedentseva, 2008; <sup>3</sup>Belkovskaya et al., 2014);

<sup>3</sup>Botalov, Perevedentseva, and Denisov, 2015; <sup>3</sup>Botalov, 2017); **Pskov Oblast** (<sup>3</sup>Kolmakov and Popov, 2005; <sup>3</sup>Popov et al., 2013; <sup>3</sup>Malysheva, 2018); **Rostov Oblast** (<sup>3</sup>Morozova et al., 2008); **Ryazan Oblast** (<sup>1</sup>Volosnova, 1997; <sup>3</sup>Malysheva, 2018); **Saint Petersburg** (<sup>2</sup>Weinmann, 1828; <sup>2</sup>Weinmann, 1836; <sup>2</sup>Weinmann, 1837); **Samara Oblast** (<sup>3</sup>Malysheva and Malysheva, 2005b; <sup>3</sup>Malysheva and Malysheva, 2007; <sup>3</sup>Malysheva and Malysheva, 2008; <sup>3</sup>Malysheva, 2018); **Sevastopol** (<sup>3</sup>Sarkina and Belyaeva, 2013; <sup>3</sup>Sarkina, 2016b); **Smolensk Oblast** (<sup>5</sup>Jaczewski, 1896); **Stavropol Krai** (<sup>5</sup>Hollós, 1902; <sup>5</sup>Hollós, 1905; <sup>5</sup>Filarszky, 1907); **Sverdlovsk Oblast** (<sup>3</sup>Marina, 2006; <sup>3</sup>Malysheva, 2018; <sup>3</sup>Shiryayeva and Malysheva, 2018); **Tatarstan** (<sup>1</sup>Vassiljeva, 1977); **Tula Oblast** (<sup>3</sup>Svetasheva, 2004); **Tver Oblast** (<sup>1</sup>Kurochkin, 1993); **Udmurt Republic** (<sup>3</sup>Tychinin and Kuzmina, 2003); **Ulyanovsk Oblast** (<sup>3</sup>Ilyukhin, 2010a; <sup>3</sup>Ilyukhin, 2010b); **Vologda Oblast** (<sup>5</sup>Kutova, 1957; <sup>3</sup>Kirillova, 2006; <sup>3</sup>Kirillova, 2007; <sup>3</sup>Malysheva, 2018); **Voronezh Oblast** (<sup>5</sup>Chastukhin and Nikolaevskaya, 1953; <sup>1</sup>Chastukhin and Nikolaevskaya, 1969); **Yaroslavl Oblast** (<sup>3</sup>Lazareva, 1998a; <sup>3</sup>Lazareva, 1998b); **Arid territories** (<sup>3</sup>Rebriev, Rusanov, et al., 2012); **Lapland** (<sup>2</sup>Karsten, 1866).

SIBERIA: **Altai Krai** (<sup>3</sup>Gorbunova and Perova, 2006; <sup>3</sup>Gorbunova, 2006; <sup>3</sup>Gorbunova and Chubarova, 2008; <sup>3</sup>Gorbunova, Vlasenko, and Tzhubarova, 2011); **Altai Republic** (<sup>3</sup>Gorbunova, 1997; <sup>3</sup>Gorbunova, 2001a; <sup>3</sup>Gorbunova, 2003; <sup>3</sup>Gorbunova, 2006; <sup>3</sup>Gorbunova, 2008; <sup>3</sup>Gorbunova, 2010); **Buryatia** (<sup>1</sup>Nezdojminogo, 1970a); **Irkutsk Oblast** (<sup>1</sup>Kutafjeva, 1983; <sup>1</sup>Petrov, 1986; <sup>1</sup>Astapenko, 1990a; <sup>3</sup>Petrov, 2008); **Khakassia** (<sup>1</sup>Beglyanova, 1972a; <sup>3</sup>Gorbunova and Majnagasheva, 2013; <sup>3</sup>Zauzolkova, 2015); **Krasnoyarsk Krai** (<sup>1</sup>Beglyanova, 1972a; <sup>1</sup>Beglyanova, 1972c); **Novosibirsk Oblast** (<sup>3</sup>Gorbunova, 2006; <sup>3</sup>Gorbunova, 2007; <sup>3</sup>Perova and Gorbunova, 2007; <sup>3</sup>Koropachinskiy and Banaev, 2014); **Tomsk Oblast** (<sup>1</sup>Perova, 1972; <sup>3</sup>Kudashova, Gashkov, and Kutafjeva, 2013); **Yamalo-Nenets Autonomous Okrug** (<sup>1</sup>Tarchevskaya, 1990); **Zabaykalsky Krai** (<sup>5</sup>Karsten, 1911).

FAR EAST: **Khabarovsk Krai** (<sup>1</sup>Azbukina et al., 1986); **Magadan Oblast** (<sup>1</sup>Nazarova, 1976; <sup>1</sup>Sazanova, 2005; <sup>3</sup>Sazanova, 2009a; <sup>3</sup>Sazanova, 2011).

#### ***Conocybe tetrasporoides* Hauskn.**

SIBERIA: **Khakassia** (Gorbunova and Majnagasheva, 2013).

#### ***Conocybe tuxtlaensis* Singer**

EASTERN EUROPE: **Karelia** (Malysheva, 2018); **Leningrad Oblast** (Malysheva, 2018); **Saint Petersburg** (Morozova, Kovalenko, Rebriev, and Malysheva, 2014; Malysheva, 2018); **Sverdlovsk Oblast** (Malysheva, 2018; Shiryayeva and Malysheva, 2018).

#### ***Conocybe uralensis* Hauskn., Knudsen & Mukhin**

EASTERN EUROPE: **Yamalo-Nenets Autonomous Okrug** (Hausknecht, Kalamees, Knudsen, and Mukhin, 2009; Malysheva, 2018).

#### ***Conocybe velutipes* (Velen.) Hauskn. & Svrček<sup>1</sup>**

= *Conocybe kuehneriana* Singer<sup>2</sup>

EASTERN EUROPE: **Karachay-Cherkess Republic** (<sup>1</sup>Malysheva, 2011a; <sup>1</sup>Malysheva, 2018); **Leningrad Oblast** (<sup>2</sup>Morozova, 2002; <sup>2</sup>Popov et al., 2007; <sup>1</sup>Malysheva, 2018); **Moscow Oblast** (<sup>1</sup>Malysheva, 2018); **Rostov Oblast** (<sup>1</sup>Morozova et al., 2008; <sup>1</sup>Malysheva, 2018); **Ryazan Oblast** (<sup>1</sup>Malysheva and Volosnova, 2008; <sup>1</sup>Volosnova, 2014; <sup>1</sup>Malysheva, 2018); **Sverdlovsk Oblast** (<sup>1</sup>Shiryayeva and Malysheva, 2018); **Ulyanovsk Oblast** (<sup>1</sup>Ilyukhin, 2009; <sup>1</sup>Ilyukhin, 2010a); **Arid territories** (<sup>1</sup>Rebriev, Rusanov, et al., 2012).

SIBERIA: **Khakassia** (<sup>1</sup>Gorbunova and Majnagasheva, 2013); **Khanty-Mansi Autonomous Okrug** (<sup>1</sup>Malysheva, 2018); **Sakha Republic** (<sup>1</sup>Hausknecht, Kalamees, Knudsen, and Mukhin, 2009).

FAR EAST: **Primorsky Krai** (<sup>1</sup>Malysheva, 2018).

#### ***Conocybe villosella* E.F. Malysheva**

FAR EAST: **Primorsky Krai** (Malysheva, 2012; Malysheva, 2018).

#### ***Conocybe viridibrunnescens* E. Ludw.**

EASTERN EUROPE: **Samara Oblast** (Malysheva, 2018).

#### ***Conocybe zeylanica* (Petch) Boedijn**

FAR EAST: **Primorsky Krai** (Malysheva, 2018).

***Contumyces rosellus* (M.M. Moser) Redhead, Moncalvo, Vilgalys & Lutzoni<sup>1</sup>**

≡ *Marasmiellus rosellus* (M.M. Moser) Kuyper & Noordel.<sup>2</sup> ≡ *Omphalina rosella* (M.M. Moser) M.M. Moser ex Redhead, Ammirati & Norvell<sup>4</sup> ≡ *Omphalina rosella* (M.M. Moser) M.M. Moser<sup>3</sup> ≡ *Omphalina rosella* var. *rosella* (M.M. Moser) M.M. Moser ex Redhead, Ammirati & Norvell<sup>5</sup>

SIBERIA: **Altai Republic** (<sup>2</sup>Gorbunova, 2001b; <sup>3</sup>Perova and Gorbunova, 2001; <sup>3</sup>Gorbunova, 2003); **Khakassia** (<sup>4</sup>Beglyanova, 1972a); **Krasnoyarsk Krai** (<sup>4</sup>Beglyanova, 1972a; <sup>1</sup>Kosheleva and Kutafjeva, 2008a; <sup>5</sup>Zauzolkova, 2012).

***Coprinellus amphithallus* (M. Lange & A.H. Sm.) Redhead, Vilgalys & Moncalvo**

≡ *Coprinus amphithallus* M. Lange & A.H. Sm.<sup>1</sup>

EASTERN EUROPE: **Penza Oblast** (<sup>1</sup>Ivanov and Nezdjominogo, 1990).

***Coprinellus angulatus* (Peck) Redhead, Vilgalys & Moncalvo<sup>1</sup>**

≡ *Coprinus angulatus* Peck<sup>2</sup> = *Coprinus boudieri* Quél.<sup>3</sup>

EASTERN EUROPE: **Belgorod Oblast** (<sup>2</sup>Bedenko, 1980); **Leningrad Oblast** (<sup>3</sup>Thesleff, 1920; <sup>2</sup>Kovalenko and Morozova, 1999a; <sup>2</sup>Popov et al., 2007); **Moscow Oblast** (<sup>2</sup>Levitskaya, 1995c; <sup>2</sup>Levitskaya, 2013); **Novgorod Oblast** (<sup>2</sup>Kovalenko, Morozova, Nezdjominogo, and Popov, 2005; <sup>2</sup>Malysheva, Malysheva, and Zmitrovich, 2007; <sup>1</sup>Popov et al., 2013); **Orenburg Oblast** (<sup>2</sup>Desyatova, 2007; <sup>2</sup>Desyatova, 2008); **Perm Krai** (<sup>2</sup>Perevedentseva, 2008); **Pskov Oblast** (<sup>2</sup>Kovalenko, Kolmakov, Morozova, and Popov, 2003; <sup>2</sup>Psurtseva, Kiyashko, Gachkova, and Belova, 2007; <sup>1</sup>Popov et al., 2013); **Ryazan Oblast** (<sup>2</sup>Volosnova, 1997; <sup>2</sup>Volosnova, 2014); **Saint Petersburg** (<sup>2</sup>Kotkova, Morozova, and Popov, 2005); **Sverdlovsk Oblast** (<sup>2</sup>Marina, 2006); **Tatarstan** (<sup>2</sup>Vassiljeva, 1977); **Tula Oblast** (<sup>2</sup>Svetasheva, 2004); **Udmurt Republic** (<sup>1</sup>Kapitonov, 2013).

SIBERIA: **Irkutsk Oblast** (<sup>2</sup>Petrov, 1986; <sup>2</sup>Petrov, 1991; <sup>2</sup>Petrov, 2008); **Khanty-Mansi Autonomous Okrug** (<sup>1</sup>Filippova, Bulyonkova, and Lapshina, 2015); **Krasnoyarsk Krai** (<sup>2</sup>Beglyanova, 1972a; <sup>1</sup>Zauzolkova, 2012; <sup>1</sup>Zauzolkova, 2015); **Novosibirsk Oblast** (<sup>2</sup>Perova, 1977; <sup>2</sup>Perova and Gorbunova, 2001; <sup>2</sup>Gorbunova, 2007; <sup>2</sup>Perova and Gorbunova, 2007; <sup>1</sup>Koropachinskiy and Banaev, 2014); **Tomsk Oblast** (<sup>2</sup>Perova and Gorbunova, 2001; <sup>1</sup>Kudashova, Gashkov, and Kutafjeva, 2013).

FAR EAST: **Magadan Oblast** (<sup>1</sup>Sazanova, 2012); **Primorsky Krai** (<sup>2</sup>Bulakh and Govorova, 2000).

***Coprinellus bisporus* (J.E. Lange) Vilgalys, Hopple & Jacq. Johnson<sup>1</sup>**

≡ *Coprinus bisporus* J.E. Lange<sup>2</sup>

EASTERN EUROPE: **Penza Oblast** (<sup>2</sup>Ivanov and Nezdjominogo, 1990); **Rostov Oblast** (<sup>1</sup>Rebriev, 2018); **Ryazan Oblast** (<sup>2</sup>Volosnova, 2014); **Sverdlovsk Oblast** (<sup>2</sup>Marina, 2006); **Arid territories** (<sup>1</sup>Rebriev, Rusanov, et al., 2012).

***Coprinellus callinus* (M. Lange & A.H. Sm.) Vilgalys, Hopple & Jacq. Johnson**

SIBERIA: **Novosibirsk Oblast** (Koropachinskiy and Banaev, 2014).

***Coprinellus congregatus* (Bull.) P. Karst.<sup>1</sup>**

≡ *Coprinus congregatus* (Bull.) Fr.<sup>2</sup>

EASTERN EUROPE: **Leningrad Oblast** (<sup>2</sup>Kovalenko and Morozova, 1999a; <sup>2</sup>Popov et al., 2007); **Lipetsk Oblast** (<sup>2</sup>Rtishcheva, 1999; <sup>2</sup>Afanasyev, Rtishcheva, and Starodubtseva, 2007; <sup>1</sup>Sarycheva, Starodubtseva, and Sapelnikova, 2017); **Moscow Oblast** (<sup>2</sup>Gorlenko, Sidorova, and Sidorova, 1989); **Penza Oblast** (<sup>2</sup>Ivanov and Nezdjominogo, 1990); **Voronezh Oblast** (<sup>2</sup>Rtishcheva, 1999; <sup>2</sup>Afanasyev, Rtishcheva, and Starodubtseva, 2007; <sup>1</sup>Sarycheva, Starodubtseva, and Sapelnikova, 2017).

SIBERIA: **Irkutsk Oblast** (<sup>2</sup>Astapenko and Kutafjeva, 1990); **Krasnoyarsk Krai** (<sup>2</sup>Thümen, 1878; <sup>2</sup>Beglyanova, 1972a; <sup>1</sup>Zauzolkova, 2015).

***Coprinellus curtus* (Kalchbr.) Vilgalys, Hopple & Jacq. Johnson**

EASTERN EUROPE: **Arid territories** (Rebriev, Rusanov, et al., 2012).

***Coprinellus deliquescens* (Bull.) P. Karst.**

≡ *Agaricus deliquescens* Bull.<sup>1</sup> ≡ *Coprinus deliquescens* (Bull.) Fr.<sup>2</sup>

EASTERN EUROPE: **Moscow** (<sup>1</sup>Weinmann, 1836); **Saint Petersburg** (<sup>1</sup>Weinmann, 1828; <sup>1</sup>Weinmann, 1837); **Tatarstan** (<sup>2</sup>Sorokin, 1872).

***Coprinellus deminutus* (Enderle) Valade**

≡ *Coprinellus deminutus* (Enderle) L. Nagy, Házi, Vágvölgyi & Papp<sup>1</sup>

EASTERN EUROPE: **Orenburg Oblast** (<sup>1</sup>Shiryaeva and Kalmykova, 2020).

***Coprinellus dilectus* (Fr.) Redhead, Vilgalys & Moncalvo**

≡ *Coprinus dilectus* Fr.<sup>1</sup>

EASTERN EUROPE: **Samara Oblast** (<sup>1</sup>Malysheva and Malysheva, 2007).

SIBERIA: **Krasnoyarsk Krai** (<sup>1</sup>Beglyanova, 1972a).

***Coprinellus disseminatus* (Pers.) J.E. Lange<sup>1</sup>**

≡ *Agaricus disseminatus* Pers.<sup>2</sup> ≡ *Coprinarius disseminatus* (Pers.) P. Kumm.<sup>3</sup> ≡ *Coprinus disseminatus* (Pers.) Gray<sup>4</sup> ≡ *Psathyrella disseminata* (Pers.) Quél.<sup>5</sup> ≡ *Pseudocoprinus disseminatus* (Pers.) Kühner<sup>6</sup> = *Agaricus disseminatus* var. *digitaliformis* (Bull.) Pers.<sup>7</sup>

EASTERN EUROPE: **Adygea** (<sup>4</sup>Vaasma, Kalamees, and Raitviir, 1986); **Arkhangelsk Oblast** (<sup>3</sup>Lebedeva, 1933); **Bashkortostan** (<sup>4</sup>Stepanova and Sirko, 1977); **Belgorod Oblast** (<sup>4</sup>Bedenko, 1979a; <sup>4</sup>Psurtseva, Belova, and Ryabusheva, 2003; <sup>4</sup>Psurtseva, Kiyashko, Gachkova, and Belova, 2007); **Bryansk Oblast** (<sup>4</sup>Kruglikov, 2007); **Chechen Republic** (<sup>4</sup>Taysumov, Krapivina, and Kushalieva, 2016); **Chuvash Republic** (<sup>1</sup>Vladimirova and Potapov, 2018); **Crimea** (<sup>2</sup>Léveillé, 1842; <sup>4</sup>Zerova, 1962; <sup>4</sup>Sarkina, 2001; <sup>4</sup>Dudka et al., 2004; <sup>4</sup>Sarkina, 2011; <sup>4</sup>Sarkina and Prydiuk, 2012); **Kabardino-Balkarian Republic** (<sup>4</sup>Shkhagapsoev and Krapivina, 2004); **Kaliningrad Oblast** (<sup>5</sup>Hennings, 1895; <sup>4</sup>Dedkov, Volodina, and Gubareva, 2007; <sup>4</sup>Volodina, 2007; <sup>1</sup>Atayev and Volodina, 2020); **Kaluga Oblast** (<sup>4</sup>Sionova, 2003; <sup>4</sup>Sionova, 2006); **Karelia** (<sup>1</sup>Savelev and Kikeeva, 2018); **Kirov Oblast** (<sup>4</sup>Kirillov, 2011; <sup>4</sup>Kirillov, Perevedentseva, and Egoshina, 2011; <sup>1</sup>Stavishenko, Luginina, Kirillov, and Egoshina, 2019); **Komi Republic** (<sup>1</sup>Palamarchuk and Kirillov, 2017); **Krasnodar Krai** (<sup>6</sup>Vassiljeva, 1939; <sup>4</sup>Sopina, 2001a); **Kursk Oblast** (<sup>4</sup>Baranov, 2002; <sup>4</sup>Soshnina, 2014); **Leningrad Oblast** (<sup>5</sup>Thesleff, 1920; <sup>4</sup>Kovalenko and Morozova, 1999a; <sup>4</sup>Morozova, 2007; <sup>4</sup>Popov et al., 2007; <sup>4</sup>Psurtseva, Kiyashko, Gachkova, and Belova, 2007; <sup>1</sup>Zmitrovich et al., 2015; <sup>1</sup>Malysheva, Malysheva, Shchepin, and Novozhilov, 2018); **Lipetsk Oblast** (<sup>4</sup>Alferova, 1977; <sup>4</sup>Rtishcheva, 1999; <sup>4</sup>Sarycheva, 1999; <sup>4</sup>Afanasyev, Rtishcheva, and Starodubtseva, 2007; <sup>4</sup>Sarycheva et al., 2009; <sup>4</sup>Sarycheva, 2011; <sup>4</sup>Sarycheva, 2014a; <sup>1</sup>Sarycheva, 2016; <sup>1</sup>Sarycheva, Starodubtseva, and Sapelnikova, 2017); **Mari El Republic** (<sup>4</sup>Prokhorov, 2007); **Mordovia** (<sup>5</sup>Chastukhin, 1948a; <sup>4</sup>Chastukhin and Nikolaevskaya, 1969; <sup>1</sup>Ivoilov and Bolshakov, 2011a; <sup>5</sup>Chastukhin, 2011); **Moscow** (<sup>3</sup>Bucholtz, 1897a; <sup>3</sup>Bucholtz, 1897b; <sup>3</sup>Bucholtz, 1897c; <sup>3</sup>Mosolov, 1906); **Moscow Oblast** (<sup>4</sup>Gorlenko, Sidorova, and Sidorova, 1989; <sup>4</sup>Levitskaya, 1995c; <sup>1</sup>Voronina et al., 2012; <sup>4</sup>Levitskaya, 2013; <sup>1</sup>Voronina et al., 2014); **North Ossetia** (<sup>4</sup>Nikolayev, 2001); **Novgorod Oblast** (<sup>4</sup>Kovalenko, Morozova, Nezdoinogo, and Popov, 2005; <sup>4</sup>Malysheva, Malysheva, and Zmitrovich, 2007; <sup>4</sup>Psurtseva, Kiyashko, Gachkova, and Belova, 2007; <sup>1</sup>Popov et al., 2013; <sup>1</sup>Baklan, 2015); **Orenburg Oblast** (<sup>3</sup>Vorontsovsky, 1921; <sup>4</sup>Desyatova, 2008); **Oryol Oblast** (<sup>4</sup>Volobuev and Tsutsupa, 2009); **Penza Oblast** (<sup>4</sup>Ivanov, 1981b; <sup>4</sup>Ivanov, 1982); **Perm Krai** (<sup>4</sup>Perevedentseva, 2008; <sup>4</sup>Botalov, 2017); **Pskov Oblast** (<sup>4</sup>Kovalenko and Morozova, 1999b; <sup>4</sup>Popov, 2001a; <sup>1</sup>Popov et al., 2013); **Rostov Oblast** (<sup>4</sup>Rusanov et al., 2004; <sup>4</sup>Psurtseva, Kiyashko, Gachkova, and Belova, 2007; <sup>4</sup>Morozova et al., 2008; <sup>4</sup>Zmitrovich et al., 2008; <sup>1</sup>Rebriev and Svetasheva, 2010); **Ryazan Oblast** (<sup>4</sup>Volosnova, 1997; <sup>4</sup>Volosnova, 2014); **Saint Petersburg** (<sup>2,7</sup>Weinmann, 1828; <sup>2</sup>Weinmann, 1837; <sup>4</sup>Kovalenko and Morozova, 1999a; <sup>4</sup>Morozova and Kovalenko, 2000; <sup>4</sup>Kotkova, Morozova, and Popov, 2005; <sup>4</sup>Kotkova, Morozova, and Popov, 2006; <sup>4</sup>Kotkova, Morozova, and Popov, 2007; <sup>4</sup>Morozova and Smirnov, 2011; <sup>1</sup>Morozova, Kovalenko, Rebriev, and Malysheva, 2014; <sup>1</sup>Zhukova, Morozova, Volobuev, and Bryantseva, 2017; <sup>1</sup>Morozova et al., 2020); **Samara Oblast** (<sup>4</sup>Malysheva and Malysheva, 2004; <sup>4</sup>Malysheva and Malysheva, 2008); **Saratov Oblast** (<sup>3</sup>Lebedeva, 1927); **Smolensk Oblast** (<sup>5</sup>Jaczevski, 1896); **Sverdlovsk Oblast** (<sup>4</sup>Marina, 2006); **Tatarstan** (<sup>4</sup>Vassiljeva, 1977; <sup>1</sup>Potapov, Galeyev, and Zhukov, 2013; <sup>1</sup>Potapov, 2015b); **Tula Oblast** (<sup>4</sup>Svetasheva, 2001; <sup>4</sup>Svetasheva, 2004; <sup>1</sup>Svetasheva, 2013); **Tver Oblast** (<sup>4</sup>Kurochkin, 1993; <sup>4</sup>Kurochkin and Medvedev, 2015; <sup>4</sup>Kurochkin, 2016); **Udmurt Republic** (<sup>4</sup>Tychinin, 1990; <sup>4</sup>Tychinin and Kuzmina, 2003); **Ulyanovsk Oblast** (<sup>4</sup>Ilyukhin, 2009; <sup>4</sup>Ilyukhin, 2010a); **Vladimir Oblast** (<sup>1</sup>Mishulin, Blinov, and Gushchina, 2018); **Volgograd Oblast** (<sup>1</sup>Dudka and Vedeneyev, 2015); **Vologda Oblast** (<sup>4</sup>Kirillova, 2006; <sup>4</sup>Kirillova, 2007); **Voronezh Oblast** (<sup>5</sup>Chastukhin, 1952; <sup>5</sup>Chastukhin and Nikolaevskaya, 1953; <sup>4</sup>Chastukhin and Nikolaevskaya, 1969; <sup>4</sup>Rtishcheva, 1999; <sup>4</sup>Afanasyev, Rtishcheva, and Starodubtseva, 2007; <sup>1</sup>Sarycheva, Starodubtseva, and Sapelnikova, 2017); **Yaroslavl Oblast** (<sup>4</sup>Lazareva, 1997; <sup>4</sup>Lazareva, 1998a); **Arid territories** (<sup>1</sup>Rebriev, Rusanov, et al., 2012).

SIBERIA: **Altai Krai** (<sup>4</sup>Gorbunova and Perova, 2006; <sup>4</sup>Gorbunova and Chubarova, 2008; <sup>1</sup>Gorbunova, Vlasenko, and Tzhubarova, 2011); **Altai Republic** (<sup>4</sup>Kovalenko, 1992; <sup>4</sup>Perova and Gorbunova, 2001; <sup>4</sup>Gorbunova, 2003; <sup>4</sup>Gorbunova, 2006; <sup>1</sup>Gorbunova, 2010); **Khakassia** (<sup>1</sup>Zauzolkova, 2015); **Krasnoyarsk Krai** (<sup>2</sup>Thümen, 1878; <sup>4</sup>Beglyanova, 1972a); **Novosibirsk Oblast** (<sup>4</sup>Nozdrenko, 1970; <sup>4</sup>Zhukov, 1980; <sup>4</sup>Perova and Gorbunova, 2001; <sup>4</sup>Gorbunova, 2007; <sup>4</sup>Perova and



Gorbunova, 2007; <sup>1</sup>Koropachinskiy and Banaev, 2014); **Sverdlovsk Oblast** (<sup>4</sup>Stepanova and Sirko, 1977); **Tomsk Oblast** (<sup>4</sup>Perova and Gorbunova, 2001; <sup>1</sup>Kudashova, Gashkov, and Kutafjeva, 2013).

FAR EAST: **Amur Oblast** (<sup>4</sup>Taranina, 2005; <sup>1</sup>Kochunova, 2019); **Jewish Autonomous Oblast** (<sup>4</sup>Bulakh, Govorova, Nazarova, and Vassiljeva, 2007; <sup>4</sup>Bau, Bulakh, and Govorova, 2011); **Kamchatka Krai** (<sup>4</sup>Kalamees and Vaasma, 1981); **Khabarovsk Krai** (<sup>4</sup>Azbukina et al., 1986; <sup>4</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Erofeeva and Bulakh, 2015a); **Magadan Oblast** (<sup>1</sup>Sazanova, 2009a); **Primorsky Krai** (<sup>4</sup>Vassiljeva, 1972; <sup>4</sup>Vassiljeva, 1973; <sup>4</sup>Bunkina and Nazarova, 1978; <sup>4</sup>Azbukina et al., 1984; <sup>4</sup>Azbukina et al., 1990; <sup>4</sup>Bardunov et al., 2002; <sup>4</sup>Azbukina et al., 2006; <sup>4</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Bogacheva, Bulakh, Bukharova, and Egorova, 2020).

***Coprinellus domesticus* (Bolton) Vilgalys, Hopple & Jacq. Johnson<sup>1</sup>**

≡ *Agaricus domesticus* Bolton<sup>2</sup> ≡ *Coprinus domesticus* (Bolton) Gray<sup>3</sup>

EASTERN EUROPE: **Astrakhan Oblast** (<sup>1</sup>Rebriev, Aleksandrova, et al., 2012); **Belgorod Oblast** (<sup>3</sup>Bedenko, 1979a; <sup>3</sup>Ryabova and Ignatenko, 1981); **Crimea** (<sup>3</sup>Sarkina and Mironova, 2015); **Kaliningrad Oblast** (<sup>3</sup>Dedkov, Volodina, and Gubareva, 2007); **Kaluga Oblast** (<sup>3</sup>Sionova, 2012); **Karelia** (<sup>1</sup>Predtechenskaya and Ruokolainen, 2013; <sup>1</sup>Krutov et al., 2014; <sup>1</sup>Savelev and Kikeeva, 2018); **Kirov Oblast** (<sup>3</sup>Kirillov, 2011; <sup>3</sup>Kirillov, Perevedentseva, and Egoshina, 2011; <sup>1</sup>Stavishenko, Luginina, Kirillov, and Egoshina, 2019); **Komi Republic** (<sup>1</sup>Palamarchuk, 2012); **Kursk Oblast** (<sup>3</sup>Ryabova and Ignatenko, 1981); **Leningrad Oblast** (<sup>3</sup>Kovalenko and Morozova, 1999a; <sup>3</sup>Popov et al., 2007; <sup>3</sup>Psurtseva, Kiyashko, Gachkova, and Belova, 2007); **Lipetsk Oblast** (<sup>3</sup>Alferova, 1977; <sup>3</sup>Sarycheva, 1999; <sup>3</sup>Afanasyev, Rtishcheva, and Starodubtseva, 2007; <sup>3</sup>Sarycheva et al., 2009; <sup>3</sup>Sarycheva, 2011; <sup>3</sup>Sarycheva, 2014a; <sup>1</sup>Sarycheva, 2016; <sup>1</sup>Sarycheva, Starodubtseva, and Sapelnikova, 2017); **Moscow** (<sup>3</sup>Bucholtz, 1897a; <sup>3</sup>Bucholtz, 1897b; <sup>3</sup>Bucholtz, 1897c; <sup>3</sup>Mosolov, 1906); **Moscow Oblast** (<sup>3</sup>Levitskaya, 1998; <sup>3</sup>Levitskaya, 2013); **Novgorod Oblast** (<sup>3</sup>Kovalenko, Morozova, Nezdojminogo, and Popov, 2005; <sup>1</sup>Popov et al., 2013); **Orenburg Oblast** (<sup>3</sup>Vorontsovsky, 1921; <sup>3</sup>Desyatova, 2008); **Penza Oblast** (<sup>3</sup>Ivanov, 1982); **Perm Krai** (<sup>3</sup>Perevedentseva, 2008; <sup>1</sup>Belkovskaya et al., 2014); **Rostov Oblast** (<sup>3</sup>Morozova et al., 2008; <sup>1</sup>Rebriev and Svetasheva, 2010; <sup>1</sup>Shiryayev, Rebriev, and Knudsen, 2017; <sup>1</sup>Rebriev, 2018; <sup>1</sup>Rusanov, Rebriev, and Bulgakov, 2018); **Ryazan Oblast** (<sup>3</sup>Volosnova, 1997; <sup>3</sup>Volosnova, 2014); **Saint Petersburg** (<sup>2</sup>Weinmann, 1828; <sup>2</sup>Weinmann, 1836; <sup>2</sup>Weinmann, 1837; <sup>3</sup>Morozova and Smirnov, 2011; <sup>1</sup>Morozova, Kovalenko, Rebriev, and Malysheva, 2014); **Samara Oblast** (<sup>3</sup>Malysheva and Malysheva, 2006; <sup>3</sup>Psurtseva, Kiyashko, Gachkova, and Belova, 2007; <sup>3</sup>Malysheva and Malysheva, 2008); **Stavropol Krai** (<sup>3</sup>Hollós, 1902; <sup>3</sup>Hollós, 1905; <sup>3</sup>Filarszky, 1907); **Tatarstan** (<sup>3</sup>Vassiljeva, 1977); **Tula Oblast** (<sup>3</sup>Svetasheva, 2004; <sup>1</sup>Svetasheva, 2013); **Tver Oblast** (<sup>3</sup>Kurochkin and Medvedev, 2015); **Udmurt Republic** (<sup>3</sup>Tychinin and Kuzmina, 2003); **Ulyanovsk Oblast** (<sup>3</sup>Ilyukhin, 2010a; <sup>3</sup>Ilyukhin, 2010b); **Vladimir Oblast** (<sup>1</sup>Mishulin, Blinov, and Gushchina, 2018); **Voronezh Oblast** (<sup>3</sup>Chastukhin, 1952; <sup>3</sup>Chastukhin and Nikolaevskaya, 1953; <sup>3</sup>Chastukhin and Nikolaevskaya, 1969; <sup>3</sup>Rtishcheva, 1999; <sup>3</sup>Afanasyev, Rtishcheva, and Starodubtseva, 2007; <sup>1</sup>Sarycheva, Starodubtseva, and Sapelnikova, 2017); **Yaroslavl Oblast** (<sup>3</sup>Lazareva, 1998a; <sup>3</sup>Lazareva, 1998b); **Arid territories** (<sup>1</sup>Rebriev, Rusanov, et al., 2012).

SIBERIA: **Altai Krai** (<sup>3</sup>Gorbunova and Perova, 2006); **Altai Republic** (<sup>3</sup>Gorbunova, 2001a; <sup>3</sup>Gorbunova, 2001b); **Irkutsk Oblast** (<sup>3</sup>Kutafjeva, 1983; <sup>3</sup>Astapenko, 1990a; <sup>1</sup>Gorbunova and Stepantsova, 2015); **Khakassia** (<sup>1</sup>Zauzolkova, 2015); **Khanty-Mansi Autonomous Okrug** (<sup>1</sup>Filippova, Bulyonkova, and Lapshina, 2015); **Krasnoyarsk Krai** (<sup>3</sup>Beglyanova, 1972a; <sup>1</sup>Zauzolkova, 2012; <sup>1</sup>Zauzolkova, 2015; <sup>1</sup>Krom and Kapitonov, 2019); **Kurgan Oblast** (<sup>3</sup>Bystrushkin, 2016); **Novosibirsk Oblast** (<sup>3</sup>Nozdrenko, 1970; <sup>3</sup>Perova, 1977; <sup>3</sup>Perova and Gorbunova, 2007; <sup>1</sup>Koropachinskiy and Banaev, 2014); **Tomsk Oblast** (<sup>3</sup>Milovidova, 1980; <sup>1</sup>Kudashova, Gashkov, and Kutafjeva, 2013).

FAR EAST: **Amur Oblast** (<sup>3</sup>Taranina, 2005); **Chukotka Autonomous Okrug** (<sup>3</sup>Sazanova, 1993); **Jewish Autonomous Oblast** (<sup>3</sup>Bulakh, Govorova, Nazarova, and Vassiljeva, 2007; <sup>3</sup>Bau, Bulakh, and Govorova, 2011); **Khabarovsk Krai** (<sup>3</sup>Bau, Bulakh, and Govorova, 2011); **Magadan Oblast** (<sup>1</sup>Sazanova, 2009a; <sup>1</sup>Sazanova, 2011); **Primorsky Krai** (<sup>3</sup>Naoumoff, 1914; <sup>3</sup>Vassiljeva, 1972; <sup>3</sup>Vassiljeva, 1973; <sup>3</sup>Bunkina and Nazarova, 1978; <sup>3</sup>Azbukina et al., 1984; <sup>3</sup>Bardunov et al., 2002; <sup>3</sup>Azbukina et al., 2006; <sup>3</sup>Bau, Bulakh, and Govorova, 2011).

***Coprinellus ellisii* (P.D. Orton) Redhead, Vilgalys & Moncalvo<sup>1</sup>**

≡ *Coprinus ellisii* P.D. Orton<sup>2</sup>

EASTERN EUROPE: **Penza Oblast** (<sup>2</sup>Ivanov, 1989); **Udmurt Republic** (<sup>1</sup>Kapitonov, 2013).

FAR EAST: **Sakhalin Oblast** (<sup>2</sup>Bulakh, 2008).

***Coprinellus ephemerus* (Bull.) Redhead, Vilgalys & Moncalvo<sup>1</sup>**

≡ *Agaricus ephemerus* Bull.<sup>2</sup> ≡ *Coprinus ephemerus* (Bull.) Fr.<sup>3</sup>

EASTERN EUROPE: **Bashkortostan** (<sup>3</sup>Stepanova and Sirko, 1977); **Belgorod Oblast** (<sup>3</sup>Bedenko, 1979a); **Bryansk Oblast** (<sup>3</sup>Kruglikov, 2007); **Crimea** (<sup>3</sup>Sarkina, 2011; <sup>3</sup>Sarkina and Prydiuk, 2012; <sup>1</sup>Sarkina and Stavishenko, 2019);

**Kabardino-Balkarian Republic** (<sup>3</sup>Shkhagapsoev and Krapivina, 2004); **Kaluga Oblast** (<sup>3</sup>Sionova, 2003); **Kursk Oblast** (<sup>3</sup>Ryabova and Ignatenko, 1981); **Leningrad Oblast** (<sup>3</sup>Thesleff, 1920; <sup>3</sup>Kovalenko and Morozova, 1999a; <sup>3</sup>Popov et al., 2007); **Moscow** (<sup>3</sup>Bucholtz, 1897a); **Moscow Oblast** (<sup>3</sup>Gorlenko, Sidorova, and Sidorova, 1989); **North Ossetia** (<sup>3</sup>Chernetskaja, 1929); **Perm Krai** (<sup>3</sup>Perevedentseva, 2008); **Ryazan Oblast** (<sup>3</sup>Volosnova, 2005; <sup>3</sup>Volosnova, 2014); **Saint Petersburg** (<sup>2</sup>Weinmann, 1828; <sup>2</sup>Weinmann, 1837; <sup>3</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Morozova, Kovalenko, Rebriev, and Malysheva, 2014); **Smolensk Oblast** (<sup>3</sup>Jaczewski, 1898); **Sverdlovsk Oblast** (<sup>3</sup>Marina, 2006); **Tver Oblast** (<sup>3</sup>Kurochkin, 1993); **Voronezh Oblast** (<sup>3</sup>Chastukhin and Nikolaevskaya, 1953; <sup>3</sup>Chastukhin and Nikolaevskaya, 1969); **Arid territories** (<sup>1</sup>Rebriev, Rusanov, et al., 2012).

SIBERIA: **Altai Republic** (<sup>1</sup>Gorbunova, 2017a); **Kemerovo Oblast** (<sup>3</sup>Perova and Gorbunova, 2001); **Khakassia** (<sup>3</sup>Beglyanova, 1972a; <sup>1</sup>Gorbunova and Majnagasheva, 2013; <sup>1</sup>Zauzolkova, 2015); **Krasnoyarsk Krai** (<sup>3</sup>Beglyanova, 1972a; <sup>1</sup>Zauzolkova, 2012; <sup>1</sup>Zauzolkova, 2015); **Novosibirsk Oblast** (<sup>3</sup>Perova and Gorbunova, 2001; <sup>3</sup>Perova and Gorbunova, 2007; <sup>1</sup>Koropachinskiy and Banaev, 2014).

***Coprinellus flocculosus* (DC.) Vilgalys, Hopple & Jacq. Johnson<sup>1</sup>**

≡ *Coprinus flocculosus* (DC.) Fr.<sup>2</sup>

EASTERN EUROPE: **Belgorod Oblast** (<sup>2</sup>Bedenko, 1979a); **Penza Oblast** (<sup>2</sup>Ivanov, 1992); **Rostov Oblast** (<sup>1</sup>Rebriev, 2018; <sup>1</sup>Rusanov, Rebriev, and Bulgakov, 2018); **Arid territories** (<sup>1</sup>Rebriev, Rusanov, et al., 2012).

SIBERIA: **Krasnoyarsk Krai** (<sup>2</sup>Beglyanova, 1972a).

FAR EAST: **Amur Oblast** (<sup>2</sup>Taranina, 2005); **Primorsky Krai** (<sup>2</sup>Bulakh, 2008; <sup>2</sup>Bau, Bulakh, and Govorova, 2011); **Sakhalin Oblast** (<sup>2</sup>Bulakh, 2008).

***Coprinellus heptemerus* (M. Lange & A.H. Sm.) Vilgalys, Hopple & Jacq. Johnson**

≡ *Coprinus heptemerus* M. Lange & A.H. Sm.<sup>1</sup>

FAR EAST: **Khabarovsk Krai** (<sup>1</sup>Bulakh, 2008); **Primorsky Krai** (<sup>1</sup>Bulakh, 2008; <sup>1</sup>Bau, Bulakh, and Govorova, 2011).

***Coprinellus hiascens* (Fr.) Redhead, Vilgalys & Moncalvo**

≡ *Psathyrella hiascens* (Fr.) Quél.<sup>1</sup>

EASTERN EUROPE: **Leningrad Oblast** (<sup>1</sup>Thesleff, 1920); **Stavropol Krai** (<sup>1</sup>Hollós, 1902; <sup>1</sup>Hollós, 1905; <sup>1</sup>Filarszky, 1907).

***Coprinellus impatiens* (Fr.) J.E. Lange**

≡ *Coprinus impatiens* (Fr.) Quél.<sup>1</sup>

EASTERN EUROPE: **Moscow Oblast** (<sup>1</sup>Levitskaya, 1995c; <sup>1</sup>Levitskaya, 2013).

SIBERIA: **Krasnoyarsk Krai** (<sup>1</sup>Beglyanova, 1972a).

***Coprinellus marculentus* (Britzelm.) Redhead, Vilgalys & Moncalvo**

= *Coprinus hexagonosporus* Joss.<sup>1</sup>

EASTERN EUROPE: **Moscow Oblast** (<sup>1</sup>Levitskaya, 1998; <sup>1</sup>Levitskaya, 2013); **Ryazan Oblast** (<sup>1</sup>Volosnova, 2014).

FAR EAST: **Primorsky Krai** (<sup>1</sup>Bulakh, 1977; <sup>1</sup>Azbukina et al., 1984; <sup>1</sup>Bau, Bulakh, and Govorova, 2011).

***Coprinellus micaceus* (Bull.) Vilgalys, Hopple & Jacq. Johnson<sup>1</sup>**

≡ *Agaricus micaceus* Bull.<sup>2</sup> ≡ *Coprinus micaceus* (Bull.) Fr.<sup>3</sup>

EASTERN EUROPE: **Adygea** (<sup>3</sup>Kovalenko, 1980b; <sup>3</sup>Vaasma, Kalamees, and Raitviir, 1986; <sup>3</sup>Sopina, 2001a); **Belgorod Oblast** (<sup>3</sup>Bedenko, 1979a; <sup>3</sup>Psurtseva, Belova, and Ryabusheva, 2003; <sup>3</sup>Psurtseva, Kiyashko, Gachkova, and Belova, 2007); **Bryansk Oblast** (<sup>3</sup>Kruglikov, 2007); **Chechen Republic** (<sup>3</sup>Taysumov, Krapivina, and Kushaliev, 2016); **Chelyabinsk Oblast** (<sup>3</sup>Stepanova and Sirko, 1977); **Chuvash Republic** (<sup>3</sup>Marfin, 2001); **Crimea** (<sup>3</sup>Sarkina, 2001; <sup>3</sup>Dudka et al., 2004; <sup>3</sup>Sarkina, 2010b; <sup>3</sup>Sarkina, 2011; <sup>3</sup>Sarkina and Prydiuk, 2012; <sup>3</sup>Sarkina, 2014b; <sup>3</sup>Sarkina and Mironova, 2015; <sup>1</sup>Sarkina and Stavishenko, 2019); **Kabardino-Balkarian Republic** (<sup>3</sup>Shkhagapsoev and Krapivina, 2003; <sup>3</sup>Shkhagapsoev and Krapivina, 2004); **Kaliningrad Oblast** (<sup>3</sup>Hennings, 1895; <sup>3</sup>Dedkov, Volodina, and Gubareva, 2007; <sup>3</sup>Volodina, 2007; <sup>1</sup>Atayev and Volodina, 2020); **Kaluga Oblast** (<sup>3</sup>Sionova, 2003); **Karachay-Cherkess Republic** (<sup>3</sup>Kalamees and Botashev, 2000); **Karelia** (<sup>1</sup>Predtechenskaya and Ruokolainen, 2013; <sup>1</sup>Krutov et al., 2014; <sup>1</sup>Predtechenskaya and Ruokolainen, 2014; <sup>1</sup>Savelev and Kikeeva, 2018); **Kirov Oblast** (<sup>3</sup>Kirillov and Luginina, 2011; <sup>3</sup>Kirillov, 2011; <sup>3</sup>Kirillov, Perevedentseva, and Egoshina, 2011; <sup>1</sup>Stavishenko, Luginina, Kirillov, and Egoshina, 2019); **Komi Republic** (<sup>3</sup>Palamarchuk, 2011a; <sup>1</sup>Palamarchuk, 2012; <sup>1</sup>Palamarchuk and Kirillov, 2017);

**Krasnodar Krai** (<sup>3</sup>Kovalenko, 1980a; <sup>3</sup>Kovalenko, 1980b; <sup>3</sup>Sopina, 2001a); **Kursk Oblast** (<sup>3</sup>Ryabova and Ignatenko, 1981; <sup>3</sup>Baranov, 2002; <sup>3</sup>Soshnina, 2005; <sup>3</sup>Soshnina, 2014); **Leningrad Oblast** (<sup>3</sup>Thesleff, 1920; <sup>3</sup>Kovalenko and Morozova, 1999a; <sup>3</sup>Morozova and Kovalenko, 2000; <sup>3</sup>Morozova, 2007; <sup>3</sup>Popov et al., 2007; <sup>3</sup>Psurtseva, Kiyashko, Gachkova, and Belova, 2007; <sup>1</sup>Kalinina, 2018); **Lipetsk Oblast** (<sup>3</sup>Alferova, 1977; <sup>3</sup>Sarycheva, 1999; <sup>3</sup>Sarycheva et al., 2009; <sup>3</sup>Sarycheva, 2011; <sup>3</sup>Sarycheva, 2014a; <sup>1</sup>Sarycheva, 2016); **Mari El Republic** (<sup>3</sup>Prokhorov, 2007); **Mordovia** (<sup>3</sup>Chastukhin, 1948a; <sup>3</sup>Chastukhin and Nikolaevskaya, 1969; <sup>1</sup>Ivoilov and Bolshakov, 2011a; <sup>3</sup>Chastukhin, 2011); **Moscow** (<sup>3</sup>Bucholtz, 1897b; <sup>3</sup>Bucholtz, 1897c; <sup>3</sup>Mosolov, 1906); **Moscow Oblast** (<sup>3</sup>Gorlenko, Sidorova, and Sidorova, 1989; <sup>3</sup>Levitskaya, 1995c; <sup>3</sup>Levitskaya, 2013; <sup>1</sup>Voronina et al., 2014); **North Ossetia** (<sup>3</sup>Nikolayev, 2001); **Novgorod Oblast** (<sup>1</sup>Morozova, 2012; <sup>1</sup>Popov et al., 2013); **Orenburg Oblast** (<sup>3</sup>Desyatova, 2008); **Oryol Oblast** (<sup>3</sup>Radygina, Derzhavina, and Tsutsupa, 2014); **Penza Oblast** (<sup>3</sup>Ivanov, 1981b; <sup>3</sup>Ivanov, 1982); **Perm Krai** (<sup>3</sup>Perevedentseva, 2008; <sup>1</sup>Belkovskaya et al., 2014); **Pskov Oblast** (<sup>3</sup>Kovalenko and Morozova, 1999b; <sup>3</sup>Popov, 2001a; <sup>1</sup>Popov et al., 2013); **Rostov Oblast** (<sup>3</sup>Zmitrovich et al., 2008; <sup>1</sup>Rebriev and Svetasheva, 2010; <sup>1</sup>Rusanov, Rebriev, and Bulgakov, 2018); **Ryazan Oblast** (<sup>3</sup>Volosnova, 1997; <sup>3</sup>Volosnova, 2014); **Saint Petersburg** (<sup>2</sup>Weinmann, 1828; <sup>2</sup>Weinmann, 1836; <sup>2</sup>Weinmann, 1837; <sup>3</sup>Kovalenko and Morozova, 1999a; <sup>3</sup>Kotkova, Morozova, and Popov, 2007; <sup>3</sup>Psurtseva, Kiyashko, Gachkova, and Belova, 2007; <sup>3</sup>Morozova and Smirnov, 2011; <sup>1</sup>Morozova, Kovalenko, Rebriev, and Malysheva, 2014; <sup>1</sup>Zhukova, Morozova, Volobuev, and Bryantseva, 2017; <sup>1</sup>Morozova et al., 2020); **Samara Oblast** (<sup>3</sup>Malysheva and Malysheva, 2004; <sup>3</sup>Malysheva and Malysheva, 2008); **Sevastopol** (<sup>1</sup>Sarkina and Belyaeva, 2013; <sup>3</sup>Sarkina, 2016b; <sup>1</sup>Sarkina, 2020c); **Sverdlovsk Oblast** (<sup>3</sup>Stepanova and Sirko, 1977; <sup>3</sup>Marina, 2006); **Tatarstan** (<sup>3</sup>Sorokin, 1872; <sup>3</sup>Vassiljeva, 1977); **Tula Oblast** (<sup>3</sup>Svetasheva, 2001; <sup>3</sup>Svetasheva, 2004; <sup>1</sup>Svetasheva, 2013); **Tver Oblast** (<sup>3</sup>Kurochkin, 1993; <sup>3</sup>Kurochkin and Medvedev, 2015; <sup>3</sup>Kurochkin, 2016); **Udmurt Republic** (<sup>3</sup>Tychinin, 1990; <sup>3</sup>Tychinin and Kuzmina, 2003); **Ulyanovsk Oblast** (<sup>3</sup>Ilyukhin, 2009; <sup>3</sup>Ilyukhin, 2010a); **Volgograd Oblast** (<sup>3</sup>Burova and Nezdoyminogo, 1980; <sup>1</sup>Goncharova and Vedeneyev, 2015; <sup>1</sup>Stauchan and Vedeneyev, 2015); **Vologda Oblast** (<sup>3</sup>Kirillova, 2006; <sup>3</sup>Kirillova, 2007); **Voronezh Oblast** (<sup>3</sup>Chastukhin and Nikolaevskaya, 1953; <sup>3</sup>Chastukhin and Nikolaevskaya, 1969; <sup>3</sup>Selochnik, 2015); **Yaroslavl Oblast** (<sup>3</sup>Lazareva, 1998a; <sup>3</sup>Lazareva, 1998b); **Arid territories** (<sup>1</sup>Rebriev, Rusanov, et al., 2012).

SIBERIA: **Altai Republic** (<sup>3</sup>Gorbunova, 2003; <sup>3</sup>Gorbunova, 2006; <sup>1</sup>Gorbunova, 2010); **Irkutsk Oblast** (<sup>3</sup>Muzyka and Penzina, 2017); **Khakassia** (<sup>1</sup>Zauzolkova, 2015); **Khanty-Mansi Autonomous Okrug** (<sup>1</sup>Filippova, Bulyonkova, and Lapshina, 2015); **Krasnoyarsk Krai** (<sup>3</sup>Thümen, 1880b; <sup>3</sup>Beglyanova, 1972a; <sup>3</sup>Kosheleva and Kutafjeva, 2008a); **Novosibirsk Oblast** (<sup>3</sup>Nozdrenko, 1970; <sup>3</sup>Zaytseva, 1971; <sup>3</sup>Perova, 1977; <sup>3</sup>Perova and Gorbunova, 2001; <sup>3</sup>Gorbunova, 2006; <sup>1</sup>Koropachinskiy and Banaev, 2014); **Tomsk Oblast** (<sup>3</sup>Perova and Gorbunova, 2001; <sup>1</sup>Kudashova, Gashkov, and Kutafjeva, 2013); **Zabaykalsky Krai** (<sup>3</sup>Karsten, 1911); **Altai** (<sup>3</sup>Zhukov, 1979).

FAR EAST: **Amur Oblast** (<sup>3</sup>Nazarova, 1986; <sup>3</sup>Azbukina et al., 1998; <sup>3</sup>Taranina, 2005; <sup>1</sup>Kochunova and Erofeeva, 2017; <sup>1</sup>Kochunova, 2019); **Chukotka Autonomous Okrug** (<sup>3</sup>Sazanova, 1993; <sup>3</sup>Nezdoyminogo, 1994; <sup>3</sup>Karatygin, Nezdoyminogo, Novozhilov, and Zhurbenko, 1999); **Jewish Autonomous Oblast** (<sup>3</sup>Bulakh, Govorova, Nazarova, and Vassiljeva, 2007; <sup>1</sup>Erofeeva, Bukharova, and Bulakh, 2019); **Kamchatka Krai** (<sup>3</sup>Kalamees and Vaasma, 1981); **Khabarovsk Krai** (<sup>3</sup>Azbukina et al., 1986; <sup>3</sup>Azbukina et al., 1989; <sup>3</sup>Bulakh, Vassiljeva, and Erofeeva, 2010; <sup>3</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Erofeeva and Bulakh, 2015a); **Magadan Oblast** (<sup>3</sup>Nazarova, 1976; <sup>3</sup>Sazanova, 1996; <sup>3</sup>Sazanova, 2005; <sup>1</sup>Sazanova, 2009a; <sup>1</sup>Sazanova, 2009b; <sup>1</sup>Sazanova, 2011); **Primorsky Krai** (<sup>3</sup>Vassiljeva, 1972; <sup>3</sup>Vassiljeva, 1973; <sup>3</sup>Shalapugina, 1976; <sup>3</sup>Bulakh, 1977; <sup>3</sup>Bunkina and Nazarova, 1978; <sup>3</sup>Azbukina et al., 1984; <sup>3</sup>Azbukina et al., 1990; <sup>3</sup>Bardunov et al., 2002; <sup>3</sup>Azbukina et al., 2006; <sup>3</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Bulakh et al., 2016; <sup>3</sup>Bogacheva, Bulakh, Bukharova, and Egorova, 2020).

***Coprinellus pallidissimus* (Romagn.) P. Roux, Guy García & S. Roux**

≡ *Coprinus pallidissimus* Romagn.<sup>1</sup>

EASTERN EUROPE: **Orenburg Oblast** (<sup>1</sup>Desyatova, 2008).

***Coprinellus pellucidus* (P. Karst.) Redhead, Vilgalys & Moncalvo**

≡ *Coprinus pellucidus* P. Karst.<sup>1</sup>

EASTERN EUROPE: **Penza Oblast** (<sup>1</sup>Ivanov, 1983).

***Coprinellus plagioporus* (Romagn.) Redhead, Vilgalys & Moncalvo**

≡ *Coprinus plagioporus* Romagn.<sup>1</sup>

EASTERN EUROPE: **Murmansk Oblast** (<sup>1</sup>Mikhailovskii, 1975a).

***Coprinellus radians* (Desm.) Vilgalys, Hopple & Jacq. Johnson<sup>1</sup>**≡ *Coprinus radians* (Desm.) Fr.<sup>2</sup>

EASTERN EUROPE: **Kabardino-Balkarian Republic** (<sup>2</sup>Krapivina et al., 2020); **Kursk Oblast** (<sup>2</sup>Baranov, 2002); **Leningrad Oblast** (<sup>2</sup>Kovalenko and Morozova, 1999a; <sup>2</sup>Popov et al., 2007; <sup>2</sup>Psurtseva, Kiyashko, Gachkova, and Belova, 2007); **Lipetsk Oblast** (<sup>2</sup>Sarycheva, 1999; <sup>2</sup>Sarycheva et al., 2009; <sup>2</sup>Sarycheva, 2014a; <sup>1</sup>Sarycheva, 2016); **Moscow** (<sup>2</sup>Bucholtz, 1897c; <sup>2</sup>Mosolov, 1906); **Rostov Oblast** (<sup>2</sup>Psurtseva, Kiyashko, Gachkova, and Belova, 2007; <sup>2</sup>Morozova et al., 2008); **Tatarstan** (<sup>2</sup>Vassiljeva, 1977); **Vologda Oblast** (<sup>1</sup>Bolshakov et al., 2018); **Yaroslavl Oblast** (<sup>2</sup>Lazareva, 1998a; <sup>2</sup>Lazareva, 1998b); **Arid territories** (<sup>1</sup>Rebriev, Rusanov, et al., 2012).

***Coprinellus saccharinus* (Romagn.) P. Roux, Guy García & Dumas**EASTERN EUROPE: **Volgograd Oblast** (Stauchan and Vedeneyev, 2015).***Coprinellus sassii* (M. Lange & A.H. Sm.) Redhead, Vilgalys & Moncalvo**

EASTERN EUROPE: **Astrakhan Oblast** (Rebriev, Aleksandrova, et al., 2012); **Arid territories** (Rebriev, Rusanov, et al., 2012).

***Coprinellus sclerocystidiosus* (M. Lange & A.H. Sm.) Vilgalys, Hopple & Jacq. Johnson**EASTERN EUROPE: **Komi Republic** (Palamarchuk, 2016a).***Coprinellus silvaticus* (Peck) Gminder<sup>1</sup>**≡ *Coprinus silvaticus* Peck<sup>2</sup> ≡ *Coprinusella silvatica* (Peck) Zerov<sup>3</sup>

EASTERN EUROPE: **Belgorod Oblast** (<sup>2</sup>Bedenko, 1979a); **Crimea** (<sup>3</sup>Sarkina, 2001; <sup>2</sup>Dudka et al., 2004; <sup>1</sup>Sarkina and Stavishenko, 2019); **Karachay-Cherkess Republic** (<sup>2</sup>Kalamees and Botashev, 2000); **Moscow Oblast** (<sup>2</sup>Gorlenko, Sidorova, and Sidorova, 1989); **Perm Krai** (<sup>2</sup>Perevedentseva, 2008); **Sevastopol** (<sup>2</sup>Sarkina, 2016b); **Tula Oblast** (<sup>2</sup>Svetasheva, 2004); **Arid territories** (<sup>2</sup>Rebriev, Rusanov, et al., 2012).

SIBERIA: **Altai Republic** (<sup>2</sup>Gorbunova, 2001b; <sup>2</sup>Perova and Gorbunova, 2001); **Kemerovo Oblast** (<sup>2</sup>Perova and Gorbunova, 2001); **Krasnoyarsk Krai** (<sup>2</sup>Zauzolkova, 2015; <sup>2</sup>Zauzolkova and Gorbunova, 2016).

FAR EAST: **Jewish Autonomous Oblast** (<sup>2</sup>Bulakh, Govorova, Nazarova, and Vassiljeva, 2007; <sup>2</sup>Bau, Bulakh, and Govorova, 2011); **Magadan Oblast** (<sup>2</sup>Sazanova, 2009a); **Primorsky Krai** (<sup>2</sup>Vassiljeva, 1973; <sup>2</sup>Bunkina and Nazarova, 1978; <sup>2</sup>Azbukina et al., 1984; <sup>2</sup>Azbukina et al., 2006; <sup>2</sup>Psurtseva, Kiyashko, Gachkova, and Belova, 2007; <sup>2</sup>Bau, Bulakh, and Govorova, 2011).

***Coprinellus subdisseminatus* (M. Lange) Redhead, Vilgalys & Moncalvo**≡ *Coprinus subdisseminatus* M. Lange<sup>1</sup>EASTERN EUROPE: **Penza Oblast** (<sup>1</sup>Ivanov and Nezdoinog, 1990).***Coprinellus subimpatiens* (M. Lange & A.H. Sm.) Redhead, Vilgalys & Moncalvo**≡ *Coprinus subimpatiens* M. Lange & A.H. Sm.<sup>1</sup>

EASTERN EUROPE: **Crimea** (<sup>1</sup>Dudka et al., 2004; <sup>1</sup>Sarkina, 2011); **Orenburg Oblast** (<sup>1</sup>Desyatova, 2008); **Sverdlovsk Oblast** (<sup>1</sup>Marina, 2006).

SIBERIA: **Krasnoyarsk Krai** (<sup>1</sup>Nezdoinog, 1982a).***Coprinellus subpurpureus* (A.H. Sm.) Redhead, Vilgalys & Moncalvo<sup>1</sup>**≡ *Coprinus subpurpureus* A.H. Sm.<sup>2</sup>

EASTERN EUROPE: **Leningrad Oblast** (<sup>1</sup>Bolshakov et al., 2020); **Pskov Oblast** (<sup>2</sup>Kovalenko, Kolmakov, Morozova, and Popov, 2003; <sup>1</sup>Popov et al., 2013).

***Coprinellus truncorum* (Scop.) Redhead, Vilgalys & Moncalvo<sup>1</sup>**≡ *Coprinus truncorum* (Scop.) Fr.<sup>2</sup>

EASTERN EUROPE: **Lipetsk Oblast** (<sup>1</sup>Sarycheva, 2016); **Moscow** (<sup>2</sup>Bucholtz, 1897a); **Orenburg Oblast** (<sup>2</sup>Desyatova, 2008); **Penza Oblast** (<sup>2</sup>Ivanov, 1989); **Perm Krai** (<sup>2</sup>Perevedentseva, 2008); **Rostov Oblast** (<sup>1</sup>Rebriev and Svetasheva, 2010); **Ryazan Oblast** (<sup>2</sup>Volosnova, 2014); **Tula Oblast** (<sup>2</sup>Svetasheva, 2004); **Udmurt Republic** (<sup>1</sup>Kapitonov, 2013); **Ulyanovsk Oblast** (<sup>2</sup>Ilyukhin, 2009; <sup>2</sup>Ilyukhin, 2010a); **Voronezh Oblast** (<sup>1</sup>Selochnik, 2015); **Yamalo-Nenets Autonomous Okrug** (<sup>2</sup>Nezdoinog, 1994; <sup>2</sup>Karatygin, Nezdoinog, Novozhilov, and Zhurbenko, 1999); **Yaroslavl Oblast** (<sup>2</sup>Lazareva, 1998a; <sup>2</sup>Lazareva, 1998b); **Arid territories** (<sup>1</sup>Rebriev, Rusanov, et al., 2012).

SIBERIA: **Irkutsk Oblast** (<sup>2</sup>Muzyka and Penzina, 2017); **Khakassia** (<sup>1</sup>Zauzolkova, 2015); **Novosibirsk Oblast** (<sup>2</sup>Perova and Gorbunova, 2001; <sup>2</sup>Perova and Gorbunova, 2007); **Sakha Republic** (<sup>2</sup>Nezdojminogo, 1994; <sup>2</sup>Karatygin, Nezdojminogo, Novozhilov, and Zhurbenko, 1999).

FAR EAST: **Jewish Autonomous Oblast** (<sup>2</sup>Bulakh, Govorova, Nazarova, and Vassiljeva, 2007; <sup>2</sup>Bau, Bulakh, and Govorova, 2011).

***Coprinellus xanthothrix* (Romagn.) Vilgalys, Hopple & Jacq. Johnson<sup>1</sup>**

≡ *Coprinus xanthothrix* Romagn.<sup>2</sup>

EASTERN EUROPE: **Crimea** (<sup>2</sup>Dudka et al., 2004; <sup>2</sup>Sarkina, 2011; <sup>2</sup>Sarkina, 2014a); **Kaliningrad Oblast** (<sup>2</sup>Volodina, 2007); **Krasnodar Krai** (<sup>2</sup>Psurtseva, Kiyashko, Gachkova, and Belova, 2007); **Novgorod Oblast** (<sup>2</sup>Kovalenko, Morozova, Nezdojminogo, and Popov, 2005; <sup>1</sup>Popov et al., 2013); **Orenburg Oblast** (<sup>2</sup>Desyatova, 2007; <sup>2</sup>Desyatova, 2008); **Perm Krai** (<sup>2</sup>Perevedentseva, 2008); **Rostov Oblast** (<sup>2</sup>Morozova et al., 2008; <sup>1</sup>Rusanov, Rebriev, and Bulgakov, 2018); **Ryazan Oblast** (<sup>2</sup>Volosnova, 2014); **Saint Petersburg** (<sup>2</sup>Morozova and Smirnov, 2011); **Samara Oblast** (<sup>2</sup>Malysheva and Malysheva, 2008); **Sevastopol** (<sup>2</sup>Sarkina, 2016b); **Sverdlovsk Oblast** (<sup>2</sup>Marina, 2006); **Tula Oblast** (<sup>2</sup>Svetasheva, 2004); **Udmurt Republic** (<sup>1</sup>Kapitonov, 2013); **Ulyanovsk Oblast** (<sup>2</sup>Ilyukhin, 2009; <sup>2</sup>Ilyukhin, 2010a); **Arid territories** (<sup>1</sup>Rebriev, Rusanov, et al., 2012).

SIBERIA: **Altai Krai** (<sup>1</sup>Gorbunova, 2018a); **Altai Republic** (<sup>2</sup>Gorbunova, 1996; <sup>2</sup>Gorbunova, 1997; <sup>2</sup>Gorbunova, 2008); **Irkutsk Oblast** (<sup>2</sup>Astapenko, 1990a); **Khakassia** (<sup>2</sup>Beglyanova, 1972a; <sup>1</sup>Zauzolkova, 2015); **Khanty-Mansi Autonomous Okrug** (<sup>1</sup>Filippova, Bulyonkova, and Lapshina, 2015); **Krasnoyarsk Krai** (<sup>2</sup>Beglyanova, 1972a); **Novosibirsk Oblast** (<sup>2</sup>Perova, 1977; <sup>2</sup>Perova and Gorbunova, 2007; <sup>1</sup>Koropachinskiy and Banaev, 2014); **Tomsk Oblast** (<sup>1</sup>Kudashova, Gashkov, and Kutafjeva, 2013).

FAR EAST: **Magadan Oblast** (<sup>2</sup>Nazarova, 1976; <sup>2</sup>Sazanova, 2005; <sup>1</sup>Sazanova, 2009a); **Primorsky Krai** (<sup>2</sup>Bunkina and Nazarova, 1978; <sup>2</sup>Azbukina et al., 2006; <sup>2</sup>Bau, Bulakh, and Govorova, 2011).

***Coprinopsis acuminata* (Romagn.) Redhead, Vilgalys & Moncalvo<sup>1</sup>**

≡ *Coprinus acuminatus* (Romagn.) P.D. Orton<sup>2</sup>

EASTERN EUROPE: **Chelyabinsk Oblast** (<sup>2</sup>Psurtseva, Kiyashko, Gachkova, and Belova, 2007); **Karelia** (<sup>1</sup>Krutov et al., 2014; <sup>1</sup>Savelev and Kikeeva, 2020); **Leningrad Oblast** (<sup>2</sup>Stolyarskaya, 1989; <sup>2</sup>Kovalenko and Morozova, 1999a; <sup>2</sup>Popov et al., 2007; <sup>1</sup>Zmitrovich et al., 2015); **Lipetsk Oblast** (<sup>1</sup>Sarycheva, 2016); **Saint Petersburg** (<sup>2</sup>Morozova and Smirnov, 2011).

SIBERIA: **Krasnoyarsk Krai** (<sup>1</sup>Krom and Kapitonov, 2019).

***Coprinopsis alopecia* (Lasch) La Chiusa & Boffelli**

≡ *Coprinus alopecia* Lasch<sup>1</sup>

EASTERN EUROPE: **Crimea** (<sup>1</sup>Dudka et al., 2004; <sup>1</sup>Sarkina, 2011; <sup>1</sup>Sarkina and Mironova, 2015); **Krasnodar Krai** (<sup>1</sup>Psurtseva, Kiyashko, Gachkova, and Belova, 2007); **Arid territories** (<sup>1</sup>Rebriev, Rusanov, et al., 2012).

***Coprinopsis atramentaria* (Bull.) Redhead, Vilgalys & Moncalvo<sup>1</sup>**

≡ *Agaricus atramentarius* Bull.<sup>2</sup> ≡ *Coprinus atramentarius* (Bull.) Fr.<sup>3</sup> ≡ *Pselliophora atramentaria* (Bull.) P. Karst.<sup>4</sup>

EASTERN EUROPE: **Adygea** (<sup>3</sup>Kovalenko, 1979a; <sup>3</sup>Vaasma, Kalamees, and Raitviir, 1986; <sup>3</sup>Psurtseva, Kiyashko, Gachkova, and Belova, 2007); **Arkhangelsk Oblast** (<sup>3</sup>Lebedeva, 1933); **Belgorod Oblast** (<sup>3</sup>Bedenko, 1979a); **Bryansk Oblast** (<sup>3</sup>Kruglikov, 2007); **Chechen Republic** (<sup>3</sup>Taysumov, Krapivina, and Kushalieva, 2016); **Chelyabinsk Oblast** (<sup>3</sup>Stepanova and Sirko, 1977); **Crimea** (<sup>3</sup>Sarkina, 2001; <sup>3</sup>Dudka et al., 2004; <sup>3</sup>Sarkina, 2010b; <sup>3</sup>Sarkina, 2011; <sup>3</sup>Sarkina and Prydiuk, 2012; <sup>3</sup>Sarkina and Mironova, 2015); **Kabardino-Balkarian Republic** (<sup>3</sup>Shkhagapsoev and Krapivina, 2003; <sup>3</sup>Shkhagapsoev and Krapivina, 2004); **Kaliningrad Oblast** (<sup>3</sup>Dedkov, Volodina, and Gubareva, 2007; <sup>3</sup>Volodina, 2007; <sup>1</sup>Atayev and Volodina, 2020); **Kaluga Oblast** (<sup>3</sup>Sionova, 2003); **Karachay-Cherkess Republic** (<sup>3</sup>Vassiljeva, 1939; <sup>3</sup>Kalamees and Botashev, 2000); **Karelia** (<sup>3</sup>Freindling, 1949; <sup>3</sup>Czerepanova, Perfiljeva, and Tobias, 1982; <sup>3</sup>Bondartseva et al., 2001; <sup>1</sup>Predtechenskaya and Ruokolainen, 2013; <sup>1</sup>Krutov et al., 2014; <sup>1</sup>Savelev and Kikeeva, 2018); **Kirov Oblast** (<sup>3</sup>Kirillov, 2011; <sup>3</sup>Kirillov, Perevedentseva, and Egoshina, 2011; <sup>1</sup>Stavishenko, Luginina, Kirillov, and Egoshina, 2019); **Komi Republic** (<sup>1</sup>Palamarchuk, 2012; <sup>1</sup>Palamarchuk and Kirillov, 2017); **Krasnodar Krai** (<sup>3</sup>Kovalenko, 1980a; <sup>3</sup>Vaasma, Kalamees, and Raitviir, 1986); **Kursk Oblast** (<sup>3</sup>Baranov, 2002; <sup>3</sup>Soshnina, 2013; <sup>1</sup>Volobuev, Bolshakov, and Shakhova, 2020); **Leningrad Oblast** (<sup>4</sup>Thesleff, 1920; <sup>3</sup>Kalamees and Kovalenko, 1984; <sup>3</sup>Kovalenko and Morozova, 1999a; <sup>3</sup>Morozova and Kovalenko, 2000; <sup>3</sup>Morozova, 2007; <sup>3</sup>Popov et al., 2007; <sup>1</sup>Zmitrovich et al., 2015); **Lipetsk Oblast** (<sup>3</sup>Afanasyev, Rtishcheva, and Starodubtseva, 2007; <sup>3</sup>Sarycheva et al., 2009; <sup>3</sup>Sarycheva, 2011; <sup>3</sup>Sarycheva, 2014a; <sup>1</sup>Sarycheva, 2016; <sup>1</sup>Sarycheva, Starodubtseva, and Sapelnikova, 2017); **Mordovia** (<sup>3</sup>Chastukhin, 1948a; <sup>3</sup>Chastukhin

and Nikolaevskaya, 1969; <sup>1</sup>Ivoilov and Bolshakov, 2011a; <sup>3</sup>Chastukhin, 2011); **Moscow** (<sup>3</sup>Bucholtz, 1897a; <sup>3</sup>Bucholtz, 1897b; <sup>3</sup>Bucholtz, 1897c; <sup>3</sup>Mosolov, 1906); **Moscow Oblast** (<sup>3</sup>Gorlenko, Sidorova, and Sidorova, 1989; <sup>3</sup>Levitskaya, 1995c; <sup>1</sup>Voronina et al., 2012; <sup>3</sup>Levitskaya, 2013; <sup>1</sup>Voronina et al., 2014); **Murmansk Oblast** (<sup>3</sup>Mikhailovskii, 1975b; <sup>3</sup>Karatygin, Nezdojminogo, Novozhilov, and Zhurbenko, 1999); **North Ossetia** (<sup>3</sup>Nikolayev, 2001); **Novgorod Oblast** (<sup>3</sup>Kovalenko, Morozova, Nezdojminogo, and Popov, 2005; <sup>1</sup>Popov et al., 2013; <sup>3</sup>Baklan, 2015); **Orenburg Oblast** (<sup>3</sup>Desyatova, 2008); **Oryol Oblast** (<sup>3</sup>Radygina, Derzhavina, and Tsutsupa, 2014); **Penza Oblast** (<sup>3</sup>Vet, 1943; <sup>3</sup>Ivanov, 1982); **Perm Krai** (<sup>3</sup>Perevedentseva, 2008; <sup>1</sup>Belkovskaya et al., 2014); **Pskov Oblast** (<sup>3</sup>Popov, 2001a; <sup>1</sup>Popov et al., 2013); **Rostov Oblast** (<sup>3</sup>Psurtseva, Kiyashko, Gachkova, and Belova, 2007); **Ryazan Oblast** (<sup>3</sup>Volosnova, 1997; <sup>3</sup>Volosnova, 2014); **Saint Petersburg** (<sup>2</sup>Weinmann, 1828; <sup>2</sup>Weinmann, 1836; <sup>2</sup>Weinmann, 1837; <sup>3</sup>Kovalenko and Morozova, 1999a; <sup>3</sup>Morozova and Kovalenko, 2000; <sup>3</sup>Kotkova, Morozova, and Popov, 2006; <sup>3</sup>Kotkova, Morozova, and Popov, 2007; <sup>3</sup>Psurtseva, Kiyashko, Gachkova, and Belova, 2007; <sup>3</sup>Morozova and Smirnov, 2011; <sup>1</sup>Morozova, Kovalenko, Rebriev, and Malysheva, 2014; <sup>1</sup>Zhukova, Morozova, Volobuev, and Bryantseva, 2017; <sup>1</sup>Morozova et al., 2020); **Samara Oblast** (<sup>3</sup>Malysheva and Malysheva, 2004; <sup>3</sup>Malysheva and Malysheva, 2008); **Sevastopol** (<sup>1</sup>Sarkina, 2020c); **Smolensk Oblast** (<sup>3</sup>Jaczevski, 1898); **Sverdlovsk Oblast** (<sup>3</sup>Stepanova and Sirko, 1977; <sup>3</sup>Marina, 2006); **Tatarstan** (<sup>3</sup>Vassiljeva, 1977); **Tula Oblast** (<sup>3</sup>Svetasheva, 2004; <sup>1</sup>Svetasheva, 2013); **Tver Oblast** (<sup>3</sup>Kurochkin, 1993; <sup>3</sup>Mukhina, 2011a; <sup>3</sup>Mukhina, 2011b; <sup>1</sup>Kotkova, 2014; <sup>3</sup>Kurochkin and Medvedev, 2015; <sup>3</sup>Kurochkin, 2016); **Udmurt Republic** (<sup>3</sup>Tychinin, 1990; <sup>3</sup>Tychinin and Kuzmina, 2003); **Ulyanovsk Oblast** (<sup>3</sup>Ilyukhin, 2009; <sup>3</sup>Ilyukhin, 2010a); **Vologda Oblast** (<sup>3</sup>Kirillova, 2006; <sup>3</sup>Kirillova, 2007); **Voronezh Oblast** (<sup>3</sup>Rtishcheva, 1999; <sup>3</sup>Afanasyev, Rtishcheva, and Starodubtseva, 2007; <sup>3</sup>Selochnik, 2015; <sup>1</sup>Sarycheva, Starodubtseva, and Sapelnikova, 2017; <sup>3</sup>Kochergina and Furmenkova, 2019); **Yaroslavl Oblast** (<sup>3</sup>Lazareva, 1997; <sup>3</sup>Lazareva, 1998a); **Arid territories** (<sup>1</sup>Rebriev, Rusanov, et al., 2012); **Northern Caucasus** (<sup>3</sup>Kovalenko, 1980b).

SIBERIA: **Altai Krai** (<sup>3</sup>Gorbunova and Chubarova, 2008; <sup>1</sup>Gorbunova, Vlasenko, and Tzhubarova, 2011); **Altai Republic** (<sup>3</sup>Zhukov, 1979; <sup>3</sup>Gorbunova, 2001b; <sup>3</sup>Perova and Gorbunova, 2001; <sup>3</sup>Gorbunova, 2003; <sup>3</sup>Gorbunova, 2006; <sup>1</sup>Gorbunova, 2010); **Irkutsk Oblast** (<sup>3</sup>Kutafjeva, 1983; <sup>3</sup>Petrov, 1986; <sup>3</sup>Petrov, 1989; <sup>3</sup>Muzyka, 2002; <sup>3</sup>Bardunov et al., 2005; <sup>3</sup>Petrov, 2008; <sup>3</sup>Muzyka, 2009; <sup>3</sup>Muzyka and Penzina, 2017); **Khakassia** (<sup>1</sup>Gorbunova and Majnagasheva, 2013; <sup>1</sup>Zauzolkova, 2015); **Khanty-Mansi Autonomous Okrug** (<sup>1</sup>Filippova, Bulyonkova, and Lapshina, 2015; <sup>1</sup>Zvyagina and Vasina, 2015); **Krasnoyarsk Krai** (<sup>3</sup>Beglyanova, 1972a; <sup>3</sup>Pavlov et al., 2007; <sup>1</sup>Zauzolkova, 2012; <sup>1</sup>Zauzolkova, 2015); **Kurgan Oblast** (<sup>3</sup>Stepanova and Sirko, 1977; <sup>1</sup>Bystrushkin, 2016); **Novosibirsk Oblast** (<sup>3</sup>Nozdrenko, 1970; <sup>3</sup>Zaytseva, 1971; <sup>3</sup>Perova and Gorbunova, 2001; <sup>3</sup>Perova and Gorbunova, 2007; <sup>1</sup>Koropachinskiy and Banaev, 2014); **Sakha Republic** (<sup>3</sup>Karatygin, Nezdojminogo, Novozhilov, and Zhurbenko, 1999; <sup>3</sup>Nezdojminogo, 2003); **Sverdlovsk Oblast** (<sup>3</sup>Stepanova and Sirko, 1977); **Tomsk Oblast** (<sup>3</sup>Milovidova, 1980; <sup>3</sup>Perova and Gorbunova, 2001; <sup>3</sup>Kosheleva and Kutafjeva, 2004; <sup>1</sup>Kudashova, Gashkov, and Kutafjeva, 2013); **Yamalo-Nenets Autonomous Okrug** (<sup>1</sup>Kapitonov, 2015).

FAR EAST: **Amur Oblast** (<sup>3</sup>Nazarova, 1986; <sup>3</sup>Bulakh, Govorova, and Taranina, 2003; <sup>3</sup>Taranina, 2005; <sup>1</sup>Kochunova, 2019); **Chukotka Autonomous Okrug** (<sup>3</sup>Sazanova, 1993); **Jewish Autonomous Oblast** (<sup>3</sup>Bulakh, Govorova, Nazarova, and Vassiljeva, 2007; <sup>3</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Erofeeva, Bukharova, and Bulakh, 2019); **Kamchatka Krai** (<sup>3</sup>Kalamees and Vaasma, 1981); **Khabarovsk Krai** (<sup>3</sup>Azbukina et al., 1986; <sup>3</sup>Azbukina et al., 1989; <sup>3</sup>Bau, Bulakh, and Govorova, 2011); **Magadan Oblast** (<sup>3</sup>Nazarova, 1976; <sup>3</sup>Sazanova, 2005; <sup>1</sup>Sazanova, 2009a; <sup>1</sup>Sazanova, 2009b; <sup>1</sup>Sazanova, 2011); **Primorsky Krai** (<sup>3</sup>Vassiljeva, 1972; <sup>3</sup>Vassiljeva, 1973; <sup>3</sup>Shalapugina, 1976; <sup>3</sup>Azbukina et al., 1984; <sup>3</sup>Azbukina et al., 1990; <sup>3</sup>Bardunov et al., 2002; <sup>3</sup>Azbukina et al., 2006; <sup>3</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Bulakh et al., 2016).

***Coprinopsis canoiceps* (Kauffman) Örstadius & E. Larss.**

≡ *Psathyrella canoiceps* (Kauffman) A.H. Sm.<sup>1</sup>

EASTERN EUROPE: **Moscow Oblast** (<sup>1</sup>Levitskaya, 1995c; <sup>1</sup>Levitskaya, 2013); **Orenburg Oblast** (<sup>1</sup>Desyatova, 2007; <sup>1</sup>Desyatova, 2008); **Samara Oblast** (<sup>1</sup>Malysheva and Malysheva, 2004; <sup>1</sup>Malysheva and Malysheva, 2008); **Ulyanovsk Oblast** (<sup>1</sup>Ilyukhin, 2010a; <sup>1</sup>Ilyukhin, 2010b).

SIBERIA: **Irkutsk Oblast** (<sup>1</sup>Gorbunova and Stepantsova, 2015); **Novosibirsk Oblast** (<sup>1</sup>Koropachinskiy and Banaev, 2014).

***Coprinopsis cardiaspora* (Bender) Voto**

≡ *Coprinus cardiasporus* Bender<sup>1</sup>

EASTERN EUROPE: **Rostov Oblast** (<sup>1</sup>Morozova et al., 2008); **Arid territories** (<sup>1</sup>Rebriev, Rusanov, et al., 2012).

***Coprinopsis cinerea* (Schaeff.) Redhead, Vilgalys & Moncalvo<sup>1</sup>**

≡ *Coprinus cinereus* (Schaeff.) Gray<sup>2</sup> = *Agaricus cinereus* β *macrorrhizus* (Pers.) Fr.<sup>3</sup> = *Agaricus cinereus* γ *tomentosus* (Bull.) Fr.<sup>4</sup> = *Coprinus fimetarius* var. *macrorrhizus* (Pers.) Fr.<sup>5</sup> = *Coprinus tomentosus* (Bull.) Fr.<sup>6</sup>

EASTERN EUROPE: **Bryansk Oblast** (<sup>2</sup>Kruglikov, 2007); **Chechen Republic** (<sup>2</sup>Taysumov, Krapivina, and Kushalieva, 2016); **Chuvash Republic** (<sup>2</sup>Marfin, 2001); **Kabardino-Balkarian Republic** (<sup>2</sup>Shkhagapsoev and Krapivina, 2003; <sup>2</sup>Shkhagapsoev and Krapivina, 2004); **Kaluga Oblast** (<sup>2</sup>Sionova, 2003); **Karelia** (<sup>1</sup>Krutov et al., 2014; <sup>1</sup>Savelev and Kikeeva, 2020); **Leningrad Oblast** (<sup>2</sup>Thesleff, 1920; <sup>2</sup>Stolyarskaya, 1989; <sup>2</sup>Kovalenko and Morozova, 1999a; <sup>2</sup>Popov et al., 2007; <sup>1</sup>Zmitrovich et al., 2015); **Mari El Republic** (<sup>2</sup>Prokhorov, 2007); **Mordovia** (<sup>1</sup>Ivoilov and Bolshakov, 2011a); **Moscow Oblast** (<sup>2</sup>Gorlenko, Sidorova, and Sidorova, 1989); **North Ossetia** (<sup>2</sup>Nikolayev, 2001); **Orenburg Oblast** (<sup>2</sup>Desyatova, 2008); **Penza Oblast** (<sup>2</sup>Ivanov, 1989); **Rostov Oblast** (<sup>2</sup>Vyshchepan, 1992; <sup>1</sup>Shiryaev, Rebriev, and Knudsen, 2017; <sup>1</sup>Rebriev, 2018; <sup>1</sup>Rusanov, Rebriev, and Bulgakov, 2018); **Ryazan Oblast** (<sup>2</sup>Volosnova, 1997; <sup>2</sup>Volosnova, 2014); **Saint Petersburg** (<sup>3,4</sup>Weinmann, 1836; <sup>3</sup>Weinmann, 1837; <sup>1</sup>Morozova, Kovalenko, Rebriev, and Malysheva, 2014); **Saratov Oblast** (<sup>2</sup>Nagumanov, 2015); **Smolensk Oblast** (<sup>5</sup>Jaczewski, 1896); **Sverdlovsk Oblast** (<sup>2</sup>Marina, 2006); **Tatarstan** (<sup>2</sup>Vassiljeva, 1977); **Tver Oblast** (<sup>2</sup>Kurochkin, 1993; <sup>2</sup>Kurochkin and Medvedev, 2015; <sup>2</sup>Kurochkin, 2016); **Udmurt Republic** (<sup>2</sup>Tychinin and Kuzmina, 2003); **Arid territories** (<sup>1</sup>Rebriev, Rusanov, et al., 2012).

SIBERIA: **Irkutsk Oblast** (<sup>2</sup>Petrov, 1986; <sup>2</sup>Astapenko and Kutafjeva, 1990; <sup>2</sup>Petrov, 1991; <sup>2</sup>Muzyka, 2002; <sup>2</sup>Petrov, 2008; <sup>2</sup>Muzyka and Penzina, 2017); **Khakassia** (<sup>2</sup>Beglyanova, 1972a; <sup>1</sup>Zauzolkova and Gorbunova, 2013; <sup>1</sup>Zauzolkova, 2015); **Krasnoyarsk Krai** (<sup>2,6</sup>Beglyanova, 1972a; <sup>1,6</sup>Zauzolkova, 2012; <sup>1</sup>Zauzolkova, 2015); **Tomsk Oblast** (<sup>6</sup>Perova and Gorbunova, 2001).

FAR EAST: **Amur Oblast** (<sup>2</sup>Taranina, 2005); **Primorsky Krai** (<sup>2</sup>Vassiljeva, 1972; <sup>2</sup>Vassiljeva, 1973; <sup>2</sup>Azbukina et al., 2006; <sup>2</sup>Bau, Bulakh, and Govorova, 2011).

***Coprinopsis cordispora* (T. Gibbs) Watling & M.J. Richardson**

≡ *Coprinus cordisporus* T. Gibbs<sup>1</sup>

EASTERN EUROPE: **Sverdlovsk Oblast** (<sup>1</sup>Marina, 2006).

FAR EAST: **Primorsky Krai** (<sup>1</sup>Azbukina et al., 2006; <sup>1</sup>Bau, Bulakh, and Govorova, 2011).

***Coprinopsis cortinata* (J.E. Lange) Gminder**

≡ *Coprinus cortinatus* J.E. Lange<sup>1</sup>

EASTERN EUROPE: **Perm Krai** (<sup>1</sup>Perevedentseva, 2008); **Saint Petersburg** (<sup>1</sup>Morozova and Smirnov, 2011); **Samara Oblast** (<sup>1</sup>Malysheva and Malysheva, 2008).

SIBERIA: **Krasnoyarsk Krai** (<sup>1</sup>Gorbunova, 2016).

***Coprinopsis cothurnata* (Godey) Redhead, Vilgalys & Moncalvo<sup>1</sup>**

≡ *Coprinus cothurnatus* Godey<sup>2</sup>

EASTERN EUROPE: **Rostov Oblast** (<sup>1</sup>Rebriev, 2018); **Arid territories** (<sup>1</sup>Rebriev, Rusanov, et al., 2012).

FAR EAST: **Primorsky Krai** (<sup>2</sup>Bulakh, 2008).

***Coprinopsis echinospora* (Buller) Redhead, Vilgalys & Moncalvo**

SIBERIA: **Krasnoyarsk Krai** (Zauzolkova, 2015; Zauzolkova and Gorbunova, 2016).

***Coprinopsis ephemeroide* (DC.) G. Moreno<sup>1</sup>**

≡ *Coprinus ephemeroide* (DC.) Fr.<sup>2</sup> ≡ *Pselliophora ephemeroide* (DC.) P. Karst.<sup>3</sup>

EASTERN EUROPE: **Leningrad Oblast** (<sup>3</sup>Thesleff, 1920; <sup>2</sup>Kovalenko and Morozova, 1999a; <sup>2</sup>Morozova, 2007; <sup>2</sup>Popov et al., 2007); **Lipetsk Oblast** (<sup>2</sup>Alferova, 1977; <sup>2</sup>Sarycheva, 1999; <sup>2</sup>Sarycheva et al., 2009; <sup>2</sup>Sarycheva, 2011; <sup>2</sup>Sarycheva, 2014a; <sup>1</sup>Sarycheva, 2016); **Ryazan Oblast** (<sup>2</sup>Volosnova, 1997).

SIBERIA: **Altai Republic** (<sup>2</sup>Gorbunova, 2019); **Krasnoyarsk Krai** (<sup>2</sup>Beglyanova, 1972a); **Novosibirsk Oblast** (<sup>2</sup>Perova and Gorbunova, 2001; <sup>2</sup>Perova and Gorbunova, 2007; <sup>2</sup>Koropachinskiy and Banaev, 2014).

***Coprinopsis episcopalis* (P.D. Orton) Redhead, Vilgalys & Moncalvo**

SIBERIA: **Novosibirsk Oblast** (Koropachinskiy and Banaev, 2014).

***Coprinopsis erythrocephala* (Lév.) Redhead, Vilgalys & Moncalvo**

≡ *Coprinus erythrocephalus* (Lév.) Fr.<sup>1</sup>

EASTERN EUROPE: **Chuvash Republic** (<sup>1</sup>Marfin, 2001); **Samara Oblast** (<sup>1</sup>Malysheva and Malysheva, 2008).

***Coprinopsis extinctoria* (Fr.) Redhead, Vilgalys & Moncalvo<sup>1</sup>**≡ *Coprinus extinctorius* Fr.<sup>2</sup>

EASTERN EUROPE: **Chechen Republic** (<sup>2</sup>Taysumov, Krapivina, and Kushalieva, 2016); **Kabardino-Balkarian Republic** (<sup>2</sup>Shkhagapsoev and Krapivina, 2004); **Leningrad Oblast** (<sup>2</sup>Kovalenko and Morozova, 1999a; <sup>2</sup>Popov et al., 2007); **Moscow** (<sup>2</sup>Bucholtz, 1897a); **Ryazan Oblast** (<sup>2</sup>Volosnova, 2014).

SIBERIA: **Tomsk Oblast** (<sup>1</sup>Kudashova, Gashkov, and Kutafjeva, 2013; <sup>1</sup>Kudashova, Gashkov, and Vaishlya, 2016b).

FAR EAST: **Primorsky Krai** (<sup>2</sup>Vassiljeva, 1973).

***Coprinopsis friesii* (Quél.) P. Karst.<sup>1</sup>**≡ *Coprinus friesii* Quél.<sup>2</sup> = *Coprinus rhombisporus* P.D. Orton<sup>3</sup>

EASTERN EUROPE: **Belgorod Oblast** (<sup>2</sup>Bedenko, 1980); **Kaliningrad Oblast** (<sup>1</sup>Volodina, 2007); **Leningrad Oblast** (<sup>2</sup>Morozova, 2007; <sup>2</sup>Popov et al., 2007; <sup>2</sup>Psurtseva, Kiyashko, Gachkova, and Belova, 2007); **Penza Oblast** (<sup>2</sup>Ivanov, 1983; <sup>2</sup>Ivanov, 1999); **Pskov Oblast** (<sup>2</sup>Kovalenko and Morozova, 1999b; <sup>2</sup>Kovalenko, Kolmakov, Morozova, and Popov, 2003; <sup>2</sup>Psurtseva, Kiyashko, Gachkova, and Belova, 2007; <sup>1</sup>Popov et al., 2013); **Ryazan Oblast** (<sup>2</sup>Malysheva and Volosnova, 2008); **Samara Oblast** (<sup>3</sup>Malysheva and Malysheva, 2006; <sup>2</sup>Malysheva and Malysheva, 2007; <sup>2</sup>Malysheva and Malysheva, 2008); **Sverdlovsk Oblast** (<sup>2</sup>Marina, 2006); **Tatarstan** (<sup>2</sup>Vassiljeva, 1977); **Tver Oblast** (<sup>2</sup>Mukhina, 2011a; <sup>2</sup>Mukhina, 2011b; <sup>1</sup>Kotkova, 2014); **Vologda Oblast** (<sup>1</sup>Bolshakov et al., 2018).

SIBERIA: **Khakassia** (<sup>1</sup>Zauzolkova, 2015).

FAR EAST: **Jewish Autonomous Oblast** (<sup>2</sup>Bulakh, Govorova, Nazarova, and Vassiljeva, 2007; <sup>2</sup>Bau, Bulakh, and Govorova, 2011); **Khabarovsk Krai** (<sup>2</sup>Azbukina et al., 1986; <sup>2</sup>Azbukina et al., 1989; <sup>2</sup>Bau, Bulakh, and Govorova, 2011); **Primorsky Krai** (<sup>2</sup>Vassiljeva, 1973; <sup>2</sup>Bunkina and Nazarova, 1978; <sup>2</sup>Azbukina et al., 1984; <sup>2</sup>Azbukina et al., 2006; <sup>2</sup>Bau, Bulakh, and Govorova, 2011).

***Coprinopsis gonophylla* (Quél.) Redhead, Vilgalys & Moncalvo<sup>1</sup>**≡ *Coprinus gonophyllus* Quél.<sup>2</sup>

EASTERN EUROPE: **Leningrad Oblast** (<sup>2</sup>Psurtseva, Kiyashko, Gachkova, and Belova, 2007); **Novgorod Oblast** (<sup>2</sup>Kovalenko, Morozova, Nezdojminogo, and Popov, 2005; <sup>1</sup>Popov et al., 2013); **Perm Krai** (<sup>2</sup>Perevedentseva, 2008).

***Coprinopsis idae* (Uljé) La Chiusa & Boffelli**≡ *Coprinus idae* Uljé<sup>1</sup>

EASTERN EUROPE: **Orenburg Oblast** (<sup>1</sup>Desyatova, 2008).

***Coprinopsis insignis* (Peck) Redhead, Vilgalys & Moncalvo<sup>1</sup>**≡ *Coprinus insignis* Peck<sup>2</sup>

EASTERN EUROPE: **Krasnodar Krai** (<sup>2</sup>Sopina, 2001a); **Lipetsk Oblast** (<sup>2</sup>Sarycheva, 2014a; <sup>1</sup>Sarycheva, 2016).

***Coprinopsis jonesii* (Peck) Redhead, Vilgalys & Moncalvo<sup>1</sup>**≡ *Coprinus jonesii* Peck<sup>2</sup>

EASTERN EUROPE: **Novgorod Oblast** (<sup>2</sup>Malysheva, Malysheva, and Zmitrovich, 2006; <sup>2</sup>Malysheva, Malysheva, and Zmitrovich, 2007); **Orenburg Oblast** (<sup>2</sup>Desyatova, 2007; <sup>2</sup>Desyatova, 2008); **Ryazan Oblast** (<sup>2</sup>Volosnova, 2014); **Tula Oblast** (<sup>2</sup>Svetasheva, 2004; <sup>2</sup>Svetasheva, 2005b; <sup>1</sup>Shcherbakov, 2010); **Udmurt Republic** (<sup>1</sup>Kapitonov, 2013); **Volograd Oblast** (<sup>1</sup>Dudka and Vedeneyev, 2015); **Vologda Oblast** (<sup>1</sup>Bolshakov et al., 2018).

SIBERIA: **Novosibirsk Oblast** (<sup>1</sup>Koropachinskiy and Banaev, 2014); **Yamalo-Nenets Autonomous Okrug** (<sup>1</sup>Kapitonov, 2015).

***Coprinopsis lagopides* (P. Karst.) Redhead, Vilgalys & Moncalvo<sup>1</sup>**≡ *Coprinus lagopides* P. Karst.<sup>2</sup>

EASTERN EUROPE: **Komi Republic** (<sup>1</sup>Palamarchuk and Kirillov, 2017); **Kursk Oblast** (<sup>2</sup>Baranov, 2002); **Moscow Oblast** (<sup>2</sup>Levitskaya, 1995c; <sup>2</sup>Levitskaya, 2013); **Penza Oblast** (<sup>2</sup>Ivanov, 1989); **Perm Krai** (<sup>2</sup>Perevedentseva, 2008; <sup>2</sup>Belkovskaya et al., 2014); **Saint Petersburg** (<sup>1</sup>Morozova et al., 2020); **Yaroslavl Oblast** (<sup>2</sup>Lazareva, 1998a; <sup>2</sup>Lazareva, 1998b).

SIBERIA: **Tomsk Oblast** (<sup>1</sup>Kudashova, Gashkov, and Vaishlya, 2016a); **Baikalia** (<sup>2</sup>Psurtseva, Kiyashko, Gachkova, and Belova, 2007).

FAR EAST: **Magadan Oblast** (<sup>1</sup>Sazanova, 2012).



***Coprinopsis lagopus* (Fr.) Redhead, Vilgalys & Moncalvo<sup>1</sup>**

≡ *Coprinopsis lagopus* var. *lagopus* (Fr.) Redhead, Vilgalys & Moncalvo<sup>2</sup> ≡ *Coprinus lagopus* (Fr.) Fr.<sup>3</sup>

EASTERN EUROPE: **Belgorod Oblast** (<sup>3</sup>Bedenko, 1980); **Crimea** (<sup>3</sup>Sarkina, 2001; <sup>3</sup>Dudka et al., 2004; <sup>3</sup>Sarkina, 2010b; <sup>3</sup>Sarkina and Prydiuk, 2012); **Kaliningrad Oblast** (<sup>3</sup>Hennings, 1895; <sup>3</sup>Dedkov, Volodina, and Gubareva, 2007; <sup>3</sup>Volodina, 2007); **Karelia** (<sup>2</sup>Krutov et al., 2014); **Leningrad Oblast** (<sup>3</sup>Thesleff, 1920; <sup>3</sup>Kovalenko and Morozova, 1999a; <sup>3</sup>Popov et al., 2007); **Lipetsk Oblast** (<sup>3</sup>Sarycheva et al., 2009; <sup>3</sup>Sarycheva, 2014a; <sup>1</sup>Sarycheva, 2016; <sup>1</sup>Sarycheva, Starodubtseva, and Sapelnikova, 2017); **Moscow Oblast** (<sup>3</sup>Gorlenko, Sidorova, and Sidorova, 1989); **Murmansk Oblast** (<sup>3</sup>Pystina, Pavlova, and Shestakova, 1969); **Novgorod Oblast** (<sup>3</sup>Kovalenko, Morozova, Nezdoyminogo, and Popov, 2005; <sup>3</sup>Psurtseva, Kiyashko, Gachkova, and Belova, 2007); **Penza Oblast** (<sup>3</sup>Ivanov, 1989); **Pskov Oblast** (<sup>3</sup>Kovalenko, Kolmakov, Morozova, and Popov, 2003; <sup>1</sup>Popov et al., 2013); **Ryazan Oblast** (<sup>3</sup>Volosnova, 1997; <sup>3</sup>Volosnova, 2014); **Saint Petersburg** (<sup>3</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Morozova, Kovalenko, Rebriev, and Malysheva, 2014); **Tatarstan** (<sup>3</sup>Vassiljeva, 1977); **Udmurt Republic** (<sup>1</sup>Kapitonov, 2008); **Voronezh Oblast** (<sup>1</sup>Sarycheva, Starodubtseva, and Sapelnikova, 2017); **Arid territories** (<sup>1</sup>Rebriev, Rusanov, et al., 2012).

SIBERIA: **Altai Republic** (<sup>3</sup>Gorbunova, 2001b; <sup>3</sup>Perova and Gorbunova, 2001); **Khakassia** (<sup>1</sup>Zauzolkova and Gorbunova, 2016); **Khanty-Mansi Autonomous Okrug** (<sup>1</sup>Filippova, Bulyonkova, and Lapshina, 2015); **Krasnoyarsk Krai** (<sup>3</sup>Beglyanova, 1972a; <sup>1</sup>Gorbunova, 2016; <sup>1</sup>Krom and Kapitonov, 2019); **Novosibirsk Oblast** (<sup>3</sup>Perova and Gorbunova, 2001; <sup>3</sup>Perova and Gorbunova, 2007; <sup>2</sup>Koropachinskiy and Banaev, 2014); **Tomsk Oblast** (<sup>3</sup>Perova and Gorbunova, 2001; <sup>1</sup>Kudashova, Gashkov, and Kutafjeva, 2013; <sup>1</sup>Kudashova, Gashkov, and Vaishlya, 2016b).

FAR EAST: **Jewish Autonomous Oblast** (<sup>3</sup>Bulakh, Govorova, Nazarova, and Vassiljeva, 2007; <sup>3</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Erofeeva, Bukharova, and Bulakh, 2019); **Khabarovsk Krai** (<sup>3</sup>Azbukina et al., 1986; <sup>3</sup>Azbukina et al., 1989; <sup>3</sup>Bau, Bulakh, and Govorova, 2011); **Primorsky Krai** (<sup>3</sup>Vassiljeva, 1973; <sup>3</sup>Bunkina and Nazarova, 1978; <sup>3</sup>Azbukina et al., 1984; <sup>3</sup>Azbukina et al., 1990; <sup>3</sup>Bardunov et al., 2002; <sup>3</sup>Azbukina et al., 2006; <sup>3</sup>Bau, Bulakh, and Govorova, 2011); **Sakhalin Oblast** (<sup>3</sup>Vassiljeva and Nazarova, 1972).

***Coprinopsis macrocephala* (Berk.) Redhead, Vilgalys & Moncalvo<sup>1</sup>**

≡ *Coprinus macrocephalus* Berk.<sup>2</sup>

EASTERN EUROPE: **Crimea** (<sup>2</sup>Dudka et al., 2004).

SIBERIA: **Tomsk Oblast** (<sup>2</sup>Perova and Gorbunova, 2001; <sup>1</sup>Kudashova, Gashkov, and Kutafjeva, 2013).

FAR EAST: **Primorsky Krai** (<sup>2</sup>Bulakh, 2008).

***Coprinopsis marcescibilis* (Britzelm.) Örstadius & E. Larss.<sup>1</sup>**

≡ *Psathyrella marcescibilis* (Britzelm.) Singer<sup>2</sup> = *Psathyrella lactea* (J.E. Lange) J.E. Lange<sup>3</sup>

EASTERN EUROPE: **Penza Oblast** (<sup>2</sup>Ivanov and Nezdoyminogo, 1990); **Rostov Oblast** (<sup>2</sup>Rebriev, 2018); **Samara Oblast** (<sup>2</sup>Malysheva and Malysheva, 2004; <sup>2</sup>Malysheva and Malysheva, 2008); **Sverdlovsk Oblast** (<sup>1</sup>Shiryayeva and Palamarchuk, 2019); **Tatarstan** (<sup>3</sup>Vassiljeva, 1977); **Ulyanovsk Oblast** (<sup>2</sup>Ilyukhin, 2009; <sup>2</sup>Ilyukhin, 2010a); **Yaroslavl Oblast** (<sup>2</sup>Lazareva, 1998a; <sup>2</sup>Lazareva, 1998b); **Arid territories** (<sup>2</sup>Rebriev, Rusanov, et al., 2012).

SIBERIA: **Krasnoyarsk Krai** (<sup>2</sup>Beglyanova, 1972a); **Tomsk Oblast** (<sup>2</sup>Perova and Gorbunova, 2001; <sup>1</sup>Kudashova, Gashkov, and Kutafjeva, 2013).

***Coprinopsis martinii* (P.D. Orton) Redhead, Vilgalys & Moncalvo<sup>1</sup>**

≡ *Coprinus martinii* P.D. Orton<sup>2</sup>

EASTERN EUROPE: **Yamalo-Nenets Autonomous Okrug** (<sup>2</sup>Knudsen and Mukhin, 1998).

SIBERIA: **Krasnoyarsk Krai** (<sup>2</sup>Nezdoyminogo, 1994; <sup>2</sup>Nezdoyminogo, 1997a; <sup>2</sup>Karatygin, Nezdoyminogo, Novozhilov, and Zhurbenko, 1999; <sup>2</sup>Nezdoyminogo, 2002; <sup>1</sup>Zmitrovich and Ezhov, 2015; <sup>1</sup>Shiryayev, Zmitrovich, and Ezhov, 2018); **Sakha Republic** (<sup>2</sup>Nezdoyminogo, 1994; <sup>2</sup>Karatygin, Nezdoyminogo, Novozhilov, and Zhurbenko, 1999).

FAR EAST: **Chukotka Autonomous Okrug** (<sup>2</sup>Nezdoyminogo, 1997a).

***Coprinopsis melanthina* (Fr.) Örstadius & E. Larss.**

≡ *Psathyrella melanthina* (Fr.) Kits van Wav.<sup>1</sup>

FAR EAST: **Primorsky Krai** (<sup>1</sup>Bardunov et al., 2002; <sup>1</sup>Azbukina et al., 2006; <sup>1</sup>Bau, Bulakh, and Govorova, 2011).

***Coprinopsis mitrispora* (Bohus) L. Nagy, Vágvölgyi & Papp**

= *Coprinus spelaiophilus* Bas & Uljé<sup>1</sup>

EASTERN EUROPE: **Crimea** (<sup>1</sup>Sarkina, 2011).

***Coprinopsis narcotica* (Batsch) Redhead, Vilgalys & Moncalvo<sup>1</sup>**

≡ *Coprinus narcoticus* (Batsch) Fr.<sup>2</sup>

EASTERN EUROPE: **Leningrad Oblast** (<sup>2</sup>Kovalenko and Morozova, 1999a; <sup>2</sup>Popov et al., 2007); **Lipetsk Oblast** (<sup>2</sup>Alferova, 1977; <sup>2</sup>Sarycheva, 1999; <sup>2</sup>Sarycheva et al., 2009; <sup>1</sup>Sarycheva, 2016).

SIBERIA: **Kemerovo Oblast** (<sup>2</sup>Perova and Gorbunova, 2001); **Novosibirsk Oblast** (<sup>2</sup>Perova and Gorbunova, 2001; <sup>2</sup>Perova and Gorbunova, 2007).

FAR EAST: **Amur Oblast** (<sup>2</sup>Taranina, 2005); **Primorsky Krai** (<sup>2</sup>Bau, Bulakh, and Govorova, 2011).

***Coprinopsis nivea* (Pers.) Redhead, Vilgalys & Moncalvo<sup>1</sup>**

≡ *Agaricus niveus* Pers.<sup>2</sup> ≡ *Coprinus niveus* (Pers.) Fr.<sup>3</sup>

EASTERN EUROPE: **Adygea** (<sup>3</sup>Kovalenko, 1979a; <sup>3</sup>Kovalenko, 1980b); **Astrakhan Oblast** (<sup>1</sup>Rebriev, Aleksandrova, et al., 2012); **Crimea** (<sup>3</sup>Sarkina, 2001; <sup>3</sup>Dudka et al., 2004; <sup>3</sup>Sarkina, 2006; <sup>3</sup>Sarkina, 2010b; <sup>3</sup>Sarkina and Prydiuk, 2012; <sup>3</sup>Sarkina, 2013; <sup>3</sup>Sarkina and Mironova, 2015); **Kabardino-Balkarian Republic** (<sup>3</sup>Shkhagapsoev and Krapivina, 2004); **Karachay-Cherkess Republic** (<sup>3</sup>Vassiljeva, 1939); **Krasnodar Krai** (<sup>3</sup>Kovalenko, 1980a; <sup>3</sup>Kovalenko, 1980b); **Leningrad Oblast** (<sup>3</sup>Thesleff, 1920; <sup>3</sup>Kovalenko and Morozova, 1999a; <sup>3</sup>Popov et al., 2007); **Lipetsk Oblast** (<sup>3</sup>Alferova, 1977; <sup>3</sup>Sarycheva, 1999; <sup>3</sup>Sarycheva et al., 2009; <sup>3</sup>Sarycheva, 2014a; <sup>1</sup>Sarycheva, 2016); **Moscow Oblast** (<sup>3</sup>Gorlenko, Sidorova, and Sidorova, 1989); **Murmansk Oblast** (<sup>1</sup>Bolshakov et al., 2018); **Orenburg Oblast** (<sup>3</sup>Desyatova, 2007; <sup>3</sup>Desyatova, 2008); **Penza Oblast** (<sup>3</sup>Ivanov, 1992); **Perm Krai** (<sup>3</sup>Perevedentseva, 2008); **Rostov Oblast** (<sup>3</sup>Vyshchepan, 1992; <sup>3</sup>Morozova et al., 2008; <sup>1</sup>Rebriev, 2018); **Ryazan Oblast** (<sup>3</sup>Volosnova, 2005; <sup>3</sup>Volosnova, 2014); **Saint Petersburg** (<sup>2</sup>Weinmann, 1828; <sup>2</sup>Weinmann, 1836; <sup>2</sup>Weinmann, 1837); **Saratov Oblast** (<sup>1</sup>Nagumanov, 2015); **Sverdlovsk Oblast** (<sup>3</sup>Stepanova and Sirko, 1977); **Volgograd Oblast** (<sup>1</sup>Dudka and Vedeneyev, 2015); **Arid territories** (<sup>1</sup>Rebriev, Rusanov, et al., 2012).

SIBERIA: **Altai Krai** (<sup>1</sup>Gorbunova, 2018a); **Altai Republic** (<sup>3</sup>Gorbunova, 1996; <sup>3</sup>Gorbunova, 1997; <sup>3</sup>Gorbunova, 2001b; <sup>3</sup>Perova and Gorbunova, 2001; <sup>3</sup>Gorbunova, 2006; <sup>3</sup>Gorbunova, 2008; <sup>1</sup>Gorbunova, 2010); **Buryatia** (<sup>3</sup>Nezdojminogo, 1973; <sup>3</sup>Petrov, 1991); **Irkutsk Oblast** (<sup>3</sup>Petrov, 1991; <sup>3</sup>Bardunov et al., 2005; <sup>3</sup>Petrov, 2008); **Khakassia** (<sup>1</sup>Gorbunova and Majnagasheva, 2013; <sup>1</sup>Zauzolkova, 2015); **Krasnoyarsk Krai** (<sup>3</sup>Beglyanova, 1972a; <sup>3</sup>Beglyanova, 1972c); **Novosibirsk Oblast** (<sup>3</sup>Perova and Gorbunova, 2001; <sup>3</sup>Gorbunova, 2007); **Tomsk Oblast** (<sup>3</sup>Perova and Gorbunova, 2001; <sup>1</sup>Kudashova, Gashkov, and Kutafjeva, 2013).

FAR EAST: **Chukotka Autonomous Okrug** (<sup>3</sup>Nezdojminogo, 1994; <sup>3</sup>Karatygin, Nezdojminogo, Novozhilov, and Zhurbenko, 1999); **Kamchatka Krai** (<sup>3</sup>Psurtseva, Kiyashko, Gachkova, and Belova, 2007); **Magadan Oblast** (<sup>1</sup>Sazanova, 2009a); **Primorsky Krai** (<sup>3</sup>Bau, Bulakh, and Govorova, 2011).

***Coprinopsis pannucioides* (J.E. Lange) Örstadius & E. Larss.**

≡ *Psathyrella pannucioides* (J.E. Lange) M.M. Moser<sup>1</sup>

EASTERN EUROPE: **Samara Oblast** (<sup>1</sup>Malysheva and Malysheva, 2004; <sup>1</sup>Malysheva and Malysheva, 2008).

***Coprinopsis patouillardii* (Quél.) Gminder<sup>1</sup>**

≡ *Coprinus patouillardii* Quél.<sup>2</sup>

EASTERN EUROPE: **Belgorod Oblast** (<sup>2</sup>Bedenko, 1980); **Leningrad Oblast** (<sup>2</sup>Malysheva and Malysheva, 2005a; <sup>2</sup>Popov et al., 2007; <sup>1</sup>Zmitrovich et al., 2015); **Ryazan Oblast** (<sup>2</sup>Volosnova, 2005; <sup>2</sup>Volosnova, 2014); **Sverdlovsk Oblast** (<sup>2</sup>Marina, 2006); **Tatarstan** (<sup>2</sup>Vassiljeva, 1977).

FAR EAST: **Chukotka Autonomous Okrug** (<sup>2</sup>Sazanova, 1993); **Khabarovsk Krai** (<sup>2</sup>Azbukina et al., 1986; <sup>2</sup>Azbukina et al., 1989; <sup>2</sup>Bau, Bulakh, and Govorova, 2011); **Magadan Oblast** (<sup>2</sup>Nazarova, 1976; <sup>2</sup>Sazanova, 2009a); **Primorsky Krai** (<sup>2</sup>Vassiljeva, 1973; <sup>2</sup>Bunkina and Nazarova, 1978; <sup>2</sup>Azbukina et al., 2006; <sup>2</sup>Bau, Bulakh, and Govorova, 2011).

***Coprinopsis phaeospora* (P. Karst.) P. Karst.**

≡ *Coprinus phaeosporus* P. Karst.<sup>1</sup> = *Coprinus phaeosporus* var. *solitarius* J.E. Lange<sup>2</sup>

EASTERN EUROPE: **Belgorod Oblast** (<sup>1</sup>Bedenko, 1980); **Samara Oblast** (<sup>1</sup>Malysheva and Malysheva, 2007; <sup>1</sup>Malysheva and Malysheva, 2008); **Tatarstan** (<sup>1</sup>Vassiljeva, 1977).

SIBERIA: **Krasnoyarsk Krai** (<sup>2</sup>Beglyanova, 1972a).

FAR EAST: **Primorsky Krai** (<sup>1</sup>Bulakh, 2008).

***Coprinopsis phlyctidospora* (Romagn.) Redhead, Vilgalys & Moncalvo**

≡ *Coprinus phlyctidosporus* Romagn.<sup>1</sup>

FAR EAST: **Primorsky Krai** (<sup>1</sup>Bulakh, 2008; <sup>1</sup>Bau, Bulakh, and Govorova, 2011).

***Coprinopsis picacea* (Bull.) Redhead, Vilgalys & Moncalvo<sup>1</sup>**≡ *Agaricus picaceus* Bull.<sup>2</sup> ≡ *Coprinus picaceus* (Bull.) Gray<sup>3</sup>

EASTERN EUROPE: **Belgorod Oblast** (<sup>3</sup>Bedenko, 1980); **Crimea** (<sup>2</sup>Léveillé, 1842; <sup>3</sup>Sarkina, 2001; <sup>3</sup>Dudka et al., 2004; <sup>3</sup>Sarkina, 2010b; <sup>3</sup>Sarkina, 2011; <sup>3</sup>Sarkina and Prydiuk, 2012; <sup>3</sup>Sarkina and Mironova, 2015; <sup>3</sup>Sarkina and Stavishenko, 2019); **Kaliningrad Oblast** (<sup>3</sup>Dedkov, Volodina, and Gubareva, 2007); **Kaluga Oblast** (<sup>3</sup>Sionova, 2009); **Leningrad Oblast** (<sup>3</sup>Kovalenko and Morozova, 1999a; <sup>3</sup>Popov et al., 2007); **Moscow Oblast** (<sup>3</sup>Gorlenko, Sidorova, and Sidorova, 1989); **Orenburg Oblast** (<sup>3</sup>Desyatova, 2008); **Perm Krai** (<sup>3</sup>Perevedentseva, 2008); **Rostov Oblast** (<sup>1</sup>Rusanov, Rebriev, and Bulgakov, 2018); **Samara Oblast** (<sup>3</sup>Malysheva and Malysheva, 2004; <sup>3</sup>Malysheva and Malysheva, 2008); **Sevastopol** (<sup>3</sup>Sarkina, 2016b; <sup>1</sup>Sarkina, 2020c); **Ulyanovsk Oblast** (<sup>3</sup>Ilyukhin, 2010a); **Voronezh Oblast** (<sup>3</sup>Agafonov, 2011; <sup>1</sup>Sarycheva, Starodubtseva, and Sapelnikova, 2017; <sup>1</sup>Agafonov, 2018); **Arid territories** (<sup>1</sup>Rebriev, Rusanov, et al., 2012).

***Coprinopsis poliomalla* (Romagn.) Doveri, Granito & Lunghini**≡ *Coprinus poliomallus* Romagn.<sup>1</sup>

EASTERN EUROPE: **Leningrad Oblast** (<sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Morozova, 1999; <sup>1</sup>Popov et al., 2007).

***Coprinopsis pseudofriesii* (Pilát & Svrček) Redhead, Vilgalys & Moncalvo**

EASTERN EUROPE: **Rostov Oblast** (Rebriev, 2018); **Sverdlovsk Oblast** (Shiryaeva and Palamarchuk, 2019); **Arid territories** (Rebriev, Rusanov, et al., 2012).

***Coprinopsis pseudoradiata* (Kühner & Joss. ex Watling) Redhead, Vilgalys & Moncalvo**≡ *Coprinus pseudoradiatus* Kühner & Joss. ex Watling<sup>1</sup>

EASTERN EUROPE: **Perm Krai** (<sup>1</sup>Perevedentseva, 2008); **Samara Oblast** (<sup>1</sup>Malysheva and Malysheva, 2008); **Sverdlovsk Oblast** (<sup>1</sup>Marina, 2006).

***Coprinopsis radiata* (Bolton) Redhead, Vilgalys & Moncalvo<sup>1</sup>**≡ *Agaricus radiatus* Bolton<sup>2</sup> ≡ *Coprinus radiatus* (Bolton) Pers.<sup>3</sup>

EASTERN EUROPE: **Leningrad Oblast** (<sup>3</sup>Thesleff, 1920; <sup>3</sup>Kovalenko and Morozova, 1999a; <sup>3</sup>Popov et al., 2007); **Penza Oblast** (<sup>3</sup>Ivanov, 1982); **Saint Petersburg** (<sup>2</sup>Weinmann, 1828; <sup>2</sup>Weinmann, 1836; <sup>2</sup>Weinmann, 1837); **Smolensk Oblast** (<sup>3</sup>Jaczewski, 1898); **Tatarstan** (<sup>3</sup>Sorokin, 1872; <sup>3</sup>Vassiljeva, 1977); **Lapland** (<sup>3</sup>Karsten, 1866).

SIBERIA: **Khakassia** (<sup>3</sup>Beglyanova, 1972a; <sup>1</sup>Zauzolkova, 2015).

FAR EAST: **Primorsky Krai** (<sup>3</sup>Bulakh, 2008; <sup>3</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Bulakh et al., 2016).

***Coprinopsis romagnesiana* (Singer) Redhead, Vilgalys & Moncalvo<sup>1</sup>**≡ *Coprinus romagnesianus* Singer<sup>2</sup>

EASTERN EUROPE: **Krasnodar Krai** (<sup>2</sup>Sopina, 2001a; <sup>2</sup>Psurtseva, Kiyashko, Gachkova, and Belova, 2007); **Moscow Oblast** (<sup>2</sup>Levitskaya, 1995c; <sup>2</sup>Levitskaya, 2013); **Ryazan Oblast** (<sup>2</sup>Volosnova, 2014); **Saint Petersburg** (<sup>2</sup>Morozova and Smirnov, 2011; <sup>1</sup>Morozova et al., 2020); **Udmurt Republic** (<sup>1</sup>Kapitonov, 2013); **Arid territories** (<sup>1</sup>Rebriev, Rusanov, et al., 2012).

SIBERIA: **Khanty-Mansi Autonomous Okrug** (<sup>1</sup>Zvyagina and Baykalova, 2012); **Krasnoyarsk Krai** (<sup>2</sup>Stepanov, 2012; <sup>1</sup>Malysheva, Malysheva, Kiyashko, et al., 2017); **Tomsk Oblast** (<sup>1</sup>Kudashova, Gashkov, and Kutafjeva, 2013; <sup>1</sup>Kudashova, Gashkov, and Vaishlya, 2016b); **Yamalo-Nenets Autonomous Okrug** (<sup>1</sup>Kapitonov, 2015).

***Coprinopsis saccharomyces* (P.D. Orton) P. Roux & Guy García**≡ *Coprinus saccharomyces* P.D. Orton<sup>1</sup>

EASTERN EUROPE: **Belgorod Oblast** (<sup>1</sup>Bedenko, 1979a; <sup>1</sup>Bedenko, 1979b).

***Coprinopsis sclerotiger* (Watling) Redhead, Vilgalys & Moncalvo**≡ *Coprinus sclerotiger* Watling<sup>1</sup>

EASTERN EUROPE: **Sverdlovsk Oblast** (<sup>1</sup>Marina, 2006).

***Coprinopsis spilospora* (Romagn.) Redhead, Vilgalys & Moncalvo**≡ *Coprinus spilosporus* Romagn.<sup>1</sup>

EASTERN EUROPE: **Crimea** (<sup>1</sup>Sarkina and Prydiuk, 2012); **Penza Oblast** (<sup>1</sup>Ivanov, 1983); **Perm Krai** (<sup>1</sup>Perevedentseva, 2008).

SIBERIA: **Krasnoyarsk Krai** (<sup>1</sup>Beglyanova, 1972a).

***Coprinopsis stercorea* (Fr.) Redhead, Vilgalys & Moncalvo<sup>1</sup>**≡ *Coprinus stercoreus* Fr.<sup>2</sup>

EASTERN EUROPE: **Komi Republic** (<sup>1</sup>Palamarchuk, 2020b); **Leningrad Oblast** (<sup>2</sup>Morozova, 2002; <sup>2</sup>Popov et al., 2007); **Lipetsk Oblast** (<sup>2</sup>Sarycheva et al., 2009; <sup>1</sup>Sarycheva, 2016); **Pskov Oblast** (<sup>1</sup>Kalinina, Bolshakov, and Bulyonkova, 2020); **Ryazan Oblast** (<sup>2</sup>Volosnova, 2014); **Sverdlovsk Oblast** (<sup>2</sup>Marina, 2006); **Arid territories** (<sup>1</sup>Rebriev, Rusanov, et al., 2012).

SIBERIA: **Krasnoyarsk Krai** (<sup>1</sup>Kosheleva and Kutafjeva, 2008a).FAR EAST: **Primorsky Krai** (<sup>2</sup>Bulakh, 2008; <sup>2</sup>Bau, Bulakh, and Govorova, 2011).***Coprinopsis urticicola* (Berk. & Broome) Redhead, Vilgalys & Moncalvo<sup>1</sup>**

≡ *Coprinopsis urticicola* var. *urticicola* (Berk. & Broome) Redhead, Vilgalys & Moncalvo<sup>2</sup> ≡ *Coprinus urticicola* (Berk. & Broome) Buller<sup>3</sup> = *Coprinus brassicae* Peck<sup>4</sup>

EASTERN EUROPE: **Leningrad Oblast** (<sup>1</sup>Zmitrovich et al., 2015); **Novgorod Oblast** (<sup>1</sup>Kalinina, 2019); **Orenburg Oblast** (<sup>2</sup>Desyatova, 2008); **Penza Oblast** (<sup>4</sup>Ivanov and Nezdojminogo, 1990); **Pskov Oblast** (<sup>3</sup>Kovalenko, Kolmakov, Morozova, and Popov, 2003; <sup>3</sup>Psurtseva, Kiyashko, Gachkova, and Belova, 2007; <sup>1</sup>Popov et al., 2013); **Ryazan Oblast** (<sup>4</sup>Volosnova, 1997; <sup>4</sup>Volosnova, 2014).

***Coprinopsis xantholepis* (P.D. Orton) Redhead, Vilgalys & Moncalvo**≡ *Coprinus xantholepis* P.D. Orton<sup>1</sup>EASTERN EUROPE: **Samara Oblast** (<sup>1</sup>Malysheva and Malysheva, 2006; <sup>1</sup>Malysheva and Malysheva, 2008).***Coprinus comatus* (O.F. Müll.) Pers.<sup>1</sup>**

≡ *Agaricus comatus* O.F. Müll.<sup>2</sup> ≡ *Pselliophora comata* (O.F. Müll.) P. Karst.<sup>3</sup> = *Agaricus comatus* var. *ovatus* (Schaeff.) Fr.<sup>4</sup> = *Coprinus comatus* var. *ovatus* (Schaeff.) Quél.<sup>5</sup> = *Coprinus ovatus* (Schaeff.) Fr.<sup>6</sup>

EASTERN EUROPE: **Adygea** (<sup>1</sup>Sopina, 2001a); **Arkhangelsk Oblast** (<sup>1</sup>Ezhov, Zmitrovich, and Ruokolainen, 2019); **Bashkortostan** (<sup>1</sup>Psurtseva, Kiyashko, Gachkova, and Belova, 2007); **Belgorod Oblast** (<sup>1,5</sup>Bedenko, 1979a; <sup>1</sup>Bedenko, 1980; <sup>1</sup>Ryabova and Ignatenko, 1981); **Bryansk Oblast** (<sup>1</sup>Kruglikov, 2007); **Chechen Republic** (<sup>1</sup>Taysumov, Krapivina, and Kushalieva, 2016); **Chelyabinsk Oblast** (<sup>1</sup>Aleksandrovskaya and Lobanova, 1968); **Crimea** (<sup>1</sup>Sarkina, 2001; <sup>1</sup>Dudka et al., 2004; <sup>1</sup>Sarkina, 2010b; <sup>1</sup>Sarkina and Prydiuk, 2012; <sup>1</sup>Sarkina, 2014b; <sup>1</sup>Sarkina and Mironova, 2015); **Kabardino-Balkarian Republic** (<sup>1</sup>Shkhagapsoev and Krapivina, 2003; <sup>1</sup>Shkhagapsoev and Krapivina, 2004); **Kaliningrad Oblast** (<sup>1</sup>Dedkov, Volodina, and Gubareva, 2007; <sup>1</sup>Volodina, 2007; <sup>1</sup>Atayev and Volodina, 2020); **Kaluga Oblast** (<sup>1</sup>Sionova, 2003; <sup>1</sup>Sionova, 2006); **Karelia** (<sup>1</sup>Bondartseva et al., 2001; <sup>1</sup>Krutov et al., 2014; <sup>1</sup>Savelev and Kikeeva, 2018); **Kirov Oblast** (<sup>1</sup>Kirillov, 2011; <sup>1</sup>Kirillov, Perevedentseva, and Egoshina, 2011; <sup>1</sup>Stavishenko, Luginina, Kirillov, and Egoshina, 2019); **Komi Republic** (<sup>1</sup>Bobretsova, 2004; <sup>1</sup>Palamarchuk, 2012; <sup>1</sup>Palamarchuk and Kirillov, 2017); **Krasnodar Krai** (<sup>1</sup>Kovalenko, 1980a; <sup>1</sup>Sopina, 2001a); **Kursk Oblast** (<sup>1</sup>Ryabova and Ignatenko, 1981; <sup>1</sup>Baranov, 2002; <sup>1</sup>Soshnina, 2005; <sup>1</sup>Soshnina, 2014); **Leningrad Oblast** (<sup>3</sup>Thesleff, 1920; <sup>1</sup>Kalamees and Kovalenko, 1984; <sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Morozova, 2007; <sup>1</sup>Popov et al., 2007; <sup>1</sup>Psurtseva, Kiyashko, Gachkova, and Belova, 2007; <sup>1</sup>Zmitrovich et al., 2015); **Lipetsk Oblast** (<sup>1</sup>Rtishcheva, 1999; <sup>1</sup>Sarycheva, 1999; <sup>1</sup>Afanasyev, Rtishcheva, and Starodubtseva, 2007; <sup>1</sup>Sarycheva et al., 2009; <sup>1</sup>Sarycheva, 2011; <sup>1</sup>Sarycheva, 2014a; <sup>1</sup>Sarycheva, 2016; <sup>1</sup>Sarycheva, Starodubtseva, and Sapelnikova, 2017); **Mari El Republic** (<sup>1</sup>Prokhorov, 2007); **Mordovia** (<sup>1</sup>Ivoilov and Bolshakov, 2011a); **Moscow** (<sup>2</sup>Weinmann, 1836); **Moscow Oblast** (<sup>1</sup>Gorlenko, Sidorova, and Sidorova, 1989; <sup>1</sup>Levitskaya, 1995c; <sup>1</sup>Voronina et al., 2012; <sup>1</sup>Levitskaya, 2013; <sup>1</sup>Voronina et al., 2014); **North Ossetia** (<sup>1</sup>Nikolayev, 2001); **Orenburg Oblast** (<sup>1</sup>Desyatova, 2008); **Oryol Oblast** (<sup>1</sup>Radygina, Derzhavina, and Tsutsupa, 2014); **Penza Oblast** (<sup>1</sup>Ivanov, 1982); **Perm Krai** (<sup>1</sup>Perevedentseva, 2008; <sup>1</sup>Belkovskaya et al., 2014); **Pskov Oblast** (<sup>1</sup>Popov, 2001a; <sup>1</sup>Popov et al., 2013); **Rostov Oblast** (<sup>1</sup>Rusanov et al., 2004; <sup>1</sup>Morozova et al., 2008; <sup>1</sup>Zmitrovich et al., 2008; <sup>1</sup>Rebriev and Svetasheva, 2010; <sup>1</sup>Shiryaev, Rebriev, and Knudsen, 2017; <sup>1</sup>Rebriev, 2018; <sup>1</sup>Rusanov, Rebriev, and Bulgakov, 2018); **Ryazan Oblast** (<sup>1</sup>Volosnova, 1997; <sup>1</sup>Volosnova, 2014); **Saint Petersburg** (<sup>2,4</sup>Weinmann, 1828; <sup>4</sup>Weinmann, 1836; <sup>2,4</sup>Weinmann, 1837; <sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Morozova and Kovalenko, 2000; <sup>1</sup>Kotkova, Morozova, and Popov, 2006; <sup>1</sup>Kotkova, Morozova, and Popov, 2007; <sup>1</sup>Psurtseva, Kiyashko, Gachkova, and Belova, 2007; <sup>1</sup>Morozova and Smirnov, 2011; <sup>1</sup>Morozova, Kovalenko, Rebriev, and Malysheva, 2014; <sup>1</sup>Zhukova, Morozova, Volobuev, and Bryantseva, 2017; <sup>1</sup>Morozova et al., 2020); **Samara Oblast** (<sup>1</sup>Malysheva and Malysheva, 2004; <sup>1</sup>Malysheva and Malysheva, 2008); **Smolensk Oblast** (<sup>1</sup>Jaczevski, 1898); **Sverdlovsk Oblast** (<sup>1</sup>Stepanova and Sirko, 1977; <sup>1</sup>Marina, 2006); **Tatarstan** (<sup>1</sup>Vassiljeva, 1977; <sup>1</sup>Potapov, Galejev, and Zhukov, 2013; <sup>1</sup>Potapov, 2015b); **Tula Oblast** (<sup>1</sup>Svetasheva, 2004); **Tver Oblast** (<sup>1</sup>Kurochkin, 1993; <sup>1</sup>Kurochkin and Medvedev, 2015; <sup>1</sup>Kurochkin, 2016); **Udmurt Republic** (<sup>1</sup>Tychinin, 1990; <sup>1</sup>Tychinin and Kuzmina, 2003); **Ulyanovsk Oblast** (<sup>1</sup>Ilyukhin, 2010a; <sup>1</sup>Ilyukhin, 2010b); **Volgograd Oblast**

(<sup>1</sup>Goncharova and Vedeneyev, 2015); **Vologda Oblast** (<sup>1</sup>Kirillova, 2007); **Voronezh Oblast** (<sup>1</sup>Rtishcheva, 1999; <sup>1</sup>Afanasyev, Rtishcheva, and Starodubtseva, 2007; <sup>1</sup>Sarycheva, Starodubtseva, and Sapelnikova, 2017); **Yamalo-Nenets Autonomous Okrug** (<sup>1</sup>Kazantseva, 1966; <sup>1</sup>Stepanova and Sirko, 1977); **Yaroslavl Oblast** (<sup>1</sup>Lazareva, 1998a; <sup>1</sup>Lazareva, 1998b); **Arid territories** (<sup>1</sup>Rebriev, Rusanov, et al., 2012); **Northern Caucasus** (<sup>1</sup>Kovalenko, 1980b).

SIBERIA: **Altai Krai** (<sup>1</sup>Gorbunova and Chubarova, 2008; <sup>1</sup>Gorbunova, Vlasenko, and Tzhubarova, 2011); **Altai Republic** (<sup>1</sup>Kovalenko, 1992; <sup>1</sup>Gorbunova, 2001b; <sup>1</sup>Perova and Gorbunova, 2001); **Buryatia** (<sup>1</sup>Petrov, 1991); **Irkutsk Oblast** (<sup>1</sup>Kutafjeva, 1983; <sup>1</sup>Petrov, 1986; <sup>1</sup>Petrov, 1991; <sup>1</sup>Muzyka, 2002; <sup>1</sup>Petrov, 2008; <sup>1</sup>Muzyka, 2009); **Khakassia** (<sup>1</sup>Zauzolkova, 2015); **Khanty-Mansi Autonomous Okrug** (<sup>1</sup>Zvyagina, Baykalova, and Gorbunova, 2007; <sup>1</sup>Makarova, Makarov, Zvyagina, and Bobrikov, 2015); **Krasnoyarsk Krai** (<sup>6</sup>Thümen, 1878; <sup>1</sup>Beglyanova, 1972a; <sup>1</sup>Lapitskaya, 1993; <sup>1</sup>Kosheleva and Kutafjeva, 2008a); **Novosibirsk Oblast** (<sup>1</sup>Nozdrenko, 1970; <sup>1</sup>Perova, 1977; <sup>1</sup>Perova and Gorbunova, 2001; <sup>1</sup>Gorbunova, 2006; <sup>1</sup>Gorbunova, 2007; <sup>1</sup>Koropachinskiy and Banaev, 2014); **Sverdlovsk Oblast** (<sup>1</sup>Stepanova and Sirko, 1977); **Tomsk Oblast** (<sup>1</sup>Milovidova, 1980; <sup>1</sup>Kudashova, Gashkov, and Kutafjeva, 2013).

FAR EAST: **Amur Oblast** (<sup>1</sup>Taranina, 2005; <sup>1</sup>Kochunova, 2019); **Kamchatka Krai** (<sup>1</sup>Kalamees and Vaasma, 1981); **Magadan Oblast** (<sup>1</sup>Sazanova, 2005; <sup>1</sup>Sazanova, 2009a); **Primorsky Krai** (<sup>1</sup>Vassiljeva, 1973; <sup>1</sup>Bau, Bulakh, and Govorova, 2011).

### ***Coprinus rostrupianus* E.C. Hansen**

EASTERN EUROPE: **Saint Petersburg** (Singer, 1938b).

### ***Coprinus sterquilinus* (Fr.) Fr.<sup>1</sup>**

≡ *Agaricus sterquilinus* Fr.<sup>2</sup>

EASTERN EUROPE: **Karelia** (<sup>1</sup>Freindling, 1949; <sup>1</sup>Bondartseva et al., 2001; <sup>1</sup>Krutov et al., 2014); **Leningrad Oblast** (<sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Popov et al., 2007); **Lipetsk Oblast** (<sup>1</sup>Afanasyev, Rtishcheva, and Starodubtseva, 2007; <sup>1</sup>Sarycheva et al., 2009; <sup>1</sup>Sarycheva, Starodubtseva, and Sapelnikova, 2017); **Moscow Oblast** (<sup>1</sup>Gorlenko, Sidorova, and Sidorova, 1989); **Saint Petersburg** (<sup>2</sup>Weinmann, 1828; <sup>2</sup>Weinmann, 1837); **Sverdlovsk Oblast** (<sup>1</sup>Marina, 2006); **Tver Oblast** (<sup>1</sup>Chastukhin, 1948b; <sup>1</sup>Chastukhin and Nikolaevskaya, 1969; <sup>2</sup>Mukhina, 2011a; <sup>1</sup>Kotkova, 2014); **Voronezh Oblast** (<sup>1</sup>Afanasyev, Rtishcheva, and Starodubtseva, 2007; <sup>1</sup>Sarycheva, Starodubtseva, and Sapelnikova, 2017); **Yamalo-Nenets Autonomous Okrug** (<sup>1</sup>Kazantseva, 1966; <sup>1</sup>Stepanova and Sirko, 1977); **Arid territories** (<sup>1</sup>Rebriev, Rusanov, et al., 2012).

SIBERIA: **Irkutsk Oblast** (<sup>1</sup>Petrov, 1986; <sup>1</sup>Petrov, 1991); **Khakassia** (<sup>1</sup>Beglyanova, 1972a); **Krasnoyarsk Krai** (<sup>1</sup>Saccardo, 1889; <sup>1</sup>Beglyanova, 1972a; <sup>1</sup>Kosheleva and Kutafjeva, 2008a; <sup>1</sup>Krom and Kapitonov, 2019).

### ***Coprinus velox* Godey**

EASTERN EUROPE: **Belgorod Oblast** (Bedenko, 1980); **Ryazan Oblast** (Volosnova, 1997).

FAR EAST: **Primorsky Krai** (Azbukina et al., 1984).

### ***Coprinus vosoustii* Pilát**

EASTERN EUROPE: **Crimea** (Sarkina, 2014b; Sarkina and Mironova, 2015); **Sevastopol** (Sarkina, 2016b).

### ***Cortinarius acutus* (Pers.) Fr.<sup>1</sup>**

≡ *Agaricus acutus* Pers.<sup>2</sup> ≡ *Hydrocybe acuta* (Pers.) Wünsche<sup>3</sup>

EASTERN EUROPE: **Belgorod Oblast** (<sup>1</sup>Bedenko, 1979a; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdjminogo, 1990; <sup>1</sup>Nezdjminogo, 1996); **Kaliningrad Oblast** (<sup>3</sup>Neuhoff, 1922; <sup>1</sup>Volodina, 2007; <sup>1</sup>Atayev and Volodina, 2020); **Karelia** (<sup>1</sup>Freindling, 1949; <sup>1</sup>Nezdjminogo, 1977; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdjminogo, 1990; <sup>1</sup>Nezdjminogo, 1996; <sup>1</sup>Kovalenko, Morozova, Fomina, and Särkisilta, 1998; <sup>1</sup>Bondartseva et al., 2001; <sup>1</sup>Krutov et al., 2014); **Kirov Oblast** (<sup>1</sup>Kirillov, 2011; <sup>1</sup>Kirillov, Perevedentseva, and Egoshina, 2011; <sup>1</sup>Stavishenko, Luginina, Kirillov, and Egoshina, 2019); **Komi Republic** (<sup>1</sup>Palamarchuk, 2016a; <sup>1</sup>Palamarchuk, 2016b; <sup>1</sup>Palamarchuk and Kirillov, 2017); **Kostroma Oblast** (<sup>1</sup>Burova, 1982); **Krasnodar Krai** (<sup>1</sup>Vassiljeva, 1939; <sup>1</sup>Nezdjminogo, 1977; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdjminogo, 1990; <sup>1</sup>Nezdjminogo, 1996); **Leningrad Oblast** (<sup>1</sup>Thesleff, 1920; <sup>1</sup>Nezdjminogo, 1967; <sup>1</sup>Chastukhin and Nikolaevskaya, 1969; <sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Fomina, 2000; <sup>1</sup>Fomina, 2001; <sup>1</sup>Popov et al., 2007; <sup>1</sup>Malysheva, Malysheva, Shchepin, and Novozhilov, 2018); **Moscow Oblast** (<sup>1</sup>Voronina et al., 2014); **Murmansk Oblast** (<sup>1</sup>Mikhailovskii, 1975b; <sup>1</sup>Nezdjminogo, 1977; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdjminogo, 1990; <sup>1</sup>Nezdjminogo, 1996); **Perm Krai** (<sup>1</sup>Perevedentseva, 2008; <sup>1</sup>Botalov, 2017; <sup>1</sup>Botalov and Perevedentseva, 2018); **Pskov Oblast** (<sup>1</sup>Kalinina, Bolshakov, and Bulyonkova, 2020); **Saint Petersburg** (<sup>2</sup>Weinmann, 1836; <sup>2</sup>Weinmann, 1837; <sup>1</sup>Morozova and Smirnov, 2011; <sup>1</sup>Morozova et al., 2020); **Sverdlovsk Oblast** (<sup>1</sup>Marina, 2006); **Tatarstan**

(<sup>1</sup>Vassiljeva, 1977; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdoininogo, 1990; <sup>1</sup>Nezdoininogo, 1996); **Udmurt Republic** (<sup>1</sup>Tychinin and Kuzmina, 2003); **Voronezh Oblast** (<sup>1</sup>Agafonov, 2011; <sup>1</sup>Agafonov, 2018).

SIBERIA: **Buryatia** (<sup>1</sup>Nezdoininogo, 1973; <sup>1</sup>Nezdoininogo, 1977; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdoininogo, 1990; <sup>1</sup>Petrov, 1991; <sup>1</sup>Nezdoininogo, 1996); **Irkutsk Oblast** (<sup>1</sup>Petrov, Nezdoininogo, and Bulakh, 1987; <sup>1</sup>Petrov, 1991; <sup>1</sup>Petrov, 2008; <sup>1</sup>Gorbunova and Stepanstova, 2015); **Khanty-Mansi Autonomous Okrug** (<sup>1</sup>Filippova and Bulyonkova, 2017a; <sup>1</sup>Filippova and Bulyonkova, 2017b); **Krasnoyarsk Krai** (<sup>1</sup>Beglyanova, 1972a; <sup>1</sup>Nezdoininogo, 1977; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdoininogo, 1990; <sup>1</sup>Nezdoininogo, 1996); **Novosibirsk Oblast** (<sup>1</sup>Perova and Gorbunova, 2001; <sup>1</sup>Perova and Gorbunova, 2007; <sup>1</sup>Koropachinskiy and Banaev, 2014); **Sakha Republic** (<sup>1</sup>Nezdoininogo, 1977; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdoininogo, 1990; <sup>1</sup>Nezdoininogo, 1996).

FAR EAST: **Amur Oblast** (<sup>1</sup>Nezdoininogo, 1977; <sup>1</sup>Nazarova, 1986); **Magadan Oblast** (<sup>1</sup>Nazarova, 1976; <sup>1</sup>Nezdoininogo, 1977; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdoininogo, 1990; <sup>1</sup>Nezdoininogo, 1996; <sup>1</sup>Sazanova, 2005; <sup>1</sup>Sazanova, 2009a).

***Cortinarius adalbertii* J. Favre ex M.M. Moser<sup>1</sup>**

≡ *Cortinarius adalbertii* J. Favre<sup>2</sup>

EASTERN EUROPE: **Karelia** (<sup>1</sup>Krutov et al., 2014); **Leningrad Oblast** (<sup>2</sup>Kovalenko and Morozova, 1999a; <sup>2</sup>Popov et al., 2007); **Moscow Oblast** (<sup>2</sup>Levitskaya, 2013); **Perm Krai** (<sup>2</sup>Perevedentseva, Nezdoininogo, and Kovalenko, 1990; <sup>2</sup>Perevedentseva, 2008).

SIBERIA: **Irkutsk Oblast** (<sup>2</sup>Astapenko, 1990b).

***Cortinarius adustorimosus* Rob. Henry**

SIBERIA: **Altai Republic** (Brandrud et al., 2019).

***Cortinarius agathosmus* Brandrud, H. Lindstr. & Melot**

EASTERN EUROPE: **Kirov Oblast** (Stavishenko, Luginina, Kirillov, and Egoshina, 2019); **Novgorod Oblast** (Arslanov, 2012).

SIBERIA: **Altai Republic** (Brandrud et al., 2019); **Khanty-Mansi Autonomous Okrug** (Filippova and Bulyonkova, 2017a; Filippova and Bulyonkova, 2017b); **Tomsk Oblast** (Kudashova, Gashkov, and Vaishlya, 2016a; Vaishlya et al., 2017).

***Cortinarius aggregatus* Kauffman**

FAR EAST: **Primorsky Krai** (Vassiljeva, 1973).

***Cortinarius albidus* Peck**

EASTERN EUROPE: **Lipetsk Oblast** (Sarycheva et al., 2009); **Perm Krai** (Perevedentseva, 2008; Botalov, 2017).

FAR EAST: **Amur Oblast** (Bulakh, Wasser, Nazarova, and Nezdoininogo, 1990; Nezdoininogo, 1996).

***Cortinarius albocyaneus* Fr.**

EASTERN EUROPE: **Karelia** (Freindling, 1949; Bondartseva et al., 2001; Krutov et al., 2014).

SIBERIA: **Altai Republic** (Brandrud et al., 2019).

***Cortinarius alborufescens* Imler**

SIBERIA: **Altai Republic** (Brandrud et al., 2019); **Khanty-Mansi Autonomous Okrug** (Filippova and Bulyonkova, 2017a; Filippova and Bulyonkova, 2017b); **Tomsk Oblast** (Brandrud et al., 2019).

***Cortinarius albovariegatus* (Velen.) Melot**

EASTERN EUROPE: **Karelia** (Krutov et al., 2014); **Leningrad Oblast** (Stolyarskaya, 1993; Nezdoininogo, 1996; Kovalenko and Morozova, 1999a; Fomina, 2000; Popov et al., 2007; Zmitrovich et al., 2015); **Moscow Oblast** (Levitskaya, 2006; Levitskaya, 2013); **Vologda Oblast** (Kirillova, 2007).

SIBERIA: **Khanty-Mansi Autonomous Okrug** (Filippova and Thormann, 2014; Filippova, 2014; Filippova, Mourgues, and Philippe, 2014; Filippova and Bulyonkova, 2017a; Filippova and Bulyonkova, 2017b).

***Cortinarius alboviolaceus* (Pers.) Fr.<sup>1</sup>**

≡ *Agaricus alboviolaceus* Pers.<sup>2</sup>

EASTERN EUROPE: **Bryansk Oblast** (<sup>1</sup>Kruglikov, 2007); **Crimea** (<sup>1</sup>Dudka et al., 2004; <sup>1</sup>Sarkina, 2011; <sup>1</sup>Sarkina and Prydiuk, 2012); **Kaliningrad Oblast** (<sup>1</sup>Dedkov, Volodina, and Gubareva, 2007; <sup>1</sup>Volodina, 2007); **Kaluga Oblast**

(<sup>1</sup>Sionova, 2003); **Karelia** (<sup>1</sup>Freindling, 1949; <sup>1</sup>Kovalenko, Morozova, Fomina, and Särkisilta, 1998; <sup>1</sup>Bondartseva et al., 2001; <sup>1</sup>Predtechenskaya and Ruokolainen, 2008; <sup>1</sup>Predtechenskaya and Ruokolainen, 2013; <sup>1</sup>Predtechenskaya, 2013; <sup>1</sup>Krutov et al., 2014; <sup>1</sup>Predtechenskaya and Ruokolainen, 2014; <sup>1</sup>Predtechenskaya, 2015; <sup>1</sup>Savelev and Kikeeva, 2020); **Kirov Oblast** (<sup>1</sup>Kirillov and Luginina, 2011; <sup>1</sup>Kirillov, 2011; <sup>1</sup>Kirillov, Perevedentseva, and Egoshina, 2011; <sup>1</sup>Stavishenko, Luginina, Kirillov, and Egoshina, 2019); **Komi Republic** (<sup>1</sup>Nezdojminogo, 1978a; <sup>1</sup>Karatygin, Nezdojminogo, Novozhilov, and Zhurbenko, 1999; <sup>1</sup>Bobretsova, 2004; <sup>1</sup>Palamarchuk, 2012); **Kostroma Oblast** (<sup>1</sup>Burova, 1982); **Leningrad Oblast** (<sup>1</sup>Thesleff, 1920; <sup>1</sup>Nezdojminogo, 1978a; <sup>1</sup>Kalamees and Kovalenko, 1984; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1</sup>Stolyarskaya, 1993; <sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Fomina, 2000; <sup>1</sup>Morozova, 2007; <sup>1</sup>Popov et al., 2007; <sup>1</sup>Zmitrovich et al., 2015); **Mari El Republic** (<sup>1</sup>Prokhorov, 2007); **Mordovia** (<sup>1</sup>Ivoilov and Bolshakov, 2011a); **Moscow** (<sup>1</sup>Bucholtz, 1897b; <sup>1</sup>Bucholtz, 1897c; <sup>1</sup>Mosolov, 1906); **Moscow Oblast** (<sup>1</sup>Gorlenko, Sidorova, and Sidorova, 1989; <sup>1</sup>Levitskaya, 1995c; <sup>1</sup>Levitskaya, 2013; <sup>1</sup>Voronina et al., 2014; <sup>1</sup>Sidorova, Alexandrova, and Voronina, 2017); **Murmansk Oblast** (<sup>1</sup>Pystina, Pavlova, and Shestakova, 1969); **Orenburg Oblast** (<sup>1</sup>Desyatova, 2008); **Penza Oblast** (<sup>1</sup>Ivanov, 1983; <sup>1</sup>Ivanov and Durandin, 1996; <sup>1</sup>Ivanov, 2019); **Perm Krai** (<sup>1</sup>Perevedentseva, 2008; <sup>1</sup>Belkovskaya et al., 2014; <sup>1</sup>Botalov, 2017; <sup>1</sup>Botalov and Perevedentseva, 2018); **Pskov Oblast** (<sup>1</sup>Popov et al., 2013); **Ryazan Oblast** (<sup>1</sup>Volosnova, 1997; <sup>1</sup>Volosnova, 2014); **Saint Petersburg** (<sup>2</sup>Weinmann, 1828; <sup>2</sup>Weinmann, 1836; <sup>2</sup>Weinmann, 1837; <sup>1</sup>Morozova and Smirnov, 2011; <sup>1</sup>Morozova et al., 2020); **Samara Oblast** (<sup>1</sup>Malysheva and Malysheva, 2008); **Smolensk Oblast** (<sup>1</sup>Jaczewski, 1893; <sup>1</sup>Jaczewski, 1895); **Sverdlovsk Oblast** (<sup>1</sup>Marina, 2006); **Tatarstan** (<sup>1</sup>Vassiljeva, 1977; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990); **Tula Oblast** (<sup>1</sup>Svetasheva, 2004; <sup>1</sup>Svetasheva, 2005a); **Tver Oblast** (<sup>1</sup>Kurochkin, 1993); **Udmurt Republic** (<sup>1</sup>Tychinin, 1990; <sup>1</sup>Tychinin and Kuzmina, 2003); **Ulyanovsk Oblast** (<sup>1</sup>Ilyukhin, 2010a); **Vologda Oblast** (<sup>1</sup>Kutova, 1957; <sup>1</sup>Kirillova, 2007); **Yamalo-Nenets Autonomous Okrug** (<sup>1</sup>Karatygin, Nezdojminogo, Novozhilov, and Zhurbenko, 1999); **Yaroslavl Oblast** (<sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1</sup>Lazareva, 1998a; <sup>1</sup>Lazareva, 2002).

**SIBERIA:** **Altai Republic** (<sup>1</sup>Gorbunova, 1997; <sup>1</sup>Gorbunova, 2001b; <sup>1</sup>Perova and Gorbunova, 2001; <sup>1</sup>Gorbunova, 2008); **Buryatia** (<sup>1</sup>Nezdojminogo, 1970a; <sup>1</sup>Nezdojminogo, 1978a; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1</sup>Petrov, 1991); **Irkutsk Oblast** (<sup>1</sup>Astapenko and Kutafjeva, 1990; <sup>1</sup>Astapenko, 1990b; <sup>1</sup>Muzyka, 2002; <sup>1</sup>Bardunov et al., 2005; <sup>1</sup>Muzyka, 2009; <sup>1</sup>Gorbunova and Stepanyeva, 2015; <sup>1</sup>Muzyka and Penzina, 2017); **Khakassia** (<sup>1</sup>Zauzolkova, 2015); **Khanty-Mansi Autonomous Okrug** (<sup>1</sup>Zvyagina, Baykalova, and Gorbunova, 2007; <sup>1</sup>Filippova, Bulyonkova, and Lapshina, 2015; <sup>1</sup>Filippova and Bulyonkova, 2017a; <sup>1</sup>Filippova and Bulyonkova, 2017b); **Krasnoyarsk Krai** (<sup>1</sup>Beglyanova, 1972a; <sup>1</sup>Nezdojminogo, 1976a; <sup>1</sup>Nezdojminogo, 1978a; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1</sup>Lapitskaya, 1993; <sup>1</sup>Kryuchkova, 2009; <sup>1</sup>Zauzolkova, 2012; <sup>1</sup>Zauzolkova, 2015; <sup>1</sup>Malysheva, Malysheva, Kiyashko, et al., 2017; <sup>1</sup>Krom and Kapitonov, 2019); **Novosibirsk Oblast** (<sup>1</sup>Perova, 1977; <sup>1</sup>Perova and Gorbunova, 2001; <sup>1</sup>Koropachinskiy and Banaev, 2014); **Tomsk Oblast** (<sup>1</sup>Nezdojminogo, 1978a; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1</sup>Perova and Gorbunova, 2001; <sup>1</sup>Kosheleva and Kutafjeva, 2004; <sup>1</sup>Kudashova, Gashkov, and Kutafjeva, 2013; <sup>1</sup>Vaishlya et al., 2017); **Yamalo-Nenets Autonomous Okrug** (<sup>1</sup>Tarчевskaya, 1990).

**FAR EAST:** **Amur Oblast** (<sup>1</sup>Gordienko, Petrova, and Tarasov, 1981; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1</sup>Taranina, 2005; <sup>1</sup>Kochunova, 2019); **Jewish Autonomous Oblast** (<sup>1</sup>Bulakh, Govorova, Nazarova, and Vassiljeva, 2007; <sup>1</sup>Bau, Bulakh, and Govorova, 2011); **Khabarovsk Krai** (<sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1</sup>Bulakh, Vassiljeva, and Erofeeva, 2010; <sup>1</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Bulakh, 2013; <sup>1</sup>Bogacheva, Bulakh, Bukharova, and Egorova, 2015; <sup>1</sup>Erofeeva and Bulakh, 2015a); **Magadan Oblast** (<sup>1</sup>Sazanova, 1996; <sup>1</sup>Sazanova, 2005; <sup>1</sup>Sazanova, 2009a; <sup>1</sup>Sazanova, 2011); **Primorsky Krai** (<sup>1</sup>Vassiljeva, 1972; <sup>1</sup>Vassiljeva, 1973; <sup>1</sup>Bulakh, 1977; <sup>1</sup>Nezdojminogo, 1978a; <sup>1</sup>Azbukina et al., 1984; <sup>1</sup>Azbukina et al., 1990; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1</sup>Bardunov et al., 2002; <sup>1</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Bulakh et al., 2016).

### ***Cortinarius alcalinophilus* Rob. Henry**

**EASTERN EUROPE:** **Tula Oblast** (Svetasheva, 2004; Svetasheva, 2005a; Svetasheva, 2005b; Shcherbakov, 2010; Svetasheva, Sheremetyeva, and Lakomov, 2019).

### ***Cortinarius allutus* Fr.<sup>1</sup>**

≡ *Cortinarius allutus* var. *allutus* Fr.<sup>2</sup>

**EASTERN EUROPE:** **Karelia** (<sup>1</sup>Krutov et al., 2014); **Leningrad Oblast** (<sup>1</sup>Nezdojminogo, 1974; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Popov et al., 2007; <sup>1</sup>Zmitrovich et al., 2015); **Murmansk Oblast** (<sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990); **North Ossetia** (<sup>1</sup>Nikolayev, 2001); **Penza Oblast** (<sup>1</sup>Ivanov, 1983; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1</sup>Ivanov and Durandin, 1996); **Tatarstan** (<sup>1</sup>Nezdojminogo, 1974; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990); **Tver Oblast** (<sup>1</sup>Nezdojminogo, 1974; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1</sup>Kotkova, 2014).

SIBERIA: **Buryatia** (<sup>1</sup>Nezdojminogo, 1974; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>2</sup>Petrov, 1991); **Irkutsk Oblast** (<sup>1</sup>Nezdojminogo, 1974; <sup>1</sup>Kutafjeva, 1984; <sup>2</sup>Petrov, Nezdojminogo, and Bulakh, 1987; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>2</sup>Petrov, 1991; <sup>2</sup>Petrov, 2008); **Krasnoyarsk Krai** (<sup>1</sup>Beglyanova, 1972a; <sup>1</sup>Nezdojminogo, 1974; <sup>1</sup>Nezdojminogo, 1976a; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990); **Novosibirsk Oblast** (<sup>1</sup>Perova and Gorbunova, 2007).

FAR EAST: **Chukotka Autonomous Okrug** (<sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1</sup>Nezdojminogo, 1993a; <sup>1</sup>Karatygin, Nezdojminogo, Novozhilov, and Zhurbenko, 1999); **Magadan Oblast** (<sup>1</sup>Nazarova, 1976; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1</sup>Sazanova, 2005; <sup>1</sup>Sazanova, 2009a); **Primorsky Krai** (<sup>1</sup>Nezdojminogo, 1974; <sup>1</sup>Azbukina et al., 1984; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1</sup>Bulakh et al., 2016); **Sakhalin Oblast** (<sup>1</sup>Vassiljeva and Nazarova, 1972; <sup>1</sup>Nezdojminogo, 1974; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990).

***Cortinarius alneus* M.M. Moser**

EASTERN EUROPE: **Penza Oblast** (Nezdojminogo, 1996).

FAR EAST: **Primorsky Krai** (Bulakh, 1977; Azbukina et al., 1984; Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; Nezdojminogo, 1996; Bau, Bulakh, and Govorova, 2011).

***Cortinarius alpinus* Boud.<sup>1</sup>**

= *Cortinarius favrei* D.M. Hend.<sup>2</sup>

EASTERN EUROPE: **Komi Republic** (<sup>1</sup>Palamarchuk, 2016a; <sup>1</sup>Palamarchuk, 2016b); **Krasnodar Krai** (<sup>1</sup>Vassiljeva, 1939); **Murmansk Oblast** (<sup>1</sup>Vassilkov, 1971b; <sup>2</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>2</sup>Karatygin, Nezdojminogo, Novozhilov, and Zhurbenko, 1999; <sup>1</sup>Kalamees and Raitviir, 2006); **Yamalo-Nenets Autonomous Okrug** (<sup>1</sup>Knudsen and Mukhin, 1998; <sup>2</sup>Karatygin, Nezdojminogo, Novozhilov, and Zhurbenko, 1999; <sup>2</sup>Nezdojminogo, 2001).

SIBERIA: **Altai Republic** (<sup>2</sup>Gorbunova, 2003; <sup>2</sup>Gorbunova, 2010); **Krasnoyarsk Krai** (<sup>1</sup>Vassilkov, 1971b; <sup>1</sup>Stepanova and Tomilin, 1973; <sup>2</sup>Stepanova and Tomilin, 1973; <sup>2</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>2</sup>Nezdojminogo, 1993a; <sup>2</sup>Nezdojminogo and Zhurbenko, 1996; <sup>2</sup>Nezdojminogo, 1996; <sup>2</sup>Nezdojminogo, 1997a; <sup>2</sup>Karatygin, Nezdojminogo, Novozhilov, and Zhurbenko, 1999; <sup>2</sup>Nezdojminogo, 2002; <sup>1</sup>Zmitrovich and Ezhov, 2015; <sup>1</sup>Gorbunova, 2016; <sup>1</sup>Shiryayev, Zmitrovich, and Ezhov, 2018); **Sakha Republic** (<sup>2</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>2</sup>Nezdojminogo, 1993a; <sup>2</sup>Nezdojminogo, 1996; <sup>2</sup>Nezdojminogo, 1997a; <sup>2</sup>Karatygin, Nezdojminogo, Novozhilov, and Zhurbenko, 1999; <sup>2</sup>Peintner et al., 2001; <sup>2</sup>Nezdojminogo, 2003; <sup>2</sup>Peintner, Moncalvo, and Vilgalys, 2004); **Tyva Republic** (<sup>1</sup>Gorbunova, 2015).

FAR EAST: **Chukotka Autonomous Okrug** (<sup>1</sup>Vassilkov, 1971b; <sup>2</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>2</sup>Nezdojminogo, 1993a; <sup>2</sup>Nezdojminogo, 1996; <sup>2</sup>Nezdojminogo, 1997a; <sup>2</sup>Karatygin, Nezdojminogo, Novozhilov, and Zhurbenko, 1999); **Magadan Oblast** (<sup>2</sup>Sazanova, 2005; <sup>2</sup>Sazanova, 2009a).

***Cortinarius americanus* A.H. Sm.**

FAR EAST: **Kamchatka Krai** (Moser, 2001).

***Cortinarius amoenolens* Rob. Henry ex P.D. Orton<sup>1</sup>**

≡ *Cortinarius amoenolens* Rob. Henry<sup>2</sup>

EASTERN EUROPE: **Crimea** (<sup>1</sup>Dudka et al., 2004; <sup>1</sup>Sarkina, 2010b); **Kabardino-Balkarian Republic** (<sup>2</sup>Shkhagapsoev and Krapivina, 2004); **Murmansk Oblast** (<sup>2</sup>Nezdojminogo, 1996).

SIBERIA: **Buryatia** (<sup>1</sup>Petrov, 1991; <sup>2</sup>Nezdojminogo, 1996); **Irkutsk Oblast** (<sup>1</sup>Kutafjeva, 1984; <sup>2</sup>Nezdojminogo, 1996; <sup>1</sup>Bardunov et al., 2005); **Sakha Republic** (<sup>2</sup>Nezdojminogo, 1996).

***Cortinarius amurceus* Fr.**

EASTERN EUROPE: **Leningrad Oblast** (Morozova, 2002; Popov et al., 2007).

***Cortinarius anfractus* Fr.**

EASTERN EUROPE: **Leningrad Oblast** (Thesleff, 1920).

***Cortinarius angelesianus* A.H. Sm.<sup>1</sup>**

= *Cortinarius strobilaceus* M.M. Moser<sup>2</sup> = *Cortinarius tubulipes* J. Favre<sup>3</sup>

EASTERN EUROPE: **Leningrad Oblast** (<sup>2</sup>Kovalenko and Morozova, 1999a; <sup>2</sup>Morozova, 2007; <sup>2</sup>Popov et al., 2007); **Murmansk Oblast** (<sup>3</sup>Mikhailovskii, 1975a; <sup>3</sup>Nezdojminogo, 1996); **Penza Oblast** (<sup>2</sup>Ivanov, 1992; <sup>2</sup>Ivanov and



Durandin, 1996); **Perm Krai** (<sup>3</sup>Botalov, Perevedentseva, and Denisov, 2015; <sup>3</sup>Botalov, 2017; <sup>3</sup>Botalov, Perevedentseva, and Shishigin, 2020); **Samara Oblast** (<sup>3</sup>Malysheva and Malysheva, 2005b; <sup>3</sup>Malysheva and Malysheva, 2008); **Sverdlovsk Oblast** (<sup>3</sup>Marina, 2006); **Yaroslavl Oblast** (<sup>2</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>2</sup>Nezdojminogo, 1996; <sup>2</sup>Lazareva, 1998a; <sup>2</sup>Lazareva, 2002).

FAR EAST: **Primorsky Krai** (<sup>2</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>2</sup>Nezdojminogo, 1996; <sup>1</sup>Bulakh et al., 2016).

### ***Cortinarius anomalus* (Fr.) Fr.<sup>1</sup>**

≡ *Agaricus anomalus* Fr.<sup>2</sup> = *Cortinarius azureovelatus* P.D. Orton<sup>3</sup> = *Cortinarius azureus* Fr.<sup>4</sup> = *Cortinarius azureus* var. *azureus* Fr.<sup>5</sup> = *Cortinarius epsomiensis* P.D. Orton<sup>6</sup> = *Cortinarius lepidopus* Cooke<sup>7</sup>

EASTERN EUROPE: **Arkhangelsk Oblast** (<sup>1</sup>Lebedeva, 1933); **Bryansk Oblast** (<sup>1</sup>Kruglikov, 2007); **Chelyabinsk Oblast** (<sup>1</sup>Stepanova and Sirko, 1977; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990); **Kabardino-Balkarian Republic** (<sup>1</sup>Shkhagapsoev and Krapivina, 2004); **Kaliningrad Oblast** (<sup>1</sup>Volodina, 2007); **Karachay-Cherkess Republic** (<sup>1</sup>Kalamees and Botashev, 2000); **Karelia** (<sup>1</sup>Nezdojminogo, 1978a; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1</sup>Bondartseva et al., 2001; <sup>1</sup>Krutov et al., 2014; <sup>1</sup>Predtechenskaya, 2015; <sup>1</sup>Savelev and Kikeeva, 2020); **Kirov Oblast** (<sup>1</sup>Kirillov, 2011; <sup>1</sup>Kirillov, Perevedentseva, and Egoshina, 2011); **Komi Republic** (<sup>1</sup>Nezdojminogo, 1978a; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1</sup>Karatygin, Nezdojminogo, Novozhilov, and Zhurbenko, 1999); **Krasnodar Krai** (<sup>1,4</sup>Kovalenko, 1980a; <sup>1,4</sup>Kovalenko, 1980b); **Leningrad Oblast** (<sup>1</sup>Nezdojminogo, 1978a; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Fomina, 2000; <sup>1</sup>Fomina, 2001; <sup>1</sup>Popov et al., 2007; <sup>1</sup>Zmitrovich et al., 2015); **Lipetsk Oblast** (<sup>1</sup>Alferova, 1977; <sup>1</sup>Sarycheva, 1999; <sup>1</sup>Sarycheva et al., 2009; <sup>1</sup>Sarycheva, 2011; <sup>1</sup>Sarycheva, 2014a; <sup>1</sup>Sarycheva, 2016); **Moscow Oblast** (<sup>1</sup>Levitskaya, 1995a; <sup>1</sup>Levitskaya, 2013); **Penza Oblast** (<sup>1,4</sup>Ivanov, 1983; <sup>1,4</sup>Ivanov and Durandin, 1996; <sup>4</sup>Nezdojminogo, 1996; <sup>1</sup>Ivanov, 2019); **Perm Krai** (<sup>1</sup>Perevedentseva, 2008; <sup>1</sup>Belkovskaya et al., 2014; <sup>1</sup>Perevedentseva and Shishigin, 2015; <sup>1</sup>Botalov, 2017); **Saint Petersburg** (<sup>2</sup>Weinmann, 1828; <sup>2</sup>Weinmann, 1836; <sup>1</sup>Morozova and Smirnov, 2011; <sup>1</sup>Morozova, Kovalenko, Rebriev, and Malysheva, 2014); **Sverdlovsk Oblast** (<sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1</sup>Marina, 2006); **Tatarstan** (<sup>4</sup>Vassiljeva, 1977; <sup>1,4</sup>Nezdojminogo, 1978a; <sup>1,4</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>4</sup>Nezdojminogo, 1996); **Tula Oblast** (<sup>1</sup>Svetasheva, 2004; <sup>1</sup>Svetasheva, 2005a); **Tver Oblast** (<sup>1</sup>Nezdojminogo, 1978a; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1</sup>Kurochkin, 1993; <sup>1</sup>Kotkova, 2014); **Udmurt Republic** (<sup>1</sup>Tychinin and Kuzmina, 2003); **Ulyanovsk Oblast** (<sup>1</sup>Ilyukhin, 2010a; <sup>1</sup>Ilyukhin, 2010b); **Vologda Oblast** (<sup>1</sup>Kirillova, 2007); **Yaroslavl Oblast** (<sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1</sup>Lazareva, 1998a; <sup>1</sup>Lazareva, 2002); **Arid territories** (<sup>1</sup>Rebriev, Rusanov, et al., 2012).

SIBERIA: **Altai Krai** (<sup>1</sup>Gorbunova, 2018a); **Altai Republic** (<sup>1</sup>Gorbunova, 1996; <sup>1</sup>Gorbunova, 1997; <sup>1</sup>Gorbunova, 2001a; <sup>1</sup>Gorbunova, 2001b; <sup>1</sup>Gorbunova, 2008; <sup>3</sup>Brandrud et al., 2019; <sup>6,7</sup>Brandrud et al., 2019); **Buryatia** (<sup>1</sup>Nezdojminogo, 1970a; <sup>1</sup>Nezdojminogo, 1978a; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1</sup>Petrov, 1991); **Irkutsk Oblast** (<sup>1</sup>Kutafjeva, 1984; <sup>1</sup>Petrov, Nezdojminogo, and Bulakh, 1987; <sup>1</sup>Kutafjeva and Astapenko, 1989; <sup>1</sup>Petrov, 1989; <sup>1</sup>Astapenko, 1990b; <sup>1</sup>Petrov, 1991; <sup>1</sup>Bardunov et al., 2005; <sup>1</sup>Petrov, 2008); **Khakassia** (<sup>5</sup>Zauzolkova and Gorbunova, 2013; <sup>4</sup>Zauzolkova, 2015); **Khanty-Mansi Autonomous Okrug** (<sup>1</sup>Filippova, Bulyonkova, and Lapshina, 2015; <sup>1,7</sup>Filippova and Bulyonkova, 2017a; <sup>1,7</sup>Filippova and Bulyonkova, 2017b); **Krasnoyarsk Krai** (<sup>1</sup>Vassilkov, 1971b; <sup>1,4</sup>Beglyanova, 1972a; <sup>1</sup>Stepanova and Tomilin, 1973; <sup>1</sup>Nezdojminogo, 1976a; <sup>1,4</sup>Nezdojminogo, 1978a; <sup>1,4</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1</sup>Lapitskaya, 1993; <sup>4,6</sup>Nezdojminogo, 1996; <sup>1</sup>Karatygin, Nezdojminogo, Novozhilov, and Zhurbenko, 1999; <sup>1</sup>Kryuchkova, 2009; <sup>1</sup>Zauzolkova, 2012; <sup>1</sup>Zauzolkova, 2015; <sup>1</sup>Gorbunova, 2016; <sup>4</sup>Malysheva, Malysheva, Kiyashko, et al., 2017; <sup>1</sup>Krom and Kapitonov, 2019); **Novosibirsk Oblast** (<sup>1</sup>Perova, 1977; <sup>1</sup>Perova and Gorbunova, 2007; <sup>1</sup>Koropachinskiy and Banaev, 2014); **Sakha Republic** (<sup>1</sup>Karatygin, Nezdojminogo, Novozhilov, and Zhurbenko, 1999; <sup>1</sup>Nezdojminogo, 2003); **Sverdlovsk Oblast** (<sup>1</sup>Stepanova and Sirko, 1977); **Tomsk Oblast** (<sup>1</sup>Perova, 1972; <sup>1</sup>Nezdojminogo, 1978a; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1</sup>Kudashova, Gashkov, and Kutafjeva, 2013; <sup>1</sup>Vaishlya et al., 2017); **Zabaykalsky Krai** (<sup>1</sup>Karsten, 1906).

FAR EAST: **Amur Oblast** (<sup>1</sup>Nezdojminogo, 1978a; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1</sup>Taranina, 2005); **Chukotka Autonomous Okrug** (<sup>1</sup>Karatygin, Nezdojminogo, Novozhilov, and Zhurbenko, 1999); **Jewish Autonomous Oblast** (<sup>4</sup>Bulakh, Govorova, Nazarova, and Vassiljeva, 2007; <sup>1</sup>Bau, Bulakh, and Govorova, 2011); **Khabarovsk Krai** (<sup>1</sup>Nezdojminogo, 1978a; <sup>4</sup>Azbukina et al., 1986; <sup>1,4</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>4</sup>Nezdojminogo, 1996; <sup>1</sup>Bulakh, Vassiljeva, and Erofeeva, 2010; <sup>1</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Bulakh, 2013; <sup>1</sup>Bogacheva, Bulakh, Bukharova, and Egorova, 2015); **Magadan Oblast** (<sup>1</sup>Sazanova and Golodnova, 2015); **Primorsky Krai** (<sup>1,4</sup>Vassiljeva, 1973; <sup>1,4</sup>Nezdojminogo, 1978a; <sup>4</sup>Azbukina et al., 1990; <sup>1,4</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>4</sup>Nezdojminogo, 1996; <sup>4</sup>Bardunov et al., 2002; <sup>1</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Bulakh et al., 2016).

***Cortinarius anthracinus* Fr.<sup>1</sup>**= *Cortinarius purpureobadius* (P. Karst.) Sacc.<sup>2</sup>EASTERN EUROPE: **Kaliningrad Oblast** (<sup>1</sup>Volodina, 2007); **Tula Oblast** (<sup>1</sup>Svetasheva, 2004; <sup>1</sup>Svetasheva, 2005a; <sup>1</sup>Svetasheva, 2005b; <sup>1</sup>Shcherbakov, 2010).SIBERIA: **Tomsk Oblast** (<sup>1</sup>Kudashova, Gashkov, and Vaishlya, 2016a).FAR EAST: **Amur Oblast** (<sup>1</sup>Nezdojminogo, 1980b; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1</sup>Nezdojminogo, 1996; <sup>1</sup>Azbukina et al., 1998); **Primorsky Krai** (<sup>2</sup>Vassiljeva, 1973; <sup>1</sup>Bulakh et al., 2016).***Cortinarius aprinus* Melot**EASTERN EUROPE: **Tula Oblast** (Svetasheva, Aleksandrova, Zaytseva, and Solovjova, 2017).SIBERIA: **Khakassia** (Zauzolkova, 2015).***Cortinarius arcifolius* Rob. Henry**EASTERN EUROPE: **Penza Oblast** (Ivanov and Durandin, 1996; Ivanov, 2019); **Samara Oblast** (Nezdojminogo, 1996; Malysheva and Malysheva, 2005b; Malysheva and Malysheva, 2008).***Cortinarius arcuatorum* Rob. Henry**EASTERN EUROPE: **Adygea** (Sopina, 2000; Sopina, 2001a; Zamotajlov, Sirotiyuk (Kuvaeva), Akatova, and Lipka, 2012).***Cortinarius aremoricus* Rob. Henry<sup>1</sup>**≡ *Cortinarius aremoricus* Lebourier & Rob. Henry<sup>2</sup>EASTERN EUROPE: **Penza Oblast** (<sup>2</sup>Ivanov, 1988c; <sup>1</sup>Ivanov and Durandin, 1996).***Cortinarius argentatus* (Pers.) Fr.<sup>1</sup>**≡ *Agaricus argentatus* Pers.<sup>2</sup>EASTERN EUROPE: **Kaliningrad Oblast** (<sup>1</sup>Dedkov, Volodina, and Gubareva, 2007); **Karelia** (<sup>1</sup>Lebedeva, 1933; <sup>1</sup>Nezdojminogo, 1996; <sup>1</sup>Predtechenskaya and Ruokolainen, 2013; <sup>1</sup>Krutov et al., 2014; <sup>1</sup>Predtechenskaya, 2015); **Kirov Oblast** (<sup>1</sup>Kirillov, 2011; <sup>1</sup>Kirillov, Perevedentseva, and Egoshina, 2011); **Komi Republic** (<sup>1</sup>Palamarchuk, 2012; <sup>1</sup>Palamarchuk, 2016a; <sup>1</sup>Palamarchuk, 2016b); **Leningrad Oblast** (<sup>2</sup>Weinmann, 1836; <sup>1</sup>Nezdojminogo, 1996; <sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Popov et al., 2007); **Lipetsk Oblast** (<sup>1</sup>Sarycheva et al., 2009; <sup>1</sup>Sarycheva, 2011; <sup>1</sup>Sarycheva, 2014a; <sup>1</sup>Sarycheva, 2016); **Mordovia** (<sup>1</sup>Chastukhin, 1948a; <sup>1</sup>Chastukhin and Nikolaevskaya, 1969); **Moscow** (<sup>1</sup>Bucholtz, 1897b; <sup>1</sup>Bucholtz, 1897c; <sup>1</sup>Mosolov, 1906); **Moscow Oblast** (<sup>1</sup>Gorlenko, Sidorova, and Sidorova, 1989; <sup>1</sup>Levitskaya, 1995c; <sup>1</sup>Levitskaya, 2013; <sup>1</sup>Voronina et al., 2014); **Perm Krai** (<sup>1</sup>Perevedentseva, 2008; <sup>1</sup>Belkovskaya et al., 2014; <sup>1</sup>Perevedentseva and Shishigin, 2014; <sup>1</sup>Perevedentseva and Shishigin, 2015; <sup>1</sup>Botalov, 2017); **Saint Petersburg** (<sup>2</sup>Weinmann, 1828; <sup>2</sup>Weinmann, 1837); **Sverdlovsk Oblast** (<sup>1</sup>Marina, 2006); **Tver Oblast** (<sup>1</sup>Chastukhin, 1948b; <sup>1</sup>Chastukhin and Nikolaevskaya, 1969; <sup>1</sup>Mukhina, 2011a; <sup>1</sup>Kotkova, 2014); **Udmurt Republic** (<sup>1</sup>Tychinin and Kuzmina, 2003); **Vologda Oblast** (<sup>1</sup>Kirillova, 2007); **Yaroslavl Oblast** (<sup>1</sup>Nezdojminogo, 1996; <sup>1</sup>Lazareva, 1998a; <sup>1</sup>Lazareva, 2002).SIBERIA: **Irkutsk Oblast** (<sup>1</sup>Kutafjeva and Astapenko, 1987); **Krasnoyarsk Krai** (<sup>1</sup>Beglyanova, 1972a; <sup>1</sup>Beglyanova, 1972b; <sup>1</sup>Nezdojminogo, 1978a; <sup>1</sup>Nezdojminogo, 1996).***Cortinarius argenteolilacinus* M.M. Moser**EASTERN EUROPE: **Penza Oblast** (Ivanov, 1983; Ivanov and Durandin, 1996; Nezdojminogo, 1996; Ivanov, 2013a).***Cortinarius argenteopileatus* Nezdojm.<sup>1</sup>**= *Cortinarius subargentatus* P.D. Orton<sup>2</sup>EASTERN EUROPE: **Karelia** (<sup>1</sup>Kovalenko, Morozova, Fomina, and Särkisilta, 1998; <sup>1</sup>Krutov et al., 2014); **Leningrad Oblast** (<sup>1</sup>Stolyarskaya, 1993; <sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Popov et al., 2007; <sup>1</sup>Zmitrovich et al., 2015); **Moscow Oblast** (<sup>1</sup>Levitskaya, 2006; <sup>1</sup>Levitskaya, 2013); **Pskov Oblast** (<sup>1</sup>Kalinina, Bolshakov, and Bulyonkova, 2020); **Yamalo-Nenets Autonomous Okrug** (<sup>1</sup>Karatygin, Nezdojminogo, Novozhilov, and Zhurbenko, 1999); **Yaroslavl Oblast** (<sup>1</sup>Nezdojminogo, 1996; <sup>1</sup>Lazareva, 1998a; <sup>1</sup>Lazareva, 2002).SIBERIA: **Irkutsk Oblast** (<sup>2</sup>Petrov, Nezdojminogo, and Bulakh, 1987; <sup>2</sup>Petrov, 1991; <sup>2</sup>Petrov, 2008); **Krasnoyarsk Krai** (<sup>2</sup>Nezdojminogo, 1978a; <sup>1</sup>Nezdojminogo, 1996); **Kurgan Oblast** (<sup>2</sup>Stepanova and Sirko, 1977; <sup>1</sup>Nezdojminogo, 1996); **Yamalo-Nenets Autonomous Okrug** (<sup>1</sup>Karatygin, Nezdojminogo, Novozhilov, and Zhurbenko, 1999).

***Cortinarius argillopallidus* Jul. Schäff.**

EASTERN EUROPE: **Moscow Oblast** (Levitskaya, 1995c; Levitskaya, 2013); **Penza Oblast** (Ivanov, 1988c; Ivanov and Durandin, 1996).

***Cortinarius argutus* Fr.<sup>1</sup>**

≡ *Cortinarius argutus* subsp. *argutus* Fr.<sup>2</sup> = *Cortinarius fraudulentus* Britzelm.<sup>3</sup>

EASTERN EUROPE: **Kabardino-Balkarian Republic** (<sup>1</sup>Krapivina et al., 2020); **Karelia** (<sup>3</sup>Krutov et al., 2014); **Leningrad Oblast** (<sup>1,3</sup>Nezdojminogo, 1996; <sup>1,3</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Fomina, 2000; <sup>1,3</sup>Popov et al., 2007; <sup>1</sup>Zmitrovich et al., 2015; <sup>1</sup>Kalinina, 2018); **Lipetsk Oblast** (<sup>1</sup>Sarycheva et al., 2009; <sup>1</sup>Sarycheva, 2014a; <sup>1</sup>Sarycheva, 2016); **Orenburg Oblast** (<sup>1,3</sup>Desyatova, 2008); **Penza Oblast** (<sup>3</sup>Nezdojminogo, 1996); **Perm Krai** (<sup>1,3</sup>Perevedentseva, 2008; <sup>1</sup>Perevedentseva and Shishigin, 2015); **Sverdlovsk Oblast** (<sup>1</sup>Marina, 2006); **Tula Oblast** (<sup>2</sup>Svetasheva, 2003; <sup>2</sup>Svetasheva, 2004; <sup>1</sup>Shcherbakov, 2010).

SIBERIA: **Altai Krai** (<sup>1</sup>Gorbunova and Chubarova, 2008; <sup>1</sup>Gorbunova, Vlasenko, and Tzhubarova, 2011); **Irkutsk Oblast** (<sup>1</sup>Gorbunova and Stepanova, 2015); **Khakassia** (<sup>1</sup>Zauzolkova, 2015; <sup>1</sup>Zauzolkova and Gorbunova, 2016); **Khanty-Mansi Autonomous Okrug** (<sup>1</sup>Filippova, Bulyonkova, and Lapshina, 2015; <sup>1</sup>Filippova and Bulyonkova, 2017a; <sup>1</sup>Filippova and Bulyonkova, 2017b); **Krasnoyarsk Krai** (<sup>1</sup>Kosheleva and Kutafjeva, 2008a; <sup>1</sup>Malysheva, Malysheva, Kiyashko, et al., 2017); **Novosibirsk Oblast** (<sup>1</sup>Koropachinskiy and Banaev, 2014).

FAR EAST: **Amur Oblast** (<sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1</sup>Nezdojminogo, 1996).

***Cortinarius armeniacus* (Schaeff.) Fr.<sup>1</sup>**

≡ *Agaricus armeniacus* Schaeff.<sup>2</sup>

EASTERN EUROPE: **Kaliningrad Oblast** (<sup>1</sup>Volodina, 2007); **Kaluga Oblast** (<sup>1</sup>Sionova, 2003); **Karelia** (<sup>1</sup>Freindling, 1949; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1</sup>Nezdojminogo, 1996; <sup>1</sup>Bondartseva et al., 2001; <sup>1</sup>Krutov et al., 2014); **Kirov Oblast** (<sup>1</sup>Kirillov, 2011; <sup>1</sup>Kirillov, Perevedentseva, and Egoshina, 2011); **Komi Republic** (<sup>1</sup>Palamarchuk and Kirillov, 2017; <sup>1</sup>Palamarchuk, 2017); **Leningrad Oblast** (<sup>1</sup>Thesleff, 1920; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1</sup>Stolyarskaya, 1993; <sup>1</sup>Nezdojminogo, 1996; <sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Fomina, 2000; <sup>1</sup>Fomina, 2001; <sup>1</sup>Morozova, 2007; <sup>1</sup>Popov et al., 2007; <sup>1</sup>Zmitrovich et al., 2015; <sup>1</sup>Malysheva, Malysheva, Shchepin, and Novozhilov, 2018); **Mordovia** (<sup>1</sup>Chastukhin, 1948a; <sup>1</sup>Chastukhin, 2011; <sup>1</sup>Ivoilov and Bolshakov, 2011a); **Moscow Oblast** (<sup>1</sup>Levitskaya, 2013); **Murmansk Oblast** (<sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1</sup>Nezdojminogo, 1996); **Perm Krai** (<sup>1</sup>Perevedentseva, 2008; <sup>1</sup>Belkovskaya et al., 2014; <sup>1</sup>Perevedentseva and Shishigin, 2015; <sup>1</sup>Botalov, 2017; <sup>1</sup>Botalov and Perevedentseva, 2018); **Saint Petersburg** (<sup>2</sup>Weinmann, 1836; <sup>2</sup>Weinmann, 1837); **Sverdlovsk Oblast** (<sup>1</sup>Stepanova and Sirko, 1977; <sup>1</sup>Nezdojminogo, 1996; <sup>1</sup>Marina, 2006); **Tatarstan** (<sup>1</sup>Vassiljeva, 1977; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1</sup>Nezdojminogo, 1996); **Tver Oblast** (<sup>1</sup>Kurochkin, 1993); **Vologda Oblast** (<sup>1</sup>Kirillova, 2007); **Yaroslavl Oblast** (<sup>1</sup>Lazareva, 1998a; <sup>1</sup>Lazareva, 2002).

SIBERIA: **Altai Republic** (<sup>1</sup>Gorbunova, 2001b; <sup>1</sup>Perova and Gorbunova, 2001); **Khanty-Mansi Autonomous Okrug** (<sup>1</sup>Filippova and Bulyonkova, 2017a; <sup>1</sup>Filippova and Bulyonkova, 2017b); **Sverdlovsk Oblast** (<sup>1</sup>Stepanova and Sirko, 1977); **Tomsk Oblast** (<sup>1</sup>Kudashova, Gashkov, and Vaishlya, 2016a; <sup>1</sup>Vaishlya et al., 2017).

FAR EAST: **Khabarovsk Krai** (<sup>1</sup>Bulakh, Vassiljeva, and Erofeeva, 2010); **Primorsky Krai** (<sup>1</sup>Vassiljeva, 1973; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1</sup>Nezdojminogo, 1996; <sup>1</sup>Bau, Bulakh, and Govorova, 2011).

***Cortinarius armenicorius* Soop & Brandrud**

SIBERIA: **Sakha Republic** (Brandrud et al., 2014).

***Cortinarius armillatus* (Fr.) Fr.<sup>1</sup>**

≡ *Agaricus armillatus* Fr.<sup>2</sup> ≡ *Hydrocybe armillata* (Fr.) M.M. Moser<sup>3</sup>

EASTERN EUROPE: **Arkhangelsk Oblast** (<sup>1</sup>Ezhov, Zmitrovich, and Ruokolainen, 2019); **Bryansk Oblast** (<sup>1</sup>Kruglikov, 2007); **Chelyabinsk Oblast** (<sup>1</sup>Stepanova and Sirko, 1977); **Chuvash Republic** (<sup>1</sup>Vladimirova and Potapov, 2018); **Crimea** (<sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990); **Kabardino-Balkarian Republic** (<sup>1</sup>Shkhaapsoev and Krapivina, 2004); **Kaliningrad Oblast** (<sup>1</sup>Dedkov, Volodina, and Gubareva, 2007; <sup>1</sup>Volodina, 2007); **Kaluga Oblast** (<sup>1</sup>Sionova, 2003); **Karelia** (<sup>1</sup>Freindling, 1949; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1</sup>Kovalenko, Morozova, Fomina, and Särkisilta, 1998; <sup>1</sup>Bondartseva et al., 2001; <sup>1</sup>Predtechenskaya and Ruokolainen, 2008; <sup>1</sup>Predtechenskaya and Ruokolainen, 2013; <sup>1</sup>Predtechenskaya, 2013; <sup>1</sup>Krutov et al., 2014; <sup>1</sup>Predtechenskaya and Ruokolainen, 2014; <sup>1</sup>Predtechenskaya, 2015; <sup>1</sup>Savelev and Kikeeva, 2020); **Kirov Oblast** (<sup>1</sup>Kirillov, 2011; <sup>1</sup>Kirillov, Perevedentseva, and Egoshina, 2011; <sup>1</sup>Stavishenko, Luginina, Kirillov, and Egoshina, 2019); **Komi Republic** (<sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1</sup>Karatygin, Nezdojminogo,

Novozhilov, and Zhurbenko, 1999; <sup>1</sup>Bobretsova, 2004; <sup>1</sup>Palamarchuk, 2011b; <sup>1</sup>Palamarchuk, 2012; <sup>1</sup>Palamarchuk, 2016a; <sup>1</sup>Palamarchuk, 2016b; <sup>1</sup>Palamarchuk and Kirillov, 2017; <sup>1</sup>Palamarchuk, 2017); **Kostroma Oblast** (<sup>1</sup>Burova, 1982; <sup>1</sup>Veremyeva, 1986); **Krasnodar Krai** (<sup>1</sup>Shumkova, Krivorotov, and Gayday, 2018); **Leningrad Oblast** (<sup>1</sup>Thesleff, 1920; <sup>1</sup>Chastukhin and Nikolaevskaya, 1969; <sup>1</sup>Kalamees and Kovalenko, 1984; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdjominogo, 1990; <sup>1</sup>Stolyarskaya, 1993; <sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Fomina, 2000; <sup>1</sup>Morozova and Kovalenko, 2000; <sup>1</sup>Fomina, 2001; <sup>1</sup>Morozova, 2007; <sup>1</sup>Popov et al., 2007; <sup>1</sup>Zmitrovich et al., 2015); **Lipetsk Oblast** (<sup>1</sup>Rtishcheva, 1999; <sup>1</sup>Afanasyev, Rtishcheva, and Starodubtseva, 2007; <sup>1</sup>Sarycheva, Starodubtseva, and Sapelnikova, 2017); **Moscow Oblast** (<sup>1</sup>Gorlenko, Sidorova, and Sidorova, 1989; <sup>1</sup>Levitskaya, 1995c; <sup>1</sup>Levitskaya, 2013; <sup>1</sup>Voronina et al., 2014; <sup>1</sup>Sidorova, Alexandrova, and Voronina, 2017); **Murmansk Oblast** (<sup>1</sup>Karsten, 1866; <sup>1</sup>Pystina, Pavlova, and Shestakova, 1969); **Novgorod Oblast** (<sup>1</sup>Kovalenko, Morozova, Nezdjominogo, and Popov, 2005; <sup>1</sup>Malysheva, Malysheva, and Zmitrovich, 2007; <sup>1</sup>Popov et al., 2013); **Oryol Oblast** (<sup>1</sup>Radygina, Derzhavina, and Tsutsupa, 2014); **Penza Oblast** (<sup>1</sup>Ivanov, 1983; <sup>1</sup>Ivanov and Durandin, 1996; <sup>1</sup>Ivanov, 2019); **Perm Krai** (<sup>1</sup>Perevedentseva, 2008; <sup>1</sup>Belkovskaya et al., 2014; <sup>1</sup>Perevedentseva and Shishigin, 2014; <sup>1</sup>Perevedentseva and Shishigin, 2015; <sup>1</sup>Botalov, 2017); **Pskov Oblast** (<sup>1</sup>Popov, 2001a; <sup>1</sup>Popov et al., 2013); **Ryazan Oblast** (<sup>1</sup>Volosnova, 1997; <sup>1</sup>Volosnova, 2014); **Saint Petersburg** (<sup>2</sup>Weinmann, 1828; <sup>2</sup>Weinmann, 1836; <sup>2</sup>Weinmann, 1837; <sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Kotkova, Morozova, and Popov, 2005; <sup>1</sup>Morozova and Smirnov, 2011; <sup>1</sup>Morozova et al., 2020); **Sverdlovsk Oblast** (<sup>3</sup>Tomilin, 1965; <sup>1</sup>Stepanova and Sirko, 1977); **Tatarstan** (<sup>1</sup>Vassiljeva, 1977); **Tula Oblast** (<sup>1</sup>Svetasheva, 2004; <sup>1</sup>Svetasheva, 2005a; <sup>1</sup>Svetasheva, 2005b); **Tver Oblast** (<sup>1</sup>Kurochkin, 1993; <sup>1</sup>Mukhina, 2011a; <sup>1</sup>Mukhina, 2011b; <sup>1</sup>Kotkova, 2014); **Udmurt Republic** (<sup>1</sup>Tychinin, 1990; <sup>1</sup>Tychinin and Kuzmina, 2003); **Ulyanovsk Oblast** (<sup>1</sup>Ilyukhin, 2010a; <sup>1</sup>Ilyukhin, 2010b); **Vologda Oblast** (<sup>1</sup>Kutova, 1957; <sup>1</sup>Kirillova, 2007); **Voronezh Oblast** (<sup>1</sup>Rtishcheva, 1999; <sup>1</sup>Afanasyev, Rtishcheva, and Starodubtseva, 2007; <sup>1</sup>Sarycheva, Starodubtseva, and Sapelnikova, 2017); **Yamalo-Nenets Autonomous Okrug** (<sup>1</sup>Karatygin, Nezdjominogo, Novozhilov, and Zhurbenko, 1999); **Yaroslavl Oblast** (<sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdjominogo, 1990; <sup>1</sup>Lazareva, 1997; <sup>1</sup>Lazareva, 1998a).

SIBERIA: **Altai Republic** (<sup>1</sup>Gorbunova, 1997; <sup>1</sup>Gorbunova, 2001b; <sup>1</sup>Perova and Gorbunova, 2001; <sup>1</sup>Gorbunova, 2010); **Buryatia** (<sup>1</sup>Nezdjominogo, 1970a; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdjominogo, 1990; <sup>1</sup>Penzina and Petrov, 1994; <sup>1</sup>Heklau and Dörfelt, 2017); **Irkutsk Oblast** (<sup>1</sup>Kutafjeva, 1984; <sup>1</sup>Petrov, Nezdjominogo, and Bulakh, 1987; <sup>1</sup>Petrov, 1989; <sup>1</sup>Astapenko, 1990a; <sup>1</sup>Astapenko, 1990b; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdjominogo, 1990; <sup>1</sup>Muzyka, 2002; <sup>1</sup>Bardunov et al., 2005; <sup>1</sup>Petrov, 2008; <sup>1</sup>Muzyka, 2009; <sup>1</sup>Muzyka and Penzina, 2017); **Khakassia** (<sup>1</sup>Zauzolkova and Gorbunova, 2013; <sup>1</sup>Zauzolkova, 2015); **Khanty-Mansi Autonomous Okrug** (<sup>1</sup>Zvyagina, 2008; <sup>1</sup>Shepeleva et al., 2014; <sup>1</sup>Filippova, Bulyonkova, and Lapshina, 2015; <sup>1</sup>Zvyagina and Vasina, 2015; <sup>1</sup>Filippova and Bulyonkova, 2017a; <sup>1</sup>Filippova and Bulyonkova, 2017b; <sup>1</sup>Zvyagina and Baykalova, 2017); **Krasnoyarsk Krai** (<sup>1</sup>Beglyanova, 1972a; <sup>1</sup>Nezdjominogo, 1976a; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdjominogo, 1990; <sup>1</sup>Lapitskaya, 1993; <sup>1</sup>Kosheleva and Kutafjeva, 2008a; <sup>1</sup>Kryuchkova, 2009; <sup>1</sup>Zauzolkova, 2012; <sup>1</sup>Kryuchkova, 2014a; <sup>1</sup>Zauzolkova, 2015; <sup>1</sup>Malysheva, Malysheva, Kiyashko, et al., 2017; <sup>1</sup>Krom and Kapitonov, 2019); **Tomsk Oblast** (<sup>1</sup>Perova, 1972; <sup>3</sup>Milovidova, 1980; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdjominogo, 1990; <sup>1</sup>Perova and Gorbunova, 2001; <sup>1</sup>Kosheleva and Kutafjeva, 2004; <sup>1</sup>Kudashova, Gashkov, and Kutafjeva, 2013; <sup>1</sup>Vaishlya et al., 2017); **Yamalo-Nenets Autonomous Okrug** (<sup>1</sup>Tarchevskaya, 1990).

FAR EAST: **Amur Oblast** (<sup>1</sup>Gordienko, Petrova, and Tarasov, 1981); **Chukotka Autonomous Okrug** (<sup>1</sup>Sazanova, 1993); **Jewish Autonomous Oblast** (<sup>1</sup>Bulakh, Govorova, Nazarova, and Vassiljeva, 2007; <sup>1</sup>Bau, Bulakh, and Govorova, 2011); **Kamchatka Krai** (<sup>1</sup>Kalamees and Vaasma, 1981; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdjominogo, 1990; <sup>1</sup>Karatygin, Nezdjominogo, Novozhilov, and Zhurbenko, 1999); **Khabarovsk Krai** (<sup>1</sup>Bulakh, Vassiljeva, and Erofeeva, 2010; <sup>1</sup>Bulakh, 2013; <sup>1</sup>Bogacheva, Bulakh, Bukharova, and Egorova, 2015; <sup>1</sup>Erofeeva and Bulakh, 2015a); **Magadan Oblast** (<sup>1</sup>Nazarova, 1976; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdjominogo, 1990; <sup>1</sup>Sazanova, 1996; <sup>1</sup>Sazanova, 2005; <sup>1</sup>Sazanova, 2009a; <sup>1</sup>Sazanova, 2011); **Primorsky Krai** (<sup>1</sup>Vassiljeva, 1973; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdjominogo, 1990; <sup>1</sup>Bau, Bulakh, Zhuang, and Li, 2007; <sup>1</sup>Bau, Bulakh, and Govorova, 2011); **Sakhalin Oblast** (<sup>1</sup>Vassiljeva and Nazarova, 1972; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdjominogo, 1990).

### ***Cortinarius arquatus* (Alb. & Schwein.) Fr.**

EASTERN EUROPE: **Leningrad Oblast** (Nezdjominogo, 1996; Kovalenko and Morozova, 1999a; Fomina, 2000; Popov et al., 2007).

### ***Cortinarius atkinsonianus* Kauffman**

EASTERN EUROPE: **Tatarstan** (Vassiljeva, 1977).

***Cortinarius atropusillus* J. Favre**

EASTERN EUROPE: **Murmansk Oblast** (Mikhailovskii, 1975a; Nezdoininogo, 1996); **Perm Krai** (Botalov, Perevedentseva, and Shishigin, 2020).

SIBERIA: **Irkutsk Oblast** (Petrov, Nezdoininogo, and Bulakh, 1987).

FAR EAST: **Kamchatka Krai** (Moser, 2001).

***Cortinarius aurantiomarginatus* Jul. Schäff. ex M.M. Moser**

SIBERIA: **Khanty-Mansi Autonomous Okrug** (Filippova and Bulyonkova, 2017a; Filippova and Bulyonkova, 2017b).

***Cortinarius aureifolius* Peck**

SIBERIA: **Buryatia** (Nezdoininogo, 1970a; Petrov, 1991).

***Cortinarius aureofulvus* M.M. Moser**

SIBERIA: **Irkutsk Oblast** (Astapenko, 1990b; Nezdoininogo, 1996).

***Cortinarius badiovestitus* M.M. Moser**

EASTERN EUROPE: **Leningrad Oblast** (Nezdoininogo, 1996; Popov et al., 2007); **Saint Petersburg** (Kovalenko and Morozova, 1999a).

***Cortinarius balaustinus* Fr.**

EASTERN EUROPE: **Karelia** (Krutov et al., 2014); **Komi Republic** (Palamarchuk, 2016a; Palamarchuk, 2016b; Palamarchuk, 2017); **Leningrad Oblast** (Kovalenko and Morozova, 1999a; Popov et al., 2007; Zmitrovich et al., 2015); **Penza Oblast** (Ivanov, 1983; Ivanov and Durandin, 1996; Nezdoininogo, 1996; Ivanov, 2019); **Perm Krai** (Botalov, 2015; Botalov, 2017); **Sverdlovsk Oblast** (Marina, 2006).

SIBERIA: **Altai Republic** (Brandrud et al., 2019); **Buryatia** (Bulakh, Wasser, Nazarova, and Nezdoininogo, 1990; Petrov, 1991); **Irkutsk Oblast** (Kutafjeva, 1984); **Khanty-Mansi Autonomous Okrug** (Filippova and Bulyonkova, 2017a; Filippova and Bulyonkova, 2017b); **Krasnoyarsk Krai** (Pavlov et al., 2007).

FAR EAST: **Amur Oblast** (Bulakh, Wasser, Nazarova, and Nezdoininogo, 1990; Nezdoininogo, 1996); **Primorsky Krai** (Azbukina et al., 1984; Azbukina et al., 1990; Bulakh, Wasser, Nazarova, and Nezdoininogo, 1990; Nezdoininogo, 1996; Bardunov et al., 2002; Bau, Bulakh, and Govorova, 2011).

***Cortinarius balteatoalbus* Rob. Henry<sup>1</sup>**

= *Cortinarius areni-silvae* (Brandrud) Brandrud<sup>2</sup>

EASTERN EUROPE: **Komi Republic** (<sup>2</sup>Palamarchuk and Kirillov, 2017); **Penza Oblast** (<sup>1</sup>Nezdoininogo, 1996); **Perm Krai** (<sup>1</sup>Perevedentseva, 2008; <sup>1</sup>Belkovskaya et al., 2014); **Sverdlovsk Oblast** (<sup>1</sup>Marina, 2006).

SIBERIA: **Altai Republic** (<sup>1</sup>Gorbunova, 2019).

***Cortinarius balteatocumatilis* Rob. Henry ex P.D. Orton<sup>1</sup>**

= *Cortinarius balteatocumatilis* var. *laetus* Quadr.<sup>2</sup>

EASTERN EUROPE: **Penza Oblast** (<sup>2</sup>Ivanov, 1988c; <sup>1</sup>Nezdoininogo, 1996; <sup>2</sup>Ivanov and Durandin, 1996); **Tatarstan** (<sup>1</sup>Potapov, 2016b).

SIBERIA: **Tomsk Oblast** (<sup>1</sup>Kudashova, Gashkov, and Kutafjeva, 2013).

FAR EAST: **Primorsky Krai** (<sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdoininogo, 1990).

***Cortinarius balteatotomentosus* Rob. Henry**

SIBERIA: **Buryatia** (Petrov, 1991).

***Cortinarius balteatus* Fr.**

EASTERN EUROPE: **Kaliningrad Oblast** (Volodina, 2007); **Karelia** (Kovalenko, Morozova, Fomina, and Särkisilta, 1998; Bondartseva et al., 2001; Krutov et al., 2014); **Komi Republic** (Palamarchuk (Bobretsova), 2009; Palamarchuk, 2012); **Leningrad Oblast** (Thesleff, 1920; Nezdoininogo, 1996; Kovalenko and Morozova, 1999a; Popov et al., 2007; Bondartseva et al., 2015; Zmitrovich et al., 2015; Malysheva, Malysheva, Shchepin, and Novozhilov, 2018); **Penza Oblast** (Ivanov, 1983; Ivanov and Durandin, 1996; Nezdoininogo, 1996; Ivanov, 2019); **Pskov Oblast** (Popov, 2001a; Popov et al., 2013).

SIBERIA: **Krasnoyarsk Krai** (Zauzolkova, 2015; Zauzolkova and Gorbunova, 2016); **Tomsk Oblast** (Nezdojminogo, 1996; Perova and Gorbunova, 2001; Kudashova, Gashkov, and Kutafjeva, 2013; Vaishlya et al., 2017).  
 FAR EAST: **Chukotka Autonomous Okrug** (Karatygin, Nezdojminogo, Novozhilov, and Zhurbenko, 1999).

***Cortinarius barbarorum* Bidaud, Moëgne-Loec. & Reumaux**

SIBERIA: **Novosibirsk Oblast** (Glupov and Shaulo, 2018).

***Cortinarius barbatus* (Batsch) Melot**

EASTERN EUROPE: **Arid territories** (Rebriev, Rusanov, et al., 2012).

SIBERIA: **Khakassia** (Zauzolkova, 2015; Zauzolkova and Gorbunova, 2016).

***Cortinarius bataillei* (J. Favre ex M.M. Moser) Høil.<sup>1</sup>**

≡ *Cortinarius bataillei* J. Favre<sup>2</sup>

EASTERN EUROPE: **Karelia** (<sup>1</sup>Krutov et al., 2014); **Leningrad Oblast** (<sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Fomina, 2000; <sup>1</sup>Popov et al., 2007; <sup>1</sup>Zmitrovich et al., 2015); **Perm Krai** (<sup>1</sup>Perevedentseva, 2008; <sup>1</sup>Belkovskaya et al., 2014; <sup>2</sup>Botalov, 2017; <sup>2</sup>Botalov and Perevedentseva, 2018); **Saint Petersburg** (<sup>1</sup>Kotkova, Morozova, and Popov, 2005); **Vologda Oblast** (<sup>2</sup>Kirillova, 2007); **Yaroslavl Oblast** (<sup>1</sup>Nezdojminogo, 1996; <sup>1</sup>Lazareva, 1998a; <sup>1</sup>Lazareva, 2002).

SIBERIA: **Khanty-Mansi Autonomous Okrug** (<sup>2</sup>Filippova, Bulyonkova, and Lapshina, 2015; <sup>1</sup>Filippova and Bulyonkova, 2017a; <sup>2</sup>Filippova and Bulyonkova, 2017b).

***Cortinarius bayeri* (Velen.) Moëgne-Loec. & Reumaux**

EASTERN EUROPE: **Komi Republic** (Palamarchuk and Kirillov, 2017).

***Cortinarius betuletorum* M.M. Moser**

EASTERN EUROPE: **Karelia** (Krutov et al., 2014); **Kirov Oblast** (Kirillov, 2011; Kirillov, Perevedentseva, and Egoshina, 2011); **Leningrad Oblast** (Zmitrovich et al., 2015); **Moscow Oblast** (Voronina et al., 2014; Sidorova, Alexandrova, and Voronina, 2017); **Perm Krai** (Perevedentseva, Nezdojminogo, and Kovalenko, 1990; Perevedentseva, 2008; Belkovskaya et al., 2014; Perevedentseva and Shishigin, 2015; Botalov, 2017); **Vologda Oblast** (Kirillova, 2007).

SIBERIA: **Irkutsk Oblast** (Astapenko and Kutafjeva, 1990; Astapenko, 1990a; Astapenko, 1990b).

FAR EAST: **Khabarovsk Krai** (Bulakh, 2013; Bogacheva, Bulakh, Bukharova, and Egorova, 2015); **Primorsky Krai** (Bau, Bulakh, and Govorova, 2011).

***Cortinarius betulinus* J. Favre**

EASTERN EUROPE: **Leningrad Oblast** (Kovalenko and Morozova, 1999a; Popov et al., 2007).

SIBERIA: **Irkutsk Oblast** (Astapenko and Kutafjeva, 1990; Astapenko, 1990b; Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; Nezdojminogo, 1996).

FAR EAST: **Amur Oblast** (Nezdojminogo, 1976b; Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; Nezdojminogo, 1996); **Jewish Autonomous Oblast** (Bulakh, Govorova, Nazarova, and Vassiljeva, 2007; Bau, Bulakh, and Govorova, 2011); **Khabarovsk Krai** (Azbukina et al., 1986; Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; Bau, Bulakh, and Govorova, 2011); **Primorsky Krai** (Azbukina et al., 1984; Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; Nezdojminogo, 1996; Bau, Bulakh, and Govorova, 2011).

***Cortinarius bibulus* Quél.<sup>1</sup>**

= *Cortinarius pulchellus* J.E. Lange<sup>2</sup>

EASTERN EUROPE: **Adygea** (<sup>1</sup>Sopina, 2000; <sup>1</sup>Sopina, 2001a); **Karelia** (<sup>2</sup>Freindling, 1949; <sup>1</sup>Bondartseva et al., 2001; <sup>1</sup>Krutov et al., 2014); **Komi Republic** (<sup>1</sup>Palamarchuk and Kirillov, 2018a); **Leningrad Oblast** (<sup>1</sup>Popov et al., 2007); **Novgorod Oblast** (<sup>1</sup>Kalinina, 2019); **Saint Petersburg** (<sup>1</sup>Kotkova, Morozova, and Popov, 2007); **Sverdlovsk Oblast** (<sup>1</sup>Marina, 2006).

SIBERIA: **Irkutsk Oblast** (<sup>1</sup>Petrov, Nezdojminogo, and Bulakh, 1987; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1</sup>Petrov, 1991; <sup>1</sup>Nezdojminogo, 1996; <sup>1</sup>Sopina, 2000; <sup>1</sup>Petrov, 2008); **Krasnoyarsk Krai** (<sup>1</sup>Nezdojminogo, 1982a; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1</sup>Nezdojminogo, 1996; <sup>1</sup>Sopina, 2000; <sup>1</sup>Malysheva, Malysheva, Kiyashko, et al., 2017).

FAR EAST: **Primorsky Krai** (<sup>1</sup>Azbukina et al., 1990; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1</sup>Nezdojminogo, 1996; <sup>1</sup>Sopina, 2000; <sup>1</sup>Bardunov et al., 2002).

***Cortinarius biformis* Fr.<sup>1</sup>**= *Cortinarius testaceofolius* H. Lindstr. & Soop<sup>2</sup>

EASTERN EUROPE: **Kaliningrad Oblast** (<sup>1</sup>Volodina, 2007); **Karelia** (<sup>1</sup>Freindling, 1949; <sup>1</sup>Nezdojminogo, 1996; <sup>1</sup>Bondartseva et al., 2001; <sup>1,2</sup>Krutov et al., 2014); **Komi Republic** (<sup>1</sup>Palamarchuk, 2012; <sup>1</sup>Palamarchuk, 2016a; <sup>1</sup>Palamarchuk, 2016b; <sup>1</sup>Palamarchuk and Kirillov, 2017; <sup>1</sup>Palamarchuk, 2017); **Leningrad Oblast** (<sup>1</sup>Thesleff, 1920; <sup>1</sup>Stolyarskaya, 1993; <sup>1</sup>Nezdojminogo, 1996; <sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1,2</sup>Fomina, 2000; <sup>1,2</sup>Fomina, 2001; <sup>1</sup>Morozova, 2007; <sup>1</sup>Popov et al., 2007; <sup>1</sup>Zmitrovich et al., 2015); **Moscow Oblast** (<sup>1</sup>Levitskaya, 2013); **Perm Krai** (<sup>1</sup>Perevedentseva, 2008; <sup>1</sup>Belkovskaya et al., 2014; <sup>1</sup>Botalov, 2017); **Pskov Oblast** (<sup>1</sup>Popov et al., 2013); **Sverdlovsk Oblast** (<sup>1</sup>Marina, 2006); **Tula Oblast** (<sup>1</sup>Svetasheva, 2004; <sup>1</sup>Svetasheva, 2005a; <sup>1</sup>Shcherbakov, 2010); **Tver Oblast** (<sup>1</sup>Chastukhin, 1948b; <sup>1</sup>Chastukhin and Nikolaevskaya, 1969; <sup>1</sup>Mukhina, 2011a; <sup>1</sup>Kotkova, 2014); **Vologda Oblast** (<sup>1</sup>Kirillova, 2007).

SIBERIA: **Altai Krai** (<sup>1</sup>Gorbunova, 2018b); **Altai Republic** (<sup>2</sup>Brandrud et al., 2019); **Irkutsk Oblast** (<sup>1</sup>Petrov, Nezdojminogo, and Bulakh, 1987; <sup>1</sup>Petrov, 1991; <sup>1</sup>Petrov, 2008); **Khakassia** (<sup>1</sup>Zauzolkova and Gorbunova, 2013; <sup>1</sup>Zauzolkova, 2015); **Khanty-Mansi Autonomous Okrug** (<sup>1</sup>Filippova and Bulyonkova, 2017a; <sup>1</sup>Filippova and Bulyonkova, 2017b); **Krasnoyarsk Krai** (<sup>1</sup>Beglyanova, 1972a; <sup>1</sup>Beglyanova, 1972b; <sup>1</sup>Zauzolkova, 2012; <sup>1</sup>Zauzolkova, 2015); **Novosibirsk Oblast** (<sup>1</sup>Perova and Gorbunova, 2001; <sup>1</sup>Perova and Gorbunova, 2007; <sup>1</sup>Koropachinskiy and Banaev, 2014); **Tomsk Oblast** (<sup>1</sup>Nezdojminogo, 1996; <sup>1</sup>Perova and Gorbunova, 2001; <sup>1</sup>Kudashova, Gashkov, and Kutafjeva, 2013).

FAR EAST: **Magadan Oblast** (<sup>1</sup>Sazanova, 2009a; <sup>1</sup>Sazanova, 2009b; <sup>1</sup>Sazanova, 2011).

***Cortinarius bivelus* (Fr.) Fr.<sup>1</sup>**≡ *Agaricus bivelus* Fr.<sup>2</sup> = *Agaricus bivelus* var. *fulgens* (Pers.) Fr.<sup>3</sup>

EASTERN EUROPE: **Karelia** (<sup>1</sup>Kovalenko, Morozova, Fomina, and Särkisilta, 1998; <sup>1</sup>Krutov et al., 2014; <sup>1</sup>Predtechenskaya, 2015); **Komi Republic** (<sup>1</sup>Palamarchuk, 2017); **Leningrad Oblast** (<sup>1</sup>Thesleff, 1920; <sup>1</sup>Stolyarskaya, 1993; <sup>1</sup>Nezdojminogo, 1996; <sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Fomina, 2000; <sup>1</sup>Fomina, 2001; <sup>1</sup>Popov et al., 2007; <sup>1</sup>Zmitrovich et al., 2015); **Moscow Oblast** (<sup>1</sup>Levitskaya, 1995c; <sup>1</sup>Levitskaya, 1998; <sup>1</sup>Levitskaya, 2013); **Penza Oblast** (<sup>1</sup>Ivanov and Durandin, 1996; <sup>1</sup>Nezdojminogo, 1996; <sup>1</sup>Ivanov, 2019); **Perm Krai** (<sup>1</sup>Perevedentseva, Nezdojminogo, and Kovalenko, 1990; <sup>1</sup>Perevedentseva, 2008; <sup>1</sup>Botalov, 2017); **Saint Petersburg** (<sup>2,3</sup>Weinmann, 1836; <sup>2</sup>Weinmann, 1837); **Sverdlovsk Oblast** (<sup>1</sup>Marina, 2006); **Tver Oblast** (<sup>1</sup>Kurochkin, 1993); **Ulyanovsk Oblast** (<sup>1</sup>Ilyukhin, 2010a); **Vologda Oblast** (<sup>1</sup>Kirillova, 2007).

SIBERIA: **Altai Republic** (<sup>1</sup>Brandrud et al., 2019); **Buryatia** (<sup>1</sup>Nezdojminogo, 1973); **Irkutsk Oblast** (<sup>1</sup>Kutafjeva, 1984; <sup>1</sup>Petrov, Nezdojminogo, and Bulakh, 1987; <sup>1</sup>Kutafjeva and Astapenko, 1989; <sup>1</sup>Astapenko, 1990a; <sup>1</sup>Astapenko, 1990b; <sup>1</sup>Nezdojminogo, 1996; <sup>1</sup>Petrov, 2008); **Khanty-Mansi Autonomous Okrug** (<sup>1</sup>Filippova and Bulyonkova, 2017a; <sup>1</sup>Filippova and Bulyonkova, 2017b); **Krasnoyarsk Krai** (<sup>1</sup>Nezdojminogo, 1996); **Novosibirsk Oblast** (<sup>1</sup>Perova and Gorbunova, 2001); **Tomsk Oblast** (<sup>1</sup>Perova and Gorbunova, 2001; <sup>1</sup>Kosheleva and Kutafjeva, 2004; <sup>1</sup>Kudashova, Gashkov, and Kutafjeva, 2013).

FAR EAST: **Magadan Oblast** (<sup>1</sup>Sazanova, 2009a).

***Cortinarius blandulus* Britzelm.**

EASTERN EUROPE: **Karelia** (Freindling, 1949; Bondartseva et al., 2001; Krutov et al., 2014).

***Cortinarius bolaris* (Pers.) Fr.**

EASTERN EUROPE: **Chelyabinsk Oblast** (Stepanova and Sirko, 1977; Nezdojminogo, 1996); **Kaliningrad Oblast** (Dedkov, Volodina, and Gubareva, 2007); **Karachay-Cherkess Republic** (Kalamees and Botashev, 2000); **Karelia** (Nezdojminogo, 1996; Kovalenko, Morozova, Fomina, and Särkisilta, 1998; Predtechenskaya and Ruokolainen, 2013; Predtechenskaya, 2013; Krutov et al., 2014; Predtechenskaya, 2015; Savelev and Kikeeva, 2020); **Kirov Oblast** (Kirillov, 2011; Kirillov, Perevedentseva, and Egoshina, 2011); **Komi Republic** (Bobretsova, 2004; Palamarchuk, 2012; Palamarchuk and Kirillov, 2017; Palamarchuk, 2017; Palamarchuk and Kirillov, 2018a); **Leningrad Oblast** (Nezdojminogo, 1979; Kalamees and Kovalenko, 1984; Stolyarskaya, 1993; Nezdojminogo, 1996; Kovalenko and Morozova, 1999a; Fomina, 2000; Morozova, 2007; Popov et al., 2007; Zmitrovich et al., 2015); **Moscow Oblast** (Levitskaya, 1998; Levitskaya, 2013); **Novgorod Oblast** (Kovalenko, Morozova, Nezdojminogo, and Popov, 2005; Popov et al., 2013); **Oryol Oblast** (Radygina, Derzhavina, and Tsutsupa, 2014); **Penza Oblast** (Ivanov, 1988a; Ivanov and Durandin, 1996; Nezdojminogo, 1996; Ivanov, 2019); **Perm Krai** (Perevedentseva, 2008; Botalov, 2017); **Pskov Oblast** (Popov, 2001a; Popov et al., 2013); **Saint Petersburg** (Kovalenko and Morozova, 1999a; Morozova et al.,

2020); **Tver Oblast** (Mukhina, 2011a; Mukhina, 2011b; Kotkova, 2014); **Udmurt Republic** (Tychinin and Kuzmina, 2003); **Vologda Oblast** (Kirillova, 2007); **Yaroslavl Oblast** (Lazareva, 1998a; Lazareva, 2002).

SIBERIA: **Irkutsk Oblast** (Nezdojminogo, 1996); **Khanty-Mansi Autonomous Okrug** (Filippova and Bulyonkova, 2017a; Filippova and Bulyonkova, 2017b; Zvyagina and Baykalova, 2017).

***Cortinarius borealis* Bidaud**

EASTERN EUROPE: **Oryol Oblast** (Radygina, Derzhavina, and Tsutsupa, 2014).

***Cortinarius boreicyanites* Kytöv., Liimat., Niskanen & A.F.S. Taylor**

SIBERIA: **Altai Republic** (Brandrud et al., 2019).

***Cortinarius boudieri* Rob. Henry<sup>1</sup>**

= *Cortinarius boudieri* var. *pseudocarcuratus* Rob. Henry<sup>2</sup>

FAR EAST: **Primorsky Krai** (<sup>2</sup>Azbukina et al., 1984; <sup>2</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1</sup>Nezdojminogo, 1996; <sup>2</sup>Bau, Bulakh, and Govorova, 2011).

***Cortinarius bovinus* Fr.**

EASTERN EUROPE: **Kaliningrad Oblast** (Volodina, 2007); **Leningrad Oblast** (Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; Nezdojminogo, 1996; Kovalenko and Morozova, 1999a; Popov et al., 2007); **Murmansk Oblast** (Mikhailovskii, 1975b; Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; Nezdojminogo, 1996); **Perm Krai** (Perevedentseva, 2008; Botalov, 2017).

SIBERIA: **Irkutsk Oblast** (Kutafjeva, 1984; Nezdojminogo, 1996); **Krasnoyarsk Krai** (Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; Nezdojminogo, 1996); **Tomsk Oblast** (Kosheleva and Kutafjeva, 2004; Kudashova, Gashkov, and Kutafjeva, 2013).

FAR EAST: **Amur Oblast** (Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; Nezdojminogo, 1996); **Primorsky Krai** (Vassiljeva, 1973).

***Cortinarius brunneofulvus* Fr.**

EASTERN EUROPE: **Karelia** (Freindling, 1949; Bondartseva et al., 2001; Krutov et al., 2014); **Leningrad Oblast** (Thesleff, 1920; Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; Nezdojminogo, 1996; Kovalenko and Morozova, 1999a; Fomina, 2001; Popov et al., 2007); **Lipetsk Oblast** (Alferova, 1977; Sarycheva, 1999; Sarycheva et al., 2009; Sarycheva, 2014a; Sarycheva, 2016); **Sverdlovsk Oblast** (Marina, 2006).

SIBERIA: **Altai Republic** (Gorbunova, 2001a); **Irkutsk Oblast** (Kutafjeva, 1984; Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; Nezdojminogo, 1996); **Krasnoyarsk Krai** (Beglyanova, 1972a; Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; Nezdojminogo, 1996).

FAR EAST: **Primorsky Krai** (Azbukina et al., 1984; Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; Nezdojminogo, 1996; Bau, Bulakh, and Govorova, 2011).

***Cortinarius brunneus* (Pers.) Fr.<sup>1</sup>**

≡ *Agaricus brunneus* Pers.<sup>2</sup> ≡ *Cortinarius brunneus* var. *brunneus* (Pers.) Fr.<sup>3</sup>

EASTERN EUROPE: **Bryansk Oblast** (<sup>1</sup>Kruglikov, 2007); **Kaliningrad Oblast** (<sup>1</sup>Volodina, 2007); **Karelia** (<sup>1</sup>Freindling, 1949; <sup>3</sup>Kovalenko, Morozova, Fomina, and Särkisilta, 1998; <sup>1</sup>Bondartseva et al., 2001; <sup>3</sup>Krutov et al., 2014; <sup>3</sup>Predtechenskaya, 2015; <sup>1</sup>Savelev and Kikeeva, 2020); **Kirov Oblast** (<sup>3</sup>Kirillov, 2011; <sup>3</sup>Kirillov, Perevedentseva, and Egoshina, 2011; <sup>3</sup>Stavishenko, Luginina, Kirillov, and Egoshina, 2019); **Komi Republic** (<sup>1</sup>Palamarchuk, 2012; <sup>1</sup>Palamarchuk and Kirillov, 2018a); **Leningrad Oblast** (<sup>1</sup>Thesleff, 1920; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1</sup>Stolyarskaya, 1993; <sup>1</sup>Nezdojminogo, 1996; <sup>1</sup>Kovalenko and Morozova, 1999a; <sup>3</sup>Fomina, 2000; <sup>3</sup>Fomina, 2001; <sup>1</sup>Popov et al., 2007; <sup>1</sup>Zmitrovich et al., 2015; <sup>1</sup>Malysheva, Malysheva, Shchepin, and Novozhilov, 2018); **Lipetsk Oblast** (<sup>1</sup>Afanasyev, Rtishcheva, and Starodubtseva, 2007; <sup>1</sup>Sarycheva et al., 2009; <sup>1</sup>Sarycheva, Starodubtseva, and Sapelnikova, 2017); **Mari El Republic** (<sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1</sup>Nezdojminogo, 1996); **Mordovia** (<sup>1</sup>Chastukhin, 1948a; <sup>1</sup>Chastukhin, 2011; <sup>1</sup>Ivoilov and Bolshakov, 2011a); **Moscow Oblast** (<sup>1</sup>Levitskaya, 1995c; <sup>1</sup>Levitskaya, 2013; <sup>1</sup>Voronina et al., 2014); **Perm Krai** (<sup>3</sup>Perevedentseva, 2008; <sup>1</sup>Perevedentseva and Shishigin, 2014; <sup>1</sup>Perevedentseva and Shishigin, 2015; <sup>1</sup>Botalov, 2017; <sup>1</sup>Botalov and Perevedentseva, 2018); **Saint Petersburg** (<sup>2</sup>Weinmann, 1828; <sup>2</sup>Weinmann, 1836; <sup>2</sup>Weinmann, 1837; <sup>1</sup>Kovalenko and Morozova, 1999a); **Sverdlovsk Oblast** (<sup>3</sup>Marina, 2006); **Tatarstan** (<sup>1</sup>Vassiljeva, 1977; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1</sup>Nezdojminogo, 1996); **Tula Oblast** (<sup>1</sup>Svetasheva, 2004; <sup>1</sup>Svetasheva, 2005a; <sup>1</sup>Svetasheva, 2005b); **Tver Oblast** (<sup>1</sup>Chastukhin, 1948b);



<sup>1</sup>Chastukhin and Nikolaevskaya, 1969; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdoininogo, 1990; <sup>1</sup>Kurochkin, 1993; <sup>1</sup>Nezdoininogo, 1996; <sup>1</sup>Mukhina, 2011a; <sup>1</sup>Kotkova, 2014); **Udmurt Republic** (<sup>1</sup>Tychinin and Kuzmina, 2003); **Vologda Oblast** (<sup>1</sup>Kirillova, 2007); **Voronezh Oblast** (<sup>1</sup>Rtishcheva, 1999; <sup>1</sup>Afanasyev, Rtishcheva, and Starodubtseva, 2007; <sup>1</sup>Sarycheva, Starodubtseva, and Sapelnikova, 2017); **Yaroslavl Oblast** (<sup>1</sup>Nezdoininogo, 1996; <sup>1</sup>Lazareva, 1998a; <sup>1</sup>Lazareva, 2002).

SIBERIA: **Altai Krai** (<sup>1</sup>Gorbunova and Perova, 2006; <sup>1</sup>Gorbunova, 2018a); **Buryatia** (<sup>1</sup>Nezdoininogo, 1973; <sup>1</sup>Petrov, 1991); **Irkutsk Oblast** (<sup>1</sup>Kutafjeva, 1984; <sup>1</sup>Nezdoininogo, 1996; <sup>1</sup>Gorbunova and Stepantsova, 2015; <sup>1</sup>Muzyka and Penzina, 2017); **Khakassia** (<sup>1</sup>Zauzolkova, 2015); **Khanty-Mansi Autonomous Okrug** (<sup>3</sup>Zvyagina, 2008; <sup>3</sup>Shepeleva et al., 2014; <sup>1</sup>Filippova, Bulyonkova, and Lapshina, 2015; <sup>1</sup>Filippova and Bulyonkova, 2017a; <sup>1</sup>Filippova and Bulyonkova, 2017b); **Krasnoyarsk Krai** (<sup>1</sup>Beglyanova, 1972a; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdoininogo, 1990; <sup>1</sup>Nezdoininogo, 1996; <sup>1</sup>Pavlov et al., 2007).

FAR EAST: **Amur Oblast** (<sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdoininogo, 1990; <sup>1</sup>Nezdoininogo, 1996); **Khabarovsk Krai** (<sup>1</sup>Bulakh, 2013; <sup>1</sup>Bogacheva, Bulakh, Bukharova, and Egorova, 2015); **Magadan Oblast** (<sup>1</sup>Sazanova, 2005; <sup>1</sup>Sazanova, 2009a); **Primorsky Krai** (<sup>1</sup>Vassiljeva, 1973; <sup>1</sup>Bunkina and Nazarova, 1978; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdoininogo, 1990; <sup>1</sup>Nezdoininogo, 1996; <sup>1</sup>Azbukina et al., 2006; <sup>3</sup>Bau, Bulakh, and Govorova, 2011; <sup>3</sup>Bulakh et al., 2016); **Sakhalin Oblast** (<sup>1</sup>Vassiljeva and Nazarova, 1972; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdoininogo, 1990; <sup>1</sup>Nezdoininogo, 1996).

### ***Cortinarius bulbosus* (Sowerby) Gray<sup>1</sup>**

≡ *Agaricus bulbosus* Sowerby<sup>2</sup>

EASTERN EUROPE: **Karelia** (<sup>1</sup>Nezdoininogo, 1996; <sup>1</sup>Krutov et al., 2014); **Leningrad Oblast** (<sup>1</sup>Thesleff, 1920; <sup>1</sup>Nezdoininogo, 1996; <sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Fomina, 2000; <sup>1</sup>Popov et al., 2007); **Saint Petersburg** (<sup>2</sup>Weinmann, 1836); **Tatarstan** (<sup>1</sup>Vassiljeva, 1977; <sup>1</sup>Nezdoininogo, 1996); **Udmurt Republic** (<sup>1</sup>Tychinin and Kuzmina, 2003); **Yaroslavl Oblast** (<sup>1</sup>Nezdoininogo, 1996; <sup>1</sup>Lazareva, 1998a; <sup>1</sup>Lazareva, 2002).

SIBERIA: **Altai Krai** (<sup>1</sup>Gorbunova and Perova, 2006); **Altai Republic** (<sup>1</sup>Gorbunova, 2001a); **Krasnoyarsk Krai** (<sup>1</sup>Nezdoininogo, 1996); **Tomsk Oblast** (<sup>1</sup>Perova, 1972; <sup>1</sup>Nezdoininogo, 1996; <sup>1</sup>Perova and Gorbunova, 2001; <sup>1</sup>Kudashova, Gashkov, and Kutafjeva, 2013).

### ***Cortinarius bulliardii* (Pers.) Fr.<sup>1</sup>**

= *Cortinarius colus* Fr.<sup>2</sup> = *Cortinarius pseudocolus* M.M. Moser<sup>3</sup>

EASTERN EUROPE: **Belgorod Oblast** (<sup>3</sup>Bedenko, 1979b; <sup>3</sup>Bedenko, 1980; <sup>3</sup>Nezdoininogo, 1996); **Crimea** (<sup>1</sup>Moser, 1993; <sup>1</sup>Sarkina, 2001; <sup>1</sup>Dudka et al., 2004; <sup>1</sup>Sarkina, 2011); **Kabardino-Balkarian Republic** (<sup>1</sup>Shkhagapsoev and Krapivina, 2004); **Karelia** (<sup>2</sup>Krutov et al., 2014); **Komi Republic** (<sup>2</sup>Palamarchuk, 2016b); **Krasnodar Krai** (<sup>1</sup>Kovalenko, 1980a; <sup>1</sup>Kovalenko, 1980b; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdoininogo, 1990; <sup>1</sup>Nezdoininogo, 1996; <sup>1</sup>Sopina, 2001a; <sup>1</sup>Shumkova, Krivorotov, and Gayday, 2018); **Leningrad Oblast** (<sup>2</sup>Kovalenko and Morozova, 1999a; <sup>2</sup>Fomina, 2000; <sup>2</sup>Fomina, 2001; <sup>2</sup>Popov et al., 2007); **Moscow** (<sup>1</sup>Bucholtz, 1897b; <sup>1</sup>Bucholtz, 1897c; <sup>1</sup>Mosolov, 1906); **Murmansk Oblast** (<sup>2</sup>Nezdoininogo, 1996); **Penza Oblast** (<sup>2</sup>Ivanov, 1983; <sup>2</sup>Ivanov and Durandin, 1996; <sup>2</sup>Ivanov, 2019); **Perm Krai** (<sup>1</sup>Perevedentseva, 2008; <sup>1</sup>Botalov, 2017); **Sevastopol** (<sup>1</sup>Sarkina, 2020c); **Smolensk Oblast** (<sup>1</sup>Jaczewski, 1896); **Tula Oblast** (<sup>1</sup>Svetasheva, Sheremetyeva, and Lakomov, 2019); **Arid territories** (<sup>1</sup>Rebriev, Rusanov, et al., 2012).

SIBERIA: **Irkutsk Oblast** (<sup>2</sup>Kutafjeva, 1984; <sup>3</sup>Kutafjeva and Astapenko, 1987; <sup>3</sup>Petrov, Nezdoininogo, and Bulakh, 1987; <sup>2</sup>Bulakh, Wasser, Nazarova, and Nezdoininogo, 1990; <sup>3</sup>Petrov, 1991; <sup>2,3</sup>Nezdoininogo, 1996; <sup>3</sup>Petrov, 2008); **Kemerovo Oblast** (<sup>1</sup>Kupriyanov, 2012); **Krasnoyarsk Krai** (<sup>2</sup>Nezdoininogo, 1996); **Yamalo-Nenets Autonomous Okrug** (<sup>2</sup>Nezdoininogo, 1996).

FAR EAST: **Chukotka Autonomous Okrug** (<sup>2</sup>Nezdoininogo, 1996); **Primorsky Krai** (<sup>1,2</sup>Vassiljeva, 1973; <sup>2</sup>Bunkina and Nazarova, 1978; <sup>1,2</sup>Bulakh, Wasser, Nazarova, and Nezdoininogo, 1990; <sup>1,2</sup>Nezdoininogo, 1996; <sup>1,2</sup>Azbukina et al., 2006; <sup>1,2</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Bulakh et al., 2016; <sup>1</sup>Bogacheva et al., 2018).

### ***Cortinarius caerulescens* (Schaeff.) Fr.<sup>1</sup>**

≡ *Agaricus caerulescens* Schaeff.<sup>2</sup> = *Cortinarius caesiocyaneus* Britzelm.<sup>3</sup>

EASTERN EUROPE: **Crimea** (<sup>1</sup>Sarkina, 2001; <sup>1</sup>Dudka et al., 2004; <sup>1</sup>Sarkina, 2010b; <sup>1</sup>Sarkina, 2011; <sup>1</sup>Sarkina and Prydiuk, 2012); **Kaliningrad Oblast** (<sup>1</sup>Dedkov, Volodina, and Gubareva, 2007); **Krasnodar Krai** (<sup>1</sup>Sopina, 2001a; <sup>1</sup>Litvinskaya, 2007; <sup>1</sup>Litvinskaya, 2017); **Kursk Oblast** (<sup>1</sup>Ryabova and Ignatenko, 1981); **Leningrad Oblast** (<sup>1</sup>Thesleff, 1920; <sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Popov et al., 2007); **Lipetsk Oblast** (<sup>1</sup>Sarycheva, 2014a; <sup>1</sup>Sarycheva, 2016);

**Penza Oblast** (<sup>2</sup>Vet, 1943; <sup>1</sup>Ivanov, 1986; <sup>3</sup>Ivanov, 1988c; <sup>3</sup>Ivanov and Durandin, 1996); **Arid territories** (<sup>1</sup>Rebriev, Rusanov, et al., 2012).

SIBERIA: **Krasnoyarsk Krai** (<sup>1</sup>Beglyanova, 1972a).

FAR EAST: **Primorsky Krai** (<sup>1</sup>Vassiljeva, 1973; <sup>1</sup>Shalapugina, 1976; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdjominogo, 1990; <sup>1</sup>Nezdjominogo, 1996; <sup>1</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Bulakh et al., 2016; <sup>1</sup>Bogacheva et al., 2018).

**Cortinarius caesiobrunneus** Kytöv., Niskanen & Liimat.

EASTERN EUROPE: **Komi Republic** (Palamarchuk, 2020b).

SIBERIA: **Khanty-Mansi Autonomous Okrug** (Filippova, Bulyonkova, and Lapshina, 2015).

**Cortinarius caesiocanescens** M.M. Moser

EASTERN EUROPE: **Tver Oblast** (Kurochkin, 1993; Nezdjominogo, 1996; Mukhina, 2011a; Kotkova, 2014).

**Cortinarius caesiocortinatus** Jul. Schäff.

EASTERN EUROPE: **Penza Oblast** (Ivanov, 1983; Ivanov and Durandin, 1996; Nezdjominogo, 1996; Ivanov, 2013a).

**Cortinarius caesiostramineus** Rob. Henry<sup>1</sup>

= *Cortinarius amarescens* M.M. Moser<sup>2</sup>

EASTERN EUROPE: **Leningrad Oblast** (<sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Popov et al., 2007).

SIBERIA: **Krasnoyarsk Krai** (<sup>2</sup>Beglyanova, 1972a).

**Cortinarius cagei** Melot<sup>1</sup>

= *Cortinarius bicolor* Cooke<sup>2</sup>

EASTERN EUROPE: **Karelia** (<sup>2</sup>Freindling, 1949; <sup>2</sup>Bulakh, Wasser, Nazarova, and Nezdjominogo, 1990; <sup>2</sup>Nezdjominogo, 1996; <sup>2</sup>Bondartseva et al., 2001; <sup>1</sup>Krutov et al., 2014); **Moscow Oblast** (<sup>2</sup>Levitskaya, 1995c; <sup>2</sup>Levitskaya, 2013); **Murmansk Oblast** (<sup>2</sup>Bulakh, Wasser, Nazarova, and Nezdjominogo, 1990; <sup>2</sup>Nezdjominogo, 1996); **Penza Oblast** (<sup>2</sup>Ivanov, 1988a; <sup>2</sup>Ivanov and Durandin, 1996); **Tatarstan** (<sup>2</sup>Vassiljeva, 1977; <sup>2</sup>Bulakh, Wasser, Nazarova, and Nezdjominogo, 1990; <sup>2</sup>Nezdjominogo, 1996).

SIBERIA: **Irkutsk Oblast** (<sup>2</sup>Kutafjeva, 1984; <sup>2</sup>Astapenko, 1990b; <sup>2</sup>Bulakh, Wasser, Nazarova, and Nezdjominogo, 1990; <sup>2</sup>Nezdjominogo, 1996); **Krasnoyarsk Krai** (<sup>2</sup>Beglyanova, 1972a; <sup>2</sup>Bulakh, Wasser, Nazarova, and Nezdjominogo, 1990; <sup>2</sup>Nezdjominogo, 1996).

FAR EAST: **Primorsky Krai** (<sup>2</sup>Vassiljeva, 1972; <sup>2</sup>Vassiljeva, 1973; <sup>2</sup>Bulakh, Wasser, Nazarova, and Nezdjominogo, 1990; <sup>2</sup>Nezdjominogo, 1996).

**Cortinarius callisteus** (Fr.) Fr.<sup>1</sup>

≡ *Agaricus callisteus* Fr.<sup>2</sup>

EASTERN EUROPE: **Karelia** (<sup>1</sup>Krutov et al., 2014); **Komi Republic** (<sup>1</sup>Bobretsova, 2004; <sup>1</sup>Palamarchuk, 2012); **Leningrad Oblast** (<sup>2</sup>Weinmann, 1836; <sup>1</sup>Thesleff, 1920; <sup>1</sup>Nezdjominogo, 1979; <sup>1</sup>Nezdjominogo, 1996; <sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Popov et al., 2007); **Murmansk Oblast** (<sup>1</sup>Pystina, Pavlova, and Shestakova, 1969; <sup>1</sup>Nezdjominogo, 1979; <sup>1</sup>Nezdjominogo, 1996); **Perm Krai** (<sup>1</sup>Perevedentseva, 2008); **Saint Petersburg** (<sup>2</sup>Weinmann, 1837); **Sverdlovsk Oblast** (<sup>1</sup>Marina, 2006); **Tula Oblast** (<sup>1</sup>Svetasheva, 2003; <sup>1</sup>Svetasheva, 2004); **Tver Oblast** (<sup>1</sup>Kurochkin, 1993); **Udmurt Republic** (<sup>1</sup>Tychinin and Kuzmina, 2003).

SIBERIA: **Irkutsk Oblast** (<sup>1</sup>Nezdjominogo, 1979; <sup>1</sup>Kutafjeva, 1984; <sup>1</sup>Astapenko, 1990b; <sup>1</sup>Nezdjominogo, 1996); **Krasnoyarsk Krai** (<sup>1</sup>Nezdjominogo, 1979; <sup>1</sup>Nezdjominogo, 1996); **Tomsk Oblast** (<sup>1</sup>Nezdjominogo, 1979; <sup>1</sup>Nezdjominogo, 1996; <sup>1</sup>Perova and Gorbunova, 2001; <sup>1</sup>Kudashova, Gashkov, and Kutafjeva, 2013).

**Cortinarius callochrous** (Pers.) Gray<sup>1</sup>

≡ *Agaricus callochrous* Pers.<sup>2</sup> ≡ *Cortinarius callochrous* var. *callochrous* (Pers.) Gray<sup>3</sup> = *Cortinarius callochrous* subsp. *coniferarum* (M.M. Moser) Brandrud<sup>4</sup> = *Cortinarius callochrous* var. *caroli* (Velen.) Nezdjomin.<sup>5</sup> = *Cortinarius callochrous* var. *coniferarum* (M.M. Moser) Nezdjomin.<sup>6</sup> = *Cortinarius parvus* Rob. Henry<sup>7</sup>

EASTERN EUROPE: **Belgorod Oblast** (<sup>5</sup>Bedenko, 1979a; <sup>5</sup>Nezdjominogo, 1996); **Crimea** (<sup>1</sup>Zerova, 1962; <sup>1</sup>Sarkina, 2001; <sup>1</sup>Dudka et al., 2004; <sup>1,5</sup>Sarkina, 2010b; <sup>1</sup>Sarkina, 2011; <sup>1,5</sup>Sarkina and Prydiuk, 2012; <sup>1</sup>Sarkina, 2013; <sup>1,5</sup>Sarkina and Mironova, 2015; <sup>1</sup>Sarkina and Stavishenko, 2019); **Karachay-Cherkess Republic** (<sup>3</sup>Kalamees and Botashev, 2000); **Krasnodar Krai** (<sup>5</sup>Sopina, 2001a); **Leningrad Oblast** (<sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Popov et al., 2007);

**Lipetsk Oblast** (<sup>1</sup>Alferova, 1977; <sup>1</sup>Sarycheva, 1999; <sup>1</sup>Sarycheva et al., 2009; <sup>1</sup>Sarycheva, 2011; <sup>1</sup>Sarycheva, 2014a; <sup>1</sup>Sarycheva, 2016); **Orenburg Oblast** (<sup>7</sup>Desyatova, 2008); **Penza Oblast** (<sup>5,7</sup>Ivanov, 1983; <sup>5,7</sup>Ivanov and Durandin, 1996; <sup>5,7</sup>Nezdojminogo, 1996); **Saint Petersburg** (<sup>2</sup>Weinmann, 1836); **Sevastopol** (<sup>1</sup>Sarkina, 2016b; <sup>1</sup>Sarkina, 2020c); **Stavropol Krai** (<sup>1</sup>Rebriev, Popov, and Svetasheva, 2015); **Sverdlovsk Oblast** (<sup>1</sup>Marina, 2006).

SIBERIA: **Irkutsk Oblast** (<sup>6</sup>Kutafjeva, 1984; <sup>6</sup>Astapenko, 1990b; <sup>6</sup>Nezdojminogo, 1996); **Khakassia** (<sup>1</sup>Zauzolkova, 2015; <sup>1</sup>Zauzolkova and Gorbunova, 2016); **Novosibirsk Oblast** (<sup>4</sup>Perova and Gorbunova, 2001; <sup>6</sup>Perova and Gorbunova, 2007).

### ***Cortinarius calopus* P. Karst.**

EASTERN EUROPE: **Leningrad Oblast** (Kovalenko and Morozova, 1999a; Fomina, 2000; Fomina, 2001; Popov et al., 2007); **Moscow Oblast** (Levitskaya, 1998; Levitskaya, 2013).

SIBERIA: **Irkutsk Oblast** (Astapenko and Kutafjeva, 1990; Astapenko, 1990b; Nezdojminogo, 1996).

### ***Cortinarius camphoratus* (Fr.) Fr.<sup>1</sup>**

= *Cortinarius amethystinus* Quél.<sup>2</sup> = *Cortinarius hircinus* Fr.<sup>3</sup>

EASTERN EUROPE: **Karelia** (<sup>3</sup>Freindling, 1949; <sup>1</sup>Nezdojminogo, 1978a; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1</sup>Nezdojminogo, 1996; <sup>1</sup>Kovalenko, Morozova, Fomina, and Särkisilta, 1998; <sup>1</sup>Bondartseva et al., 2001; <sup>1</sup>Predtechenskaya and Ruokolainen, 2013; <sup>1</sup>Krutov et al., 2014; <sup>1</sup>Savelev and Kikeeva, 2020); **Komi Republic** (<sup>1</sup>Palamarchuk, 2020b); **Leningrad Oblast** (<sup>1</sup>Nezdojminogo, 1978a; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1</sup>Nezdojminogo, 1996; <sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Fomina, 2000; <sup>1</sup>Fomina, 2001; <sup>1</sup>Popov et al., 2007; <sup>1</sup>Zmitrovich et al., 2015; <sup>1</sup>Malysheva, Malysheva, Shchepin, and Novozhilov, 2018); **Mordovia** (<sup>2</sup>Chastukhin, 1948a); **Murmansk Oblast** (<sup>3</sup>Pystina, Pavlova, and Shestakova, 1969); **Novgorod Oblast** (<sup>1</sup>Kovalenko, Morozova, Nezdojminogo, and Popov, 2005; <sup>1</sup>Popov et al., 2013); **Perm Krai** (<sup>1</sup>Perevedentseva, 2008); **Tatarstan** (<sup>1</sup>Nezdojminogo, 1978a; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1</sup>Nezdojminogo, 1996); **Tula Oblast** (<sup>1</sup>Svetasheva, 2004; <sup>1</sup>Svetasheva, 2005a; <sup>1</sup>Svetasheva, 2005b); **Tver Oblast** (<sup>1</sup>Nezdojminogo, 1978a; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1</sup>Kurochkin, 1993; <sup>1</sup>Nezdojminogo, 1996; <sup>1</sup>Mukhina, 2011a; <sup>1</sup>Mukhina, 2011b; <sup>1</sup>Kotkova, 2014); **Udmurt Republic** (<sup>1</sup>Tychinin and Kuzmina, 2003); **Vologda Oblast** (<sup>1</sup>Kirillova, 2007).

SIBERIA: **Altai Krai** (<sup>1</sup>Gorbunova, 2018a); **Buryatia** (<sup>3</sup>Nezdojminogo, 1970a; <sup>1,3</sup>Petrov, 1991); **Irkutsk Oblast** (<sup>1</sup>Kutafjeva, 1984; <sup>1</sup>Petrov, Nezdojminogo, and Bulakh, 1987; <sup>1</sup>Petrov, 1989; <sup>1</sup>Petrov, 1991; <sup>1</sup>Muzyka and Penzina, 2017); **Khakassia** (<sup>1</sup>Zauzolkova, 2015; <sup>1</sup>Zauzolkova and Gorbunova, 2016); **Khanty-Mansi Autonomous Okrug** (<sup>1</sup>Filippova, Bulyonkova, and Lapshina, 2015; <sup>1</sup>Filippova and Bulyonkova, 2017a; <sup>1</sup>Filippova and Bulyonkova, 2017b); **Krasnoyarsk Krai** (<sup>1</sup>Nezdojminogo, 1976a; <sup>1</sup>Nezdojminogo, 1978a; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1</sup>Nezdojminogo, 1996; <sup>1</sup>Kosheleva and Kutafjeva, 2008b; <sup>1</sup>Kosheleva, 2010; <sup>1</sup>Krom and Kapitonov, 2019); **Tomsk Oblast** (<sup>3</sup>Perova, 1972; <sup>1</sup>Nezdojminogo, 1978a; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1</sup>Nezdojminogo, 1996; <sup>1,3</sup>Perova and Gorbunova, 2001; <sup>1</sup>Kudashova, Gashkov, and Kutafjeva, 2013; <sup>1</sup>Vaishlya et al., 2017).

FAR EAST: **Primorsky Krai** (<sup>1</sup>Vassiljeva, 1972; <sup>1</sup>Vassiljeva, 1973; <sup>1</sup>Nezdojminogo, 1978a; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1</sup>Nezdojminogo, 1996).

### ***Cortinarius caninus* (Fr.) Fr.<sup>1</sup>**

≡ *Agaricus anomalus* var. *caninus* Fr.<sup>2</sup>

EASTERN EUROPE: **Adygea** (<sup>1</sup>Kiyashko, 2009); **Kaliningrad Oblast** (<sup>1</sup>Dedkov, Volodina, and Gubareva, 2007; <sup>1</sup>Atayev and Volodina, 2020); **Karelia** (<sup>1</sup>Krutov et al., 2014); **Komi Republic** (<sup>1</sup>Palamarchuk (Bobretsova), 2009; <sup>1</sup>Palamarchuk, 2012; <sup>1</sup>Palamarchuk, 2017; <sup>1</sup>Palamarchuk and Kirillov, 2018a); **Leningrad Oblast** (<sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Popov et al., 2007; <sup>1</sup>Zmitrovich et al., 2015); **Moscow Oblast** (<sup>1</sup>Gorlenko, Sidorova, and Sidorova, 1989); **Saint Petersburg** (<sup>2</sup>Weinmann, 1837); **Sverdlovsk Oblast** (<sup>1</sup>Marina, 2006).

SIBERIA: **Altai Republic** (<sup>1</sup>Gorbunova, 2003; <sup>1</sup>Gorbunova, 2010; <sup>1</sup>Brandrud et al., 2019); **Buryatia** (<sup>1</sup>Nezdojminogo, 1978a; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1</sup>Petrov, 1991; <sup>1</sup>Nezdojminogo, 1996); **Irkutsk Oblast** (<sup>1</sup>Petrov, Nezdojminogo, and Bulakh, 1987; <sup>1</sup>Petrov, 1991; <sup>1</sup>Petrov, 2008); **Krasnoyarsk Krai** (<sup>1</sup>Kryuchkova, 2009); **Novosibirsk Oblast** (<sup>1</sup>Perova and Gorbunova, 2001; <sup>1</sup>Perova and Gorbunova, 2007); **Sakha Republic** (<sup>1</sup>Nezdojminogo, 1978a; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1</sup>Nezdojminogo, 1996); **Tomsk Oblast** (<sup>1</sup>Kudashova, Gashkov, and Kutafjeva, 2013; <sup>1</sup>Vaishlya et al., 2017).

FAR EAST: **Amur Oblast** (<sup>1</sup>Nezdojminogo, 1978a; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1</sup>Nezdojminogo, 1996; <sup>1</sup>Azbukina et al., 1998); **Chukotka Autonomous Okrug** (<sup>1</sup>Berkeley and Curtis, 1978); **Jewish Autonomous Oblast** (<sup>1</sup>Bulakh, Govorova, Nazarova, and Vassiljeva, 2007; <sup>1</sup>Bau, Bulakh, and Govorova, 2011);

**Khabarovsk Krai** (<sup>1</sup>Azbukina et al., 1986; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdoyminogo, 1990; <sup>1</sup>Bulakh, Vassiljeva, and Erofeeva, 2010; <sup>1</sup>Bau, Bulakh, and Govorova, 2011); **Primorsky Krai** (<sup>1</sup>Azbukina et al., 1984; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdoyminogo, 1990; <sup>1</sup>Nezdoyminogo, 1996; <sup>1</sup>Bau, Bulakh, and Govorova, 2011); **Sakhalin Oblast** (<sup>1</sup>Vassiljeva and Nazarova, 1972; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdoyminogo, 1990; <sup>1</sup>Nezdoyminogo, 1996).

***Cortinarius caperatus* (Pers.) Fr.<sup>1</sup>**

≡ *Agaricus caperatus* Pers.<sup>2</sup> ≡ *Pholiota caperata* (Pers.) Gillet<sup>3</sup> ≡ *Rozites caperatus* (Pers.) P. Karst.<sup>4</sup>

EASTERN EUROPE: **Arkhangelsk Oblast** (<sup>4</sup>Ezhov, Ershov, Ruokolainen, and Zmitrovich, 2011; <sup>4</sup>Ezhov, 2014; <sup>1</sup>Ezhov, Zmitrovich, and Ruokolainen, 2019); **Bryansk Oblast** (<sup>4</sup>Kruglikov, 2007); **Crimea** (<sup>4</sup>Sarkina, 2001; <sup>4</sup>Dudka et al., 2004); **Kabardino-Balkarian Republic** (<sup>4</sup>Shkhagapsoev and Krapivina, 2004); **Kaliningrad Oblast** (<sup>4</sup>Dedkov, Volodina, and Gubareva, 2007; <sup>4</sup>Volodina, 2007); **Kaluga Oblast** (<sup>4</sup>Sionova, 2003); **Karelia** (<sup>1</sup>Karsten, 1866; <sup>2</sup>Karsten, 1876; <sup>4</sup>Kovalenko, Morozova, Fomina, and Särkisilta, 1998; <sup>4</sup>Bondartseva et al., 2001; <sup>1</sup>Predtechenskaya and Ruokolainen, 2013; <sup>1</sup>Krutov et al., 2014; <sup>1</sup>Predtechenskaya and Ruokolainen, 2014; <sup>1</sup>Predtechenskaya, 2015; <sup>1</sup>Savelev and Kikeeva, 2018); **Kirov Oblast** (<sup>3</sup>Kirillov, 2011; <sup>4</sup>Kirillov, Perevedentseva, and Egoshina, 2011; <sup>1</sup>Stavishenko, Luginina, Kirillov, and Egoshina, 2019); **Komi Republic** (<sup>4</sup>Bobretsova, 2004; <sup>1</sup>Palamarchuk, 2012; <sup>1</sup>Palamarchuk, 2016a; <sup>1</sup>Palamarchuk, 2016b; <sup>1</sup>Palamarchuk and Kirillov, 2017; <sup>1</sup>Palamarchuk, 2017); **Kostroma Oblast** (<sup>4</sup>Burova, 1982; <sup>4</sup>Veremyeva, 1986); **Krasnodar Krai** (<sup>4</sup>Vaasma, Kalamees, and Raitviir, 1986); **Leningrad Oblast** (<sup>4</sup>Thesleff, 1920; <sup>4</sup>Chastukhin and Nikolaevskaya, 1969; <sup>4</sup>Kalamees and Kovalenko, 1984; <sup>4</sup>Stolyarskaya, 1989; <sup>4</sup>Kovalenko and Morozova, 1999a; <sup>4</sup>Fomina, 2000; <sup>4</sup>Morozova and Kovalenko, 2000; <sup>4</sup>Fomina, 2001; <sup>4</sup>Morozova, 2007; <sup>4</sup>Popov et al., 2007; <sup>1</sup>Zmitrovich et al., 2015; <sup>1</sup>Malysheva, Malysheva, Shchepin, and Novozhilov, 2018); **Lipetsk Oblast** (<sup>4</sup>Sarycheva, 1999; <sup>4</sup>Sarycheva et al., 2009; <sup>4</sup>Shcherbakov, 2014); **Mordovia** (<sup>4</sup>Kuznetsov, 1960; <sup>1</sup>Ivoilov and Bolshakov, 2011a; <sup>4</sup>Chastukhin, 2011; <sup>1</sup>Bolshakov and Ivoilov, 2012b); **Moscow Oblast** (<sup>4</sup>Gorlenko, Sidorova, and Sidorova, 1989; <sup>4</sup>Levitskaya, 1995c; <sup>4</sup>Levitskaya, 2013; <sup>1</sup>Voronina et al., 2014); **Murmansk Oblast** (<sup>4</sup>Pystina, Pavlova, and Shestakova, 1969); **Novgorod Oblast** (<sup>4</sup>Kovalenko, Morozova, Nezdoyminogo, and Popov, 2005; <sup>4</sup>Malysheva, Malysheva, and Zmitrovich, 2007; <sup>1</sup>Popov et al., 2013); **Oryol Oblast** (<sup>4</sup>Radygina, Derzhavina, and Tsutsupa, 2014); **Penza Oblast** (<sup>4</sup>Ivanov, 1982); **Perm Krai** (<sup>4</sup>Stepanova and Sirko, 1977; <sup>4</sup>Perevedentseva, 2008; <sup>1</sup>Belkovskaya et al., 2014; <sup>4</sup>Perevedentseva and Shishigin, 2015; <sup>4</sup>Botalov, 2017; <sup>4</sup>Botalov and Perevedentseva, 2018); **Pskov Oblast** (<sup>4</sup>Popov, 2001a; <sup>1</sup>Popov et al., 2013); **Ryazan Oblast** (<sup>4</sup>Volosnova, 1997; <sup>4</sup>Volosnova, 2014); **Saint Petersburg** (<sup>2</sup>Weinmann, 1828; <sup>2</sup>Weinmann, 1836; <sup>2</sup>Weinmann, 1837; <sup>4</sup>Kovalenko and Morozova, 1999a; <sup>4</sup>Kotkova, Morozova, and Popov, 2005; <sup>4</sup>Morozova and Smirnov, 2011; <sup>1</sup>Morozova et al., 2020); **Smolensk Oblast** (<sup>3</sup>Jaczewski, 1896); **Sverdlovsk Oblast** (<sup>4</sup>Tomilin, 1965; <sup>4</sup>Stepanova and Sirko, 1977; <sup>4</sup>Marina, 2006); **Tatarstan** (<sup>4</sup>Vassiljeva, 1977; <sup>4</sup>Shchepovskikh, Boroznov, Bojko, and Liubarsky, 1995; <sup>1</sup>Nazirov, Gorshkov, Ivanov, and Rogova, 2016); **Tula Oblast** (<sup>4</sup>Svetasheva, 2005a; <sup>1</sup>Shcherbakov, 2010); **Tver Oblast** (<sup>4</sup>Kurochkin, 1993; <sup>4</sup>Mukhina, 2011a; <sup>4</sup>Mukhina, 2011b; <sup>1</sup>Kotkova, 2014); **Udmurt Republic** (<sup>4</sup>Tychinin, 1990; <sup>4</sup>Tychinin and Kuzmina, 2003); **Vologda Oblast** (<sup>4</sup>Kutova, 1957; <sup>4</sup>Kirillova, 2007); **Voronezh Oblast** (<sup>4</sup>Selochnik, 2015); **Yaroslavl Oblast** (<sup>4</sup>Lazareva, 1997; <sup>4</sup>Lazareva, 1998a).

SIBERIA: **Altai Krai** (<sup>4</sup>Gorbunova and Perova, 2006); **Altai Republic** (<sup>1</sup>Gorbunova, 2010; <sup>1</sup>Brandrud et al., 2019); **Buryatia** (<sup>4</sup>Nezdoyminogo, 1970a; <sup>4</sup>Penzina and Petrov, 1994); **Irkutsk Oblast** (<sup>4</sup>Kutafjeva, 1984; <sup>4</sup>Petrov, Nezdoyminogo, and Bulakh, 1987; <sup>4</sup>Muzyka, 2002; <sup>4</sup>Bardunov et al., 2005; <sup>4</sup>Petrov, 2008; <sup>4</sup>Muzyka, 2009; <sup>1</sup>Gorbunova and Stepanova, 2015); **Khanty-Mansi Autonomous Okrug** (<sup>4</sup>Zvyagina, Baykalova, and Gorbunova, 2007; <sup>1</sup>Zvyagina, 2008; <sup>1</sup>Filippova and Thormann, 2014; <sup>1</sup>Filippova, 2014; <sup>1</sup>Filippova, Mourgues, and Philippe, 2014; <sup>1</sup>Shepeleva et al., 2014; <sup>1</sup>Filippova, Bulyonkova, and Lapshina, 2015; <sup>1</sup>Makarova, Makarov, Zvyagina, and Bobrikov, 2015; <sup>1</sup>Zvyagina and Vasina, 2015); **Krasnoyarsk Krai** (<sup>4</sup>Beglyanova, 1972a; <sup>4</sup>Nezdoyminogo, 1976a; <sup>4</sup>Lapitskaya, 1993; <sup>4</sup>Kosheleva and Kutafjeva, 2008a; <sup>4</sup>Kosheleva and Kutafjeva, 2008b; <sup>4</sup>Kosheleva, 2010; <sup>1</sup>Kryuchkova, 2014a; <sup>1</sup>Malysheva, Malysheva, Kiyashko, et al., 2017; <sup>1</sup>Krom and Kapitonov, 2019); **Novosibirsk Oblast** (<sup>1</sup>Koropachinskiy and Banaev, 2014); **Tomsk Oblast** (<sup>4</sup>Milovidova, 1980; <sup>4</sup>Perova and Gorbunova, 2001; <sup>4</sup>Kosheleva and Kutafjeva, 2004; <sup>1</sup>Kudashova, Gashkov, and Kutafjeva, 2013; <sup>1</sup>Vaishlya et al., 2017); **Yamalo-Netets Autonomous Okrug** (<sup>4</sup>Tarchevskaya, 1990).

FAR EAST: **Amur Oblast** (<sup>4</sup>Gordienko, Petrova, and Tarasov, 1981); **Jewish Autonomous Oblast** (<sup>4</sup>Bulakh, Govorova, Nazarova, and Vassiljeva, 2007; <sup>4</sup>Bau, Bulakh, and Govorova, 2011); **Khabarovsk Krai** (<sup>4</sup>Azbukina et al., 1986; <sup>4</sup>Bulakh, Wasser, Nazarova, and Nezdoyminogo, 1990; <sup>4</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Erofeeva and Bulakh, 2015a); **Magadan Oblast** (<sup>4</sup>Nazarova, 1976; <sup>4</sup>Bulakh, Wasser, Nazarova, and Nezdoyminogo, 1990; <sup>4</sup>Sazanova, 2005; <sup>4</sup>Chereshnev, 2008b; <sup>1</sup>Sazanova, 2009a; <sup>1</sup>Sazanova, 2009b; <sup>1</sup>Sazanova, 2011); **Primorsky Krai** (<sup>4</sup>Vassiljeva, 1972; <sup>4</sup>Vassiljeva, 1973; <sup>4</sup>Bulakh, 1977; <sup>4</sup>Azbukina et al., 1984; <sup>4</sup>Azbukina et al., 1990; <sup>4</sup>Bulakh, Wasser, Nazarova, and Nezdoyminogo, 1990; <sup>4</sup>Bardunov et al., 2002; <sup>4</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Bulakh et al., 2016).

***Cortinarius carabus* Kytöv., Niskanen & Liimat.**EASTERN EUROPE: **Komi Republic** (Palamarchuk and Kirillov, 2017).***Cortinarius casimirii* (Velen.) Huijsman<sup>1</sup>**= *Cortinarius subsertipes* Romagn.<sup>2</sup>EASTERN EUROPE: **Belgorod Oblast** (<sup>2</sup>Bedenko, 1979a); **Karelia** (<sup>1</sup>Krutov et al., 2014); **Komi Republic** (<sup>1</sup>Palamarchuk and Kirillov, 2017; <sup>1</sup>Palamarchuk and Kirillov, 2018a); **Leningrad Oblast** (<sup>1</sup>Fomina, 2000; <sup>1</sup>Fomina, 2001); **Lipetsk Oblast** (<sup>2</sup>Alferova, 1977); **Moscow Oblast** (<sup>2</sup>Levitskaya, 1998; <sup>1</sup>Levitskaya, 2006; <sup>1</sup>Levitskaya, 2013); **Sverdlovsk Oblast** (<sup>1</sup>Marina, 2006).SIBERIA: **Altai Krai** (<sup>1</sup>Gorbunova, 2018a); **Altai Republic** (<sup>1</sup>Brandrud et al., 2019); **Buryatia** (<sup>2</sup>Petrov, 1991); **Irkutsk Oblast** (<sup>1</sup>Kutafjeva, 1984); **Khakassia** (<sup>1</sup>Zauzolkova and Gorbunova, 2013; <sup>1</sup>Zauzolkova, 2015); **Khanty-Mansi Autonomous Okrug** (<sup>1</sup>Filippova and Bulyonkova, 2017a; <sup>1</sup>Filippova and Bulyonkova, 2017b); **Krasnoyarsk Krai** (<sup>2</sup>Karatygin, Nezdjominogo, Novozhilov, and Zhurbenko, 1999).***Cortinarius castaneus* (Bull.) Fr.<sup>1</sup>**≡ *Agaricus castaneus* Bull.<sup>2</sup>EASTERN EUROPE: **Crimea** (<sup>1</sup>Sarkina, 2010b; <sup>1</sup>Sarkina and Prydiuk, 2012; <sup>1</sup>Sarkina and Mironova, 2015); **Kabardino-Balkarian Republic** (<sup>1</sup>Shkhagapsoev and Krapivina, 2004); **Karelia** (<sup>1</sup>Freindling, 1949; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdjominogo, 1990; <sup>1</sup>Nezdjominogo, 1996; <sup>1</sup>Bondartseva et al., 2001; <sup>1</sup>Krutov et al., 2014); **Kirov Oblast** (<sup>1</sup>Kirillov, 2011; <sup>1</sup>Kirillov, Perevedentseva, and Egoshina, 2011); **Leningrad Oblast** (<sup>1</sup>Thesleff, 1920; <sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Popov et al., 2007); **Moscow** (<sup>1</sup>Mosolov, 1906); **Penza Oblast** (<sup>1</sup>Ivanov, 1983; <sup>1</sup>Ivanov and Durandin, 1996; <sup>1</sup>Nezdjominogo, 1996); **Perm Krai** (<sup>1</sup>Perevedentseva, 2008; <sup>1</sup>Belkovskaya et al., 2014; <sup>1</sup>Perevedentseva and Shishigin, 2015); **Ryazan Oblast** (<sup>1</sup>Volosnova, 2014); **Saint Petersburg** (<sup>2</sup>Weinmann, 1828; <sup>2</sup>Weinmann, 1836; <sup>2</sup>Weinmann, 1837); **Voronezh Oblast** (<sup>1</sup>Agafonov, 2011; <sup>1</sup>Agafonov, 2018).SIBERIA: **Buryatia** (<sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdjominogo, 1990; <sup>1</sup>Nezdjominogo, 1996); **Krasnoyarsk Krai** (<sup>1</sup>Beglyanova, 1972a; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdjominogo, 1990; <sup>1</sup>Nezdjominogo, 1996); **Novosibirsk Oblast** (<sup>1</sup>Perova and Gorbunova, 2001; <sup>1</sup>Perova and Gorbunova, 2007).FAR EAST: **Amur Oblast** (<sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdjominogo, 1990; <sup>1</sup>Azbukina et al., 1998); **Chukotka Autonomous Okrug** (<sup>1</sup>Berkeley and Curtis, 1978); **Primorsky Krai** (<sup>1</sup>Vassiljeva, 1972; <sup>1</sup>Vassiljeva, 1973; <sup>1</sup>Bunkina and Nazarova, 1978; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdjominogo, 1990; <sup>1</sup>Nezdjominogo, 1996; <sup>1</sup>Azbukina et al., 2006; <sup>1</sup>Bau, Bulakh, and Govorova, 2011).***Cortinarius catharinae* Consiglio**EASTERN EUROPE: **Arid territories** (Rebriev, Rusanov, et al., 2012).***Cortinarius causticus* Fr.**EASTERN EUROPE: **Kaliningrad Oblast** (Volodina, 2007); **Karelia** (Krutov et al., 2014); **Komi Republic** (Palamarchuk and Kirillov, 2017); **Leningrad Oblast** (Stolyarskaya, 1993; Kovalenko and Morozova, 1999a; Fomina, 2000; Fomina, 2001; Popov et al., 2007; Zmitrovich et al., 2015); **Murmansk Oblast** (Mikhailovskii, 1975a; Nezdjominogo, 1996).SIBERIA: **Irkutsk Oblast** (Nezdjominogo, 1996); **Khakassia** (Zauzolkova and Gorbunova, 2013; Zauzolkova, 2015); **Tomsk Oblast** (Kudashova, Gashkov, and Vaishlya, 2016a; Vaishlya et al., 2017).***Cortinarius cedretorum* Maire**EASTERN EUROPE: **Saratov Oblast** (Nezdjominogo, 1996).***Cortinarius ceraceus* M.M. Moser**EASTERN EUROPE: **Kabardino-Balkarian Republic** (Shkhagapsoev and Krapivina, 2004).SIBERIA: **Buryatia** (Nezdjominogo, 1976b); **Krasnoyarsk Krai** (Nezdjominogo, 1976a; Nezdjominogo, 1976b); **Sakha Republic** (Nezdjominogo, 1976b).***Cortinarius cereifolius* (M.M. Moser) M.M. Moser**EASTERN EUROPE: **Kabardino-Balkarian Republic** (Shkhagapsoev and Krapivina, 2004).FAR EAST: **Primorsky Krai** (Bunkina and Nazarova, 1978; Bulakh, Wasser, Nazarova, and Nezdjominogo, 1990; Nezdjominogo, 1996; Azbukina et al., 2006; Bau, Bulakh, and Govorova, 2011).

***Cortinarius chrysolitus* Kauffman<sup>1</sup>**

= *Cortinarius huronensis* Ammirati & A.H. Sm.<sup>2</sup> = *Cortinarius huronensis* var. *huronensis* Ammirati & A.H. Sm.<sup>3</sup>  
 = *Cortinarius huronensis* var. *olivaceus* Ammirati & A.H. Sm.<sup>4</sup> = *Cortinarius palustris* M.M. Moser ex Nezdjmin.<sup>5</sup> =  
*Cortinarius palustris* var. *palustris* M.M. Moser ex Nezdjmin.<sup>6</sup> = *Dermocybe palustris* M.M. Moser<sup>7</sup>

EASTERN EUROPE: **Karelia** (<sup>2</sup>Kovalenko, Morozova, Fomina, and Särkisilta, 1998; <sup>2</sup>Krutov et al., 2014; <sup>1</sup>Savelev and Kikeeva, 2020); **Komi Republic** (<sup>2</sup>Palamarchuk, 2011b; <sup>2,4</sup>Palamarchuk, 2016a; <sup>2,4</sup>Palamarchuk, 2016b); **Leningrad Oblast** (<sup>2</sup>Stolyarskaya, 1993; <sup>2</sup>Nezdjminogo, 1996; <sup>2</sup>Kovalenko and Morozova, 1999a; <sup>2</sup>Fomina, 2000; <sup>2</sup>Popov et al., 2007; <sup>1</sup>Zmitrovich et al., 2015); **Moscow Oblast** (<sup>7</sup>Gorlenko, Sidorova, and Sidorova, 1989); **Novgorod Oblast** (<sup>2</sup>Kovalenko, Morozova, Nezdjminogo, and Popov, 2005; <sup>3</sup>Popov et al., 2013); **Perm Krai** (<sup>2</sup>Perevedentseva, 2008; <sup>2</sup>Botalov, 2017; <sup>2</sup>Botalov and Perevedentseva, 2018); **Pskov Oblast** (<sup>4</sup>Kovalenko, Kolmakov, Morozova, and Popov, 2003; <sup>4</sup>Popov et al., 2013); **Saint Petersburg** (<sup>2</sup>Kovalenko and Morozova, 1999a); **Tula Oblast** (<sup>2</sup>Svetasheva, 2003; <sup>2</sup>Svetasheva, 2004; <sup>2</sup>Shcherbakov, 2010); **Tver Oblast** (<sup>2</sup>Nezdjminogo, 1996; <sup>2</sup>Mukhina, 2011a; <sup>2</sup>Kotkova, 2014); **Vologda Oblast** (<sup>2</sup>Kirillova, 2007).

SIBERIA: **Altai Krai** (<sup>2</sup>Gorbunova and Perova, 2006); **Altai Republic** (<sup>2</sup>Gorbunova, 2008; <sup>2</sup>Gorbunova, 2010; <sup>1</sup>Gorbunova, 2017b); **Khanty-Mansi Autonomous Okrug** (<sup>2</sup>Filippova, 2009; <sup>2</sup>Filippova and Thormann, 2014; <sup>2</sup>Filippova, 2014; <sup>2</sup>Filippova, Mourgues, and Philippe, 2014; <sup>2</sup>Filippova, Bulyonkova, and Lapshina, 2015); **Krasnoyarsk Krai** (<sup>5</sup>Nezdjminogo, 1976a; <sup>6</sup>Nezdjminogo, 1980b; <sup>2</sup>Bulakh, Wasser, Nazarova, and Nezdjminogo, 1990; <sup>2</sup>Nezdjminogo, 1996); **Tomsk Oblast** (<sup>2</sup>Kudashova, Gashkov, and Kutafjeva, 2013; <sup>2</sup>Vaishlya et al., 2017); **Tyumen Oblast** (<sup>6</sup>Nezdjminogo, 1980b; <sup>2</sup>Bulakh, Wasser, Nazarova, and Nezdjminogo, 1990).

FAR EAST: **Chukotka Autonomous Okrug** (<sup>6</sup>Nezdjminogo, 1980b); **Khabarovsk Krai** (<sup>2</sup>Bulakh, 2013; <sup>2</sup>Bogacheva, Bulakh, Bukharova, and Egorova, 2015); **Magadan Oblast** (<sup>7</sup>Nazarova, 1976; <sup>2</sup>Bulakh, Wasser, Nazarova, and Nezdjminogo, 1990; <sup>2</sup>Sazanova, 2009a).

***Cortinarius cicindela* Kytöv., Niskanen & Liimat.**

SIBERIA: **Khanty-Mansi Autonomous Okrug** (Filippova and Bulyonkova, 2017a; Filippova and Bulyonkova, 2017b).

***Cortinarius cinnabarinus* Fr.**

EASTERN EUROPE: **Crimea** (Sarkina, 2011); **Kaliningrad Oblast** (Dedkov, Volodina, and Gubareva, 2007); **Karachay-Cherkess Republic** (Kalamees and Botashev, 2000; Malysheva and Svetasheva, 2011); **Karelia** (Krutov et al., 2014); **Krasnodar Krai** (Vassiljeva, 1939; Kovalenko, 1980a; Kovalenko, 1980b; Bulakh, Wasser, Nazarova, and Nezdjminogo, 1990; Nezdjminogo, 1996; Shumkova, Krivorotov, and Gayday, 2018); **Murmansk Oblast** (Pystina, Pavlova, and Shestakova, 1969); **Tver Oblast** (Kurochkin, 1993); **Arid territories** (Rebriev, Rusanov, et al., 2012).

FAR EAST: **Amur Oblast** (Taranina, 2005); **Jewish Autonomous Oblast** (Bau, Bulakh, Zhuang, and Li, 2007; Bau, Bulakh, and Govorova, 2011); **Primorsky Krai** (Bulakh, Wasser, Nazarova, and Nezdjminogo, 1990; Bau, Bulakh, Zhuang, and Li, 2007).

***Cortinarius cinnamomeoluteus* P.D. Orton<sup>1</sup>**

≡ *Dermocybe cinnamomeolutea* (P.D. Orton) M.M. Moser<sup>2</sup> ≡ *Dermocybe cinnamomeolutescens* M.M. Moser<sup>3</sup>

EASTERN EUROPE: **Adygea** (<sup>1</sup>Kiyashko, 2009); **Chelyabinsk Oblast** (<sup>1</sup>Aleksandrovskaia and Lobanova, 1968); **Karelia** (<sup>1</sup>Bondartseva et al., 2001; <sup>1</sup>Predtechenskaya and Ruokolainen, 2008; <sup>1</sup>Krutov et al., 2014); **Komi Republic** (<sup>1</sup>Nezdjminogo, 1980b; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdjminogo, 1990; <sup>1</sup>Nezdjminogo, 1996; <sup>1</sup>Palamarchuk and Kirillov, 2018a; <sup>1</sup>Palamarchuk, 2020a); **Kostroma Oblast** (<sup>2</sup>Burova, 1982); **Leningrad Oblast** (<sup>1</sup>Nezdjminogo, 1980b; <sup>2</sup>Kalamees and Kovalenko, 1984; <sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Popov et al., 2007); **Moscow Oblast** (<sup>1</sup>Levitskaya, 1995a; <sup>1</sup>Levitskaya, 2006; <sup>1</sup>Levitskaya, 2013); **Murmansk Oblast** (<sup>1</sup>Nezdjminogo, 1980b; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdjminogo, 1990; <sup>1</sup>Nezdjminogo, 1996); **Penza Oblast** (<sup>1</sup>Ivanov, 1983; <sup>1</sup>Ivanov and Durandin, 1996); **Perm Krai** (<sup>2</sup>Shkaraba, Perevedentseva, and Moshkina, 1990; <sup>1</sup>Perevedentseva, 2008; <sup>1</sup>Botalov, 2017; <sup>1</sup>Botalov and Perevedentseva, 2018); **Sverdlovsk Oblast** (<sup>3</sup>Tomilin, 1965; <sup>3</sup>Stepanova and Sirko, 1977; <sup>1</sup>Nezdjminogo, 1980b).

SIBERIA: **Altai Republic** (<sup>1</sup>Gorbunova, 2001a; <sup>1</sup>Gorbunova, 2010); **Buryatia** (<sup>1</sup>Nezdjminogo, 1980b; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdjminogo, 1990; <sup>1</sup>Nezdjminogo, 1996); **Irkutsk Oblast** (<sup>1</sup>Nezdjminogo, 1980b; <sup>2</sup>Kutafjeva, 1984; <sup>2</sup>Petrov, Nezdjminogo, and Bulakh, 1987; <sup>2</sup>Kutafjeva and Astapenko, 1989; <sup>2</sup>Petrov, 1989; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdjminogo, 1990; <sup>2</sup>Astapenko, 1990b; <sup>1</sup>Nezdjminogo, 1996; <sup>2</sup>Bardunov et al., 2005; <sup>2</sup>Petrov, 2008); **Krasnoyarsk Krai** (<sup>1</sup>Vassilkov, 1971b [as *Cortinarius cinnamomeus* (L.) Gray, redet. in Nezdjminogo, 1993a]; <sup>1</sup>Stepanova and Tomilin, 1973 [as *Cortinarius cinnamomeus* (L.) Gray, redet. in Nezdjminogo, 1993a];

<sup>1</sup>Nezdojminogo, 1976a; <sup>1</sup>Nezdojminogo, 1980b; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1</sup>Nezdojminogo, 1993a; <sup>1</sup>Nezdojminogo, 1996; <sup>1</sup>Karatygin, Nezdojminogo, Novozhilov, and Zhurbenko, 1999); **Novosibirsk Oblast** (<sup>1</sup>Perova and Gorbunova, 2001); **Sakha Republic** (<sup>1</sup>Karatygin, Nezdojminogo, Novozhilov, and Zhurbenko, 1999); **Tomsk Oblast** (<sup>1</sup>Perova, 1972; <sup>1</sup>Nezdojminogo, 1980b; <sup>1</sup>Perova and Gorbunova, 2001; <sup>1</sup>Kudashova, Gashkov, and Kutafjeva, 2013; <sup>1</sup>Vaishlya et al., 2017).

**FAR EAST: Chukotka Autonomous Okrug** (<sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1</sup>Nezdojminogo, 1993a; <sup>2</sup>Sazanova, 1993; <sup>1</sup>Nezdojminogo, 1996; <sup>1</sup>Karatygin, Nezdojminogo, Novozhilov, and Zhurbenko, 1999); **Magadan Oblast** (<sup>1</sup>Nazarova, 1976; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1</sup>Nezdojminogo, 1996; <sup>1</sup>Sazanova, 2005; <sup>1</sup>Sazanova, 2009a; <sup>1</sup>Sazanova and Golodnova, 2015); **Primorsky Krai** (<sup>1</sup>Nezdojminogo, 1980b).

### ***Cortinarius cinnamomeus* (L.) Gray<sup>1</sup>**

≡ *Agaricus cinnamomeus* L.<sup>2</sup> ≡ *Agaricus cinnamomeus* b *cinnamomeus* (L.) Fr.<sup>3</sup> ≡ *Dermocybe cinnamomea* (L.) Wünsche<sup>4</sup> = *Agaricus cinnamomeus* f. *conformis* Fr.<sup>5</sup>

**EASTERN EUROPE: Adygea** (<sup>4</sup>Vaasma, Kalamees, and Raitviir, 1986); **Arkhangelsk Oblast** (<sup>1</sup>Lebedeva, 1933); **Chelyabinsk Oblast** (<sup>1</sup>Sirko and Stepanova, 1977; <sup>4</sup>Stepanova and Sirko, 1977); **Crimea** (<sup>1</sup>Sarkina, 2010b; <sup>1</sup>Sarkina and Prydiuk, 2012); **Kaliningrad Oblast** (<sup>4</sup>Hennings, 1895; <sup>4</sup>Neuhoff, 1922; <sup>1</sup>Dedkov, Volodina, and Gubareva, 2007; <sup>1</sup>Volodina, 2007); **Kaluga Oblast** (<sup>1</sup>Sionova, 2003); **Karachay-Cherkess Republic** (<sup>1</sup>Vassiljeva, 1939); **Karelia** (<sup>1</sup>Lebedeva, 1933; <sup>1</sup>Freindling, 1949; <sup>1</sup>Kovalenko, Morozova, Fomina, and Särkisilta, 1998; <sup>1</sup>Bondartseva et al., 2001; <sup>1</sup>Predtechenskaya and Ruokolainen, 2013; <sup>1</sup>Krutov et al., 2014; <sup>1</sup>Predtechenskaya and Ruokolainen, 2014; <sup>1</sup>Predtechenskaya, 2015); **Kirov Oblast** (<sup>1</sup>Kirillov, 2011; <sup>1</sup>Kirillov, Perevedentseva, and Egoshina, 2011; <sup>1</sup>Stavishenko, Luginina, Kirillov, and Egoshina, 2019); **Komi Republic** (<sup>1</sup>Palamarchuk, 2012; <sup>1</sup>Palamarchuk, 2016a; <sup>1</sup>Palamarchuk, 2016b; <sup>1</sup>Palamarchuk, 2017); **Krasnodar Krai** (<sup>4</sup>Vaasma, Kalamees, and Raitviir, 1986); **Leningrad Oblast** (<sup>1</sup>Thesleff, 1920; <sup>1</sup>Nezdojminogo, 1967; <sup>1</sup>Chastukhin and Nikolaevskaya, 1969; <sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Fomina, 2000; <sup>1</sup>Fomina, 2001; <sup>1</sup>Morozova, 2007; <sup>1</sup>Popov et al., 2007; <sup>1</sup>Zmitrovich et al., 2015); **Mordovia** (<sup>1</sup>Chastukhin, 1948a; <sup>1</sup>Kuznetsov, 1960; <sup>1</sup>Chastukhin and Nikolaevskaya, 1969; <sup>1</sup>Chastukhin, 2011; <sup>1</sup>Ivoilov and Bolshakov, 2011a); **Moscow** (<sup>1</sup>Bucholtz, 1897a; <sup>1</sup>Bucholtz, 1897b; <sup>1</sup>Bucholtz, 1897c; <sup>1</sup>Hennings, 1905; <sup>1</sup>Mosolov, 1906; <sup>1</sup>Burova, 1968); **Moscow Oblast** (<sup>1</sup>Petroff, 1911; <sup>1</sup>Nezdojminogo, 1980b; <sup>4</sup>Gorlenko, Sidorova, and Sidorova, 1989; <sup>1</sup>Levitskaya, 1995a; <sup>1</sup>Voronina et al., 2012; <sup>1</sup>Levitskaya, 2013; <sup>1</sup>Voronina et al., 2014; <sup>1</sup>Sidorova, Alexandrova, and Voronina, 2017); **Murmansk Oblast** (<sup>1</sup>Pystina, Pavlova, and Shestakova, 1969; <sup>4</sup>Mikhailovskii, 1975b); **Penza Oblast** (<sup>1</sup>Ivanov, 1983; <sup>1</sup>Ivanov and Durandin, 1996); **Perm Krai** (<sup>4</sup>Shkaraba, Perevedentseva, and Moshkina, 1990; <sup>1</sup>Perevedentseva, 2008; <sup>1</sup>Belkovskaya et al., 2014; <sup>1</sup>Perevedentseva and Shishigin, 2015; <sup>1</sup>Botalov, 2017; <sup>1</sup>Botalov and Perevedentseva, 2018); **Pskov Oblast** (<sup>1</sup>Popov, 2001a; <sup>1</sup>Popov et al., 2013); **Saint Petersburg** (<sup>5</sup>Weinmann, 1828; <sup>2,3,5</sup>Weinmann, 1836; <sup>2,3,5</sup>Weinmann, 1837; <sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Kotkova, Morozova, and Popov, 2005; <sup>1</sup>Morozova and Smirnov, 2011; <sup>1</sup>Morozova et al., 2020); **Smolensk Oblast** (<sup>1</sup>Jaczewski, 1893; <sup>1</sup>Jaczewski, 1895); **Sverdlovsk Oblast** (<sup>4</sup>Stepanova and Sirko, 1977; <sup>1</sup>Nezdojminogo, 1980b; <sup>1</sup>Marina, 2006); **Tatarstan** (<sup>1</sup>Vassiljeva, 1977; <sup>1</sup>Nezdojminogo, 1980b); **Tula Oblast** (<sup>1</sup>Svetasheva, 2004; <sup>1</sup>Svetasheva, 2005a); **Tver Oblast** (<sup>1</sup>Chastukhin, 1948b; <sup>1</sup>Chastukhin and Nikolaevskaya, 1969; <sup>1</sup>Kurochkin, 1993; <sup>1</sup>Mukhina, 2011a; <sup>1</sup>Mukhina, 2011b; <sup>1</sup>Kotkova, 2014); **Udmurt Republic** (<sup>1</sup>Tychinin and Kuzmina, 2003); **Vologda Oblast** (<sup>1</sup>Kutova, 1957; <sup>1</sup>Kirillova, 2007); **Yaroslavl Oblast** (<sup>1</sup>Nezdojminogo, 1980b; <sup>1</sup>Lazareva, 1998a; <sup>1</sup>Lazareva, 2002); **Lapland** (<sup>1</sup>Karsten, 1866).

**SIBERIA: Altai Krai** (<sup>1</sup>Gorbunova and Perova, 2006); **Altai Republic** (<sup>1</sup>Gorbunova, 1997; <sup>1</sup>Gorbunova, 2001b; <sup>1</sup>Perova and Gorbunova, 2001; <sup>1</sup>Gorbunova, 2008; <sup>1</sup>Gorbunova, 2010; <sup>1</sup>Gorbunova, 2017b); **Buryatia** (<sup>1</sup>Nezdojminogo, 1970a; <sup>4</sup>Petrov, 1991); **Irkutsk Oblast** (<sup>4</sup>Kutafjeva, 1984; <sup>4</sup>Petrov, Nezdojminogo, and Bulakh, 1987; <sup>4</sup>Astapenko, 1990b; <sup>4</sup>Petrov, 1991; <sup>4</sup>Petrov, 2008); **Khakassia** (<sup>1</sup>Zauzolkova and Gorbunova, 2013; <sup>1</sup>Zauzolkova, 2015); **Khanty-Mansi Autonomous Okrug** (<sup>1</sup>Zvyagina, 2008; <sup>1</sup>Shepeleva et al., 2014; <sup>1</sup>Filippova, Bulyonkova, and Lapshina, 2015; <sup>1</sup>Filippova and Bulyonkova, 2017a; <sup>1</sup>Filippova and Bulyonkova, 2017b); **Krasnoyarsk Krai** (<sup>4</sup>Beglyanova, 1972a; <sup>1</sup>Nezdojminogo, 1976a; <sup>1</sup>Nezdojminogo, 1980b; <sup>1</sup>Lapitskaya, 1993; <sup>1</sup>Kryuchkova, 2009; <sup>1</sup>Kryuchkova, 2014a); **Novosibirsk Oblast** (<sup>1</sup>Perova and Gorbunova, 2001; <sup>1</sup>Perova and Gorbunova, 2007); **Sverdlovsk Oblast** (<sup>4</sup>Stepanova and Sirko, 1977); **Tomsk Oblast** (<sup>1</sup>Nezdojminogo, 1980b; <sup>4</sup>Milovidova, 1980; <sup>1</sup>Perova and Gorbunova, 2001; <sup>1</sup>Kudashova, Gashkov, and Kutafjeva, 2013; <sup>1</sup>Vaishlya et al., 2017).

**FAR EAST: Amur Oblast** (<sup>1</sup>Nazarova, 1986; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1</sup>Azbukina et al., 1998); **Chukotka Autonomous Okrug** (<sup>1</sup>Berkeley and Curtis, 1978); **Jewish Autonomous Oblast** (<sup>1</sup>Bulakh, Govorova, Nazarova, and Vassiljeva, 2007; <sup>1</sup>Bau, Bulakh, and Govorova, 2011); **Kamchatka Krai** (<sup>1</sup>Nezdojminogo, 1980b); **Khabarovsk Krai** (<sup>4</sup>Azbukina et al., 1986; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Erofeeva and Bulakh, 2015a); **Magadan Oblast** (<sup>1</sup>Sazanova, 2005; <sup>1</sup>Sazanova, 2009a; <sup>1</sup>Sazanova and Golodnova, 2015); **Primorsky Krai** (<sup>1</sup>Vassiljeva, 1972; <sup>1</sup>Vassiljeva, 1973; <sup>1</sup>Bunkina and Nazarova,

1978; <sup>1</sup>Nezdojminogo, 1980b; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1</sup>Azbukina et al., 2006; <sup>1</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Bulakh et al., 2016); **Sakhalin Oblast** (<sup>1</sup>Vassiljeva and Nazarova, 1972; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990).

***Cortinarius circinans* Rob. Henry**

= *Cortinarius melitosarx* Soop<sup>1</sup>

SIBERIA: **Altai Republic** (<sup>1</sup>Brandrud et al., 2019).

***Cortinarius citrinus* J.E. Lange ex P.D. Orton<sup>1</sup>**

= *Cortinarius pseudosulphureus* Rob. Henry ex P.D. Orton<sup>2</sup>

EASTERN EUROPE: **Kabardino-Balkarian Republic** (<sup>2</sup>Shkhagapsoev and Krapivina, 2004); **Krasnodar Krai** (<sup>2</sup>Kovalenko, 1980a; <sup>2</sup>Kovalenko, 1980b; <sup>2</sup>Nezdojminogo, 1996; <sup>2</sup>Litvinskaya, 2007); **Penza Oblast** (<sup>1</sup>Ivanov, 1988a; <sup>1</sup>Ivanov, 1988c; <sup>1</sup>Ivanov and Durandin, 1996; <sup>1</sup>Nezdojminogo, 1996; <sup>1</sup>Ivanov, 2013a).

SIBERIA: **Krasnoyarsk Krai** (<sup>1</sup>Zauzolkova, 2012; <sup>1</sup>Zauzolkova, 2015).

***Cortinarius claricolor* (Fr.) Fr.<sup>1</sup>**

≡ *Cortinarius claricolor* var. *claricolor* (Fr.) Fr.<sup>2</sup>

EASTERN EUROPE: **Crimea** (<sup>1</sup>Sarkina and Stavishenko, 2019); **Kabardino-Balkarian Republic** (<sup>2</sup>Shkhagapsoev and Krapivina, 2004); **Kaliningrad Oblast** (<sup>2</sup>Volodina, 2007); **Karelia** (<sup>1</sup>Freindling, 1949; <sup>1</sup>Bondartseva et al., 2001; <sup>2</sup>Krutov et al., 2014; <sup>1</sup>Savelev and Kikeeva, 2018); **Komi Republic** (<sup>1</sup>Palamarchuk, 2020b); **Leningrad Oblast** (<sup>1</sup>Thesleff, 1920; <sup>1</sup>Nezdojminogo, 1974; <sup>2</sup>Stolyarskaya, 1993; <sup>2</sup>Nezdojminogo, 1996; <sup>2</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Popov et al., 2007; <sup>1</sup>Zmitrovich et al., 2015); **Moscow** (<sup>1</sup>Bucholtz, 1897b; <sup>1</sup>Bucholtz, 1897c; <sup>1</sup>Mosolov, 1906); **Moscow Oblast** (<sup>1</sup>Gorlenko, Sidorova, and Sidorova, 1989); **Murmansk Oblast** (<sup>2</sup>Nezdojminogo, 1996); **Perm Krai** (<sup>1</sup>Perevedentseva, Nezdojminogo, and Kovalenko, 1990; <sup>1</sup>Perevedentseva, 2008; <sup>1</sup>Botalov, 2017); **Ryazan Oblast** (<sup>2</sup>Volosnova, 2014); **Smolensk Oblast** (<sup>1</sup>Jaczewski, 1896); **Ulyanovsk Oblast** (<sup>1</sup>Ilyukhin, 2009; <sup>1</sup>Ilyukhin, 2010a); **Vologda Oblast** (<sup>1</sup>Kirillova, 2007).

SIBERIA: **Altai Krai** (<sup>1</sup>Gorbunova, 2018a); **Buryatia** (<sup>1</sup>Nezdojminogo, 1973; <sup>1</sup>Nezdojminogo, 1974; <sup>1</sup>Petrov, 1991; <sup>2</sup>Nezdojminogo, 1996); **Krasnoyarsk Krai** (<sup>1</sup>Perova, 1970; <sup>1</sup>Beglyanova, 1972a; <sup>2</sup>Nezdojminogo, 1996; <sup>1</sup>Krom and Kapitonov, 2019); **Novosibirsk Oblast** (<sup>1</sup>Perova and Gorbunova, 2001); **Tomsk Oblast** (<sup>2</sup>Nezdojminogo, 1996; <sup>1</sup>Perova and Gorbunova, 2001; <sup>1</sup>Kudashova, Gashkov, and Kutafjeva, 2013; <sup>1</sup>Vaishlya et al., 2017).

FAR EAST: **Magadan Oblast** (<sup>1</sup>Sazanova, 2009a).

***Cortinarius clarobrunneus* (H. Lindstr. & Melot) Niskanen, Kytöv. & Liimat.<sup>1</sup>**

≡ *Cortinarius brunneus* var. *clarobrunneus* H. Lindstr. & Melot<sup>2</sup>

EASTERN EUROPE: **Sverdlovsk Oblast** (<sup>2</sup>Marina, 2006).

SIBERIA: **Tomsk Oblast** (<sup>1</sup>Vaishlya et al., 2017).

***Cortinarius claroflavus* Rob. Henry**

EASTERN EUROPE: **Crimea** (Prydiuk, 2002; Dudka et al., 2004; Sarkina, 2011); **Lipetsk Oblast** (Sarycheva et al., 2009; Shcherbakov, 2014; Sarycheva, 2016); **Penza Oblast** (Ivanov, 1983; Ivanov and Durandin, 1996; Nezdojminogo, 1996).

***Cortinarius coleoptera* H. Lindstr. & Soop**

EASTERN EUROPE: **Komi Republic** (Palamarchuk and Kirillov, 2017); **Saint Petersburg** (Morozova and Smirnov, 2011).

***Cortinarius collinitus* (Sowerby) Gray<sup>1</sup>**

≡ *Agaricus collinitus* Sowerby<sup>2</sup> ≡ *Myxacium collinitum* (Sowerby) P. Kumm.<sup>3</sup> = *Cortinarius collinitus* var. *repandus* Ricken<sup>4</sup>

EASTERN EUROPE: **Bryansk Oblast** (<sup>1</sup>Kruglikov, 2007); **Chelyabinsk Oblast** (<sup>1</sup>Aleksandrovskaya and Lobanova, 1968); **Crimea** (<sup>1</sup>Sarkina, 2001; <sup>1</sup>Dudka et al., 2004; <sup>1</sup>Sarkina, 2010b; <sup>1</sup>Sarkina and Prydiuk, 2012; <sup>1</sup>Sarkina and Mironova, 2015); **Kabardino-Balkarian Republic** (<sup>1</sup>Shkhagapsoev and Krapivina, 2004); **Kaliningrad Oblast** (<sup>1</sup>Volodina, 2007); **Karachay-Cherkess Republic** (<sup>1</sup>Vassiljeva, 1939); **Karelia** (<sup>1</sup>Freindling, 1949; <sup>1</sup>Kovalenko, Morozova, Fomina, and Särkisilta, 1998; <sup>1</sup>Bondartseva et al., 2001; <sup>1</sup>Predtechenskaya and Ruokolainen, 2008; <sup>1</sup>Predtechenskaya and Ruokolainen, 2013; <sup>1</sup>Predtechenskaya, 2013; <sup>1</sup>Krutov et al., 2014; <sup>1</sup>Predtechenskaya and



Ruokolainen, 2014; <sup>1</sup>Predtechenskaya, 2015; <sup>1</sup>Savelev and Kikeeva, 2020); **Kirov Oblast** (<sup>1</sup>Kirillov, 2011; <sup>1</sup>Kirillov, Perevedentseva, and Egoshina, 2011; <sup>1</sup>Stavishenko, Luginina, Kirillov, and Egoshina, 2019); **Komi Republic** (<sup>1</sup>Palamarchuk, 2012; <sup>1</sup>Palamarchuk, 2016a; <sup>1</sup>Palamarchuk, 2016b; <sup>1</sup>Palamarchuk and Kirillov, 2017; <sup>1</sup>Palamarchuk, 2017); **Kostroma Oblast** (<sup>1</sup>Burova, 1982); **Krasnodar Krai** (<sup>1,4</sup>Vassiljeva, 1939; <sup>1</sup>Kovalenko, 1980a; <sup>1</sup>Kovalenko, 1980b; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdjominogo, 1990; <sup>1</sup>Sopina, 2001a; <sup>1</sup>Shumkova, Krivorotov, and Gayday, 2018); **Leningrad Oblast** (<sup>1</sup>Thesleff, 1920; <sup>1</sup>Nezdjominogo, 1967; <sup>1</sup>Chastukhin and Nikolaevskaya, 1969; <sup>1</sup>Kalamees and Kovalenko, 1984; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdjominogo, 1990; <sup>1</sup>Stolyarskaya, 1993; <sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Fomina, 2000; <sup>1</sup>Morozova and Kovalenko, 2000; <sup>1</sup>Fomina, 2001; <sup>1</sup>Morozova, 2007; <sup>1</sup>Popov et al., 2007; <sup>1</sup>Zmitrovich et al., 2015); **Mordovia** (<sup>1</sup>Chastukhin, 1948a; <sup>1</sup>Chastukhin and Nikolaevskaya, 1969); **Moscow** (<sup>1</sup>Bucholtz, 1897b; <sup>1</sup>Bucholtz, 1897c; <sup>1</sup>Mosolov, 1906); **Moscow Oblast** (<sup>1</sup>Gorlenko, Sidorova, and Sidorova, 1989; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdjominogo, 1990; <sup>1</sup>Levitskaya, 1995c; <sup>1</sup>Levitskaya, 2013; <sup>1</sup>Voronina et al., 2014); **Murmansk Oblast** (<sup>1</sup>Mikhailovskii, 1975b; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdjominogo, 1990); **Penza Oblast** (<sup>1</sup>Ivanov, 1983; <sup>1</sup>Ivanov and Durandin, 1996); **Perm Krai** (<sup>1</sup>Shkaraba, Perevedentseva, and Moshkina, 1990; <sup>1</sup>Perevedentseva, 2008; <sup>1</sup>Belkovskaya et al., 2014; <sup>1</sup>Perevedentseva and Shishigin, 2015; <sup>1</sup>Botalov, 2017; <sup>1</sup>Botalov and Perevedentseva, 2018); **Rostov Oblast** (<sup>1</sup>Morozova et al., 2008); **Ryazan Oblast** (<sup>1</sup>Volosnova, 2014); **Saint Petersburg** (<sup>2</sup>Weinmann, 1836; <sup>2</sup>Weinmann, 1837; <sup>1</sup>Morozova et al., 2020); **Smolensk Oblast** (<sup>1</sup>Jaczewski, 1896); **Sverdlovsk Oblast** (<sup>3</sup>Tomilin, 1965; <sup>1</sup>Marina, 2006); **Tatarstan** (<sup>1</sup>Vassiljeva, 1977; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdjominogo, 1990); **Tula Oblast** (<sup>1</sup>Svetasheva, 2003; <sup>1</sup>Svetasheva, 2004); **Tver Oblast** (<sup>1</sup>Chastukhin, 1948b; <sup>1</sup>Chastukhin and Nikolaevskaya, 1969; <sup>1</sup>Kurochkin, 1993; <sup>1</sup>Kotkova, 2014); **Ulyanovsk Oblast** (<sup>1</sup>Ilyukhin, 2010a; <sup>1</sup>Ilyukhin, 2010b); **Vologda Oblast** (<sup>1</sup>Kutova, 1957; <sup>1</sup>Kirillova, 2007); **Yaroslavl Oblast** (<sup>1</sup>Lazareva, 1998a; <sup>1</sup>Lazareva, 2002); **Lapland** (<sup>1</sup>Karsten, 1866).

SIBERIA: **Buryatia** (<sup>1</sup>Nezdjominogo, 1973; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdjominogo, 1990); **Irkutsk Oblast** (<sup>1</sup>Kutafjeva, 1984; <sup>1</sup>Petrov, Nezdjominogo, and Bulakh, 1987; <sup>1</sup>Petrov, 1989; <sup>1</sup>Astapenko, 1990b; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdjominogo, 1990; <sup>1</sup>Bardunov et al., 2005; <sup>1</sup>Petrov, 2008; <sup>1</sup>Muzyka and Penzina, 2017); **Khanty-Mansi Autonomous Okrug** (<sup>1</sup>Filippova and Bulyonkova, 2017a; <sup>1</sup>Filippova and Bulyonkova, 2017b); **Krasnoyarsk Krai** (<sup>1</sup>Perova, 1970; <sup>1</sup>Beglyanova, 1972a; <sup>1</sup>Nezdjominogo, 1976a; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdjominogo, 1990; <sup>1</sup>Lapitskaya, 1993; <sup>1</sup>Kosheleva and Kutafjeva, 2008a; <sup>1</sup>Kryuchkova, 2009; <sup>1</sup>Zauzolkova, 2012; <sup>1</sup>Kryuchkova, 2014a; <sup>1</sup>Zauzolkova, 2015; <sup>1</sup>Krom and Kapitonov, 2019); **Novosibirsk Oblast** (<sup>1</sup>Zaytseva, 1971; <sup>1</sup>Perova, 1977; <sup>1</sup>Perova and Gorbunova, 2001); **Tomsk Oblast** (<sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdjominogo, 1990; <sup>1</sup>Perova and Gorbunova, 2001; <sup>1</sup>Kudashova, Gashkov, and Kutafjeva, 2013; <sup>1</sup>Vaishlya et al., 2017); **Zabaykalsky Krai** (<sup>1</sup>Karsten, 1911).

FAR EAST: **Amur Oblast** (<sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdjominogo, 1990; <sup>1</sup>Azbukina et al., 1998); **Magadan Oblast** (<sup>1</sup>Nazarova, 1976; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdjominogo, 1990; <sup>1</sup>Sazanova, 1996; <sup>1</sup>Sazanova, 2005; <sup>1</sup>Sazanova, 2009a; <sup>1</sup>Sazanova, 2009b; <sup>1</sup>Sazanova, 2011; <sup>1</sup>Sazanova and Golodnova, 2015); **Primorsky Krai** (<sup>1</sup>Vassiljeva, 1972; <sup>1</sup>Vassiljeva, 1973; <sup>1</sup>Azbukina et al., 1984; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdjominogo, 1990; <sup>1</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Bulakh et al., 2016); **Sakhalin Oblast** (<sup>1</sup>Vassiljeva and Nazarova, 1972; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdjominogo, 1990).

### ***Cortinarius comatus* J. Favre**

EASTERN EUROPE: **Komi Republic** (Palamarchuk, 2012).

SIBERIA: **Altai Republic** (Gorbunova, 2003; Gorbunova, 2010); **Irkutsk Oblast** (Petrov, 1991; Nezdjominogo, 1996; Petrov, 2008).

### ***Cortinarius compar* (Weinm.) Fr.<sup>1</sup>**

≡ *Agaricus compar* Weinm.<sup>2</sup>

EASTERN EUROPE: **Karelia** (<sup>1</sup>Krutov et al., 2014); **Leningrad Oblast** (<sup>2</sup>Weinmann, 1836; <sup>1</sup>Nezdjominogo, 1996; <sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Fomina, 2000; <sup>1</sup>Morozova and Kovalenko, 2000; <sup>1</sup>Popov et al., 2007; <sup>1</sup>Zmitrovich et al., 2015); **Penza Oblast** (<sup>1</sup>Ivanov, 1983; <sup>1</sup>Ivanov and Durandin, 1996; <sup>1</sup>Nezdjominogo, 1996); **Perm Krai** (<sup>1</sup>Botalov, 2017).

### ***Cortinarius comptulus* M.M. Moser<sup>1</sup>**

= *Cortinarius sublatisporus* Svrček<sup>2</sup>

EASTERN EUROPE: **Karelia** (<sup>1</sup>Kovalenko, Morozova, Fomina, and Särkisilta, 1998; <sup>1</sup>Krutov et al., 2014); **Kirov Oblast** (<sup>1</sup>Kirillov, 2011; <sup>1</sup>Kirillov, Perevedentseva, and Egoshina, 2011); **Leningrad Oblast** (<sup>2</sup>Bulakh, Wasser, Nazarova, and Nezdjominogo, 1990; <sup>2</sup>Nezdjominogo, 1996; <sup>2</sup>Kovalenko and Morozova, 1999a; <sup>2</sup>Popov et al., 2007); **Perm Krai** (<sup>1</sup>Perevedentseva, 2008; <sup>1</sup>Belkovskaya et al., 2014; <sup>1</sup>Botalov, 2017).

SIBERIA: **Altai Krai** (<sup>1</sup>Gorbunova, 2018a); **Altai Republic** (<sup>1</sup>Brandrud et al., 2019); **Buryatia** (<sup>1</sup>Nezdojminogo, 1976b; <sup>1</sup>Petrov, 1991; <sup>1</sup>Nezdojminogo, 1996); **Khanty-Mansi Autonomous Okrug** (<sup>1</sup>Filippova, 2009; <sup>1</sup>Filippova, Bulyonkova, and Lapshina, 2015; <sup>1</sup>Filippova and Bulyonkova, 2017a; <sup>1</sup>Filippova and Bulyonkova, 2017b); **Tomsk Oblast** (<sup>1</sup>Agaphonova, Kutafjeva, and Gashkov, 2009a; <sup>1</sup>Kudashova, Gashkov, and Kutafjeva, 2013; <sup>1</sup>Vaishlya et al., 2017); **Yamalo-Nenets Autonomous Okrug** (<sup>1</sup>Tarчевskaya, 1990).

FAR EAST: **Jewish Autonomous Oblast** (<sup>2</sup>Bulakh, Govorova, Nazarova, and Vassiljeva, 2007; <sup>2</sup>Bau, Bulakh, and Govorova, 2011); **Primorsky Krai** (<sup>2</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>2</sup>Nezdojminogo, 1996).

***Cortinarius coniferarum* (M.M. Moser) Moënné-Locc. & Reumaux**

≡ *Cortinarius multififormis* f. *coniferarum* (M.M. Moser) Nespiak<sup>1</sup> ≡ *Cortinarius multififormis* var. *coniferarum* (M.M. Moser) Nezdojm.<sup>2</sup>

EASTERN EUROPE: **Leningrad Oblast** (<sup>2</sup>Nezdojminogo, 1974); **Perm Krai** (<sup>2</sup>Perevedentseva, 2008).

SIBERIA: **Buryatia** (<sup>1</sup>Nezdojminogo, 1973; <sup>2</sup>Petrov, 1991); **Irkutsk Oblast** (<sup>2</sup>Nezdojminogo, 1974); **Krasnoyarsk Krai** (<sup>2</sup>Nezdojminogo, 1974).

FAR EAST: **Magadan Oblast** (<sup>2</sup>Nazarova, 1976).

***Cortinarius corrosus* Fr.**

EASTERN EUROPE: **Karelia** (Freindling, 1949; Nezdojminogo, 1996; Bondartseva et al., 2001; Krutov et al., 2014); **Komi Republic** (Palamarchuk, 2012); **Leningrad Oblast** (Nezdojminogo, 1996; Kovalenko and Morozova, 1999a; Popov et al., 2007).

SIBERIA: **Irkutsk Oblast** (Kutafjeva, 1984; Nezdojminogo, 1996).

***Cortinarius coruscans* (Fr.) Fr.**

≡ *Agaricus coruscans* Fr.<sup>1</sup>

EASTERN EUROPE: **Saint Petersburg** (<sup>1</sup>Weinmann, 1836; <sup>1</sup>Weinmann, 1837).

***Cortinarius cotoneus* Fr.**

EASTERN EUROPE: **Crimea** (Sarkina, 2010b; Sarkina and Mironova, 2015); **Orenburg Oblast** (Desyatova, 2008); **Penza Oblast** (Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; Nezdojminogo, 1996); **Sevastopol** (Sarkina, 2016b); **Tatarstan** (Nezdojminogo, 1979; Nezdojminogo, 1996); **Tula Oblast** (Svetasheva, 2004; Svetasheva, 2005a; Shcherbakov, 2010; Svetasheva, Sheremetyeva, and Lakomov, 2019).

SIBERIA: **Novosibirsk Oblast** (Perova and Gorbunova, 2001).

FAR EAST: **Amur Oblast** (Taranina, 2005); **Jewish Autonomous Oblast** (Bulakh, Govorova, Nazarova, and Vassiljeva, 2007; Bau, Bulakh, and Govorova, 2011); **Primorsky Krai** (Vassiljeva, 1972; Vassiljeva, 1973; Nezdojminogo, 1979; Azbukina et al., 1990; Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; Nezdojminogo, 1996; Bardunov et al., 2002; Bulakh et al., 2016).

***Cortinarius crassifolius* (Velen.) Kühner & Romagn. ex Bon**

EASTERN EUROPE: **Tver Oblast** (Nezdojminogo, 1976b; Kotkova, 2014).

FAR EAST: **Primorsky Krai** (Azbukina et al., 1984; Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; Nezdojminogo, 1996; Bau, Bulakh, and Govorova, 2011).

***Cortinarius crassus* Fr.**

EASTERN EUROPE: **Kabardino-Balkarian Republic** (Shkhgapsoev and Krapivina, 2004).

***Cortinarius craticius* Fr.**

SIBERIA: **Khanty-Mansi Autonomous Okrug** (Filippova and Bulyonkova, 2017a; Filippova and Bulyonkova, 2017b).

***Cortinarius croceocoeruleus* (Pers.) Fr.**

EASTERN EUROPE: **Karelia** (Krutov et al., 2014).

SIBERIA: **Khanty-Mansi Autonomous Okrug** (Filippova, Bulyonkova, and Lapshina, 2015); **Tomsk Oblast** (Kudashova, Gashkov, and Vaishlya, 2016a; Kudashova, Gashkov, and Vaishlya, 2016b).

***Cortinarius croceocrystallinus* Rob. Henry**= *Cortinarius croceocrystallinus* var. *alneti* Bidaud<sup>1</sup>SIBERIA: **Altai Republic** (<sup>1</sup>Brandrud et al., 2019).***Cortinarius croceus* (Schaeff.) Gray<sup>1</sup>**≡ *Agaricus cinnamomeus* d. *croceus* (Schaeff.) Fr.<sup>2</sup> ≡ *Cortinarius croceus* subsp. *croceus* (Schaeff.) Gray<sup>3</sup> ≡ *Cortinarius croceus* var. *croceus* (Schaeff.) Gray<sup>4</sup> = *Cortinarius cinnamomeobadius* Rob. Henry<sup>5</sup> = *Dermocybe cinnamomeobadia* Rob. Henry ex M.M. Moser<sup>6</sup>

EASTERN EUROPE: **Crimea** (<sup>1</sup>Sarkina, 2001; <sup>1</sup>Dudka et al., 2004; <sup>1</sup>Sarkina, 2010b; <sup>1</sup>Sarkina, 2011); **Kabardino-Balkarian Republic** (<sup>1</sup>Krapivina et al., 2020); **Kaliningrad Oblast** (<sup>1</sup>Volodina, 2007); **Karelia** (<sup>1</sup>Bondartseva et al., 2001; <sup>1</sup>Predtechenskaya and Ruokolainen, 2013; <sup>1</sup>Krutov et al., 2014; <sup>1</sup>Predtechenskaya and Ruokolainen, 2014; <sup>1</sup>Predtechenskaya, 2015); **Kirov Oblast** (<sup>1</sup>Kirillov and Luginina, 2011; <sup>1</sup>Kirillov, 2011; <sup>1</sup>Kirillov, Perevedentseva, and Egoshina, 2011; <sup>1</sup>Stavishenko, Luginina, Kirillov, and Egoshina, 2019); **Komi Republic** (<sup>1</sup>Karatygin, Nezdjominog, Novozhilov, and Zhurbenko, 1999; <sup>3</sup>Palamarchuk, 2011b; <sup>1</sup>Palamarchuk, 2012; <sup>1</sup>Palamarchuk, 2016a; <sup>3</sup>Palamarchuk, 2016b; <sup>1</sup>Palamarchuk and Kirillov, 2017; <sup>1</sup>Palamarchuk, 2017); **Leningrad Oblast** (<sup>5</sup>Nezdjominog, 1980b; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdjominog, 1990; <sup>3</sup>Stolyarskaya, 1993; <sup>3</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Morozova and Kovalenko, 2000; <sup>3</sup>Fomina, 2000; <sup>3</sup>Fomina, 2001; <sup>1</sup>Morozova, 2007; <sup>3</sup>Popov et al., 2007; <sup>1</sup>Zmitrovich et al., 2015); **Lipetsk Oblast** (<sup>1</sup>Sarycheva et al., 2009); **Moscow Oblast** (<sup>1</sup>Levitskaya, 2013); **Murmansk Oblast** (<sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdjominog, 1990; <sup>1</sup>Karatygin, Nezdjominog, Novozhilov, and Zhurbenko, 1999); **Novgorod Oblast** (<sup>3</sup>Kovalenko, Morozova, Nezdjominog, and Popov, 2005; <sup>1</sup>Malysheva, Malysheva, and Zmitrovich, 2007; <sup>4</sup>Popov et al., 2013); **Perm Krai** (<sup>1</sup>Perevedentseva, 2008; <sup>1</sup>Belkovskaya et al., 2014; <sup>1</sup>Botalov, 2017; <sup>1</sup>Botalov and Perevedentseva, 2018); **Pskov Oblast** (<sup>1</sup>Kovalenko and Morozova, 1999b; <sup>3</sup>Popov, 2001a; <sup>4</sup>Popov et al., 2013); **Saint Petersburg** (<sup>2</sup>Weinmann, 1828; <sup>2</sup>Weinmann, 1836; <sup>2</sup>Weinmann, 1837; <sup>1</sup>Morozova and Smirnov, 2011); **Sverdlovsk Oblast** (<sup>6</sup>Tomilin, 1965; <sup>6</sup>Stepanova and Sirko, 1977; <sup>5</sup>Nezdjominog, 1980b; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdjominog, 1990; <sup>1</sup>Marina, 2006); **Tatarstan** (<sup>5</sup>Nezdjominog, 1980b; <sup>1</sup>Potapov, 2016b); **Tula Oblast** (<sup>1</sup>Svetasheva, 2003; <sup>1</sup>Svetasheva, 2004); **Tver Oblast** (<sup>5</sup>Nezdjominog, 1980b; <sup>1</sup>Kotkova, 2014); **Ulyanovsk Oblast** (<sup>1</sup>Ilyukhin, 2009; <sup>1</sup>Ilyukhin, 2010a); **Vologda Oblast** (<sup>1</sup>Kirillova, 2007); **Yamalo-Nenets Autonomous Okrug** (<sup>1</sup>Karatygin, Nezdjominog, Novozhilov, and Zhurbenko, 1999; <sup>1</sup>Nezdjominog, 2001); **Yaroslavl Oblast** (<sup>5</sup>Nezdjominog, 1980b; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdjominog, 1990; <sup>1</sup>Lazareva, 1998a; <sup>1</sup>Lazareva, 2002).

SIBERIA: **Altai Krai** (<sup>1</sup>Gorbunova and Perova, 2006; <sup>1</sup>Gorbunova, 2018b); **Altai Republic** (<sup>1</sup>Gorbunova, 2008; <sup>1</sup>Gorbunova, 2010; <sup>1</sup>Gorbunova, 2017a; <sup>1</sup>Brandrud et al., 2019); **Buryatia** (<sup>1</sup>Petrov, 1991); **Irkutsk Oblast** (<sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdjominog, 1990; <sup>1</sup>Gorbunova and Stepanova, 2015); **Khanty-Mansi Autonomous Okrug** (<sup>1</sup>Zvyagina, 2008; <sup>1</sup>Filippova, 2009; <sup>1</sup>Zvyagina and Baykalova, 2012; <sup>1</sup>Shepeleva et al., 2014; <sup>1</sup>Zvyagina and Vasina, 2015; <sup>1</sup>Filippova and Bulyonkova, 2017a; <sup>1</sup>Filippova and Bulyonkova, 2017b; <sup>1</sup>Zvyagina and Baykalova, 2017); **Krasnoyarsk Krai** (<sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdjominog, 1990; <sup>1</sup>Nezdjominog, 1993a; <sup>1</sup>Karatygin, Nezdjominog, Novozhilov, and Zhurbenko, 1999; <sup>1</sup>Gorbunova, 2016; <sup>1</sup>Krom and Kapitonov, 2019); **Sakha Republic** (<sup>1</sup>Nezdjominog, 1993a; <sup>1</sup>Nezdjominog, 1997a; <sup>1</sup>Karatygin, Nezdjominog, Novozhilov, and Zhurbenko, 1999; <sup>1</sup>Nezdjominog, 2003); **Tomsk Oblast** (<sup>1</sup>Kudashova, Gashkov, and Kutafjeva, 2013; <sup>1</sup>Vaishlya et al., 2017); **Yamalo-Nenets Autonomous Okrug** (<sup>1</sup>Kapitonov, 2015).

FAR EAST: **Amur Oblast** (<sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdjominog, 1990); **Chukotka Autonomous Okrug** (<sup>1</sup>Nezdjominog, 1993a; <sup>1</sup>Karatygin, Nezdjominog, Novozhilov, and Zhurbenko, 1999); **Kamchatka Krai** (<sup>1</sup>Karatygin, Nezdjominog, Novozhilov, and Zhurbenko, 1999); **Magadan Oblast** (<sup>1</sup>Rebriev, Bulakh, Sazanova, and Shiryaev, 2020); **Primorsky Krai** (<sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdjominog, 1990; <sup>1</sup>Bulakh et al., 2016); **Sakhalin Oblast** (<sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdjominog, 1990); **Far East** (<sup>1</sup>Bau, Bulakh, and Govorova, 2011).

***Cortinarius crystallinus* Fr.**SIBERIA: **Krasnoyarsk Krai** (Beglyanova, 1972a).

FAR EAST: **Primorsky Krai** (Vassiljeva, 1973; Bulakh, Wasser, Nazarova, and Nezdjominog, 1990; Nezdjominog, 1996; Bau, Bulakh, and Govorova, 2011).

***Cortinarius cumatilis* Fr.<sup>1</sup>**≡ *Cortinarius cumatilis* var. *cumatilis* Fr.<sup>2</sup> = *Cortinarius cumatilis* var. *haasii* (M.M. Moser) Quadr.<sup>3</sup>

EASTERN EUROPE: **Adygea** (<sup>1</sup>Vassiljeva, 1939); **Kaliningrad Oblast** (<sup>1</sup>Dedkov, Volodina, and Gubareva, 2007); **Krasnodar Krai** (<sup>2</sup>Nezdjominog, 1996); **Penza Oblast** (<sup>3</sup>Ivanov, 1988c; <sup>3</sup>Ivanov and Durandin, 1996; <sup>3</sup>Nezdjominog, 1996); **Perm Krai** (<sup>1</sup>Perevedentseva, 2008).

***Cortinarius cupreorufus* Brandrud**

SIBERIA: **Krasnoyarsk Krai** (Krom and Kapitonov, 2019).

***Cortinarius cyanites* Fr.**

EASTERN EUROPE: **Kaliningrad Oblast** (Dedkov, Volodina, and Gubareva, 2007); **Karelia** (Kovalenko, Morozova, Fomina, and Särkisilta, 1998; Krutov et al., 2014); **Novgorod Oblast** (Vetkin et al., 2015); **Sverdlovsk Oblast** (Marina, 2006).

SIBERIA: **Altai Krai** (Gorbunova, 2018a); **Irkutsk Oblast** (Petrov, Nezdoininogo, and Bulakh, 1987; Bulakh, Wasser, Nazarova, and Nezdoininogo, 1990; Petrov, 1991; Nezdoininogo, 1996; Petrov, 2008; Trofimova, Popov, and Merkacheva, 2020); **Krasnoyarsk Krai** (Malysheva, Malysheva, Kiyashko, et al., 2017; Krom and Kapitonov, 2019).

FAR EAST: **Primorsky Krai** (Vassiljeva, 1973; Bulakh, Wasser, Nazarova, and Nezdoininogo, 1990; Nezdoininogo, 1996; Bau, Bulakh, and Govorova, 2011; Bulakh et al., 2016; Bogacheva et al., 2018).

***Cortinarius cyanopus* Secr. ex Fr.**

EASTERN EUROPE: **Crimea** (Sarkina, 2001); **Leningrad Oblast** (Thesleff, 1920).

SIBERIA: **Krasnoyarsk Krai** (Beglyanova, 1972a); **Novosibirsk Oblast** (Zaytseva, 1971).

***Cortinarius damascenus* Fr.**

EASTERN EUROPE: **Karelia** (Bondartseva et al., 2001; Krutov et al., 2014); **Leningrad Oblast** (Thesleff, 1920; Stolyarskaya, 1993; Nezdoininogo, 1996; Kovalenko and Morozova, 1999a; Popov et al., 2007; Zmitrovich et al., 2015); **Perm Krai** (Botalov, 2015; Botalov, 2017).

***Cortinarius deceptivus* Kauffman**

EASTERN EUROPE: **Penza Oblast** (Ivanov, 1986).

FAR EAST: **Magadan Oblast** (Nazarova, 1976; Bulakh, Wasser, Nazarova, and Nezdoininogo, 1990; Nezdoininogo, 1996; Sazanova, 2009a); **Primorsky Krai** (Vassiljeva, 1973; Bulakh, Wasser, Nazarova, and Nezdoininogo, 1990; Nezdoininogo, 1996; Bulakh et al., 2016).

***Cortinarius decipiens* (Pers.) Fr.<sup>1</sup>**

≡ *Agaricus decipiens* Pers.<sup>2</sup> ≡ *Cortinarius decipiens* var. *decipiens* (Pers.) Fr.<sup>3</sup> = *Cortinarius decipiens* var. *atrocaeruleus* (M.M. Moser) H. Lindstr.<sup>4</sup> = *Cortinarius sertipes* Kühner<sup>5</sup>

EASTERN EUROPE: **Arkhangelsk Oblast** (<sup>1</sup>Shiryayev, Zmitrovich, and Ezhov, 2018); **Kaliningrad Oblast** (<sup>1</sup>Volodina, 2007; <sup>1</sup>Atayev and Volodina, 2020); **Karachay-Cherkess Republic** (<sup>4</sup>Kalamees and Botashev, 2000); **Karelia** (<sup>1</sup>Kovalenko, Morozova, Fomina, and Särkisilta, 1998; <sup>1</sup>Bondartseva et al., 2001; <sup>3</sup>Predtechenskaya and Ruokolainen, 2013; <sup>3</sup>Krutov et al., 2014; <sup>3</sup>Predtechenskaya, 2015); **Leningrad Oblast** (<sup>1</sup>Thesleff, 1920; <sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Fomina, 2000; <sup>1</sup>Fomina, 2001; <sup>1</sup>Popov et al., 2007; <sup>1</sup>Zmitrovich et al., 2015); **Moscow Oblast** (<sup>1</sup>Levitskaya, 1995a); **Penza Oblast** (<sup>5</sup>Ivanov and Nezdoininogo, 1990; <sup>5</sup>Ivanov and Durandin, 1996; <sup>5</sup>Nezdoininogo, 1996; <sup>5</sup>Ivanov, 1999); **Perm Krai** (<sup>1,5</sup>Perevedentseva, 2008; <sup>5</sup>Belkovskaya et al., 2014; <sup>1,5</sup>Botalov, 2017); **Pskov Oblast** (<sup>1</sup>Popov et al., 2013); **Saint Petersburg** (<sup>2</sup>Weinmann, 1828; <sup>2</sup>Weinmann, 1836; <sup>2</sup>Weinmann, 1837; <sup>1</sup>Morozova and Smirnov, 2011); **Sverdlovsk Oblast** (<sup>1</sup>Marina, 2006); **Tula Oblast** (<sup>4</sup>Svetasheva, 2003; <sup>4</sup>Svetasheva, 2004); **Udmurt Republic** (<sup>1</sup>Tychinin and Kuzmina, 2003).

SIBERIA: **Altai Krai** (<sup>1</sup>Gorbunova, 2018b); **Altai Republic** (<sup>1</sup>Brandrud et al., 2019; <sup>1</sup>Gorbunova, 2019); **Buryatia** (<sup>1</sup>Nezdoininogo, 1973; <sup>1</sup>Petrov, 1991); **Irkutsk Oblast** (<sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdoininogo, 1990; <sup>1</sup>Petrov, 1991; <sup>1</sup>Nezdoininogo, 1996; <sup>1</sup>Petrov, 2008); **Khakassia** (<sup>4</sup>Zauzolkova and Gorbunova, 2013; <sup>1</sup>Zauzolkova, 2015); **Khanty-Mansi Autonomous Okrug** (<sup>3</sup>Zvyagina, 2008; <sup>3</sup>Shepeleva et al., 2014; <sup>1</sup>Filippova, Bulyonkova, and Lapshina, 2015; <sup>1</sup>Filippova and Bulyonkova, 2017a; <sup>1</sup>Filippova and Bulyonkova, 2017b); **Krasnoyarsk Krai** (<sup>4</sup>Zauzolkova, 2012; <sup>1</sup>Zauzolkova, 2015; <sup>4</sup>Malysheva, Malysheva, Kiyashko, et al., 2017); **Novosibirsk Oblast** (<sup>1</sup>Zaytseva, 1971; <sup>1</sup>Perova and Gorbunova, 2001; <sup>5</sup>Perova and Gorbunova, 2001; <sup>5</sup>Perova and Gorbunova, 2007; <sup>3</sup>Koropachinskiy and Banaev, 2014); **Tomsk Oblast** (<sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdoininogo, 1990; <sup>1</sup>Nezdoininogo, 1996; <sup>1</sup>Perova and Gorbunova, 2001; <sup>1</sup>Kudashova, Gashkov, and Kutafjeva, 2013); **Tyva Republic** (<sup>1</sup>Gorbunova, 2015); **Yamalo-Nenets Autonomous Okrug** (<sup>1</sup>Tarchevskaya, 1990).

FAR EAST: **Amur Oblast** (<sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdoininogo, 1990; <sup>1</sup>Nezdoininogo, 1996); **Khabarovsk Krai** (<sup>1</sup>Bau, Bulakh, and Govorova, 2011); **Magadan Oblast** (<sup>1</sup>Nazarova, 1976; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdoininogo, 1990; <sup>1</sup>Nezdoininogo, 1996; <sup>1</sup>Sazanova, 2005; <sup>1</sup>Sazanova, 2009a); **Primorsky Krai** (<sup>1</sup>Vassiljeva, 1973; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdoininogo, 1990; <sup>1</sup>Nezdoininogo, 1996; <sup>1</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Bulakh et al., 2016).

***Cortinarius delibutus* Fr.<sup>1</sup>**≡ *Cortinarius delibutus* var. *delibutus* Fr.<sup>2</sup>

EASTERN EUROPE: **Kaliningrad Oblast** (<sup>1</sup>Dedkov, Volodina, and Gubareva, 2007); **Karelia** (<sup>1</sup>Kovalenko, Morozova, Fomina, and Särkisilta, 1998; <sup>1</sup>Bondartseva et al., 2001; <sup>1</sup>Krutov et al., 2014; <sup>1</sup>Predtechenskaya and Ruokolainen, 2014; <sup>1</sup>Predtechenskaya, 2015; <sup>1</sup>Savelev and Kikeeva, 2020); **Komi Republic** (<sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdoininogo, 1990; <sup>1</sup>Nezdoininogo, 1996; <sup>1</sup>Palamarchuk, 2012; <sup>1</sup>Palamarchuk, 2016a; <sup>1</sup>Palamarchuk, 2016b); **Leningrad Oblast** (<sup>1</sup>Thesleff, 1920; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdoininogo, 1990; <sup>1</sup>Stolyarskaya, 1993; <sup>1</sup>Nezdoininogo, 1996; <sup>1</sup>Kovalenko and Morozova, 1999a; <sup>2</sup>Fomina, 2000; <sup>2</sup>Fomina, 2001; <sup>1</sup>Popov et al., 2007; <sup>1</sup>Zmitrovich et al., 2015); **Moscow Oblast** (<sup>1</sup>Levitskaya, 1995a; <sup>1</sup>Levitskaya, 2013); **Murmansk Oblast** (<sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdoininogo, 1990; <sup>1</sup>Nezdoininogo, 1996); **Perm Krai** (<sup>1</sup>Perevedentseva, 2008; <sup>1</sup>Belkovskaya et al., 2014); **Pskov Oblast** (<sup>2</sup>Popov et al., 2013); **Saint Petersburg** (<sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Kotkova, Morozova, and Popov, 2005); **Sverdlovsk Oblast** (<sup>1</sup>Marina, 2006); **Tatarstan** (<sup>1</sup>Vassiljeva, 1977; <sup>1</sup>Nezdoininogo, 1996); **Tula Oblast** (<sup>1</sup>Svetasheva, 2004; <sup>1</sup>Svetasheva, 2005a); **Tver Oblast** (<sup>1</sup>Kurochkin, 1993); **Vologda Oblast** (<sup>1</sup>Kirillova, 2007); **Yamalo-Nenets Autonomous Okrug** (<sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdoininogo, 1990).

SIBERIA: **Altai Republic** (<sup>1</sup>Gorbunova, 1997; <sup>1</sup>Perova and Gorbunova, 2001; <sup>1</sup>Brandrud et al., 2019); **Buryatia** (<sup>1</sup>Nezdoininogo, 1970a; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdoininogo, 1990; <sup>1</sup>Nezdoininogo, 1996); **Irkutsk Oblast** (<sup>1</sup>Kutafjeva, 1984; <sup>1</sup>Petrov, Nezdoininogo, and Bulakh, 1987; <sup>1</sup>Petrov, 1989; <sup>1</sup>Astapenko, 1990b; <sup>1</sup>Petrov, 2008); **Khakassia** (<sup>1</sup>Zauzolkova, 2015); **Khanty-Mansi Autonomous Okrug** (<sup>1</sup>Filippova, Bulyonkova, and Lapshina, 2015; <sup>1</sup>Filippova and Bulyonkova, 2017a; <sup>1</sup>Filippova and Bulyonkova, 2017b); **Krasnoyarsk Krai** (<sup>1</sup>Beglyanova, 1972a; <sup>1</sup>Nezdoininogo, 1976a; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdoininogo, 1990; <sup>1</sup>Nezdoininogo, 1996; <sup>1</sup>Zauzolkova, 2012; <sup>1</sup>Zauzolkova, 2015; <sup>1</sup>Malysheva, Malysheva, Kiyashko, et al., 2017); **Novosibirsk Oblast** (<sup>1</sup>Perova and Gorbunova, 2001; <sup>1</sup>Perova and Gorbunova, 2007); **Tomsk Oblast** (<sup>1</sup>Agaphonova, Kutafjeva, and Gashkov, 2009a; <sup>1</sup>Kudashova, Gashkov, and Kutafjeva, 2013; <sup>1</sup>Vaishlya et al., 2017); **Yamalo-Nenets Autonomous Okrug** (<sup>1</sup>Tarchevskaya, 1990; <sup>1</sup>Nezdoininogo, 1996).

FAR EAST: **Chukotka Autonomous Okrug** (<sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdoininogo, 1990; <sup>1</sup>Nezdoininogo, 1996); **Kamchatka Krai** (<sup>1</sup>Kalamees and Vaasma, 1981); **Khabarovsk Krai** (<sup>1</sup>Azbukina et al., 1989; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdoininogo, 1990; <sup>1</sup>Nezdoininogo, 1996; <sup>1</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Bulakh, 2013; <sup>1</sup>Bogacheva, Bulakh, Bukharova, and Egorova, 2015; <sup>1</sup>Erofeeva and Bulakh, 2015a); **Magadan Oblast** (<sup>1</sup>Rebriev, Bulakh, Sazanova, and Shiryaev, 2020); **Primorsky Krai** (<sup>1</sup>Vassiljeva, 1973; <sup>1</sup>Bulakh, 1977; <sup>1</sup>Bunkina and Nazarova, 1978; <sup>1</sup>Azbukina et al., 1984; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdoininogo, 1990; <sup>1</sup>Nezdoininogo, 1996; <sup>1</sup>Azbukina et al., 2006; <sup>1</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Bulakh et al., 2016); **Sakhalin Oblast** (<sup>1</sup>Vassiljeva and Nazarova, 1972; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdoininogo, 1990; <sup>1</sup>Nezdoininogo, 1996).

***Cortinarius depallens* (M.M. Moser) Bidaud, Moënné-Loec & Reumaux**≡ *Cortinarius caerulescens* var. *depallens* (M.M. Moser) Quadr.<sup>1</sup>EASTERN EUROPE: **Crimea** (<sup>1</sup>Sarkina and Mironova, 2015).***Cortinarius depexus* (Fr.) Fr.<sup>1</sup>**≡ *Agaricus depexus* Fr.<sup>2</sup>EASTERN EUROPE: **Leningrad Oblast** (<sup>2</sup>Weinmann, 1836).SIBERIA: **Irkutsk Oblast** (<sup>1</sup>Kutafjeva, 1984).***Cortinarius depressus* Fr.**

EASTERN EUROPE: **Karelia** (Freindling, 1949; Nezdoininogo, 1996; Bondartseva et al., 2001; Krutov et al., 2014); **Komi Republic** (Karatygin, Nezdoininogo, Novozhilov, and Zhurbenko, 1999; Palamarchuk, 2012); **Leningrad Oblast** (Nezdoininogo, 1996; Kovalenko and Morozova, 1999a; Fomina, 2000; Fomina, 2001; Morozova, 2007; Popov et al., 2007; Zmitrovich et al., 2015); **Moscow Oblast** (Levitskaya, 1998); **Perm Krai** (Botalov, 2015; Botalov, Perevedentseva, and Denisov, 2015; Botalov, 2017); **Saint Petersburg** (Morozova and Smirnov, 2011); **Tula Oblast** (Svetasheva, 2003; Svetasheva, 2004; Shcherbakov, 2010); **Vologda Oblast** (Kirillova, 2007).

SIBERIA: **Altai Krai** (Gorbunova, 2018a); **Irkutsk Oblast** (Nezdoininogo, 1996; Gorbunova and Stepanyants, 2015); **Khanty-Mansi Autonomous Okrug** (Filippova and Bulyonkova, 2017a; Filippova and Bulyonkova, 2017b); **Krasnoyarsk Krai** (Zauzolkova, 2015; Zauzolkova and Gorbunova, 2016; Malysheva, Malysheva, Kiyashko, et al., 2017); **Tomsk Oblast** (Kudashova, Gashkov, and Vaishlya, 2016a; Vaishlya et al., 2017).

***Cortinarius desertorum* (Velen.) G. Garnier**

= *Cortinarius diasemospermus* var. *leptospermus* H. Lindstr.<sup>1</sup> = *Cortinarius pertristis* J. Favre<sup>2</sup>

EASTERN EUROPE: **Penza Oblast** (<sup>2</sup>Ivanov and Nezdojminogo, 1990; <sup>2</sup>Ivanov and Durandin, 1996).

SIBERIA: **Altai Republic** (<sup>1</sup>Brandrud et al., 2019); **Krasnoyarsk Krai** (<sup>2</sup>Nezdojminogo, 1993a; <sup>2</sup>Nezdojminogo, 1997a; <sup>2</sup>Karatygin, Nezdojminogo, Novozhilov, and Zhurbenko, 1999); **Tomsk Oblast** (<sup>1</sup>Brandrud et al., 2019).

***Cortinarius diabolicus* (Fr.) Fr.**

EASTERN EUROPE: **Karelia** (Kovalenko, Morozova, Fomina, and Särkisilta, 1998; Krutov et al., 2014); **Leningrad Oblast** (Nezdojminogo, 1996; Kovalenko and Morozova, 1999a; Popov et al., 2007); **Penza Oblast** (Ivanov, 1983); **Perm Krai** (Perevedentseva, 2008); **Sverdlovsk Oblast** (Marina, 2006); **Tula Oblast** (Svetasheva, 2003; Svetasheva, 2004).

SIBERIA: **Altai Krai** (Gorbunova, 2018a); **Altai Republic** (Gorbunova, 2019); **Buryatia** (Nezdojminogo, 1973; Petrov, 1991); **Krasnoyarsk Krai** (Nezdojminogo, 1996; Zauzolkova, 2012; Zauzolkova, 2015); **Novosibirsk Oblast** (Perova, 1982; Nezdojminogo, 1996; Perova and Gorbunova, 2001; Perova and Gorbunova, 2007).

***Cortinarius diasemospermus* Lamoure**

EASTERN EUROPE: **Sverdlovsk Oblast** (Marina, 2006).

SIBERIA: **Khanty-Mansi Autonomous Okrug** (Filippova, Bulyonkova, and Lapshina, 2015; Filippova and Bulyonkova, 2017a; Filippova and Bulyonkova, 2017b).

***Cortinarius dilutus* (Pers.) Fr.<sup>1</sup>**

≡ *Agaricus armeniacus* var. *dilutus* (Pers.) Fr.<sup>2</sup>

EASTERN EUROPE: **Kaliningrad Oblast** (<sup>1</sup>Volodina, 2007); **Karelia** (<sup>1</sup>Freindling, 1949 [as *Cortinarius saturatus* J.E. Lange, redet. in Bondartseva et al., 2001]; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1</sup>Nezdojminogo, 1996; <sup>1</sup>Bondartseva et al., 2001; <sup>1</sup>Krutov et al., 2014); **Komi Republic** (<sup>1</sup>Palamarchuk, 2012); **Leningrad Oblast** (<sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1</sup>Stolyarskaya, 1993; <sup>1</sup>Nezdojminogo, 1996; <sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Popov et al., 2007; <sup>1</sup>Zmitrovich et al., 2015); **Penza Oblast** (<sup>1</sup>Ivanov, 1983; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1</sup>Ivanov and Durandin, 1996; <sup>1</sup>Nezdojminogo, 1996); **Perm Krai** (<sup>1</sup>Perevedentseva, Shilkova, and Botalov, 2011); **Pskov Oblast** (<sup>1</sup>Popov et al., 2013); **Ryazan Oblast** (<sup>1</sup>Volosnova, 2014); **Saint Petersburg** (<sup>2</sup>Weinmann, 1836; <sup>1</sup>Kovalenko and Morozova, 1999a); **Sverdlovsk Oblast** (<sup>1</sup>Marina, 2006); **Tatarstan** (<sup>1</sup>Vassiljeva, 1977; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1</sup>Nezdojminogo, 1996); **Vologda Oblast** (<sup>1</sup>Kirillova, 2007); **Yaroslavl Oblast** (<sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1</sup>Nezdojminogo, 1996; <sup>1</sup>Lazareva, 1998a; <sup>1</sup>Lazareva, 2002); **Arid territories** (<sup>1</sup>Rebriev, Rusanov, et al., 2012).

SIBERIA: **Buryatia** (<sup>1</sup>Nezdojminogo, 1996); **Irkutsk Oblast** (<sup>1</sup>Astapenko and Kutafjeva, 1990; <sup>1</sup>Nezdojminogo, 1996); **Krasnoyarsk Krai** (<sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1</sup>Nezdojminogo, 1996).

FAR EAST: **Amur Oblast** (<sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1</sup>Nezdojminogo, 1996); **Primorsky Krai** (<sup>1</sup>Azbukina et al., 1984; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1</sup>Nezdojminogo, 1996; <sup>1</sup>Azbukina et al., 2006; <sup>1</sup>Bau, Bulakh, and Govorova, 2011).

***Cortinarius diosmus* Kühner**

EASTERN EUROPE: **Penza Oblast** (Ivanov, 1983; Ivanov and Durandin, 1996).

***Cortinarius disjungendus* P. Karst.**

EASTERN EUROPE: **Saint Petersburg** (Morozova and Smirnov, 2011); **Samara Oblast** (Malysheva, Malysheva, Voronina, et al., 2017; Malysheva, Malysheva, Voronina, and Kovalenko, 2018); **Tula Oblast** (Svetasheva, 2003; Svetasheva, 2004; Svetasheva, 2005b; Shcherbakov, 2010).

SIBERIA: **Altai Republic** (Brandrud et al., 2019); **Khanty-Mansi Autonomous Okrug** (Filippova, Bulyonkova, and Lapshina, 2015; Filippova and Bulyonkova, 2017a; Filippova and Bulyonkova, 2017b).

***Cortinarius duracinus* Fr.**

EASTERN EUROPE: **Crimea** (Zerova, 1962; Dudka et al., 2004; Sarkina, 2011); **Kaliningrad Oblast** (Dedkov, Volodina, and Gubareva, 2007); **Komi Republic** (Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; Nezdojminogo, 1996); **Leningrad Oblast** (Kalamees and Kovalenko, 1984; Kovalenko and Morozova, 1999a; Popov et al., 2007); **Moscow Oblast** (Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; Nezdojminogo, 1996); **Penza**

**Oblast** (Ivanov, 1983; Nezdoininogo, 1996); **Perm Krai** (Perevedentseva and Shishigin, 2015; Botalov, 2017); **Tula Oblast** (Svetasheva, 2003; Svetasheva, 2004); **Vologda Oblast** (Kirillova, 2007).

SIBERIA: **Khanty-Mansi Autonomous Okrug** (Filippova and Bulyonkova, 2017a; Filippova and Bulyonkova, 2017b); **Novosibirsk Oblast** (Perova, 1977; Perova and Gorbunova, 2001).

FAR EAST: **Magadan Oblast** (Nazarova, 1976; Bulakh, Wasser, Nazarova, and Nezdoininogo, 1990; Nezdoininogo, 1996); **Primorsky Krai** (Vassiljeva, 1972; Vassiljeva, 1973; Azbukina et al., 1984; Azbukina et al., 1990; Bulakh, Wasser, Nazarova, and Nezdoininogo, 1990; Nezdoininogo, 1996; Bardunov et al., 2002; Azbukina et al., 2006).

### ***Cortinarius durus* P.D. Orton<sup>1</sup>**

= *Cortinarius balteatoclaricolor* Jul. Schäff.<sup>2</sup>

EASTERN EUROPE: **Kabardino-Balkarian Republic** (<sup>2</sup>Shkhagapsoev and Krapivina, 2004); **Karelia** (<sup>2</sup>Nezdoininogo, 1974; <sup>2</sup>Nezdoininogo, 1996; <sup>1</sup>Krutov et al., 2014); **Komi Republic** (<sup>1</sup>Palamarchuk and Kirillov, 2016; <sup>1</sup>Palamarchuk, 2016a; <sup>1</sup>Palamarchuk, 2016b).

### ***Cortinarius eburneus* (Velen.) Rob. Henry ex Bon**

EASTERN EUROPE: **Karelia** (Bondartseva et al., 2001; Krutov et al., 2014); **Leningrad Oblast** (Kovalenko and Morozova, 1999a; Fomina, 2000; Fomina, 2001; Popov et al., 2007); **Moscow Oblast** (Levitskaya, 1995a; Nezdoininogo, 1996; Levitskaya, 2013); **Penza Oblast** (Ivanov, 1989; Ivanov and Durandin, 1996); **Perm Krai** (Perevedentseva, Nezdoininogo, and Kovalenko, 1990; Perevedentseva, 2008); **Vologda Oblast** (Kirillova, 2007).

SIBERIA: **Altai Republic** (Gorbunova, 1997; Perova and Gorbunova, 2001); **Irkutsk Oblast** (Kutafjeva, 1984; Astapenko, 1990b; Nezdoininogo, 1996); **Khakassia** (Zauzolkova, 2015; Zauzolkova and Gorbunova, 2016).

### ***Cortinarius ectypus* J. Favre**

EASTERN EUROPE: **Sverdlovsk Oblast** (Marina, 2006).

### ***Cortinarius elatior* Fr.<sup>1</sup>**

≡ *Myxacium elatius* (Fr.) Wünsche<sup>2</sup>

EASTERN EUROPE: **Kaliningrad Oblast** (<sup>1</sup>Dedkov, Volodina, and Gubareva, 2007); **Leningrad Oblast** (<sup>1</sup>Thesleff, 1920; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdoininogo, 1990); **Murmansk Oblast** (<sup>1</sup>Pystina, Pavlova, and Shestakova, 1969; <sup>2</sup>Pystina, Pavlova, and Shestakova, 1969).

FAR EAST: **Primorsky Krai** (<sup>1</sup>Vassiljeva, 1972; <sup>1</sup>Vassiljeva, 1973; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdoininogo, 1990).

### ***Cortinarius elegantior* (Fr.) Fr.**

EASTERN EUROPE: **Crimea** (Sarkina and Mironova, 2015; Sarkina and Stavishenko, 2019); **Karelia** (Savelev and Kikeeva, 2018); **Krasnodar Krai** (Kovalenko, 1980a; Kovalenko, 1980b; Bulakh, Wasser, Nazarova, and Nezdoininogo, 1990; Nezdoininogo, 1996); **Leningrad Oblast** (Kovalenko and Morozova, 1999a; Morozova and Kovalenko, 2000; Tzvelev, 2000; Morozova, 2007; Popov et al., 2007; Geltman et al., 2018; Geltman, 2018b); **Moscow** (Bucholtz, 1897b; Bucholtz, 1897c; Mosolov, 1906); **Saint Petersburg** (Geltman, 2018a); **Tatarstan** (Vassiljeva, 1977; Nezdoininogo, 1996); **Ulyanovsk Oblast** (Ilyukhin, 2009; Ilyukhin, 2010a).

SIBERIA: **Buryatia** (Bulakh, Wasser, Nazarova, and Nezdoininogo, 1990; Petrov, 1991; Nezdoininogo, 1996); **Irkutsk Oblast** (Kutafjeva, 1984; Petrov, Nezdoininogo, and Bulakh, 1987; Bulakh, Wasser, Nazarova, and Nezdoininogo, 1990; Petrov, 1991; Nezdoininogo, 1996; Petrov, 2008; Muzyka, 2009); **Khakassia** (Zauzolkova, 2015; Zauzolkova and Gorbunova, 2016); **Krasnoyarsk Krai** (Pavlov et al., 2007).

FAR EAST: **Primorsky Krai** (Vassiljeva, 1973; Bunkina and Nazarova, 1978; Bulakh, Wasser, Nazarova, and Nezdoininogo, 1990; Nezdoininogo, 1996; Azbukina et al., 2006; Bau, Bulakh, and Govorova, 2011).

### ***Cortinarius elegantissimus* Rob. Henry<sup>1</sup>**

= *Cortinarius aurantioturbinatus* Secr. ex J.E. Lange<sup>2</sup>

EASTERN EUROPE: **Penza Oblast** (<sup>2</sup>Ivanov, 1989; <sup>2</sup>Ivanov and Durandin, 1996; <sup>2</sup>Nezdoininogo, 1996; <sup>2</sup>Ivanov, 2013a); **Arid territories** (<sup>1</sup>Rebriev, Rusanov, et al., 2012).

FAR EAST: **Primorsky Krai** (<sup>2</sup>Bulakh, 1977; <sup>2</sup>Azbukina et al., 1984; <sup>2</sup>Bulakh, Wasser, Nazarova, and Nezdoininogo, 1990; <sup>2</sup>Nezdoininogo, 1996; <sup>2</sup>Bau, Bulakh, and Govorova, 2011).

***Cortinarius elotus* Fr.**

EASTERN EUROPE: **Karelia** (Freindling, 1949; Nezdojminogo, 1996; Bondartseva et al., 2001; Krutov et al., 2014).  
SIBERIA: **Buryatia** (Nezdojminogo, 1973; Petrov, 1991).

***Cortinarius emollitus* Fr.**

EASTERN EUROPE: **Chelyabinsk Oblast** (Sirko and Stepanova, 1977; Stepanova and Sirko, 1977; Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; Nezdojminogo, 1996); **Karelia** (Freindling, 1949; Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; Nezdojminogo, 1996; Bondartseva et al., 2001; Krutov et al., 2014); **Leningrad Oblast** (Stolyarskaya, 1993; Kovalenko and Morozova, 1999a; Popov et al., 2007; Zmitrovich et al., 2015); **Sverdlovsk Oblast** (Stepanova and Sirko, 1977; Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; Nezdojminogo, 1996).

SIBERIA: **Krasnoyarsk Krai** (Beglyanova, 1972a; Kryuchkova, 2009).

FAR EAST: **Amur Oblast** (Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; Nezdojminogo, 1996; Azbukina et al., 1998); **Primorsky Krai** (Vassiljeva, 1973); **Sakhalin Oblast** (Vassiljeva and Nazarova, 1972; Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; Nezdojminogo, 1996).

***Cortinarius emunctus* Fr.**

EASTERN EUROPE: **Komi Republic** (Palamarchuk and Kirillov, 2018b).

***Cortinarius erugatus* (Weinm.) Fr.<sup>1</sup>**

≡ *Agaricus erugatus* Weinm.<sup>2</sup>

EASTERN EUROPE: **Kabardino-Balkarian Republic** (<sup>1</sup>Shkhagapsoev and Krapivina, 2004); **Moscow Oblast** (<sup>1</sup>Gorlenko, Sidorova, and Sidorova, 1989); **Saint Petersburg** (<sup>2</sup>Weinmann, 1836); **Tatarstan** (<sup>1</sup>Vassiljeva, 1977).

***Cortinarius erythrinus* (Fr.) Fr.**

EASTERN EUROPE: **Belgorod Oblast** (Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990); **Karelia** (Bondartseva et al., 2001; Krutov et al., 2014); **Leningrad Oblast** (Thesleff, 1920; Kovalenko and Morozova, 1999a; Popov et al., 2007; Zmitrovich et al., 2015; Malysheva, Malysheva, Shchepin, and Novozhilov, 2018); **Moscow** (Bucholtz, 1897b; Bucholtz, 1897c; Mosolov, 1906); **Moscow Oblast** (Levitskaya, 1998; Levitskaya, 2013); **Penza Oblast** (Ivanov, 1985; Ivanov and Durandin, 1996); **Sverdlovsk Oblast** (Marina, 2006).

FAR EAST: **Primorsky Krai** (Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; Nezdojminogo, 1996; Bau, Bulakh, and Govorova, 2011).

***Cortinarius esculentus* Lebedeva**

EASTERN EUROPE: **Udmurt Republic** (Tychinin and Kuzmina, 2003).

SIBERIA: **Tomsk Oblast** (Milovidova, 1980; Kudashova, Gashkov, and Kutafjeva, 2013; Kudashova, Gashkov, and Vaishlya, 2016b; Vaishlya et al., 2017).

***Cortinarius eucaeruleus* Rob. Henry**

EASTERN EUROPE: **Arid territories** (Rebriev, Rusanov, et al., 2012).

***Cortinarius evernius* (Fr.) Fr.<sup>1</sup>**

≡ *Agaricus evernius* Fr.<sup>2</sup>

EASTERN EUROPE: **Kaliningrad Oblast** (<sup>1</sup>Volodina, 2007); **Karelia** (<sup>1</sup>Freindling, 1949; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1</sup>Nezdojminogo, 1996; <sup>1</sup>Bondartseva et al., 2001; <sup>1</sup>Krutov et al., 2014); **Komi Republic** (<sup>1</sup>Palamarchuk, 2016a; <sup>1</sup>Palamarchuk, 2016b); **Leningrad Oblast** (<sup>1</sup>Thesleff, 1920; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1</sup>Nezdojminogo, 1996; <sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Fomina, 2000; <sup>1</sup>Fomina, 2001; <sup>1</sup>Popov et al., 2007); **Moscow Oblast** (<sup>1</sup>Levitskaya, 1995c; <sup>1</sup>Levitskaya, 2013; <sup>1</sup>Voronina et al., 2014); **Perm Krai** (<sup>1</sup>Pervedentseva, 2008; <sup>1</sup>Belkovskaya et al., 2014); **Pskov Oblast** (<sup>1</sup>Kalinina, Bolshakov, and Bulyonkova, 2020); **Saint Petersburg** (<sup>2</sup>Weinmann, 1836); **Sverdlovsk Oblast** (<sup>1</sup>Stepanova and Sirko, 1977; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1</sup>Nezdojminogo, 1996); **Tver Oblast** (<sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1</sup>Kurochkin, 1993; <sup>1</sup>Nezdojminogo, 1996; <sup>1</sup>Mukhina, 2011a; <sup>1</sup>Kotkova, 2014); **Arid territories** (<sup>1</sup>Rebriev, Rusanov, et al., 2012).

SIBERIA: **Altai Krai** (<sup>1</sup>Gorbunova and Perova, 2006); **Buryatia** (<sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1</sup>Petrov, 1991; <sup>1</sup>Nezdojminogo, 1996); **Khanty-Mansi Autonomous Okrug** (<sup>1</sup>Filippova and Bulyonkova,



2017a; <sup>1</sup>Filippova and Bulyonkova, 2017b); **Tomsk Oblast** (<sup>1</sup>Kudashova, Gashkov, and Kutafjeva, 2013; <sup>1</sup>Vaishlya et al., 2017).

FAR EAST: **Primorsky Krai** (<sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdoininogo, 1990; <sup>1</sup>Nezdoininogo, 1996).

***Cortinarius fennoscandicus* Bendiksen, K. Bendiksen & Brandrud**

EASTERN EUROPE: **Komi Republic** (Palamarchuk, 2016a).

***Cortinarius ferrugineogriseus* Peck**

FAR EAST: **Primorsky Krai** (Vassiljeva, 1972; Vassiljeva, 1973).

***Cortinarius ferrugineovelatus* Kytöv., Liimat. & Niskanen**

SIBERIA: **Tomsk Oblast** (Vaishlya et al., 2017).

***Cortinarius fervidus* P.D. Orton**

EASTERN EUROPE: **Karelia** (Krutov et al., 2014); **Komi Republic** (Palamarchuk (Bobretsova), 2009; Palamarchuk, 2012; Palamarchuk and Kirillov, 2018a); **Leningrad Oblast** (Stolyarskaya, 1993; Nezdoininogo, 1996; Kovalenko and Morozova, 1999a; Popov et al., 2007; Zmitrovich et al., 2015); **Murmansk Oblast** (Nezdoininogo, 1996); **Pskov Oblast** (Kalinina, Bolshakov, and Bulyonkova, 2020); **Sverdlovsk Oblast** (Marina, 2006).

***Cortinarius finitimus* (Weinm.) P. Karst.<sup>1</sup>**

≡ *Agaricus traganus* β *finitimus* Weinm.<sup>2</sup> ≡ *Cortinarius traganus* var. *finitimus* (Weinm.) Rea<sup>3</sup>

EASTERN EUROPE: **Leningrad Oblast** (<sup>3</sup>Stolyarskaya, 1993; <sup>3</sup>Fomina, 2000; <sup>1</sup>Zmitrovich et al., 2015); **Perm Krai** (<sup>3</sup>Perevedentseva, 2008); **Saint Petersburg** (<sup>2</sup>Weinmann, 1836).

***Cortinarius flabellus* (Fr.) Fr.<sup>1</sup>**

≡ *Cortinarius flexipes* var. *flabellus* (Fr.) H. Lindstr. & Melot<sup>2</sup>

EASTERN EUROPE: **Kaliningrad Oblast** (<sup>1</sup>Dedkov, Volodina, and Gubareva, 2007); **Karelia** (<sup>2</sup>Krutov et al., 2014); **Komi Republic** (<sup>2</sup>Bobretsova, 2004; <sup>2</sup>Palamarchuk, 2012; <sup>2</sup>Palamarchuk and Kirillov, 2018a); **Krasnodar Krai** (<sup>2</sup>Sopina, 2001a); **Leningrad Oblast** (<sup>2</sup>Fomina, 2000; <sup>2</sup>Fomina, 2001; <sup>2</sup>Morozova, 2007); **Tula Oblast** (<sup>2</sup>Svetasheva, 2004; <sup>2</sup>Svetasheva, 2005a); **Vologda Oblast** (<sup>2</sup>Kirillova, 2007).

SIBERIA: **Altai Republic** (<sup>1</sup>Brandrud et al., 2019); **Krasnoyarsk Krai** (<sup>1</sup>Beglyanova, 1972a).

***Cortinarius flavovirens* Rob. Henry**

EASTERN EUROPE: **Krasnodar Krai** (Nezdoininogo, 1996; Litvinskaya, 2007).

***Cortinarius flexipes* (Pers.) Fr.<sup>1</sup>**

≡ *Cortinarius flexipes* var. *flexipes* (Pers.) Fr.<sup>2</sup> ≡ *Hydrocybe flexipes* (Pers.) M.M. Moser<sup>3</sup> = *Cortinarius paleifer* Svrček<sup>4</sup>

EASTERN EUROPE: **Kaliningrad Oblast** (<sup>1,4</sup>Dedkov, Volodina, and Gubareva, 2007; <sup>1,4</sup>Volodina, 2007); **Karelia** (<sup>1</sup>Freindling, 1949; <sup>1</sup>Bondartseva et al., 2001; <sup>1</sup>Krutov et al., 2014; <sup>1</sup>Savelev and Kikeeva, 2020); **Leningrad Oblast** (<sup>1</sup>Thesleff, 1920; <sup>1</sup>Nezdoininogo, 1967; <sup>3</sup>Chastukhin and Nikolaevskaya, 1969; <sup>4</sup>Bulakh, Wasser, Nazarova, and Nezdoininogo, 1990; <sup>4</sup>Nezdoininogo, 1996; <sup>2,4</sup>Kovalenko and Morozova, 1999a; <sup>2,4</sup>Popov et al., 2007; <sup>1</sup>Zmitrovich et al., 2015); **Moscow Oblast** (<sup>4</sup>Bulakh, Wasser, Nazarova, and Nezdoininogo, 1990; <sup>4</sup>Levitskaya, 1995c; <sup>4</sup>Nezdoininogo, 1996; <sup>1</sup>Levitskaya, 1998; <sup>1,4</sup>Levitskaya, 2013; <sup>1</sup>Voronina et al., 2014; <sup>1</sup>Sidorova, Alexandrova, and Voronina, 2017); **Murmansk Oblast** (<sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdoininogo, 1990; <sup>1</sup>Nezdoininogo, 1996); **Pskov Oblast** (<sup>1</sup>Kalinina, Bolshakov, and Bulyonkova, 2020); **Saint Petersburg** (<sup>1</sup>Morozova et al., 2020); **Sverdlovsk Oblast** (<sup>2</sup>Marina, 2006); **Tatarstan** (<sup>1</sup>Vassiljeva, 1977; <sup>1,4</sup>Bulakh, Wasser, Nazarova, and Nezdoininogo, 1990; <sup>1,4</sup>Nezdoininogo, 1996); **Tula Oblast** (<sup>4</sup>Svetasheva, 2003; <sup>1,4</sup>Svetasheva, 2004; <sup>2</sup>Svetasheva, 2005a); **Tver Oblast** (<sup>1</sup>Mukhina, 2011a; <sup>1</sup>Kotkova, 2014); **Vologda Oblast** (<sup>1</sup>Kutova, 1957; <sup>2</sup>Kirillova, 2007); **Yaroslavl Oblast** (<sup>1</sup>Lazareva, 1998a; <sup>1</sup>Lazareva, 2002).

SIBERIA: **Buryatia** (<sup>1</sup>Nezdoininogo, 1973; <sup>1</sup>Petrov, 1991); **Irkutsk Oblast** (<sup>1</sup>Petrov, Nezdoininogo, and Bulakh, 1987; <sup>1</sup>Petrov, 1991; <sup>1</sup>Gorbunova and Stepanitsova, 2015); **Khakassia** (<sup>1</sup>Zauzolkova and Gorbunova, 2013; <sup>1</sup>Zauzolkova, 2015); **Khanty-Mansi Autonomous Okrug** (<sup>1</sup>Filippova and Thormann, 2014; <sup>1</sup>Filippova, 2014; <sup>1</sup>Filippova, Mourgues, and Philippe, 2014; <sup>1</sup>Filippova and Bulyonkova, 2017a; <sup>1</sup>Filippova and Bulyonkova, 2017b); **Krasnoyarsk Krai** (<sup>1</sup>Beglyanova, 1972a); **Novosibirsk Oblast** (<sup>4</sup>Perova and Gorbunova, 2001; <sup>4</sup>Perova and Gorbunova, 2007);

**Tomsk Oblast** (<sup>1</sup>Perova, 1972; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1</sup>Nezdojminogo, 1996; <sup>1</sup>Perova and Gorbunova, 2001; <sup>1</sup>Kudashova, Gashkov, and Kutafjeva, 2013; <sup>1</sup>Vaishlya et al., 2017).

FAR EAST: **Amur Oblast** (<sup>4</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>4</sup>Nezdojminogo, 1996); **Jewish Autonomous Oblast** (<sup>1</sup>Bulakh, Govorova, Nazarova, and Vassiljeva, 2007; <sup>1</sup>Bau, Bulakh, and Govorova, 2011); **Magadan Oblast** (<sup>1</sup>Nazarova, 1976; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1</sup>Nezdojminogo, 1996; <sup>1</sup>Sazanova, 2005; <sup>1</sup>Sazanova, 2009a; <sup>1</sup>Sazanova, 2011; <sup>1</sup>Sazanova and Golodnova, 2015); **Primorsky Krai** (<sup>1</sup>Vassiljeva, 1972; <sup>1</sup>Vassiljeva, 1973; <sup>1</sup>Bunkina and Nazarova, 1978; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>4</sup>Azbukina et al., 1990; <sup>4</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1,4</sup>Nezdojminogo, 1996; <sup>4</sup>Bardunov et al., 2002; <sup>1</sup>Azbukina et al., 2006; <sup>1</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Bulakh et al., 2016).

***Cortinarius flos-paludis* Melot**

EASTERN EUROPE: **Karelia** (Krutov et al., 2014); **Leningrad Oblast** (Fomina, 2000; Fomina, 2001).

SIBERIA: **Khanty-Mansi Autonomous Okrug** (Filippova and Thormann, 2014; Filippova, 2014; Filippova, Mourgues, and Philippe, 2014).

***Cortinarius francescae* Reumaux**

= *Cortinarius caput-medusae* H. Lindstr.<sup>1</sup>

EASTERN EUROPE: **Karelia** (<sup>1</sup>Krutov et al., 2014); **Leningrad Oblast** (<sup>1</sup>Fomina, 2000; <sup>1</sup>Fomina, 2001).

***Cortinarius fulgens* Fr.**

EASTERN EUROPE: **Leningrad Oblast** (Thesleff, 1920); **Mordovia** (Chastukhin, 1948a; Chastukhin and Nikolaevskaya, 1969; Chastukhin, 2011; Ivoilov and Bolshakov, 2011a); **Murmansk Oblast** (Pystina, Pavlova, and Shestakova, 1969); **Arid territories** (Rebriev, Rusanov, et al., 2012).

SIBERIA: **Krasnoyarsk Krai** (Beglyanova, 1972a).

FAR EAST: **Primorsky Krai** (Vassiljeva, 1973).

***Cortinarius fulmineus* Fr.**

EASTERN EUROPE: **Karachay-Cherkess Republic** (Kalamees and Botashev, 2000); **Lipetsk Oblast** (Shcherbakov, 2014); **Penza Oblast** (Ivanov, 1989; Ivanov and Durandin, 1996); **Tatarstan** (Nezdojminogo, 1996); **Voronezh Oblast** (Nezdojminogo, 1996).

***Cortinarius fulminoides* (M.M. Moser) M.M. Moser**

EASTERN EUROPE: **Karelia** (Krutov et al., 2014); **Leningrad Oblast** (Kovalenko and Morozova, 1999a; Popov et al., 2007; Zmitrovich et al., 2015); **Perm Krai** (Perevedentseva, 2008); **Sverdlovsk Oblast** (Marina, 2006); **Tatarstan** (Nezdojminogo, 1996).

***Cortinarius fulvescens* Fr.**

EASTERN EUROPE: **Karelia** (Freindling, 1949; Nezdojminogo, 1977; Nezdojminogo, 1996; Bondartseva et al., 2001; Krutov et al., 2014); **Komi Republic** (Palamarchuk (Bobretsova), 2009; Palamarchuk, 2012); **Leningrad Oblast** (Stolyarskaya, 1993; Kovalenko and Morozova, 1999a; Popov et al., 2007; Zmitrovich et al., 2015; Malysheva, Malysheva, Shchepin, and Novozhilov, 2018); **Perm Krai** (Perevedentseva, 2008; Botalov, 2017); **Vologda Oblast** (Kirillova, 2007).

SIBERIA: **Krasnoyarsk Krai** (Zauzolkova, 2015; Zauzolkova and Gorbunova, 2016); **Tomsk Oblast** (Perova and Gorbunova, 2001; Kudashova, Gashkov, and Kutafjeva, 2013; Vaishlya et al., 2017).

FAR EAST: **Magadan Oblast** (Nezdojminogo, 1977).

***Cortinarius fusco-olivaceus* (Weinm.) Moënné-Loec. & Reumaux**

≡ *Agaricus collinitus* var. *fusco-olivaceus* Weinm.<sup>1</sup>

EASTERN EUROPE: **Leningrad Oblast** (<sup>1</sup>Weinmann, 1836).

***Cortinarius fusisporus* Kühner**

SIBERIA: **Khanty-Mansi Autonomous Okrug** (Filippova and Bulyonkova, 2017a; Filippova and Bulyonkova, 2017b).

***Cortinarius galerinoides* Lamoure**SIBERIA: **Krasnoyarsk Krai** (Nezdojminogo, 1997a).***Cortinarius gausapatus* J. Favre**SIBERIA: **Krasnoyarsk Krai** (Karatygin, Nezdojminogo, Novozhilov, and Zhurbenko, 1999).***Cortinarius gentilis* (Fr.) Fr.<sup>1</sup>**≡ *Agaricus gentilis* Fr.<sup>2</sup> = *Cortinarius punctatus* (Pers.) Fr.<sup>3</sup>

EASTERN EUROPE: **Chelyabinsk Oblast** (<sup>1</sup>Sirko and Stepanova, 1977; <sup>1</sup>Stepanova and Sirko, 1977; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1</sup>Nezdojminogo, 1996); **Kaliningrad Oblast** (<sup>1</sup>Volodina, 2007); **Karelia** (<sup>1,3</sup>Freindling, 1949; <sup>1</sup>Nezdojminogo, 1979; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1</sup>Nezdojminogo, 1996; <sup>1</sup>Bondartseva et al., 2001; <sup>1</sup>Predtechenskaya and Ruokolainen, 2013; <sup>1,3</sup>Krutov et al., 2014; <sup>1</sup>Predtechenskaya and Ruokolainen, 2014); **Komi Republic** (<sup>1</sup>Palamarchuk (Bobretsova), 2009; <sup>1</sup>Palamarchuk, 2012; <sup>1</sup>Palamarchuk and Kirillov, 2018a); **Krasnodar Krai** (<sup>3</sup>Vassiljeva, 1939; <sup>3</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990); **Leningrad Oblast** (<sup>1</sup>Thesleff, 1920; <sup>1</sup>Stolyarskaya, 1993; <sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Fomina, 2000; <sup>1</sup>Fomina, 2001; <sup>1</sup>Popov et al., 2007; <sup>1</sup>Zmitrovich et al., 2015); **Moscow Oblast** (<sup>1</sup>Gorlenko, Sidorova, and Sidorova, 1989; <sup>1</sup>Levitskaya, 1995a; <sup>1</sup>Levitskaya, 2013); **Perm Krai** (<sup>1</sup>Perevedentseva, 2008; <sup>1</sup>Belkovskaya et al., 2014; <sup>1</sup>Botalov, 2017; <sup>1</sup>Botalov and Perevedentseva, 2018); **Saint Petersburg** (<sup>2</sup>Weinmann, 1837); **Sverdlovsk Oblast** (<sup>1</sup>Stepanova and Sirko, 1977; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1</sup>Nezdojminogo, 1996; <sup>1</sup>Marina, 2006); **Tula Oblast** (<sup>3</sup>Svetasheva, 2001); **Vologda Oblast** (<sup>1</sup>Kirillova, 2007).

SIBERIA: **Altai Republic** (<sup>1</sup>Gorbunova, 2010; <sup>1</sup>Brandrud et al., 2019); **Buryatia** (<sup>1</sup>Nezdojminogo, 1973; <sup>1</sup>Nezdojminogo, 1979; <sup>1</sup>Petrov, 1991); **Irkutsk Oblast** (<sup>1</sup>Nezdojminogo, 1979); **Khanty-Mansi Autonomous Okrug** (<sup>1</sup>Filippova, Bulyonkova, and Lapshina, 2015; <sup>1</sup>Filippova and Bulyonkova, 2017a; <sup>1</sup>Filippova and Bulyonkova, 2017b); **Krasnoyarsk Krai** (<sup>1,3</sup>Beglyanova, 1972a; <sup>1</sup>Nezdojminogo, 1976a; <sup>1</sup>Nezdojminogo, 1979; <sup>1,3</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1</sup>Nezdojminogo, 1996); **Siberia** (<sup>1</sup>Peintner et al., 2001; <sup>1</sup>Peintner, Moncalvo, and Vilgalys, 2004).

FAR EAST: **Amur Oblast** (<sup>3</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990); **Khabarovsk Krai** (<sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1</sup>Bau, Bulakh, and Govorova, 2011); **Magadan Oblast** (<sup>1</sup>Nazarova, 1976; <sup>1</sup>Nezdojminogo, 1979; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1</sup>Sazanova, 2005; <sup>1</sup>Sazanova, 2009a; <sup>1</sup>Sazanova, 2009b; <sup>1</sup>Sazanova, 2011); **Primorsky Krai** (<sup>1</sup>Vassiljeva, 1972; <sup>1</sup>Vassiljeva, 1973; <sup>1</sup>Nezdojminogo, 1979; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1</sup>Azbukina et al., 2006; <sup>1</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Bulakh et al., 2016).

***Cortinarius gigasporus* Singer**EASTERN EUROPE: **Saint Petersburg** (Singer, 1938b).***Cortinarius glandicolor* (Fr.) Fr.<sup>1</sup>**≡ *Agaricus glandicolor* (Fr.) Weinm.<sup>2</sup> ≡ *Cortinarius brunneus* var. *glandicolor* (Fr.) H. Lindstr. & Melot<sup>3</sup>

According to the protologue, Weinmann (1836) cited *Agaricus glandicolor* Fr.? and below cited variety *Agaricus gentilis* β *glandicolor* Fr. So, he did not describe an independent species. Hence the correct name should be *Cortinarius glandicolor* (Fr.) Fr. with basionym *Agaricus gentilis* β *glandicolor* Fr.

EASTERN EUROPE: **Crimea** (<sup>1</sup>Sarkina, 2001; <sup>1</sup>Dudka et al., 2004; <sup>1</sup>Sarkina, 2010b); **Karelia** (<sup>1</sup>Freindling, 1949; <sup>1</sup>Bondartseva et al., 2001; <sup>3</sup>Krutov et al., 2014); **Kirov Oblast** (<sup>3</sup>Kirillov, 2011; <sup>3</sup>Kirillov, Perevedentseva, and Egoshina, 2011; <sup>3</sup>Stavishenko, Luginina, Kirillov, and Egoshina, 2019); **Leningrad Oblast** (<sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Fomina, 2000; <sup>1</sup>Fomina, 2001; <sup>1</sup>Popov et al., 2007); **Perm Krai** (<sup>3</sup>Perevedentseva, 2008; <sup>1</sup>Perevedentseva and Shishigin, 2014; <sup>3</sup>Belkovskaya et al., 2014; <sup>1</sup>Perevedentseva and Shishigin, 2015; <sup>1</sup>Botalov, 2017); **Saint Petersburg** (<sup>2</sup>Weinmann, 1836; <sup>1</sup>Morozova and Smirnov, 2011); **Sverdlovsk Oblast** (<sup>3</sup>Marina, 2006); **Tatarstan** (<sup>1</sup>Vassiljeva, 1977; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1</sup>Nezdojminogo, 1996); **Tula Oblast** (<sup>1</sup>Svetasheva, 2004; <sup>1</sup>Svetasheva, 2005a; <sup>1</sup>Shcherbakov, 2010).

SIBERIA: **Altai Republic** (<sup>3</sup>Gorbunova, 2008); **Buryatia** (<sup>1</sup>Nezdojminogo, 1973; <sup>1</sup>Petrov, 1991); **Khanty-Mansi Autonomous Okrug** (<sup>1</sup>Filippova, Bulyonkova, and Lapshina, 2015; <sup>1</sup>Filippova and Bulyonkova, 2017a; <sup>1</sup>Filippova and Bulyonkova, 2017b); **Krasnoyarsk Krai** (<sup>1</sup>Beglyanova, 1972a; <sup>1</sup>Stepanova and Tomilin, 1973; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1</sup>Nezdojminogo, 1996).

FAR EAST: **Amur Oblast** (<sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdjominogo, 1990; <sup>1</sup>Nezdjominogo, 1996); **Primorsky Krai** (<sup>1</sup>Vassiljeva, 1973; <sup>1</sup>Bunkina and Nazarova, 1978; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdjominogo, 1990; <sup>1</sup>Nezdjominogo, 1996; <sup>1</sup>Azbukina et al., 2006; <sup>3</sup>Bau, Bulakh, and Govorova, 2011; <sup>3</sup>Bulakh et al., 2016).

***Cortinarius glaphurus* Chevassut & Rob. Henry**

SIBERIA: **Krasnoyarsk Krai** (Krom and Kapitonov, 2019).

***Cortinarius glaucescens* (Jul. Schäff.) M.M. Moser**

EASTERN EUROPE: **Penza Oblast** (Ivanov, 1983; Ivanov and Durandin, 1996; Nezdjominogo, 1996); **Tula Oblast** (Svetasheva, 2004; Svetasheva, 2005a; Svetasheva, 2005b; Shcherbakov, 2010).

***Cortinarius glaucopus* (Schaeff.) Gray<sup>1</sup>**

≡ *Agaricus glaucopus* Schaeff.<sup>2</sup> ≡ *Cortinarius glaucopus* var. *glaucopus* (Schaeff.) Gray<sup>3</sup> = *Agaricus defossus* Batsch<sup>4</sup> = *Cortinarius glaucopus* f. *acyaneus* (M.M. Moser) Nespiak<sup>5</sup> = *Cortinarius glaucopus* f. *olivaceus* (M.M. Moser) Nespiak<sup>6</sup> = *Cortinarius glaucopus* var. *olivaceus* (M.M. Moser) Quadr.<sup>7</sup>

EASTERN EUROPE: **Karelia** (<sup>1</sup>Krutov et al., 2014); **Komi Republic** (<sup>1</sup>Palamarchuk and Kirillov, 2017); **Krasnodar Krai** (<sup>1</sup>Kovalenko, 1980a; <sup>1</sup>Kovalenko, 1980b); **Leningrad Oblast** (<sup>1</sup>Popov et al., 2007); **Penza Oblast** (<sup>3</sup>Ivanov, 1983; <sup>3</sup>Ivanov and Durandin, 1996); **Perm Krai** (<sup>1</sup>Perevedentseva, Nezdjominogo, and Kovalenko, 1990; <sup>1</sup>Perevedentseva, 2008; <sup>1</sup>Botalov, 2017); **Pskov Oblast** (<sup>1</sup>Kalinina, Bolshakov, and Bulyonkova, 2020); **Saint Petersburg** (<sup>2,4</sup>Weinmann, 1836; <sup>1</sup>Kovalenko and Morozova, 1999a); **Smolensk Oblast** (<sup>1</sup>Jaczevski, 1898); **Sverdlovsk Oblast** (<sup>1</sup>Marina, 2006); **Tatarstan** (<sup>1</sup>Vassiljeva, 1977; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdjominogo, 1990; <sup>1</sup>Nezdjominogo, 1996); **Tula Oblast** (<sup>3</sup>Svetasheva, 2003); **Tver Oblast** (<sup>3</sup>Kurochkin, 1993); **Udmurt Republic** (<sup>1</sup>Tychinin and Kuzmina, 2003).

SIBERIA: **Altai Krai** (<sup>5</sup>Gorbunova and Perova, 2006); **Altai Republic** (<sup>1</sup>Gorbunova, 2008); **Buryatia** (<sup>6</sup>Nezdjominogo, 1973; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdjominogo, 1990; <sup>1</sup>Petrov, 1991; <sup>1</sup>Nezdjominogo, 1996); **Irkutsk Oblast** (<sup>1</sup>Kutafjeva and Astapenko, 1988; <sup>1</sup>Astapenko, 1990b); **Khanty-Mansi Autonomous Okrug** (<sup>1</sup>Filippova, Bulyonkova, and Lapshina, 2015); **Krasnoyarsk Krai** (<sup>1</sup>Zauzolkova, 2015; <sup>1</sup>Zauzolkova and Gorbunova, 2016; <sup>7</sup>Krom and Kapitonov, 2019); **Novosibirsk Oblast** (<sup>1</sup>Perova, 1982; <sup>1</sup>Perova and Gorbunova, 2001; <sup>1</sup>Perova and Gorbunova, 2007); **Sakha Republic** (<sup>1</sup>Peintner et al., 2001; <sup>1</sup>Peintner, Moncalvo, and Vilgalys, 2004); **Tomsk Oblast** (<sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdjominogo, 1990; <sup>1</sup>Nezdjominogo, 1996; <sup>1</sup>Perova and Gorbunova, 2001; <sup>1</sup>Kudashova, Gashkov, and Kutafjeva, 2013; <sup>1</sup>Vaishlya et al., 2017); **Yamalo-Nenets Autonomous Okrug** (<sup>1</sup>Tarchevskaya, 1990).

FAR EAST: **Amur Oblast** (<sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdjominogo, 1990; <sup>1</sup>Nezdjominogo, 1996); **Magadan Oblast** (<sup>1</sup>Sazanova, 2005; <sup>1</sup>Sazanova, 2009a); **Primorsky Krai** (<sup>1</sup>Vassiljeva, 1972; <sup>1</sup>Vassiljeva, 1973; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdjominogo, 1990; <sup>1</sup>Nezdjominogo, 1996; <sup>1</sup>Bau, Bulakh, and Govorova, 2011).

***Cortinarius guttatus* Rob. Henry**

EASTERN EUROPE: **Belgorod Oblast** (Bedenko, 1979a; Nezdjominogo, 1996); **Kabardino-Balkarian Republic** (Shkhagapsoev and Krapivina, 2004).

SIBERIA: **Buryatia** (Nezdjominogo, 1973; Petrov, 1991).

***Cortinarius helobius* Romagn.**

EASTERN EUROPE: **Sverdlovsk Oblast** (Marina, 2006); **Tula Oblast** (Svetasheva, 2003; Svetasheva, 2004).

SIBERIA: **Altai Republic** (Gorbunova, 2019); **Krasnoyarsk Krai** (Nezdjominogo and Zhurbenko, 1996; Nezdjominogo, 1997a; Karatygin, Nezdjominogo, Novozhilov, and Zhurbenko, 1999; Malysheva, Malysheva, Kiyashko, et al., 2017); **Tyva Republic** (Gorbunova, 2015).

***Cortinarius helvelloides* (Fr.) Fr.**

EASTERN EUROPE: **Saint Petersburg** (Morozova and Smirnov, 2011).

FAR EAST: **Kamchatka Krai** (Moser, 2001); **Primorsky Krai** (Azbukina et al., 1990; Bulakh, Wasser, Nazarova, and Nezdjominogo, 1990; Nezdjominogo, 1996; Bardunov et al., 2002).

***Cortinarius helvolus* (Bull.) Fr.**

EASTERN EUROPE: **Kaliningrad Oblast** (Dedkov, Volodina, and Gubareva, 2007); **Krasnodar Krai** (Vassiljeva, 1939; Bulakh, Wasser, Nazarova, and Nezdjominogo, 1990; Nezdjominogo, 1996); **Tver Oblast** (Bulakh, Wasser, Nazarova, and Nezdjominogo, 1990; Kurochkin, 1993; Nezdjominogo, 1996; Mukhina, 2011a; Kotkova, 2014).

SIBERIA: **Tomsk Oblast** (Kudashova, Gashkov, and Vaishlya, 2016a; Vaishlya et al., 2017).

FAR EAST: **Khabarovsk Krai** (Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; Nezdojminogo, 1996; Bau, Bulakh, and Govorova, 2011).

***Cortinarius hemitrichus* (Pers.) Fr.<sup>1</sup>**

≡ *Agaricus hemitrichus* Pers.<sup>2</sup> = *Agaricus iliopodius* b *fuscus* Weinm.<sup>3</sup> = *Cortinarius paleaceus* Fr.<sup>4</sup>

EASTERN EUROPE: **Belgorod Oblast** (<sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1</sup>Nezdojminogo, 1996); **Kaliningrad Oblast** (<sup>4</sup>Dedkov, Volodina, and Gubareva, 2007; <sup>1,4</sup>Volodina, 2007); **Karelia** (<sup>1</sup>Kovalenko, Morozova, Fomina, and Särkisilta, 1998; <sup>1</sup>Bondartseva et al., 2001; <sup>4</sup>Bondartseva et al., 2001; <sup>1,4</sup>Krutov et al., 2014; <sup>1</sup>Predtechenskaya, 2015); **Kirov Oblast** (<sup>1</sup>Kirillov, 2011; <sup>1</sup>Kirillov, Perevedentseva, and Egoshina, 2011); **Komi Republic** (<sup>1</sup>Bobretsova, 2004; <sup>1</sup>Palamarchuk, 2012; <sup>1</sup>Palamarchuk and Kirillov, 2017; <sup>1</sup>Palamarchuk, 2017); **Kostroma Oblast** (<sup>1</sup>Burova, 1982); **Leningrad Oblast** (<sup>1</sup>Thesleff, 1920; <sup>1,4</sup>Nezdojminogo, 1978b; <sup>1</sup>Kalamees and Kovalenko, 1984; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1,4</sup>Stolyarskaya, 1993; <sup>1</sup>Nezdojminogo, 1996; <sup>1,4</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Fomina, 2000; <sup>4</sup>Morozova and Kovalenko, 2000; <sup>1</sup>Fomina, 2001; <sup>1</sup>Morozova, 2007; <sup>1,4</sup>Popov et al., 2007; <sup>1,4</sup>Zmitrovich et al., 2015); **Moscow Oblast** (<sup>4</sup>Nezdojminogo, 1978b; <sup>1</sup>Levitskaya, 2013; <sup>1</sup>Voronina et al., 2014; <sup>1</sup>Malysheva, Malysheva, Voronina, and Kovalenko, 2018); **Murmansk Oblast** (<sup>1</sup>Nezdojminogo, 1978b; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1</sup>Nezdojminogo, 1996); **Penza Oblast** (<sup>1</sup>Ivanov, 1983; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1</sup>Ivanov and Durandin, 1996; <sup>1,4</sup>Nezdojminogo, 1996); **Perm Krai** (<sup>1</sup>Perevedentseva, 2008; <sup>1,4</sup>Belkovskaya et al., 2014; <sup>1</sup>Perevedentseva and Shishigin, 2014; <sup>1</sup>Perevedentseva and Shishigin, 2015; <sup>1,4</sup>Botalov, 2017; <sup>1</sup>Botalov and Perevedentseva, 2018); **Pskov Oblast** (<sup>1,4</sup>Popov et al., 2013); **Saint Petersburg** (<sup>2</sup>Weinmann, 1828; <sup>2,3</sup>Weinmann, 1836; <sup>2</sup>Weinmann, 1837; <sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Kotkova, Morozova, and Popov, 2005; <sup>1</sup>Morozova and Smirnov, 2011; <sup>1</sup>Morozova et al., 2020); **Sverdlovsk Oblast** (<sup>1,4</sup>Marina, 2006); **Tatarstan** (<sup>1,4</sup>Vassiljeva, 1977; <sup>1</sup>Nezdojminogo, 1978b; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1</sup>Nezdojminogo, 1996); **Tula Oblast** (<sup>1</sup>Svetasheva, 2003; <sup>1</sup>Svetasheva, 2004); **Tver Oblast** (<sup>1,4</sup>Kurochkin, 1993; <sup>1</sup>Mukhina, 2011a; <sup>1</sup>Kotkova, 2014); **Udmurt Republic** (<sup>1</sup>Tychinin and Kuzmina, 2003); **Ulyanovsk Oblast** (<sup>1</sup>Ilyukhin, 2010a); **Vologda Oblast** (<sup>1</sup>Kirillova, 2007); **Yaroslavl Oblast** (<sup>1</sup>Lazareva, 1998a; <sup>1</sup>Lazareva, 2002).

SIBERIA: **Altai Krai** (<sup>1,4</sup>Gorbunova and Perova, 2006); **Altai Republic** (<sup>1</sup>Gorbunova, 1997; <sup>1</sup>Gorbunova, 2001a; <sup>1</sup>Gorbunova, 2001b; <sup>1</sup>Perova and Gorbunova, 2001; <sup>1</sup>Gorbunova, 2003; <sup>1</sup>Gorbunova, 2010; <sup>1</sup>Brandrud et al., 2019); **Buryatia** (<sup>1</sup>Nezdojminogo, 1973); **Irkutsk Oblast** (<sup>1</sup>Nezdojminogo, 1978b; <sup>1</sup>Petrov, Nezdojminogo, and Bulakh, 1987; <sup>1</sup>Kutafjeva and Astapenko, 1989; <sup>1</sup>Astapenko, 1990a; <sup>1</sup>Astapenko, 1990b; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>4</sup>Astapenko and Kutafjeva, 1990; <sup>1</sup>Petrov, 1991; <sup>1,4</sup>Nezdojminogo, 1996; <sup>1</sup>Petrov, 2008; <sup>1</sup>Muzyka and Penzina, 2017); **Khakassia** (<sup>1</sup>Zauzolkova and Gorbunova, 2013; <sup>1</sup>Zauzolkova, 2015); **Khanty-Mansi Autonomous Okrug** (<sup>1</sup>Filippova, 2009); **Krasnoyarsk Krai** (<sup>4</sup>Vassilkov, 1971b; <sup>1,4</sup>Beglyanova, 1972a; <sup>1</sup>Stepanova and Tomilin, 1973; <sup>1,4</sup>Nezdojminogo, 1978b; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1</sup>Nezdojminogo, 1996; <sup>1</sup>Kosheleva and Kutafjeva, 2008b; <sup>1</sup>Kryuchkova, 2009; <sup>1</sup>Kosheleva, 2010; <sup>1</sup>Krom and Kapitonov, 2019); **Novosibirsk Oblast** (<sup>1</sup>Perova, 1977; <sup>1</sup>Perova and Gorbunova, 2001; <sup>1</sup>Perova and Gorbunova, 2007; <sup>1</sup>Koropachinskiy and Banaev, 2014); **Tomsk Oblast** (<sup>1</sup>Nezdojminogo, 1978b; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1</sup>Nezdojminogo, 1996; <sup>1,4</sup>Perova and Gorbunova, 2001; <sup>1,4</sup>Kudashova, Gashkov, and Kutafjeva, 2013; <sup>1</sup>Vaishlya et al., 2017); **Yamalo-Nenets Autonomous Okrug** (<sup>1</sup>Nezdojminogo, 1978b; <sup>4</sup>Tarchevskaya, 1990); **Zabaykalsky Krai** (<sup>1</sup>Karsten, 1911).

FAR EAST: **Amur Oblast** (<sup>1</sup>Nezdojminogo, 1978b; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1</sup>Nezdojminogo, 1996; <sup>1</sup>Azbukina et al., 1998); **Jewish Autonomous Oblast** (<sup>1</sup>Bulakh, Govorova, Nazarova, and Vassiljeva, 2007; <sup>1</sup>Bau, Bulakh, and Govorova, 2011); **Khabarovsk Krai** (<sup>1</sup>Erofeeva and Bulakh, 2015a); **Magadan Oblast** (<sup>1</sup>Nazarova, 1976; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1</sup>Nezdojminogo, 1996; <sup>1</sup>Sazanova, 2005; <sup>1</sup>Sazanova, 2009a; <sup>1</sup>Sazanova, 2009b; <sup>1</sup>Sazanova, 2011; <sup>1</sup>Sazanova and Golodnova, 2015); **Primorsky Krai** (<sup>4</sup>Vassiljeva, 1972; <sup>1,4</sup>Vassiljeva, 1973; <sup>1,4</sup>Nezdojminogo, 1978b; <sup>1</sup>Azbukina et al., 1984; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1</sup>Nezdojminogo, 1996; <sup>1</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Bulakh et al., 2016).

***Cortinarius hercynicus* (Pers.) M.M. Moser**

SIBERIA: **Tomsk Oblast** (Kudashova, Gashkov, and Vaishlya, 2016a; Kudashova, Gashkov, and Vaishlya, 2016b; Vaishlya et al., 2017).

***Cortinarius heterosporus* Bres.**

EASTERN EUROPE: **Karelia** (Freindling, 1949; Nezdojminogo, 1996; Bondartseva et al., 2001; Krutov et al., 2014); **Leningrad Oblast** (Nezdojminogo, 1996; Kovalenko and Morozova, 1999a; Tzvelev, 2000; Morozova, 2007; Popov et al., 2007; Zmitrovich et al., 2015; Geltman et al., 2018); **Perm Krai** (Perevedentseva, 2008; Botalov, Perevedentseva, and Denisov, 2015; Botalov, 2017); **Ryazan Oblast** (Volosnova, 2014).

***Cortinarius hinnuleus* Fr.<sup>1</sup>**

= *Cortinarius hinnuleus* f. *minutalis* (J. Favre) Nespiak<sup>2</sup> = *Cortinarius hinnuleus* var. *favreanus* Bon<sup>3</sup>

EASTERN EUROPE: **Adygea** (<sup>1</sup>Sopina, 2001a); **Belgorod Oblast** (<sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdjominogo, 1990; <sup>1</sup>Nezdjominogo, 1996); **Crimea** (<sup>1</sup>Sarkina and Mironova, 2015); **Karelia** (<sup>1</sup>Nezdjominogo, 1996); **Krasnodar Krai** (<sup>1</sup>Vassiljeva, 1939; <sup>1</sup>Kovalenko, 1980a; <sup>1</sup>Kovalenko, 1980b; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdjominogo, 1990; <sup>1</sup>Nezdjominogo, 1996; <sup>1</sup>Sopina, 2001a); **Leningrad Oblast** (<sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdjominogo, 1990; <sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Morozova and Kovalenko, 2000; <sup>1</sup>Popov et al., 2007; <sup>1</sup>Kalinina, 2018); **Moscow Oblast** (<sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdjominogo, 1990; <sup>1</sup>Levitskaya, 1995a; <sup>1</sup>Nezdjominogo, 1996; <sup>1</sup>Levitskaya, 2013); **Murmansk Oblast** (<sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdjominogo, 1990; <sup>1</sup>Nezdjominogo, 1996); **Novgorod Oblast** (<sup>1</sup>Morozova, 2012; <sup>1</sup>Popov et al., 2013); **Penza Oblast** (<sup>1</sup>Ivanov, 1983; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdjominogo, 1990; <sup>1</sup>Ivanov and Durandin, 1996; <sup>1</sup>Nezdjominogo, 1996); **Pskov Oblast** (<sup>1</sup>Popov et al., 2013); **Saint Petersburg** (<sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Kotkova, Morozova, and Popov, 2006; <sup>1</sup>Morozova, Kovalenko, Rebrjev, and Malysheva, 2014); **Sverdlovsk Oblast** (<sup>1</sup>Marina, 2006); **Tula Oblast** (<sup>1</sup>Svetasheva, 2003; <sup>1</sup>Svetasheva, 2004); **Voronezh Oblast** (<sup>1</sup>Chastukhin, 1952; <sup>1</sup>Chastukhin and Nikolaevskaya, 1953; <sup>1</sup>Chastukhin and Nikolaevskaya, 1969; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdjominogo, 1990; <sup>1</sup>Nezdjominogo, 1996); **Yaroslavl Oblast** (<sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdjominogo, 1990; <sup>1</sup>Nezdjominogo, 1996; <sup>1</sup>Lazareva, 1998a; <sup>1</sup>Lazareva, 2002).

SIBERIA: **Altai Krai** (<sup>1</sup>Gorbunova, 2018b); **Altai Republic** (<sup>1</sup>Brandrud et al., 2019; <sup>1</sup>Gorbunova, 2019); **Irkutsk Oblast** (<sup>1</sup>Petrov, Nezdjominogo, and Bulakh, 1987; <sup>1</sup>Petrov, 1991; <sup>1</sup>Petrov, 2008); **Krasnoyarsk Krai** (<sup>1</sup>Beglyanova, 1972a; <sup>1</sup>Stepanova and Tomilin, 1973; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdjominogo, 1990; <sup>1</sup>Nezdjominogo, 1996; <sup>2</sup>Gorbunova, 2016; <sup>1</sup>Krom and Kapitonov, 2019).

FAR EAST: **Chukotka Autonomous Okrug** (<sup>3</sup>Karatygin, Nezdjominogo, Novozhilov, and Zhurbenko, 1999); **Primorsky Krai** (<sup>1</sup>Vassiljeva, 1972; <sup>1</sup>Vassiljeva, 1973; <sup>1</sup>Bunkina and Nazarova, 1978; <sup>1</sup>Azbukina et al., 1990; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdjominogo, 1990; <sup>1</sup>Nezdjominogo, 1996; <sup>1</sup>Bardunov et al., 2002; <sup>1</sup>Azbukina et al., 2006; <sup>1</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Bulakh et al., 2016).

***Cortinarius hinnuloides* Rob. Henry**

EASTERN EUROPE: **Krasnodar Krai** (Kovalenko, 1980a; Kovalenko, 1980b).

***Cortinarius hoeftii* (Weinm.) Fr.<sup>1</sup>**

≡ *Agaricus hoeftii* Weinm.<sup>2</sup>

EASTERN EUROPE: **Perm Krai** (<sup>1</sup>Perevedentseva, 2008; <sup>1</sup>Botalov, 2017); **Saint Petersburg** (<sup>2</sup>Weinmann, 1836).

SIBERIA: **Irkutsk Oblast** (<sup>1</sup>Nezdjominogo, 1996).

***Cortinarius holoxanthus* (M.M. Moser & I. Gruber) Nezdjomin.**

EASTERN EUROPE: **Belgorod Oblast** (Nezdjominogo, 1980b; Nezdjominogo, 1996); **Udmurt Republic** (Tychinin and Kuzmina, 2003).

***Cortinarius humicola* (Quél.) Maire**

EASTERN EUROPE: **Crimea** (Sarkina, 2001; Dudka et al., 2004; Sarkina, 2010b); **Karachay-Cherkess Republic** (Malysheva and Svetasheva, 2011; Onipchenko et al., 2013); **Sverdlovsk Oblast** (Stepanova and Sirko, 1977).

SIBERIA: **Irkutsk Oblast** (Trofimova, Popov, and Merkacheva, 2020).

***Cortinarius hydrotelamonioides* Rob. Henry**

= *Cortinarius pseudoprivignus* Rob. Henry<sup>1</sup> = *Cortinarius turgidoides* Rob. Henry<sup>2</sup>

EASTERN EUROPE: **Karelia** (<sup>1</sup>Krutov et al., 2014); **Leningrad Oblast** (<sup>1</sup>Fomina, 2000; <sup>1</sup>Fomina, 2001); **Penza Oblast** (<sup>1</sup>Ivanov and Durandin, 1996; <sup>1</sup>Nezdjominogo, 1996); **Rostov Oblast** (<sup>1</sup>Fedyayeva, 2014; <sup>1</sup>Rusanov, Rebrjev, and Bulgakov, 2018); **Arid territories** (<sup>1</sup>Rebrjev, Rusanov, et al., 2012).

SIBERIA: **Altai Republic** (<sup>2</sup>Brandrud et al., 2019).

***Cortinarius hysginus* (M.M. Moser) M.M. Moser**

EASTERN EUROPE: **Kabardino-Balkarian Republic** (Shkhagapsoev and Krapivina, 2004).

***Cortinarius iliopodius* (Bull.) Fr.<sup>1</sup>**

≡ *Agaricus iliopodius* Bull.<sup>2</sup> = *Cortinarius alnetorum* (Velen.) M.M. Moser<sup>3</sup>

EASTERN EUROPE: **Karelia** (<sup>3</sup>Krutov et al., 2014); **Leningrad Oblast** (<sup>1</sup>Thesleff, 1920; <sup>3</sup>Kovalenko and Morozova, 1999a; <sup>3</sup>Morozova and Kovalenko, 2000; <sup>3</sup>Popov et al., 2007; <sup>3</sup>Zmitrovich et al., 2015; <sup>3</sup>Kalinina, 2018); **Orenburg Oblast** (<sup>3</sup>Desyatova, 2008); **Pskov Oblast** (<sup>3</sup>Kalinina, Bolshakov, and Bulyonkova, 2020); **Saint Petersburg** (<sup>2</sup>Weinmann, 1828; <sup>2</sup>Weinmann, 1836; <sup>2</sup>Weinmann, 1837); **Sverdlovsk Oblast** (<sup>3</sup>Marina, 2006); **Yaroslavl Oblast** (<sup>3</sup>Bulakh, Wasser, Nazarova, and Nezdoyminogo, 1990; <sup>3</sup>Nezdoyminogo, 1996; <sup>3</sup>Lazareva, 1998a; <sup>3</sup>Lazareva, 2002); **Arid territories** (<sup>3</sup>Rebriev, Rusanov, et al., 2012).

SIBERIA: **Buryatia** (<sup>3</sup>Petrov, 2013); **Irkutsk Oblast** (<sup>3</sup>Kutafjeva, 1984; <sup>3</sup>Nezdoyminogo, 1996; <sup>3</sup>Gorbunova and Stepantsova, 2015).

FAR EAST: **Magadan Oblast** (<sup>3</sup>Sazanova, 2009a; <sup>3</sup>Sazanova, 2009b; <sup>3</sup>Sazanova, 2011); **Primorsky Krai** (<sup>3</sup>Bulakh, Wasser, Nazarova, and Nezdoyminogo, 1990; <sup>3</sup>Nezdoyminogo, 1996; <sup>3</sup>Azbukina et al., 2006; <sup>3</sup>Bau, Bulakh, and Govorova, 2011).

### ***Cortinarius illibatus* Fr.**

EASTERN EUROPE: **Tver Oblast** (Kurochkin, 1993).

### ***Cortinarius illuminus* Fr.**

EASTERN EUROPE: **Karelia** (Krutov et al., 2014); **Komi Republic** (Bobretsova, 2004; Palamarchuk, 2012); **Leningrad Oblast** (Kovalenko and Morozova, 1999a; Fomina, 2000; Fomina, 2001; Popov et al., 2007); **Moscow Oblast** (Voronina et al., 2014).

SIBERIA: **Khanty-Mansi Autonomous Okrug** (Filippova and Bulyonkova, 2017a; Filippova and Bulyonkova, 2017b).

### ***Cortinarius impennis* Fr.**

EASTERN EUROPE: **Krasnodar Krai** (Vassiljeva, 1939); **Penza Oblast** (Ivanov, 1983; Ivanov and Durandin, 1996); **Perm Krai** (Perevedentseva, 2008; Botalov, 2017).

### ***Cortinarius inaequalis* (Weinm.) Reumaux**

≡ *Agaricus inaequalis* Weinm.<sup>1</sup>

EASTERN EUROPE: **Saint Petersburg** (<sup>1</sup>Weinmann, 1836).

### ***Cortinarius inamoenus* (J. Favre) Quadr.**

EASTERN EUROPE: **Adygea** (Sopina, 2001a); **Karelia** (Krutov et al., 2014); **Leningrad Oblast** (Nezdoyminogo, 1996; Kovalenko and Morozova, 1999a; Popov et al., 2007; Zmitrovich et al., 2015); **Penza Oblast** (Ivanov, 1983; Ivanov and Durandin, 1996); **Perm Krai** (Botalov, Perevedentseva, and Denisov, 2015; Botalov, 2017).

### ***Cortinarius incisus* (Pers.) Fr.**

EASTERN EUROPE: **Kaluga Oblast** (Sionova, 2003); **Karelia** (Nezdoyminogo, 1978b; Bulakh, Wasser, Nazarova, and Nezdoyminogo, 1990; Nezdoyminogo, 1996); **Krasnodar Krai** (Vassiljeva, 1939; Nezdoyminogo, 1978b; Bulakh, Wasser, Nazarova, and Nezdoyminogo, 1990; Nezdoyminogo, 1996); **Leningrad Oblast** (Thesleff, 1920; Kovalenko and Morozova, 1999a; Popov et al., 2007); **Moscow Oblast** (Levitskaya, 1995a; Levitskaya, 2013); **Perm Krai** (Perevedentseva, 2008; Perevedentseva and Shishigin, 2015; Botalov, 2017); **Tatarstan** (Nezdoyminogo, 1978b; Bulakh, Wasser, Nazarova, and Nezdoyminogo, 1990; Nezdoyminogo, 1996); **Tula Oblast** (Svetasheva, 2004; Svetasheva, 2005a); **Udmurt Republic** (Tychinin and Kuzmina, 2003).

SIBERIA: **Altai Republic** (Gorbunova, 2003; Gorbunova, 2010); **Buryatia** (Nezdoyminogo, 1973; Nezdoyminogo, 1978b; Bulakh, Wasser, Nazarova, and Nezdoyminogo, 1990; Petrov, 1991; Nezdoyminogo, 1996); **Irkutsk Oblast** (Nezdoyminogo, 1996); **Krasnoyarsk Krai** (Beglyanova, 1972a; Nezdoyminogo, 1976a; Nezdoyminogo, 1978b; Bulakh, Wasser, Nazarova, and Nezdoyminogo, 1990; Nezdoyminogo, 1996); **Novosibirsk Oblast** (Perova and Gorbunova, 2001; Perova and Gorbunova, 2007); **Sakha Republic** (Nezdoyminogo, 1978b; Bulakh, Wasser, Nazarova, and Nezdoyminogo, 1990; Nezdoyminogo, 1996).

FAR EAST: **Jewish Autonomous Oblast** (Erofeeva, Bukharova, and Bulakh, 2019); **Primorsky Krai** (Vassiljeva, 1973; Nezdoyminogo, 1978b; Azbukina et al., 1984; Bulakh, Wasser, Nazarova, and Nezdoyminogo, 1990; Nezdoyminogo, 1996; Bau, Bulakh, and Govorova, 2011; Bulakh et al., 2016; Bogacheva et al., 2018).

***Cortinarius infractus* (Pers.) Fr.**

EASTERN EUROPE: **Crimea** (Moser, 1993; Sarkina, 2001; Dudka et al., 2004; Sarkina and Mironova, 2015; Sarkina and Stavishenko, 2019); **Karelia** (Bondartseva et al., 2001; Krutov et al., 2014); **Krasnodar Krai** (Kovalenko, 1980a; Kovalenko, 1980b); **Moscow Oblast** (Gorlenko, Sidorova, and Sidorova, 1989; Levitskaya, 2006; Levitskaya, 2013); **Penza Oblast** (Ivanov, 1983; Ivanov and Durandin, 1996); **Perm Krai** (Perevedentseva, Nezdjminogo, and Kovalenko, 1990; Perevedentseva, 2008); **Pskov Oblast** (Popov et al., 2013); **Rostov Oblast** (Rusanov, Rebriev, and Bulgakov, 2018); **Saint Petersburg** (Morozova et al., 2020); **Sevastopol** (Sarkina, 2020c); **Sverdlovsk Oblast** (Stepanova and Sirko, 1977); **Tatarstan** (Vassiljeva, 1977); **Voronezh Oblast** (Chastukhin, 1952; Chastukhin and Nikolaevskaya, 1953; Chastukhin and Nikolaevskaya, 1969); **Arid territories** (Rebriev, Rusanov, et al., 2012).

SIBERIA: **Altai Krai** (Gorbunova and Perova, 2006); **Altai Republic** (Gorbunova, 2001a; Brandrud et al., 2019); **Irkutsk Oblast** (Petrov, Nezdjminogo, and Bulakh, 1987; Petrov, 1991; Bardunov et al., 2005; Petrov, 2008); **Khakassia** (Zauzolkova, 2015; Zauzolkova and Gorbunova, 2016); **Krasnoyarsk Krai** (Beglyanova, 1972a; Lapitskaya, 1993); **Novosibirsk Oblast** (Koropachinskiy and Banaev, 2014); **Sakha Republic** (Peintner, Moncalvo, and Vilgalys, 2004); **Tomsk Oblast** (Perova and Gorbunova, 2001; Kudashova, Gashkov, and Kutafjeva, 2013; Vaishlya et al., 2017).

FAR EAST: **Amur Oblast** (Bulakh, Wasser, Nazarova, and Nezdjminogo, 1990); **Chukotka Autonomous Okrug** (Bulakh, Wasser, Nazarova, and Nezdjminogo, 1990); **Primorsky Krai** (Vassiljeva, 1973; Bunkina and Nazarova, 1978; Bulakh, Wasser, Nazarova, and Nezdjminogo, 1990; Azbukina et al., 2006; Bau, Bulakh, and Govorova, 2011; Bulakh et al., 2016).

***Cortinarius inonestus* (Weinm.) Moëgne-Loec. & Reumaux**

≡ *Agaricus inonestus* Weinm.<sup>1</sup>

EASTERN EUROPE: **Saint Petersburg** (<sup>1</sup>Weinmann, 1836).

***Cortinarius inops* J. Favre**

FAR EAST: **Chukotka Autonomous Okrug** (Karatygin, Nezdjminogo, Novozhilov, and Zhurbenko, 1999).

***Cortinarius integerrimus* Kühner**

EASTERN EUROPE: **Leningrad Oblast** (Bulakh, Wasser, Nazarova, and Nezdjminogo, 1990).

FAR EAST: **Primorsky Krai** (Azbukina et al., 1990; Bulakh, Wasser, Nazarova, and Nezdjminogo, 1990).

***Cortinarius ionophyllus* M.M. Moser**

EASTERN EUROPE: **Komi Republic** (Palamarchuk, 2020b); **Perm Krai** (Perevedentseva, 2008; Belkovskaya et al., 2014); **Tula Oblast** (Svetasheva, 2004; Svetasheva, 2005a; Svetasheva, 2005b; Shcherbakov, 2010).

***Cortinarius isabellinus* (Batsch) Fr.**

EASTERN EUROPE: **Leningrad Oblast** (Kovalenko and Morozova, 1999a; Popov et al., 2007); **Penza Oblast** (Ivanov, 1983; Ivanov and Durandin, 1996).

SIBERIA: **Krasnoyarsk Krai** (Beglyanova, 1972a; Nezdjminogo, 1979).

***Cortinarius junghuhnii* Fr.**

EASTERN EUROPE: **Karelia** (Freindling, 1949; Nezdjminogo, 1977; Bulakh, Wasser, Nazarova, and Nezdjminogo, 1990; Nezdjminogo, 1996; Kovalenko, Morozova, Fomina, and Särkisilta, 1998; Bondartseva et al., 2001; Krutov et al., 2014); **Kirov Oblast** (Kirillov, 2011; Kirillov, Perevedentseva, and Egoshina, 2011); **Komi Republic** (Palamarchuk, 2012); **Murmansk Oblast** (Nezdjminogo, 1977); **Perm Krai** (Perevedentseva, 2008; Belkovskaya et al., 2014; Botalov, 2017); **Sverdlovsk Oblast** (Nezdjminogo, 1996; Marina, 2006); **Tatarstan** (Vassiljeva, 1977; Bulakh, Wasser, Nazarova, and Nezdjminogo, 1990; Nezdjminogo, 1996).

SIBERIA: **Krasnoyarsk Krai** (Nezdjminogo, 1976a; Nezdjminogo, 1977; Bulakh, Wasser, Nazarova, and Nezdjminogo, 1990; Nezdjminogo, 1996; Kryuchkova, 2009).

FAR EAST: **Khabarovsk Krai** (Azbukina et al., 1989); **Primorsky Krai** (Vassiljeva, 1973; Nezdjminogo, 1977; Bulakh, Wasser, Nazarova, and Nezdjminogo, 1990; Nezdjminogo, 1996; Bulakh et al., 2016).

***Cortinarius kivaczensis* Singer**

EASTERN EUROPE: **Karelia** (Freindling, 1949; Bondartseva et al., 2001; Krutov et al., 2014).



***Cortinarius laetus* M.M. Moser**

EASTERN EUROPE: **Karelia** (Bondartseva et al., 2001; Krutov et al., 2014); **Leningrad Oblast** (Malysheva, Malysheva, Shchepin, and Novozhilov, 2018).

SIBERIA: **Sakha Republic** (Peintner, Moncalvo, and Vilgalys, 2004).

FAR EAST: **Magadan Oblast** (Nazarova, 1976).

***Cortinarius laniger* Fr.**

EASTERN EUROPE: **Crimea** (Sarkina, 2001; Dudka et al., 2004; Sarkina, 2011; Sarkina, 2014b; Sarkina, 2016a); **Kaliningrad Oblast** (Volodina, 2007); **Karachay-Cherkess Republic** (Kalamees and Botashev, 2000); **Karelia** (Krutov et al., 2014); **Komi Republic** (Palamarchuk and Kirillov, 2017); **Leningrad Oblast** (Thesleff, 1920; Bulakh, Wasser, Nazarova, and Nezdoininogo, 1990; Stolyarskaya, 1993; Nezdoininogo, 1996; Kovalenko and Morozova, 1999a; Fomina, 2000; Morozova and Kovalenko, 2000; Fomina, 2001; Popov et al., 2007; Zmitrovich et al., 2015); **Moscow** (Hennings, 1905; Mosolov, 1906); **Moscow Oblast** (Voronina et al., 2014); **Murmansk Oblast** (Bulakh, Wasser, Nazarova, and Nezdoininogo, 1990; Nezdoininogo, 1996); **Sverdlovsk Oblast** (Marina, 2006); **Vologda Oblast** (Kirillova, 2007).

SIBERIA: **Buryatia** (Bulakh, Wasser, Nazarova, and Nezdoininogo, 1990; Petrov, 1991; Nezdoininogo, 1996); **Irkutsk Oblast** (Petrov, Nezdoininogo, and Bulakh, 1987; Petrov, 1991; Petrov, 2008); **Khanty-Mansi Autonomous Okrug** (Filippova, Bulyonkova, and Lapshina, 2015; Filippova and Bulyonkova, 2017a; Filippova and Bulyonkova, 2017b); **Krasnoyarsk Krai** (Bulakh, Wasser, Nazarova, and Nezdoininogo, 1990; Nezdoininogo, 1996; Krom and Kapitonov, 2019); **Sakha Republic** (Bulakh, Wasser, Nazarova, and Nezdoininogo, 1990; Nezdoininogo, 1996; Peintner et al., 2001).

FAR EAST: **Primorsky Krai** (Vassiljeva, 1973; Bulakh, Wasser, Nazarova, and Nezdoininogo, 1990; Nezdoininogo, 1996; Bau, Bulakh, and Govorova, 2011).

***Cortinarius largus* Fr.**

EASTERN EUROPE: **Adygea** (Vassiljeva, 1939); **Kaliningrad Oblast** (Dedkov, Volodina, and Gubareva, 2007); **Krasnodar Krai** (Vassiljeva, 1939; Sopina, 2001a); **Penza Oblast** (Ivanov, 1985; Ivanov, 1988a; Ivanov and Durandin, 1996; Nezdoininogo, 1996); **Perm Krai** (Perevedentseva, 2008; Belkovskaya et al., 2014); **Tula Oblast** (Svetasheva, 2004; Svetasheva, 2005a; Shcherbakov, 2010); **Yaroslavl Oblast** (Lazareva, 1998a; Lazareva, 2002).

SIBERIA: **Altai Krai** (Gorbunova, 2018a); **Altai Republic** (Brandrud et al., 2019); **Buryatia** (Bulakh, Wasser, Nazarova, and Nezdoininogo, 1990; Petrov, 1991; Nezdoininogo, 1996); **Irkutsk Oblast** (Petrov, Nezdoininogo, and Bulakh, 1987; Bulakh, Wasser, Nazarova, and Nezdoininogo, 1990; Petrov, 1991; Nezdoininogo, 1996; Petrov, 2008).

FAR EAST: **Amur Oblast** (Kochunova, 2019); **Primorsky Krai** (Bulakh, Wasser, Nazarova, and Nezdoininogo, 1990; Nezdoininogo, 1996; Bau, Bulakh, and Govorova, 2011).

***Cortinarius latobalteatus* (Jul. Schäff.) M.M. Moser**

EASTERN EUROPE: **Murmansk Oblast** (Mikhailovskii, 1975a; Nezdoininogo, 1996); **Penza Oblast** (Ivanov, 1983; Ivanov and Durandin, 1996; Nezdoininogo, 1996).

SIBERIA: **Irkutsk Oblast** (Nezdoininogo, 1996); **Sakha Republic** (Nezdoininogo, 1996).

***Cortinarius latus* (Pers.) Fr.**

EASTERN EUROPE: **Karelia** (Freindling, 1949; Nezdoininogo, 1996; Bondartseva et al., 2001; Krutov et al., 2014); **Komi Republic** (Palamarchuk, 2017); **Leningrad Oblast** (Kovalenko and Morozova, 1999a; Popov et al., 2007; Zmitrovich et al., 2015); **Lipetsk Oblast** (Sarycheva et al., 2009; Sarycheva, 2011); **Murmansk Oblast** (Mikhailovskii, 1975b); **Penza Oblast** (Ivanov, 1983; Ivanov and Durandin, 1996; Nezdoininogo, 1996).

SIBERIA: **Irkutsk Oblast** (Petrov, Nezdoininogo, and Bulakh, 1987; Petrov, 1989; Astapenko, 1990b; Nezdoininogo, 1996; Muzyka, 2002; Bardunov et al., 2005; Petrov, 2008); **Sakha Republic** (Nezdoininogo, 1996); **Yamalo-Nenets Autonomous Okrug** (Tarchevskaya, 1990).

FAR EAST: **Chukotka Autonomous Okrug** (Nezdoininogo, 1996); **Magadan Oblast** (Sazanova, 2009a).

***Cortinarius leucophanes* P. Karst.**

EASTERN EUROPE: **Karelia** (Bondartseva et al., 2001; Krutov et al., 2014); **Komi Republic** (Palamarchuk and Kirillov, 2017); **Penza Oblast** (Ivanov and Durandin, 1996); **Samara Oblast** (Nezdoininogo, 1996; Malysheva and Malysheva, 2005b; Malysheva and Malysheva, 2008).

SIBERIA: **Irkutsk Oblast** (Nezdoininogo, 1996); **Tomsk Oblast** (Kudashova, Gashkov, and Kutafjeva, 2013; Kudashova, Gashkov, and Vaishlya, 2016b; Vaishlya et al., 2017).

***Cortinarius levipileus* J. Favre**EASTERN EUROPE: **Murmansk Oblast** (Mikhailovskii, 1975a).***Cortinarius lilacinopes* Britzelm.**EASTERN EUROPE: **Crimea** (Dudka et al., 2004; Sarkina and Prydiuk, 2012).SIBERIA: **Buryatia** (Nezdojminogo, 1973; Nezdojminogo, 1976b; Petrov, 1991); **Irkutsk Oblast** (Nezdojminogo, 1996).***Cortinarius limonius* (Fr.) Fr.<sup>1</sup>**≡ *Agaricus limonius* Fr.<sup>2</sup>EASTERN EUROPE: **Belgorod Oblast** (<sup>1</sup>Bedenko, 1980; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990); **Karelia** (<sup>1</sup>Freindling, 1949; <sup>1</sup>Nezdojminogo, 1979; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1</sup>Nezdojminogo, 1996; <sup>1</sup>Bondartseva et al., 2001; <sup>1</sup>Krutov et al., 2014); **Leningrad Oblast** (<sup>1</sup>Thesleff, 1920; <sup>1</sup>Nezdojminogo, 1979; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1</sup>Stolyarskaya, 1993; <sup>1</sup>Nezdojminogo, 1996; <sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Fomina, 2000; <sup>1</sup>Popov et al., 2007; <sup>1</sup>Zmitrovich et al., 2015); **Murmansk Oblast** (<sup>1</sup>Nezdojminogo, 1979; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1</sup>Nezdojminogo, 1996); **Perm Krai** (<sup>1</sup>Perevedentseva, 2008); **Saint Petersburg** (<sup>2</sup>Weinmann, 1828; <sup>2</sup>Weinmann, 1836; <sup>2</sup>Weinmann, 1837; <sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Morozova and Kovalenko, 2000; <sup>1</sup>Kotkova, Morozova, and Popov, 2006); **Smolensk Oblast** (<sup>1</sup>Jaczewski, 1893; <sup>1</sup>Jaczewski, 1895); **Sverdlovsk Oblast** (<sup>1</sup>Marina, 2006); **Tver Oblast** (<sup>1</sup>Nezdojminogo, 1979; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1</sup>Kurochkin, 1993; <sup>1</sup>Nezdojminogo, 1996; <sup>1</sup>Mukhina, 2011a; <sup>1</sup>Mukhina, 2011b; <sup>1</sup>Kotkova, 2014); **Yaroslavl Oblast** (<sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1</sup>Nezdojminogo, 1996; <sup>1</sup>Lazareva, 1998a; <sup>1</sup>Lazareva, 2002).SIBERIA: **Buryatia** (<sup>1</sup>Nezdojminogo, 1979; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1</sup>Petrov, 1991); **Irkutsk Oblast** (<sup>1</sup>Petrov, Nezdojminogo, and Bulakh, 1987; <sup>1</sup>Kutafjeva, 1989; <sup>1</sup>Petrov, 1991; <sup>1</sup>Nezdojminogo, 1996; <sup>1</sup>Petrov, 2008); **Krasnoyarsk Krai** (<sup>1</sup>Nezdojminogo, 1982a; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1</sup>Nezdojminogo, 1996).FAR EAST: **Khabarovsk Krai** (<sup>1</sup>Erofeeva and Bulakh, 2015a); **Magadan Oblast** (<sup>1</sup>Nazarova, 1976; <sup>1</sup>Nezdojminogo, 1979; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1</sup>Nezdojminogo, 1996; <sup>1</sup>Sazanova, 2005; <sup>1</sup>Sazanova, 2009a).***Cortinarius livido-ochraceus* (Berk.) Berk.<sup>1</sup>**= *Cortinarius pumilus* (Fr.) J.E. Lange<sup>2</sup>EASTERN EUROPE: **Karelia** (<sup>1</sup>Krutov et al., 2014); **Leningrad Oblast** (<sup>1</sup>Nezdojminogo, 1996; <sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Popov et al., 2007); **Moscow Oblast** (<sup>2</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990).SIBERIA: **Khanty-Mansi Autonomous Okrug** (<sup>1</sup>Zvyagina, 2008; <sup>1</sup>Filippova, 2009; <sup>1</sup>Shepeleva et al., 2014); **Krasnoyarsk Krai** (<sup>2</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990).FAR EAST: **Amur Oblast** (<sup>2</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990); **Chukotka Autonomous Okrug** (<sup>2</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990); **Magadan Oblast** (<sup>2</sup>Sazanova, 2005; <sup>2</sup>Sazanova, 2009a); **Primorsky Krai** (<sup>1</sup>Nezdojminogo, 1996; <sup>1</sup>Bau, Bulakh, and Govorova, 2011).***Cortinarius livor* Fr.**FAR EAST: **Khabarovsk Krai** (Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; Bau, Bulakh, and Govorova, 2011).***Cortinarius lucorum* (Fr.) E. Berger<sup>1</sup>**= *Cortinarius humidicola* Kauffman<sup>2</sup> = *Hydrocybe umidicola* (Kauffman) M.M. Moser<sup>3</sup>EASTERN EUROPE: **Leningrad Oblast** (<sup>1</sup>Nezdojminogo, 1996; <sup>1</sup>Popov et al., 2007); **Moscow Oblast** (<sup>2</sup>Levitskaya, 1995a); **Penza Oblast** (<sup>2</sup>Ivanov, 1983; <sup>2</sup>Ivanov and Durandin, 1996); **Pskov Oblast** (<sup>1</sup>Kalinina, Bolshakov, and Bulyonkova, 2020); **Saint Petersburg** (<sup>1</sup>Kovalenko and Morozova, 1999a); **Samara Oblast** (<sup>1</sup>Malysheva and Malysheva, 2008); **Tatarstan** (<sup>1</sup>Nezdojminogo, 1996); **Tver Oblast** (<sup>2</sup>Kurochkin, 1993); **Yaroslavl Oblast** (<sup>1</sup>Nezdojminogo, 1996; <sup>1</sup>Lazareva, 1998a; <sup>1</sup>Lazareva, 2002).SIBERIA: **Buryatia** (<sup>2</sup>Petrov, 1991); **Irkutsk Oblast** (<sup>1</sup>Petrov, Nezdojminogo, and Bulakh, 1987; <sup>1</sup>Petrov, 1991; <sup>1</sup>Petrov, 2008); **Krasnoyarsk Krai** (<sup>3</sup>Beglyanova, 1972c).

***Cortinarius lundellii* (M.M. Moser) M.M. Moser**

SIBERIA: **Buryatia** (Petrov, 1991); **Irkutsk Oblast** (Petrov, Nezdjominogo, and Bulakh, 1987; Petrov, 1989; Petrov, 1991; Petrov, 2008).

***Cortinarius lux-nymphae* Melot**

SIBERIA: **Altai Republic** (Brandrud et al., 2019); **Khanty-Mansi Autonomous Okrug** (Filippova and Bulyonkova, 2017a; Filippova and Bulyonkova, 2017b).

***Cortinarius magicus* Eichhorn**

EASTERN EUROPE: **Penza Oblast** (Ivanov and Durandin, 1996; Nezdjominogo, 1996).

***Cortinarius mairei* M.M. Moser<sup>1</sup>**

= *Cortinarius mairei* var. *juranus* Rob. Henry<sup>2</sup>

EASTERN EUROPE: **Penza Oblast** (<sup>1</sup>Ivanov, 1986; <sup>2</sup>Ivanov, 1988c; <sup>1</sup>Nezdjominogo, 1996; <sup>2</sup>Ivanov and Durandin, 1996); **Tatarstan** (<sup>1</sup>Nezdjominogo, 1996).

***Cortinarius malachius* (Fr.) Fr.<sup>1</sup>**

≡ *Agaricus malachius* Fr.<sup>2</sup> ≡ *Cortinarius malachioides* P.D. Orton<sup>3</sup>

EASTERN EUROPE: **Karelia** (<sup>1</sup>Nezdjominogo, 1978a; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdjominogo, 1990; <sup>1</sup>Nezdjominogo, 1996; <sup>1</sup>Krutov et al., 2014); **Leningrad Oblast** (<sup>2</sup>Weinmann, 1836; <sup>2</sup>Weinmann, 1837; <sup>1</sup>Thesleff, 1920; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdjominogo, 1990; <sup>1</sup>Nezdjominogo, 1996; <sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Fomina, 2000; <sup>1</sup>Fomina, 2001; <sup>1</sup>Morozova, 2007; <sup>1</sup>Popov et al., 2007; <sup>1</sup>Zmitrovich et al., 2015; <sup>1</sup>Malysheva, Malysheva, Shchepin, and Novozhilov, 2018); **Moscow** (<sup>1</sup>Bucholtz, 1897b; <sup>1</sup>Bucholtz, 1897c; <sup>1</sup>Mosolov, 1906); **Moscow Oblast** (<sup>1</sup>Levitskaya, 1995a; <sup>1</sup>Levitskaya, 2013); **Murmansk Oblast** (<sup>1</sup>Pystina, Pavlova, and Shestakova, 1969; <sup>1</sup>Nezdjominogo, 1978a; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdjominogo, 1990; <sup>1</sup>Nezdjominogo, 1996); **Penza Oblast** (<sup>3</sup>Ivanov, 1983; <sup>3</sup>Ivanov and Durandin, 1996); **Perm Krai** (<sup>1</sup>Perevedentseva, 2008; <sup>1</sup>Botalov, 2015; <sup>1</sup>Botalov, 2017; <sup>1</sup>Botalov and Perevedentseva, 2018); **Saint Petersburg** (<sup>2</sup>Weinmann, 1836; <sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Morozova and Kovalenko, 2000; <sup>1</sup>Kotkova, Morozova, and Popov, 2006); **Samara Oblast** (<sup>1</sup>Malysheva and Malysheva, 2008); **Sverdlovsk Oblast** (<sup>1</sup>Marina, 2006); **Tver Oblast** (<sup>3</sup>Nezdjominogo, 1978a; <sup>3</sup>Bulakh, Wasser, Nazarova, and Nezdjominogo, 1990; <sup>3</sup>Kurochkin, 1993; <sup>3</sup>Nezdjominogo, 1996; <sup>3</sup>Mukhina, 2011a; <sup>1</sup>Kotkova, 2014); **Vologda Oblast** (<sup>3</sup>Nezdjominogo, 1978a; <sup>3</sup>Bulakh, Wasser, Nazarova, and Nezdjominogo, 1990; <sup>3</sup>Nezdjominogo, 1996).

SIBERIA: **Altai Republic** (<sup>3</sup>Gorbunova, 2001b; <sup>3</sup>Perova and Gorbunova, 2001); **Buryatia** (<sup>3</sup>Nezdjominogo, 1970a; <sup>3</sup>Petrov, 1991); **Irkutsk Oblast** (<sup>3</sup>Petrov, Nezdjominogo, and Bulakh, 1987; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdjominogo, 1990; <sup>3</sup>Petrov, 1991; <sup>1,3</sup>Nezdjominogo, 1996; <sup>3</sup>Petrov, 2008; <sup>1</sup>Gorbunova and Stepantsova, 2015; <sup>1</sup>Muzyka and Penzina, 2017); **Khakassia** (<sup>1</sup>Zauzolkova, 2015; <sup>1</sup>Zauzolkova and Gorbunova, 2016); **Krasnoyarsk Krai** (<sup>1</sup>Zauzolkova, 2015; <sup>1</sup>Zauzolkova and Gorbunova, 2016); **Novosibirsk Oblast** (<sup>1</sup>Koropachinskiy and Banaev, 2014); **Tomsk Oblast** (<sup>1</sup>Kudashova, Gashkov, and Kutafjeva, 2013; <sup>1</sup>Vaishlya et al., 2017).

FAR EAST: **Magadan Oblast** (<sup>1</sup>Rebriev, Bulakh, Sazanova, and Shiryaev, 2020); **Primorsky Krai** (<sup>1</sup>Vassiljeva, 1973; <sup>3</sup>Nezdjominogo, 1978a; <sup>1,3</sup>Bulakh, Wasser, Nazarova, and Nezdjominogo, 1990; <sup>1,3</sup>Nezdjominogo, 1996).

***Cortinarius malicorius* Fr.<sup>1</sup>**

≡ *Dermocybe malicoria* (Fr.) Ricken<sup>2</sup> = *Cortinarius croceoconus* Fr.<sup>3</sup>

EASTERN EUROPE: **Kabardino-Balkarian Republic** (<sup>1</sup>Shkhagapsoev and Krapivina, 2003; <sup>1</sup>Shkhagapsoev and Krapivina, 2004); **Kaliningrad Oblast** (<sup>2</sup>Neuhoff, 1922; <sup>1</sup>Dedkov, Volodina, and Gubareva, 2007; <sup>1</sup>Volodina, 2007); **Karelia** (<sup>1</sup>Kovalenko, Morozova, Fomina, and Särkisilta, 1998; <sup>1</sup>Krutov et al., 2014); **Komi Republic** (<sup>1</sup>Bobretsova, 2004; <sup>1</sup>Palamarchuk, 2012); **Leningrad Oblast** (<sup>3</sup>Thesleff, 1920; <sup>1</sup>Nezdjominogo, 1980b; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdjominogo, 1990; <sup>1</sup>Nezdjominogo, 1996; <sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Fomina, 2000; <sup>1</sup>Fomina, 2001; <sup>1</sup>Popov et al., 2007; <sup>1</sup>Zmitrovich et al., 2015); **Penza Oblast** (<sup>1</sup>Ivanov, 1983; <sup>1</sup>Ivanov and Durandin, 1996); **Perm Krai** (<sup>1</sup>Perevedentseva, 2008; <sup>1</sup>Belkovskaya et al., 2014); **Tatarstan** (<sup>1</sup>Nezdjominogo, 1980b; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdjominogo, 1990; <sup>1</sup>Nezdjominogo, 1996); **Tver Oblast** (<sup>3</sup>Kurochkin, 1993); **Ulyanovsk Oblast** (<sup>1</sup>Ilyukhin, 2009; <sup>1</sup>Ilyukhin, 2010a); **Vologda Oblast** (<sup>1</sup>Kirillova, 2007); **Yaroslavl Oblast** (<sup>1</sup>Nezdjominogo, 1980b; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdjominogo, 1990; <sup>1</sup>Nezdjominogo, 1996; <sup>1</sup>Lazareva, 1998a; <sup>1</sup>Lazareva, 2002); **Arid territories** (<sup>1</sup>Rebriev, Rusanov, et al., 2012).

SIBERIA: **Altai Republic** (<sup>1</sup>Gorbunova, 1997; <sup>1</sup>Perova and Gorbunova, 2001; <sup>1</sup>Brandrud et al., 2019); **Irkutsk Oblast** (<sup>2</sup>Petrov, Nezdjominogo, and Bulakh, 1987; <sup>2</sup>Petrov, 1991; <sup>2</sup>Petrov, 2008); **Krasnoyarsk Krai** (<sup>2</sup>Beglyanova,

1972a; <sup>1</sup>Beglyanova, 1972b; <sup>1</sup>Nezdojminogo, 1976a; <sup>1</sup>Nezdojminogo, 1980b; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1</sup>Nezdojminogo, 1996; <sup>1</sup>Malysheva, Malysheva, Kiyashko, et al., 2017).

FAR EAST: **Amur Oblast** (<sup>1</sup>Nezdojminogo, 1980b; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1</sup>Nezdojminogo, 1996; <sup>1</sup>Azbukina et al., 1998); **Primorsky Krai** (<sup>1</sup>Vassiljeva, 1973; <sup>1</sup>Bunkina and Nazarova, 1978; <sup>1</sup>Nezdojminogo, 1980b; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1</sup>Nezdojminogo, 1996; <sup>1</sup>Azbukina et al., 2006; <sup>1</sup>Bau, Bulakh, and Govorova, 2011).

### *Cortinarius megasporus* Singer

EASTERN EUROPE: **Belgorod Oblast** (Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; Nezdojminogo, 1996); **Crimea** (Dudka et al., 2004; Sarkina, 2011); **Karelia** (Freindling, 1949; Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; Nezdojminogo, 1996; Bondartseva et al., 2001; Krutov et al., 2014); **Kirov Oblast** (Kirillov, 2011; Kirillov, Perevedentseva, and Egoshina, 2011); **Komi Republic** (Palamarchuk, 2012); **Lipetsk Oblast** (Sarycheva, 1999; Sarycheva et al., 2009; Sarycheva, 2011; Sarycheva, 2014a; Sarycheva, 2016); **Moscow Oblast** (Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; Levitskaya, 1995c; Nezdojminogo, 1996; Levitskaya, 2013); **Penza Oblast** (Ivanov and Durandin, 1996); **Perm Krai** (Perevedentseva, 2008); **Saint Petersburg** (Morozova and Smirnov, 2011); **Samara Oblast** (Malysheva and Malysheva, 2007; Malysheva and Malysheva, 2008); **Tver Oblast** (Kurochkin, 1993); **Vologda Oblast** (Kirillova, 2007); **Yaroslavl Oblast** (Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; Nezdojminogo, 1996; Lazareva, 1998a; Lazareva, 2002).

SIBERIA: **Buryatia** (Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; Nezdojminogo, 1996); **Krasnoyarsk Krai** (Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; Nezdojminogo, 1996).

FAR EAST: **Primorsky Krai** (Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; Nezdojminogo, 1996).

### *Cortinarius meinhardii* Bon

EASTERN EUROPE: **Karelia** (Savelev and Kikeeva, 2018).

### *Cortinarius melleopallens* (Fr.) Britzelm.

EASTERN EUROPE: **Komi Republic** (Palamarchuk, 2012); **Leningrad Oblast** (Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; Nezdojminogo, 1996; Kovalenko and Morozova, 1999a; Fomina, 2000; Fomina, 2001; Popov et al., 2007); **Saint Petersburg** (Kovalenko and Morozova, 1999a; Kotkova, Morozova, and Popov, 2005).

SIBERIA: **Khanty-Mansi Autonomous Okrug** (Filippova and Bulyonkova, 2017a; Filippova and Bulyonkova, 2017b); **Krasnoyarsk Krai** (Beglyanova, 1972a; Nezdojminogo, 1976a; Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; Nezdojminogo, 1996).

FAR EAST: **Primorsky Krai** (Azbukina et al., 1984; Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; Nezdojminogo, 1996; Bau, Bulakh, and Govorova, 2011).

### *Cortinarius microspermus* J.E. Lange

EASTERN EUROPE: **Leningrad Oblast** (Malysheva, Malysheva, Shchepin, and Novozhilov, 2018).

### *Cortinarius miniatopus* J.E. Lange

EASTERN EUROPE: **Leningrad Oblast** (Malysheva, Malysheva, Shchepin, and Novozhilov, 2018); **Murmansk Oblast** (Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990); **Yamalo-Nenets Autonomous Okrug** (Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990).

SIBERIA: **Krasnoyarsk Krai** (Beglyanova, 1972a; Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990).

FAR EAST: **Chukotka Autonomous Okrug** (Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990).

### *Cortinarius minutalis* Lamoure

EASTERN EUROPE: **Komi Republic** (Palamarchuk, 2016a; Palamarchuk, 2016b).

SIBERIA: **Krasnoyarsk Krai** (Nezdojminogo, 1997a; Karatygin, Nezdojminogo, Novozhilov, and Zhurbenko, 1999).

### *Cortinarius minutulus* J. Favre

SIBERIA: **Krasnoyarsk Krai** (Nezdojminogo and Zhurbenko, 1996; Nezdojminogo, 1997a; Karatygin, Nezdojminogo, Novozhilov, and Zhurbenko, 1999).

FAR EAST: **Chukotka Autonomous Okrug** (Nezdojminogo, 1993a; Karatygin, Nezdojminogo, Novozhilov, and Zhurbenko, 1999).

***Cortinarius montanus* Kauffman**

FAR EAST: **Primorsky Krai** (Vassiljeva, 1973).

***Cortinarius mucifluus* Fr.**

EASTERN EUROPE: **Kabardino-Balkarian Republic** (Singer, 1931; Shkhagapsoev and Krapivina, 2004); **Komi Republic** (Palamarchuk (Bobretsova), 2009; Palamarchuk, 2012); **Leningrad Oblast** (Thesleff, 1920; Kovalenko and Morozova, 1999a; Popov et al., 2007); **Murmansk Oblast** (Nezdojminogo, 1996); **Tver Oblast** (Nezdojminogo, 1996).

FAR EAST: **Primorsky Krai** (Vassiljeva, 1973).

***Cortinarius mucosus* (Bull.) J. Kickx f.<sup>1</sup>**

≡ *Cortinarius collinitus* var. *mucosus* (Bull.) Fr.<sup>2</sup> ≡ *Myxacium mucosum* (Bull.) P. Kumm.<sup>3</sup>

EASTERN EUROPE: **Crimea** (<sup>1</sup>Sarkina, 2011); **Kaliningrad Oblast** (<sup>3</sup>Neuhoff, 1922; <sup>1</sup>Dedkov, Volodina, and Gubareva, 2007; <sup>1</sup>Volodina, 2007); **Kaluga Oblast** (<sup>1</sup>Sionova, 2003); **Karachay-Cherkess Republic** (<sup>1</sup>Kalamees and Botashev, 2000); **Karelia** (<sup>1</sup>Freindling, 1949; <sup>1</sup>Bondartseva et al., 2001; <sup>1</sup>Predtechenskaya and Ruokolainen, 2008; <sup>1</sup>Predtechenskaya, 2013; <sup>1</sup>Krutov et al., 2014; <sup>1</sup>Predtechenskaya and Ruokolainen, 2014; <sup>1</sup>Predtechenskaya, 2015; <sup>1</sup>Savelev and Kikeeva, 2020); **Kirov Oblast** (<sup>1</sup>Kirillov, 2011; <sup>1</sup>Kirillov, Perevedentseva, and Egoshina, 2011; <sup>1</sup>Stavishenko, Luginina, Kirillov, and Egoshina, 2019); **Komi Republic** (<sup>1</sup>Bobretsova, 2004; <sup>1</sup>Palamarchuk, 2012; <sup>1</sup>Palamarchuk and Kirillov, 2017; <sup>1</sup>Palamarchuk, 2017); **Leningrad Oblast** (<sup>2</sup>Thesleff, 1920; <sup>1</sup>Kalamees and Kovalenko, 1984; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1</sup>Nezdojminogo, 1996; <sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Morozova, 2007; <sup>1</sup>Popov et al., 2007; <sup>1</sup>Zmitrovich et al., 2015; <sup>1</sup>Malysheva, Malysheva, Shchepin, and Novozhilov, 2018); **Moscow Oblast** (<sup>1</sup>Gorlenko, Sidorova, and Sidorova, 1989; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1</sup>Levitskaya, 1995c; <sup>1</sup>Nezdojminogo, 1996; <sup>1</sup>Levitskaya, 2013); **Murmansk Oblast** (<sup>1</sup>Mikhailovskii, 1975b); **Penza Oblast** (<sup>1</sup>Ivanov, 1983; <sup>1</sup>Ivanov and Durandin, 1996); **Perm Krai** (<sup>1</sup>Perevedentseva, 2008; <sup>1</sup>Belkovskaya et al., 2014; <sup>1</sup>Botalov, 2017); **Pskov Oblast** (<sup>1</sup>Popov, 2001a; <sup>1</sup>Popov et al., 2013); **Ryazan Oblast** (<sup>1</sup>Volosnova, 2014); **Saint Petersburg** (<sup>1</sup>Morozova and Smirnov, 2011; <sup>1</sup>Morozova et al., 2020); **Sverdlovsk Oblast** (<sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1</sup>Nezdojminogo, 1996); **Tatarstan** (<sup>1</sup>Vassiljeva, 1977; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1</sup>Nezdojminogo, 1996); **Tver Oblast** (<sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1</sup>Kurochkin, 1993; <sup>1</sup>Nezdojminogo, 1996; <sup>1</sup>Mukhina, 2011a; <sup>1</sup>Kotkova, 2014); **Udmurt Republic** (<sup>1</sup>Tychinin and Kuzmina, 2003); **Vologda Oblast** (<sup>1</sup>Kirillova, 2007); **Arid territories** (<sup>1</sup>Rebriev, Rusanov, et al., 2012).

SIBERIA: **Altai Krai** (<sup>1</sup>Gorbunova and Perova, 2006); **Altai Republic** (<sup>1</sup>Gorbunova, 2001a; <sup>1</sup>Gorbunova, 2001b; <sup>1</sup>Perova and Gorbunova, 2001); **Buryatia** (<sup>1</sup>Nezdojminogo, 1973; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1</sup>Petrov, 1991; <sup>1</sup>Penzina and Petrov, 1994; <sup>1</sup>Nezdojminogo, 1996); **Irkutsk Oblast** (<sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1</sup>Petrov, 1991; <sup>1</sup>Nezdojminogo, 1996; <sup>1</sup>Muzyka, 2002; <sup>1</sup>Bardunov et al., 2005; <sup>1</sup>Petrov, 2008; <sup>1</sup>Muzyka, 2009; <sup>1</sup>Heklau and Dörfelt, 2017; <sup>1</sup>Muzyka and Penzina, 2017); **Khanty-Mansi Autonomous Okrug** (<sup>1</sup>Zvyagina, Baykalova, and Gorbunova, 2007; <sup>1</sup>Zvyagina, 2008; <sup>1</sup>Shepeleva et al., 2014; <sup>1</sup>Makarova, Makarov, Zvyagina, and Bobrikov, 2015; <sup>1</sup>Zvyagina and Vasina, 2015); **Krasnoyarsk Krai** (<sup>1</sup>Beglyanova, 1972a; <sup>1</sup>Nezdojminogo, 1976a; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1</sup>Lapitskaya, 1993; <sup>1</sup>Nezdojminogo, 1996; <sup>1</sup>Kosheleva and Kutafjeva, 2008a; <sup>1</sup>Kryuchkova, 2009; <sup>1</sup>Zauzolkova, 2015); **Novosibirsk Oblast** (<sup>1</sup>Perova and Gorbunova, 2001; <sup>1</sup>Perova and Gorbunova, 2007; <sup>1</sup>Koropachinskiy and Banaev, 2014); **Sverdlovsk Oblast** (<sup>1</sup>Stepanova and Sirko, 1977); **Tomsk Oblast** (<sup>1</sup>Milovidova, 1980; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1</sup>Nezdojminogo, 1996; <sup>1</sup>Kudashova, Gashkov, and Kutafjeva, 2013; <sup>1</sup>Vaishlya et al., 2017); **Yamalo-Nenets Autonomous Okrug** (<sup>1</sup>Tarchevskaya, 1990).

FAR EAST: **Amur Oblast** (<sup>1</sup>Taranina, 2005; <sup>1</sup>Kochunova and Erofeeva, 2017; <sup>1</sup>Kochunova, 2019); **Chukotka Autonomous Okrug** (<sup>1</sup>Sazanova, 1993); **Jewish Autonomous Oblast** (<sup>1</sup>Bau, Bulakh, and Govorova, 2011); **Magadan Oblast** (<sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1</sup>Nezdojminogo, 1996; <sup>1</sup>Sazanova, 2005; <sup>1</sup>Sazanova, 2009a; <sup>1</sup>Sazanova, 2011; <sup>1</sup>Sazanova and Golodnova, 2015); **Primorsky Krai** (<sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1</sup>Nezdojminogo, 1996).

***Cortinarius multiformis* Fr.<sup>1</sup>**

≡ *Agaricus multiformis* Fr.<sup>2</sup> ≡ *Cortinarius multiformis* var. *multiformis* Fr.<sup>3</sup>

EASTERN EUROPE: **Adygea** (<sup>1</sup>Vassiljeva, 1939); **Crimea** (<sup>1</sup>Sarkina, 2001; <sup>1</sup>Dudka et al., 2004; <sup>1</sup>Sarkina, 2010b; <sup>3</sup>Sarkina and Prydiuk, 2012; <sup>1</sup>Sarkina, 2013; <sup>1</sup>Sarkina and Mironova, 2015); **Kaliningrad Oblast** (<sup>1</sup>Volodina, 2007); **Karelia** (<sup>1</sup>Bondartseva et al., 2001; <sup>1</sup>Krutov et al., 2014); **Leningrad Oblast** (<sup>1</sup>Thesleff, 1920; <sup>1</sup>Stolyarskaya, 1993; <sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Fomina, 2000; <sup>1</sup>Fomina, 2001; <sup>1</sup>Popov et al., 2007; <sup>1</sup>Zmitrovich et al., 2015);

**Lipetsk Oblast** (<sup>1</sup>Alferova, 1977; <sup>1</sup>Sarycheva, 1999; <sup>1</sup>Sarycheva et al., 2009; <sup>1</sup>Sarycheva, 2011; <sup>1</sup>Sarycheva, 2014a; <sup>1</sup>Sarycheva, 2016); **Mordovia** (<sup>1</sup>Kuznetsov, 1960; <sup>1</sup>Chastukhin, 2011; <sup>1</sup>Ivoilov and Bolshakov, 2011a); **Murmansk Oblast** (<sup>1</sup>Pystina, Pavlova, and Shestakova, 1969); **Penza Oblast** (<sup>3</sup>Ivanov, 1988a; <sup>1</sup>Ivanov and Durandin, 1996); **Perm Krai** (<sup>1</sup>Perevedentseva, Nezdjominogo, and Kovalenko, 1990; <sup>1</sup>Shkaraba, Perevedentseva, and Moshkina, 1990; <sup>3</sup>Perevedentseva, 2008; <sup>1</sup>Botalov, 2017); **Saint Petersburg** (<sup>2</sup>Weinmann, 1836); **Saratov Oblast** (<sup>1</sup>Komirnaya, 1970); **Tula Oblast** (<sup>1</sup>Svetasheva, 2004; <sup>1</sup>Svetasheva, 2005a); **Yaroslavl Oblast** (<sup>1</sup>Lazareva, 1998a; <sup>1</sup>Lazareva, 2002).

SIBERIA: **Altai Krai** (<sup>1</sup>Gorbunova and Perova, 2006; <sup>1</sup>Gorbunova and Chubarova, 2008; <sup>1</sup>Gorbunova, Vlasenko, and Tzhubarova, 2011); **Altai Republic** (<sup>1</sup>Gorbunova, 2001b; <sup>1</sup>Perova and Gorbunova, 2001; <sup>1</sup>Gorbunova, 2008; <sup>1</sup>Gorbunova, 2017b); **Irkutsk Oblast** (<sup>1</sup>Kutafjeva and Astapenko, 1989; <sup>1</sup>Astapenko and Kutafjeva, 1990; <sup>1</sup>Astapenko, 1990b; <sup>1</sup>Bardunov et al., 2005); **Khanty-Mansi Autonomous Okrug** (<sup>1</sup>Filippova and Bulyonkova, 2017a; <sup>1</sup>Filippova and Bulyonkova, 2017b; <sup>1</sup>Zvyagina and Baykalova, 2017); **Krasnoyarsk Krai** (<sup>1</sup>Beglyanova, 1972a; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdjominogo, 1990; <sup>1</sup>Malysheva, Malysheva, Kiyashko, et al., 2017); **Novosibirsk Oblast** (<sup>1</sup>Zaytseva, 1971; <sup>1</sup>Perova, 1977; <sup>1</sup>Perova and Gorbunova, 2001); **Sakha Republic** (<sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdjominogo, 1990); **Tomsk Oblast** (<sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdjominogo, 1990; <sup>1</sup>Perova and Gorbunova, 2001; <sup>1</sup>Kudashova, Gashkov, and Kutafjeva, 2013; <sup>1</sup>Vaishlya et al., 2017).

FAR EAST: **Amur Oblast** (<sup>1</sup>Kochunova and Erofeeva, 2017); **Chukotka Autonomous Okrug** (<sup>1</sup>Nezdjominogo, 1996); **Magadan Oblast** (<sup>1</sup>Sazanova, 2009a); **Primorsky Krai** (<sup>1</sup>Vassiljeva, 1973; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdjominogo, 1990; <sup>1</sup>Bulakh et al., 2016).

#### ***Cortinarius multivagus* Britzelm.**

EASTERN EUROPE: **Karelia** (Krutov et al., 2014); **Leningrad Oblast** (Nezdjominogo, 1996; Kovalenko and Morozova, 1999a; Popov et al., 2007; Zmitrovich et al., 2015); **Yaroslavl Oblast** (Nezdjominogo, 1996; Lazareva, 1998a; Lazareva, 2002).

SIBERIA: **Irkutsk Oblast** (Petrov, Nezdjominogo, and Bulakh, 1987; Petrov, 1991; Petrov, 2008).

#### ***Cortinarius muricinus* Fr.**

EASTERN EUROPE: **Kaliningrad Oblast** (Dedkov, Volodina, and Gubareva, 2007); **Karelia** (Kovalenko, Morozova, Fomina, and Särkisilta, 1998; Krutov et al., 2014).

#### ***Cortinarius mussivus* (Fr.) Melot**

= *Cortinarius russeoides* M.M. Moser<sup>1</sup>

SIBERIA: **Buryatia** (<sup>1</sup>Petrov, 1991).

#### ***Cortinarius nanceiensis* Maire**

EASTERN EUROPE: **Crimea** (Moser, 1993; Sarkina, 2001; Dudka et al., 2004; Sarkina, 2011).

SIBERIA: **Buryatia** (Nezdjominogo, 1996); **Irkutsk Oblast** (Kutafjeva, 1984; Nezdjominogo, 1996); **Sakha Republic** (Nezdjominogo, 1996).

#### ***Cortinarius napus* Fr.**

EASTERN EUROPE: **Leningrad Oblast** (Bulakh, Wasser, Nazarova, and Nezdjominogo, 1990; Nezdjominogo, 1996; Kovalenko and Morozova, 1999a; Popov et al., 2007).

FAR EAST: **Khabarovsk Krai** (Bulakh, Vassiljeva, and Erofeeva, 2010); **Primorsky Krai** (Bulakh, Wasser, Nazarova, and Nezdjominogo, 1990; Nezdjominogo, 1996).

#### ***Cortinarius nasutus* (Velen.) G. Garnier**

EASTERN EUROPE: **Tatarstan** (Vassiljeva, 1977).

#### ***Cortinarius neofurvolaesius* Kytöv., Niskanen, Liimat. & H. Lindstr.**

EASTERN EUROPE: **Leningrad Oblast** (Malysheva, Malysheva, Shchepin, and Novozhilov, 2018).

#### ***Cortinarius nigroscupidatus* Kauffman**

= *Cortinarius flexipes* var. *inolens* H. Lindstr.<sup>1</sup>

EASTERN EUROPE: **Karelia** (<sup>1</sup>Krutov et al., 2014); **Leningrad Oblast** (<sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Fomina, 2000; <sup>1</sup>Fomina, 2001; <sup>1</sup>Popov et al., 2007); **Sverdlovsk Oblast** (<sup>1</sup>Marina, 2006).

SIBERIA: **Khanty-Mansi Autonomous Okrug** (<sup>1</sup>Filippova, Bulyonkova, and Lapshina, 2015).

***Cortinarius niveoglobosus* H. Lindstr.**SIBERIA: **Krasnoyarsk Krai** (Krom and Kapitonov, 2019).***Cortinarius nodosiporus* Kytöv., Niskanen & Liimat.**SIBERIA: **Altai Republic** (Brandrud et al., 2019).***Cortinarius norvegicus* Høil.<sup>1</sup>**≡ *Cortinarius croceus* subsp. *norvegicus* (Høil.) Brandrud & H. Lindstr.<sup>2</sup>EASTERN EUROPE: **Karelia** (<sup>1</sup>Krutov et al., 2014); **Komi Republic** (<sup>1</sup>Palamarchuk, 2016a; <sup>1</sup>Palamarchuk, 2016b); **Leningrad Oblast** (<sup>2</sup>Stolyarskaya, 1993; <sup>2</sup>Kovalenko and Morozova, 1999a; <sup>2</sup>Popov et al., 2007; <sup>1</sup>Zmitrovich et al., 2015).SIBERIA: **Khanty-Mansi Autonomous Okrug** (<sup>1</sup>Zvyagina, 2008; <sup>1</sup>Shepeleva et al., 2014).***Cortinarius obtusobrunneus* Rob. Henry**EASTERN EUROPE: **Kaliningrad Oblast** (Atayev and Volodina, 2020).***Cortinarius obtusus* (Fr.) Fr.<sup>1</sup>**≡ *Agaricus obtusus* Fr.<sup>2</sup>EASTERN EUROPE: **Arkhangelsk Oblast** (<sup>1</sup>Shiryayev, Zmitrovich, and Ezhov, 2018); **Kaliningrad Oblast** (<sup>1</sup>Volodina, 2007); **Karelia** (<sup>1</sup>Freindling, 1949; <sup>1</sup>Nezdojminogo, 1977; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1</sup>Nezdojminogo, 1996; <sup>1</sup>Bondartseva et al., 2001; <sup>1</sup>Krutov et al., 2014); **Komi Republic** (<sup>1</sup>Bobretsova, 2004; <sup>1</sup>Palamarchuk, 2012); **Leningrad Oblast** (<sup>1</sup>Thesleff, 1920; <sup>1</sup>Nezdojminogo, 1977; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1</sup>Nezdojminogo, 1996; <sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Fomina, 2000; <sup>1</sup>Fomina, 2001; <sup>1</sup>Popov et al., 2007; <sup>1</sup>Zmitrovich et al., 2015); **Moscow Oblast** (<sup>1</sup>Levitskaya, 2006; <sup>1</sup>Levitskaya, 2013); **Murmansk Oblast** (<sup>1</sup>Nezdojminogo, 1977; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1</sup>Nezdojminogo, 1996); **Penza Oblast** (<sup>1</sup>Ivanov and Durandin, 1996); **Perm Krai** (<sup>1</sup>Perevedentseva, 2008; <sup>1</sup>Belkovskaya et al., 2014; <sup>1</sup>Perevedentseva and Shishigin, 2015; <sup>1</sup>Botalov, 2017); **Saint Petersburg** (<sup>2</sup>Weinmann, 1836; <sup>2</sup>Weinmann, 1837); **Sverdlovsk Oblast** (<sup>1</sup>Marina, 2006); **Tatarstan** (<sup>1</sup>Vassiljeva, 1977; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1</sup>Nezdojminogo, 1996); **Tula Oblast** (<sup>1</sup>Svetasheva, 2001); **Vologda Oblast** (<sup>1</sup>Kutova, 1957); **Yaroslavl Oblast** (<sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1</sup>Nezdojminogo, 1996; <sup>1</sup>Lazareva, 1998a; <sup>1</sup>Lazareva, 2002).SIBERIA: **Altai Krai** (<sup>1</sup>Gorbunova and Perova, 2006); **Altai Republic** (<sup>1</sup>Gorbunova, 1996; <sup>1</sup>Gorbunova, 1997; <sup>1</sup>Perova and Gorbunova, 2001); **Irkutsk Oblast** (<sup>1</sup>Petrov, Nezdojminogo, and Bulakh, 1987; <sup>1</sup>Astapenko and Kutafjeva, 1990; <sup>1</sup>Astapenko, 1990b; <sup>1</sup>Petrov, 1991; <sup>1</sup>Petrov, 2008); **Khakassia** (<sup>1</sup>Zauzolkova and Gorbunova, 2013; <sup>1</sup>Zauzolkova, 2015); **Khanty-Mansi Autonomous Okrug** (<sup>1</sup>Filippova and Thormann, 2014; <sup>1</sup>Filippova, 2014; <sup>1</sup>Filippova, Mourgues, and Philippe, 2014; <sup>1</sup>Filippova and Bulyonkova, 2017a; <sup>1</sup>Filippova and Bulyonkova, 2017b); **Krasnoyarsk Krai** (<sup>1</sup>Beglyanova, 1972a; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1</sup>Nezdojminogo, 1996); **Novosibirsk Oblast** (<sup>1</sup>Perova and Gorbunova, 2001; <sup>1</sup>Perova and Gorbunova, 2007); **Tomsk Oblast** (<sup>1</sup>Perova, 1972; <sup>1</sup>Nezdojminogo, 1977; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1</sup>Nezdojminogo, 1996; <sup>1</sup>Perova and Gorbunova, 2001; <sup>1</sup>Kudashova, Gashkov, and Kutafjeva, 2013; <sup>1</sup>Vaishlya et al., 2017); **Yamalo-Nenets Autonomous Okrug** (<sup>1</sup>Nezdojminogo, 1977).FAR EAST: **Primorsky Krai** (<sup>1</sup>Naoumoff, 1914; <sup>1</sup>Vassiljeva, 1972; <sup>1</sup>Vassiljeva, 1973; <sup>1</sup>Nezdojminogo, 1977; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1</sup>Nezdojminogo, 1996; <sup>1</sup>Azbukina et al., 2006; <sup>1</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Bulakh et al., 2016); **Sakhalin Oblast** (<sup>1</sup>Vassiljeva and Nazarova, 1972).***Cortinarius occidentalis* A.H. Sm.**EASTERN EUROPE: **Kabardino-Balkarian Republic** (Shkhagapsoev and Krapivina, 2004).***Cortinarius ochroleucus* (Schaeff.) Fr.**EASTERN EUROPE: **Karelia** (Krutov et al., 2014); **Leningrad Oblast** (Kovalenko and Morozova, 1999a; Fomina, 2000; Fomina, 2001; Popov et al., 2007; Zmitrovich et al., 2015); **Murmansk Oblast** (Pystina, Pavlova, and Shestakova, 1969); **Saint Petersburg** (Kovalenko and Morozova, 1999a; Morozova and Kovalenko, 2000; Kotkova, Morozova, and Popov, 2006); **Sverdlovsk Oblast** (Stepanova and Sirko, 1977; Nezdojminogo, 1996).***Cortinarius odhinnii* Melot**SIBERIA: **Khakassia** (Zauzolkova, 2015; Zauzolkova and Gorbunova, 2016).

***Cortinarius odoratus* (Joguet ex M.M. Moser) M.M. Moser**

EASTERN EUROPE: **Penza Oblast** (Ivanov, 1988a; Ivanov, 1988c; Ivanov and Durandin, 1996; Nezdojminogo, 1996; Ivanov, 2013a); **Arid territories** (Rebriev, Rusanov, et al., 2012).

***Cortinarius odorifer* Britzelm.<sup>1</sup>**

= *Cortinarius odorifer* var. *luteolus* (M.M. Moser) Nespiak<sup>2</sup>

EASTERN EUROPE: **Kabardino-Balkarian Republic** (<sup>1</sup>Shkhagapsoev and Krapivina, 2004); **Karelia** (<sup>1</sup>Krutov et al., 2014); **Krasnodar Krai** (<sup>2</sup>Sopina, 2001a; <sup>1</sup>Litvinskaya, 2007; <sup>1</sup>Litvinskaya, 2017).

SIBERIA: **Altai Republic** (<sup>1</sup>Gorbunova, 1996; <sup>1</sup>Gorbunova, 1997; <sup>1</sup>Perova and Gorbunova, 2001); **Irkutsk Oblast** (<sup>1</sup>Kutafjeva, 1984; <sup>1</sup>Nezdojminogo, 1996).

***Cortinarius olearioides* Rob. Henry<sup>1</sup>**

= *Cortinarius subfulgens* P.D. Orton<sup>2</sup>

EASTERN EUROPE: **Crimea** (<sup>2</sup>Dudka et al., 2004; <sup>2</sup>Sarkina, 2011); **Kaliningrad Oblast** (<sup>2</sup>Dedkov, Volodina, and Gubareva, 2007); **Karelia** (<sup>1</sup>Krutov et al., 2014); **Lipetsk Oblast** (<sup>1</sup>Sarycheva, 2014a; <sup>1</sup>Sarycheva, 2016); **Penza Oblast** (<sup>2</sup>Ivanov, 1989; <sup>2</sup>Ivanov and Durandin, 1996); **Sevastopol** (<sup>1</sup>Sarkina, 2020c); **Sverdlovsk Oblast** (<sup>2</sup>Stepanova and Sirko, 1977); **Arid territories** (<sup>1</sup>Rebriev, Rusanov, et al., 2012).

SIBERIA: **Altai Republic** (<sup>1</sup>Brandrud et al., 2019); **Tomsk Oblast** (<sup>1</sup>Kudashova, Gashkov, and Vaishlya, 2016a; <sup>1</sup>Brandrud et al., 2019).

***Cortinarius olidus* J.E. Lange**

SIBERIA: **Tomsk Oblast** (Perova, 1972; Kudashova, Gashkov, and Kutafjeva, 2013).

***Cortinarius olivaceofuscus* Kühner<sup>1</sup>**

= *Cortinarius schaefferanus* M.M. Moser<sup>2</sup>

EASTERN EUROPE: **Kabardino-Balkarian Republic** (<sup>1,2</sup>Shkhagapsoev and Krapivina, 2004); **Samara Oblast** (<sup>1</sup>Malysheva and Malysheva, 2005b; <sup>1</sup>Malysheva and Malysheva, 2008); **Saratov Oblast** (<sup>1</sup>Nezdojminogo, 1996); **Tula Oblast** (<sup>1</sup>Svetasheva, 2003; <sup>1</sup>Svetasheva, 2004; <sup>1</sup>Shcherbakov, 2010).

SIBERIA: **Krasnoyarsk Krai** (<sup>2</sup>Nezdojminogo, 1976a; <sup>2</sup>Nezdojminogo, 1976b; <sup>2</sup>Nezdojminogo, 1996).

***Cortinarius olivascens* (Batsch) Fr.**

EASTERN EUROPE: **Karelia** (Singer, 1937; Freindling, 1949).

SIBERIA: **Buryatia** (Nezdojminogo, 1970a).

***Cortinarius olivellus* Rob. Henry**

EASTERN EUROPE: **Krasnodar Krai** (Kovalenko, 1980a; Kovalenko, 1980b).

***Cortinarius orellanus* Fr.**

EASTERN EUROPE: **Karelia** (Krutov et al., 2014; Predtechenskaya, 2015); **Lipetsk Oblast** (Sarycheva et al., 2009); **Moscow Oblast** (Levitskaya, 2006; Levitskaya, 2013); **Penza Oblast** (Ivanov, 1983); **Perm Krai** (Perevedentseva, 2008); **Arid territories** (Rebriev, Rusanov, et al., 2012).

SIBERIA: **Krasnoyarsk Krai** (Kryuchkova, 2014a).

FAR EAST: **Primorsky Krai** (Bulakh et al., 2016).

***Cortinarius oreobius* J. Favre**

EASTERN EUROPE: **Karachay-Cherkess Republic** (Kalamees and Botashev, 2000).

SIBERIA: **Krasnoyarsk Krai** (Nezdojminogo, 2002; Zmitrovich and Ezhov, 2015; Shiryaev, Zmitrovich, and Ezhov, 2018); **Sakha Republic** (Nezdojminogo, 2003).

***Cortinarius orichalceus* (Batsch) Fr.<sup>1</sup>**

= *Cortinarius russus* Fr.<sup>2</sup>

EASTERN EUROPE: **Moscow** (<sup>1</sup>Bucholtz, 1897a; <sup>2</sup>Hennings, 1905; <sup>2</sup>Mosolov, 1906); **Penza Oblast** (<sup>1</sup>Ivanov, 1983; <sup>1</sup>Ivanov and Durandin, 1996).

SIBERIA: **Irkutsk Oblast** (<sup>1</sup>Kutafjeva, 1984); **Sakha Republic** (<sup>1</sup>Birkenhof, 1936; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1</sup>Nezdojminogo, 1996).



FAR EAST: **Primorsky Krai** (<sup>1</sup>Vassiljeva, 1973; <sup>1</sup>Bunkina and Nazarova, 1978; <sup>1</sup>Azbukina et al., 1984; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdjominogo, 1990; <sup>1</sup>Nezdjominogo, 1996; <sup>1</sup>Azbukina et al., 2006; <sup>1</sup>Bau, Bulakh, and Govorova, 2011).

***Cortinarius paleaceus* Fr.**

≡ *Cortinarius paleaceus* var. *paleaceus* Fr.<sup>1</sup>

EASTERN EUROPE: **Perm Krai** (<sup>1</sup>Perevedentseva, 2008).

***Cortinarius pallidirimosus* Kytöv., Liimat. & Niskanen**

SIBERIA: **Sakha Republic** (Liimatainen et al., 2014).

***Cortinarius paracephalixus* Bohus**

SIBERIA: **Novosibirsk Oblast** (Koropachinskiy and Banaev, 2014).

***Cortinarius paragaudis* Fr.<sup>1</sup>**

≡ *Cortinarius paragaudis* subsp. *paragaudis* Fr.<sup>2</sup> ≡ *Cortinarius paragaudis* var. *paragaudis* Fr.<sup>3</sup> = *Cortinarius paragaudis* subsp. *oenochelis* H. Lindstr.<sup>4</sup>

EASTERN EUROPE: **Kabardino-Balkarian Republic** (<sup>1</sup>Krapivina et al., 2020); **Karelia** (<sup>1</sup>Bondartseva et al., 2001; <sup>3</sup>Krutov et al., 2014); **Leningrad Oblast** (<sup>3</sup>Fomina, 2000; <sup>3</sup>Fomina, 2001); **Perm Krai** (<sup>1</sup>Perevedentseva, Nezdjominogo, and Kovalenko, 1990; <sup>1</sup>Perevedentseva, 2008; <sup>1</sup>Belkovskaya et al., 2014; <sup>1</sup>Perevedentseva and Shishigin, 2015); **Pskov Oblast** (<sup>1</sup>Kalinina, Bolshakov, and Bulyonkova, 2020); **Sverdlovsk Oblast** (<sup>2,4</sup>Marina, 2006); **Tatarstan** (<sup>1</sup>Vassiljeva, 1977; <sup>1</sup>Nezdjominogo, 1996).

SIBERIA: **Irkutsk Oblast** (<sup>1</sup>Astapenko, 1990b); **Khanty-Mansi Autonomous Okrug** (<sup>1</sup>Filippova and Bulyonkova, 2017a; <sup>1</sup>Filippova and Bulyonkova, 2017b); **Krasnoyarsk Krai** (<sup>1</sup>Beglyanova, 1972a; <sup>1</sup>Nezdjominogo, 1996; <sup>1</sup>Gorbunova, 2016).

FAR EAST: **Magadan Oblast** (<sup>1</sup>Sazanova, 2005; <sup>1</sup>Sazanova, 2009a).

***Cortinarius parvannulatus* Kühner**

EASTERN EUROPE: **Karelia** (Krutov et al., 2014); **Komi Republic** (Palamarchuk and Kirillov, 2018a); **Leningrad Oblast** (Stolyarskaya, 1993; Kovalenko and Morozova, 1999a; Morozova and Kovalenko, 2000; Morozova, 2007; Popov et al., 2007; Zmitrovich et al., 2015; Kalinina, 2018; Malysheva, Malysheva, Shchepin, and Novozhilov, 2018); **Moscow Oblast** (Levitskaya, 2006; Levitskaya, 2013); **Penza Oblast** (Nezdjominogo, 1996); **Sverdlovsk Oblast** (Nezdjominogo, 1996; Marina, 2006).

SIBERIA: **Altai Republic** (Brandrud et al., 2019); **Khanty-Mansi Autonomous Okrug** (Filippova and Bulyonkova, 2017a; Filippova and Bulyonkova, 2017b); **Tyva Republic** (Gorbunova, 2015).

***Cortinarius pauperculus* J. Favre**

EASTERN EUROPE: **Adygea** (Sopina, 2000; Sopina, 2004b).

SIBERIA: **Krasnoyarsk Krai** (Nezdjominogo, 1993a; Nezdjominogo and Zhurbenko, 1996; Nezdjominogo, 1997a; Karatygin, Nezdjominogo, Novozhilov, and Zhurbenko, 1999; Sopina, 2000).

FAR EAST: **Chukotka Autonomous Okrug** (Nezdjominogo, 1993a; Nezdjominogo, 1997a; Karatygin, Nezdjominogo, Novozhilov, and Zhurbenko, 1999; Sopina, 2000).

***Cortinarius pearsonii* P.D. Orton**

EASTERN EUROPE: **Moscow Oblast** (Levitskaya, 1995c; Levitskaya, 2013); **Penza Oblast** (Ivanov, 1981b; Ivanov, 1983; Ivanov and Durandin, 1996; Nezdjominogo, 1996); **Perm Krai** (Perevedentseva, Nezdjominogo, and Kovalenko, 1990; Nezdjominogo, 1996; Perevedentseva, 2008); **Tver Oblast** (Nezdjominogo, 1976b; Nezdjominogo, 1978a; Nezdjominogo, 1996; Kotkova, 2014).

***Cortinarius percomis* Fr.**

SIBERIA: **Buryatia** (Nezdjominogo, 1973; Petrov, 1991); **Krasnoyarsk Krai** (Beglyanova, 1972a; Nezdjominogo, 1996).

***Cortinarius phaeochrous* J. Favre**

SIBERIA: **Krasnoyarsk Krai** (Nezdjominogo, 1997a).

FAR EAST: **Chukotka Autonomous Okrug** (Karatygin, Nezdjominogo, Novozhilov, and Zhurbenko, 1999).

***Cortinarius pholideus* (Lilj.) Fr.<sup>1</sup>**≡ *Agaricus pholideus* Lilj.<sup>2</sup>

EASTERN EUROPE: **Bryansk Oblast** (<sup>1</sup>Kruglikov, 2007); **Kabardino-Balkarian Republic** (<sup>1</sup>Shkhagapsoev and Krapivina, 2003; <sup>1</sup>Shkhagapsoev and Krapivina, 2004); **Kaliningrad Oblast** (<sup>1</sup>Dedkov, Volodina, and Gubareva, 2007; <sup>1</sup>Volodina, 2007); **Kaluga Oblast** (<sup>1</sup>Sionova, 2003; <sup>1</sup>Antokhina et al., 2015); **Karelia** (<sup>1</sup>Bondartseva et al., 2001; <sup>1</sup>Predtechenskaya and Ruokolainen, 2013; <sup>1</sup>Predtechenskaya, 2013; <sup>1</sup>Krutov et al., 2014; <sup>1</sup>Predtechenskaya and Ruokolainen, 2014; <sup>1</sup>Predtechenskaya, 2015); **Kirov Oblast** (<sup>1</sup>Kirillov, 2011; <sup>1</sup>Kirillov, Perevedentseva, and Egoshina, 2011); **Komi Republic** (<sup>1</sup>Nezdojminogo, 1978a; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1</sup>Nezdojminogo, 1996; <sup>1</sup>Bobretsova, 2004; <sup>1</sup>Palamarchuk, 2012; <sup>1</sup>Palamarchuk, 2017); **Kostroma Oblast** (<sup>1</sup>Burova, 1982); **Krasnodar Krai** (<sup>1</sup>Sopina, 2001a); **Leningrad Oblast** (<sup>1</sup>Thesleff, 1920; <sup>1</sup>Chastukhin and Nikolaevskaya, 1969; <sup>1</sup>Nezdojminogo, 1978a; <sup>1</sup>Kalamees and Kovalenko, 1984; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1</sup>Nezdojminogo, 1996; <sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Fomina, 2000; <sup>1</sup>Fomina, 2001; <sup>1</sup>Morozova, 2007; <sup>1</sup>Popov et al., 2007; <sup>1</sup>Zmitrovich et al., 2015); **Moscow** (<sup>1</sup>Hennings, 1905; <sup>1</sup>Mosolov, 1906; <sup>1</sup>Samoilov and Morozova, 2011); **Moscow Oblast** (<sup>1</sup>Gorlenko, Sidorova, and Sidorova, 1989; <sup>1</sup>Levitskaya, 1995c; <sup>1</sup>Varlygina, Zubakin, and Sobolev, 2008; <sup>1</sup>Levitskaya, 2013; <sup>1</sup>Voronina et al., 2014; <sup>1</sup>Varlygina, Zubakin, Nikitsky, and Sviridov, 2018); **Penza Oblast** (<sup>1</sup>Ivanov, 1983; <sup>1</sup>Ivanov and Durandin, 1996; <sup>1</sup>Ivanov, 2019); **Perm Krai** (<sup>1</sup>Perevedentseva, 2008; <sup>1</sup>Belkovskaya et al., 2014; <sup>1</sup>Perevedentseva and Shishigin, 2015; <sup>1</sup>Botalov, 2017); **Ryazan Oblast** (<sup>1</sup>Volosnova, 1997; <sup>1</sup>Ivanchev and Kazakova, 2011; <sup>1</sup>Volosnova, 2014); **Saint Petersburg** (<sup>2</sup>Weinmann, 1836); **Sverdlovsk Oblast** (<sup>1</sup>Marina, 2006); **Tatarstan** (<sup>1</sup>Nezdojminogo, 1978a; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1</sup>Nezdojminogo, 1996); **Tula Oblast** (<sup>1</sup>Svetasheva, 2004; <sup>1</sup>Svetasheva, 2005a; <sup>1</sup>Svetasheva, 2005b); **Tver Oblast** (<sup>1</sup>Nezdojminogo, 1978a; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1</sup>Kurochkin, 1993; <sup>1</sup>Nezdojminogo, 1996; <sup>1</sup>Kotkova, 2014); **Udmurt Republic** (<sup>1</sup>Tychinin and Kuzmina, 2003); **Vologda Oblast** (<sup>1</sup>Kirillova, 2007); **Yaroslavl Oblast** (<sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1</sup>Nezdojminogo, 1996; <sup>1</sup>Lazareva, 1998a; <sup>1</sup>Lazareva, 2002).

SIBERIA: **Altai Republic** (<sup>1</sup>Gorbunova, 1996; <sup>1</sup>Gorbunova, 1997; <sup>1</sup>Perova and Gorbunova, 2001); **Buryatia** (<sup>1</sup>Nezdojminogo, 1970a; <sup>1</sup>Nezdojminogo, 1978a; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1</sup>Nezdojminogo, 1996); **Irkutsk Oblast** (<sup>1</sup>Nezdojminogo, 1978a; <sup>1</sup>Kutafjeva, 1984; <sup>1</sup>Petrov, Nezdojminogo, and Bulakh, 1987; <sup>1</sup>Petrov, 1989; <sup>1</sup>Astapenko, 1990a; <sup>1</sup>Astapenko, 1990b; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1</sup>Nezdojminogo, 1996; <sup>1</sup>Muzyka, 2002; <sup>1</sup>Bardunov et al., 2005; <sup>1</sup>Petrov, 2008; <sup>1</sup>Muzyka, 2009; <sup>1</sup>Muzyka and Penzina, 2017); **Khanty-Mansi Autonomous Okrug** (<sup>1</sup>Filippova and Thormann, 2014; <sup>1</sup>Filippova, 2014; <sup>1</sup>Filippova, Mourgues, and Philippe, 2014; <sup>1</sup>Filippova, Bulyonkova, and Lapshina, 2015; <sup>1</sup>Filippova and Bulyonkova, 2017a; <sup>1</sup>Filippova and Bulyonkova, 2017b); **Krasnoyarsk Krai** (<sup>1</sup>Beglyanova, 1972a; <sup>1</sup>Nezdojminogo, 1976a; <sup>1</sup>Nezdojminogo, 1978a; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1</sup>Lapitskaya, 1993; <sup>1</sup>Nezdojminogo, 1996; <sup>1</sup>Kryuchkova, 2009; <sup>1</sup>Krom and Kapitonov, 2019); **Tomsk Oblast** (<sup>1</sup>Perova, 1972; <sup>1</sup>Nezdojminogo, 1978a; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1</sup>Nezdojminogo, 1996; <sup>1</sup>Perova and Gorbunova, 2001; <sup>1</sup>Kosheleva and Kutafjeva, 2004; <sup>1</sup>Kudashova, Gashkov, and Kutafjeva, 2013; <sup>1</sup>Vaishlya et al., 2017).

FAR EAST: **Amur Oblast** (<sup>1</sup>Nezdojminogo, 1978a; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1</sup>Nezdojminogo, 1996; <sup>1</sup>Azbukina et al., 1998); **Jewish Autonomous Oblast** (<sup>1</sup>Bulakh, Govorova, Nazarova, and Vassiljeva, 2007; <sup>1</sup>Bau, Bulakh, and Govorova, 2011); **Khabarovsk Krai** (<sup>1</sup>Azbukina et al., 1989); **Magadan Oblast** (<sup>1</sup>Nazarova, 1976; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1</sup>Nezdojminogo, 1996; <sup>1</sup>Sazanova, 2005; <sup>1</sup>Sazanova, 2009a; <sup>1</sup>Sazanova and Golodnova, 2015); **Primorsky Krai** (<sup>1</sup>Vassiljeva, 1973; <sup>1</sup>Nezdojminogo, 1978a; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1</sup>Nezdojminogo, 1996; <sup>1</sup>Bulakh et al., 2016).

***Cortinarius pilatii* Svrček**

EASTERN EUROPE: **Karelia** (Krutov et al., 2014); **Leningrad Oblast** (Fomina, 2000; Fomina, 2001); **Sverdlovsk Oblast** (Marina, 2006).

SIBERIA: **Khanty-Mansi Autonomous Okrug** (Filippova and Bulyonkova, 2017a; Filippova and Bulyonkova, 2017b).

***Cortinarius pini* Brandrud**

SIBERIA: **Khakassia** (Zauzolkova and Gorbunova, 2013; Zauzolkova, 2015).

***Cortinarius pinigaudis* Niskanen, Kytöv. & Liimat.**

EASTERN EUROPE: **Komi Republic** (Palamarchuk, 2020a).

SIBERIA: **Kurgan Oblast** (Bystrushkin, 2016).

***Cortinarius pinophilus* Soop**

EASTERN EUROPE: **Komi Republic** (Palamarchuk and Kirillov, 2017; Palamarchuk, 2020a); **Leningrad Oblast** (Malysheva, Malysheva, Shchepin, and Novozhilov, 2018).

SIBERIA: **Tomsk Oblast** (Vaishlya et al., 2017).

***Cortinarius pluvius* (Fr.) Fr.**

EASTERN EUROPE: **Komi Republic** (Palamarchuk and Kirillov, 2017).

SIBERIA: **Irkutsk Oblast** (Kutafjeva, 1984; Nezdjominogo, 1996).

***Cortinarius poecilopus* Rob. Henry**

= *Cortinarius fuscopallens* (Fr.) Mussat<sup>1</sup>

EASTERN EUROPE: **Leningrad Oblast** (<sup>1</sup>Thesleff, 1920).

***Cortinarius polaris* Høil.**

EASTERN EUROPE: **Arkhangelsk Oblast** (Shiryayev, Zmitrovich, and Ezhov, 2018); **Komi Republic** (Palamarchuk, 2016a; Palamarchuk, 2016b); **Murmansk Oblast** (Nezdjominogo, 1996; Karatygin, Nezdjominogo, Novozhilov, and Zhurbenko, 1999).

SIBERIA: **Altai Republic** (Gorbunova, 2003; Gorbunova, 2010); **Krasnoyarsk Krai** (Nezdjominogo, 1993a; Nezdjominogo, 1996; Karatygin, Nezdjominogo, Novozhilov, and Zhurbenko, 1999).

FAR EAST: **Chukotka Autonomous Okrug** (Nezdjominogo, 1993a; Nezdjominogo, 1996; Karatygin, Nezdjominogo, Novozhilov, and Zhurbenko, 1999).

***Cortinarius polymorphus* Rob. Henry**

EASTERN EUROPE: **Arid territories** (Rebriev, Rusanov, et al., 2012).

SIBERIA: **Tomsk Oblast** (Kudashova, Gashkov, and Kutafjeva, 2013).

FAR EAST: **Khabarovsk Krai** (Bulakh, 2013; Bogacheva, Bulakh, Bukharova, and Egorova, 2015); **Primorsky Krai** (Bau, Bulakh, and Govorova, 2011; Bulakh et al., 2016).

***Cortinarius porphyropus* (Alb. & Schwein.) Fr.**

EASTERN EUROPE: **Kaliningrad Oblast** (Dedkov, Volodina, and Gubareva, 2007); **Karachay-Cherkess Republic** (Kalamees and Botashev, 2000); **Karelia** (Krutov et al., 2014); **Komi Republic** (Bulakh, Wasser, Nazarova, and Nezdjominogo, 1990; Nezdjominogo, 1996); **Leningrad Oblast** (Thesleff, 1920; Kovalenko and Morozova, 1999a; Fomina, 2000; Popov et al., 2007; Zmitrovich et al., 2015); **Murmansk Oblast** (Mikhailovskii, 1975b; Bulakh, Wasser, Nazarova, and Nezdjominogo, 1990; Nezdjominogo, 1996); **Pskov Oblast** (Kalinina, Bolshakov, and Bulyonkova, 2020); **Sverdlovsk Oblast** (Marina, 2006); **Tatarstan** (Vassiljeva, 1977; Bulakh, Wasser, Nazarova, and Nezdjominogo, 1990; Nezdjominogo, 1996); **Tula Oblast** (Svetasheva, 2003).

SIBERIA: **Altai Krai** (Gorbunova, 2018a); **Altai Republic** (Brandrud et al., 2019); **Buryatia** (Nezdjominogo, 1974; Bulakh, Wasser, Nazarova, and Nezdjominogo, 1990; Nezdjominogo, 1996); **Irkutsk Oblast** (Kutafjeva, 1984; Petrov, Nezdjominogo, and Bulakh, 1987; Kutafjeva and Astapenko, 1989; Astapenko, 1990b; Bardunov et al., 2005; Petrov, 2008); **Khakassia** (Zauzolkova, 2015; Zauzolkova and Gorbunova, 2016); **Khanty-Mansi Autonomous Okrug** (Filippova, Bulyonkova, and Lapshina, 2015; Filippova and Bulyonkova, 2017a; Filippova and Bulyonkova, 2017b); **Krasnoyarsk Krai** (Beglyanova, 1972a; Nezdjominogo, 1974; Nezdjominogo, 1976a; Bulakh, Wasser, Nazarova, and Nezdjominogo, 1990; Nezdjominogo, 1996; Malysheva, Malysheva, Kiyashko, et al., 2017); **Kurgan Oblast** (Stepanova and Sirko, 1977); **Sakha Republic** (Peintner et al., 2001; Moser and Peintner, 2002); **Tomsk Oblast** (Kudashova, Gashkov, and Vaishlya, 2016a; Vaishlya et al., 2017; Brandrud et al., 2019).

FAR EAST: **Amur Oblast** (Nezdjominogo, 1974; Bulakh, Wasser, Nazarova, and Nezdjominogo, 1990; Nezdjominogo, 1996; Azbukina et al., 1998); **Jewish Autonomous Oblast** (Erofeeva and Bulakh, 2015b); **Khabarovsk Krai** (Bulakh, Wasser, Nazarova, and Nezdjominogo, 1990; Nezdjominogo, 1996; Bau, Bulakh, and Govorova, 2011; Erofeeva and Bulakh, 2015a); **Magadan Oblast** (Sazanova, 2009a); **Primorsky Krai** (Vassiljeva, 1972; Vassiljeva, 1973; Nezdjominogo, 1974; Bulakh, Wasser, Nazarova, and Nezdjominogo, 1990; Nezdjominogo, 1996; Bulakh et al., 2016); **Sakhalin Oblast** (Vassiljeva and Nazarova, 1972; Nezdjominogo, 1974; Bulakh, Wasser, Nazarova, and Nezdjominogo, 1990; Nezdjominogo, 1996).

***Cortinarius praestans* (Cordier) Gillet**

EASTERN EUROPE: **Moscow** (Muchnik et al., 2020); **Moscow Oblast** (Levitskaya, 2006; Levitskaya, 2013; Varlygina, Zubakin, Nikitsky, and Sviridov, 2018); **Tatarstan** (Nazirov, Gorshkov, Ivanov, and Rogova, 2016); **Tula Oblast** (Svetasheva, 2004; Svetasheva, 2005a; Svetasheva, 2005b; Shcherbakov, 2010; Svetasheva, Sheremetyeva, and Lakomov, 2019).

FAR EAST: **Jewish Autonomous Oblast** (Bulakh, Govorova, Nazarova, and Vassiljeva, 2007; Bau, Bulakh, and Govorova, 2011; Bogacheva et al., 2018); **Primorsky Krai** (Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; Bulakh et al., 2016; Bogacheva et al., 2018).

***Cortinarius praestigiosus* (Fr.) M.M. Moser**

EASTERN EUROPE: **Perm Krai** (Perevedentseva, Nezdojminogo, and Kovalenko, 1990; Perevedentseva, 2008).

SIBERIA: **Khanty-Mansi Autonomous Okrug** (Filippova, Bulyonkova, and Lapshina, 2015; Filippova and Bulyonkova, 2017a; Filippova and Bulyonkova, 2017b).

FAR EAST: **Primorsky Krai** (Azbukina et al., 1984; Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; Nezdojminogo, 1996; Bau, Bulakh, and Govorova, 2011).

***Cortinarius prasinus* (Schaeff.) Fr.**

EASTERN EUROPE: **Crimea** (Sarkina, 2010b; Sarkina and Prydiuk, 2012; Sarkina and Mironova, 2015); **Penza Oblast** (Nezdojminogo, 1996); **Sevastopol** (Sarkina, 2020c); **Arid territories** (Rebriev, Rusanov, et al., 2012).

FAR EAST: **Primorsky Krai** (Vassiljeva, 1973; Bulakh, 1977; Bunkina and Nazarova, 1978; Azbukina et al., 1984; Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; Nezdojminogo, 1996; Azbukina et al., 2006; Bau, Bulakh, and Govorova, 2011).

***Cortinarius privignipallens* Kytöv., Niskanen & Liimat.**

SIBERIA: **Altai Republic** (Brandrud et al., 2019).

***Cortinarius privignoides* Rob. Henry**

EASTERN EUROPE: **Karelia** (Nezdojminogo, 1996); **Komi Republic** (Palamarchuk (Bobretsova), 2009; Palamarchuk, 2012; Palamarchuk and Kirillov, 2017); **Krasnodar Krai** (Sopina, 2001a); **Leningrad Oblast** (Morozova, 2007); **Lipetsk Oblast** (Sarycheva, 1999; Sarycheva et al., 2009; Sarycheva, 2016); **Penza Oblast** (Ivanov, 1983; Ivanov and Durandin, 1996); **Perm Krai** (Perevedentseva, 2008; Belkovskaya et al., 2014; Botalov, 2017); **Tver Oblast** (Kurochkin, 1993); **Yaroslavl Oblast** (Nezdojminogo, 1996; Lazareva, 1998a; Lazareva, 2002).

SIBERIA: **Buryatia** (Nezdojminogo, 1976b; Petrov, 1991; Nezdojminogo, 1996); **Irkutsk Oblast** (Kutafjeva, 1984; Astapenko, 1990b; Nezdojminogo, 1996).

***Cortinarius psammocephalus* (Bull.) Fr.**

FAR EAST: **Primorsky Krai** (Vassiljeva, 1973).

***Cortinarius pseudocandelaris* (M.M. Moser) M.M. Moser**

EASTERN EUROPE: **Leningrad Oblast** (Nezdojminogo, 1996; Kovalenko and Morozova, 1999a; Popov et al., 2007); **Lipetsk Oblast** (Sarycheva et al., 2009; Sarycheva, 2014a; Sarycheva, 2016); **Penza Oblast** (Ivanov, 1983; Ivanov and Durandin, 1996; Nezdojminogo, 1996).

FAR EAST: **Khabarovsk Krai** (Bulakh, Vassiljeva, and Erofeeva, 2010); **Primorsky Krai** (Vassiljeva, 1973; Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; Nezdojminogo, 1996).

***Cortinarius pseudofallax* Carteret**

SIBERIA: **Altai Republic** (Brandrud et al., 2019).

***Cortinarius pseudoglaucopus* (Jul. Schäff. ex M.M. Moser) Quadr.**

EASTERN EUROPE: **Sverdlovsk Oblast** (Marina, 2006).

***Cortinarius pseudosalor* J.E. Lange**

EASTERN EUROPE: **Ryazan Oblast** (Volosnova, 1997; Volosnova, 2014).

SIBERIA: **Khakassia** (Beglyanova, 1972a).

***Cortinarius psittacinus* M.M. Moser**

EASTERN EUROPE: **Moscow Oblast** (Levitskaya, 2006; Levitskaya, 2013); **Penza Oblast** (Ivanov, 1983; Nezdojminogo, 1996).

***Cortinarius pulchripes* J. Favre**

EASTERN EUROPE: **Murmansk Oblast** (Nezdojminogo, 1976b; Nezdojminogo, 1996); **Perm Krai** (Perevedentseva, 2008; Belkovskaya et al., 2014).

SIBERIA: **Irkutsk Oblast** (Petrov, Nezdojminogo, and Bulakh, 1987; Petrov, 1989; Petrov, 1991; Nezdojminogo, 1996).

***Cortinarius purpurascens* Fr.<sup>1</sup>**

≡ *Cortinarius purpurascens* var. *purpurascens* Fr.<sup>2</sup> = *Cortinarius purpurascens* var. *largusoides* Cetto<sup>3</sup> = *Cortinarius purpurascens* var. *subpurpurascens* (Batsch) Fr.<sup>4</sup> = *Cortinarius subpurpurascens* (Batsch) J. Kickx f.<sup>5</sup>

EASTERN EUROPE: **Crimea** (<sup>1</sup>Sarkina and Prydiuk, 2012; <sup>1</sup>Sarkina and Mironova, 2015); **Karelia** (<sup>1</sup>Freindling, 1949; <sup>1</sup>Nezdojminogo, 1974; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1</sup>Nezdojminogo, 1996; <sup>1</sup>Bondartseva et al., 2001; <sup>1</sup>Krutov et al., 2014); **Kirov Oblast** (<sup>1</sup>Kirillov, 2011; <sup>1</sup>Kirillov, Perevedentseva, and Egoshina, 2011); **Leningrad Oblast** (<sup>1,4</sup>Thesleff, 1920; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1</sup>Nezdojminogo, 1996; <sup>1,4</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Tzvelev, 2000; <sup>2,4</sup>Popov et al., 2007; <sup>1</sup>Zmitrovich et al., 2015; <sup>1</sup>Geltman et al., 2018; <sup>1</sup>Malysheva, Malysheva, Shchepin, and Novozhilov, 2018); **Moscow** (<sup>1</sup>Bucholtz, 1897b; <sup>1</sup>Bucholtz, 1897c; <sup>1</sup>Mosolov, 1906); **North Ossetia** (<sup>1</sup>Nikolayev, 2001); **Penza Oblast** (<sup>1</sup>Ivanov, 1989; <sup>1</sup>Nezdojminogo, 1996; <sup>2,3</sup>Ivanov and Durandin, 1996); **Perm Krai** (<sup>1</sup>Perevedentseva, 2008; <sup>1</sup>Belkovskaya et al., 2014; <sup>1</sup>Botalov, 2017); **Sevastopol** (<sup>1</sup>Sarkina, 2020c); **Sverdlovsk Oblast** (<sup>1</sup>Stepanova and Sirko, 1977); **Tatarstan** (<sup>5</sup>Vassiljeva, 1977; <sup>5</sup>Nezdojminogo, 1996).

SIBERIA: **Altai Krai** (<sup>1</sup>Gorbunova and Chubarova, 2008; <sup>1</sup>Gorbunova, Vlasenko, and Tzhubarova, 2011); **Irkutsk Oblast** (<sup>1</sup>Petrov, Nezdojminogo, and Bulakh, 1987; <sup>1</sup>Petrov, 1991; <sup>1</sup>Petrov, 2008); **Krasnoyarsk Krai** (<sup>1</sup>Beglyanova, 1972a; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1</sup>Nezdojminogo, 1996); **Novosibirsk Oblast** (<sup>1</sup>Perova and Gorbunova, 2001; <sup>1</sup>Perova and Gorbunova, 2007); **Tomsk Oblast** (<sup>1</sup>Perova and Gorbunova, 2001; <sup>1</sup>Agaphonova, Kutafjeva, and Gashkov, 2009a; <sup>1</sup>Kudashova, Gashkov, and Kutafjeva, 2013; <sup>1</sup>Vaishlya et al., 2017).

FAR EAST: **Amur Oblast** (<sup>1</sup>Kochunova and Erofeeva, 2017); **Khabarovsk Krai** (<sup>1</sup>Bulakh, 2013; <sup>1</sup>Bogacheva, Bulakh, Bukharova, and Egorova, 2015); **Magadan Oblast** (<sup>5</sup>Sazanova, 2005; <sup>5</sup>Sazanova, 2009a; <sup>1</sup>Sazanova and Golodnova, 2015; <sup>1</sup>Sazanova, 2015); **Primorsky Krai** (<sup>1</sup>Vassiljeva, 1972; <sup>1</sup>Vassiljeva, 1973; <sup>1</sup>Nezdojminogo, 1974); **Sakhalin Oblast** (<sup>1</sup>Vassiljeva and Nazarova, 1972; <sup>1</sup>Nezdojminogo, 1974; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1</sup>Nezdojminogo, 1996).

***Cortinarius purpureoluteus* Lamoure**

SIBERIA: **Irkutsk Oblast** (Petrov, 1991; Nezdojminogo, 1996; Petrov, 2008).

***Cortinarius purpureus* (Bull.) Bidaud, Moëgne-Loec. & Reumaux<sup>1</sup>**

≡ *Agaricus purpureus* Bull.<sup>2</sup> = *Cortinarius phoeniceus* (Vent.) Maire<sup>3</sup> = *Dermocybe phoenicea* (Vent.) M.M. Moser<sup>4</sup>

EASTERN EUROPE: **Karelia** (<sup>1</sup>Krutov et al., 2014; <sup>1</sup>Predtechenskaya, 2015); **Komi Republic** (<sup>1</sup>Palamarchuk and Kirillov, 2017; <sup>1</sup>Palamarchuk, 2017); **Leningrad Oblast** (<sup>3</sup>Nezdojminogo, 1996; <sup>3</sup>Kovalenko and Morozova, 1999a; <sup>3</sup>Morozova, 2007; <sup>3</sup>Popov et al., 2007; <sup>1</sup>Zmitrovich et al., 2015); **Saint Petersburg** (<sup>2</sup>Weinmann, 1836; <sup>2</sup>Weinmann, 1837).

SIBERIA: **Khanty-Mansi Autonomous Okrug** (<sup>1</sup>Zvyagina, 2008; <sup>1</sup>Shepeleva et al., 2014); **Tomsk Oblast** (<sup>1</sup>Kudashova, Gashkov, and Kutafjeva, 2013; <sup>1</sup>Kudashova, Gashkov, and Vaishlya, 2016b; <sup>1</sup>Vaishlya et al., 2017).

FAR EAST: **Primorsky Krai** (<sup>4</sup>Azbukina et al., 1990; <sup>3</sup>Bardunov et al., 2002).

***Cortinarius quarciticus* H. Lindstr.**

EASTERN EUROPE: **Leningrad Oblast** (Malysheva, Malysheva, Shchepin, and Novozhilov, 2018); **Sverdlovsk Oblast** (Marina, 2006).

SIBERIA: **Khakassia** (Zauzolkova and Gorbunova, 2013; Zauzolkova, 2015).

***Cortinarius rapaceus* Fr.**

EASTERN EUROPE: **Penza Oblast** (Ivanov, 1986; Ivanov and Durandin, 1996; Nezdojminogo, 1996; Ivanov, 2013a).

SIBERIA: **Irkutsk Oblast** (Kutafjeva, 1984; Petrov, Nezdojminogo, and Bulakh, 1987; Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; Petrov, 1991; Nezdojminogo, 1996; Petrov, 2008).

FAR EAST: **Primorsky Krai** (Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; Azbukina et al., 2006; Bau, Bulakh, and Govorova, 2011).

***Cortinarius raphanoides* (Pers.) Fr.<sup>1</sup>**

≡ *Agaricus raphanoides* Pers.<sup>2</sup>

EASTERN EUROPE: **Chelyabinsk Oblast** (<sup>1</sup>Sirko and Stepanova, 1977; <sup>1</sup>Stepanova and Sirko, 1977); **Crimea** (<sup>1</sup>Prydiuk, 2002; <sup>1</sup>Dudka et al., 2004; <sup>1</sup>Sarkina, 2011); **Karelia** (<sup>1</sup>Nezdojminogo, 1979; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1</sup>Nezdojminogo, 1996; <sup>1</sup>Bondartseva et al., 2001); **Krasnodar Krai** (<sup>1</sup>Vassiljeva, 1939); **Leningrad Oblast** (<sup>1</sup>Thesleff, 1920; <sup>1</sup>Nezdojminogo, 1979; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1</sup>Stolyarskaya, 1993; <sup>1</sup>Nezdojminogo, 1996; <sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Fomina, 2000; <sup>1</sup>Fomina, 2001; <sup>1</sup>Popov et al., 2007); **Moscow Oblast** (<sup>1</sup>Nezdojminogo, 1979; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1</sup>Levitskaya, 1995a; <sup>1</sup>Nezdojminogo, 1996; <sup>1</sup>Levitskaya, 2013); **Murmansk Oblast** (<sup>1</sup>Nezdojminogo, 1979; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1</sup>Nezdojminogo, 1996); **Penza Oblast** (<sup>1</sup>Ivanov, 1981b; <sup>1</sup>Ivanov, 1983; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1</sup>Ivanov and Durandin, 1996; <sup>1</sup>Nezdojminogo, 1996); **Saint Petersburg** (<sup>2</sup>Weinmann, 1836; <sup>2</sup>Weinmann, 1837; <sup>1</sup>Kovalenko and Morozova, 1999a); **Sverdlovsk Oblast** (<sup>1</sup>Marina, 2006); **Tula Oblast** (<sup>1</sup>Svetasheva, 2003; <sup>1</sup>Svetasheva, 2004); **Yaroslavl Oblast** (<sup>1</sup>Nezdojminogo, 1979; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1</sup>Nezdojminogo, 1996; <sup>1</sup>Lazareva, 1998a; <sup>1</sup>Lazareva, 2002).

SIBERIA: **Altai Krai** (<sup>1</sup>Gorbunova and Perova, 2006); **Altai Republic** (<sup>1</sup>Gorbunova, 2001b; <sup>1</sup>Perova and Gorbunova, 2001; <sup>1</sup>Gorbunova, 2008; <sup>1</sup>Brandrud et al., 2019); **Buryatia** (<sup>1</sup>Nezdojminogo, 1979; <sup>1</sup>Petrov, 1991); **Irkutsk Oblast** (<sup>1</sup>Kutafjeva, 1984; <sup>1</sup>Petrov, Nezdojminogo, and Bulakh, 1987; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1</sup>Petrov, 1991; <sup>1</sup>Nezdojminogo, 1996; <sup>1</sup>Petrov, 2008); **Khanty-Mansi Autonomous Okrug** (<sup>1</sup>Filippova, Bulyonkova, and Lapshina, 2015; <sup>1</sup>Filippova and Bulyonkova, 2017a; <sup>1</sup>Filippova and Bulyonkova, 2017b); **Krasnoyarsk Krai** (<sup>1</sup>Nezdojminogo, 1976a; <sup>1</sup>Nezdojminogo, 1979; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1</sup>Nezdojminogo, 1996).

FAR EAST: **Primorsky Krai** (<sup>1</sup>Vassiljeva, 1973; <sup>1</sup>Bunkina and Nazarova, 1978; <sup>1</sup>Nezdojminogo, 1979; <sup>1</sup>Azbukina et al., 1990; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1</sup>Nezdojminogo, 1996; <sup>1</sup>Bardunov et al., 2002; <sup>1</sup>Azbukina et al., 2006); **Sakhalin Oblast** (<sup>1</sup>Vassiljeva and Nazarova, 1972; <sup>1</sup>Nezdojminogo, 1979; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1</sup>Nezdojminogo, 1996).

***Cortinarius renidens* Fr.**

EASTERN EUROPE: **Karelia** (Freindling, 1949; Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; Nezdojminogo, 1996; Bondartseva et al., 2001; Krutov et al., 2014); **Murmansk Oblast** (Pystina, Pavlova, and Shestakova, 1969).

SIBERIA: **Krasnoyarsk Krai** (Nezdojminogo, 1996).

FAR EAST: **Primorsky Krai** (Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; Nezdojminogo, 1996).

***Cortinarius rickenianus* Maire**

EASTERN EUROPE: **Crimea** (Sarkina, 2010b; Sarkina, 2013); **Penza Oblast** (Ivanov, 1988a; Ivanov and Durandin, 1996; Nezdojminogo, 1996).

***Cortinarius riederi* (Weinm.) Fr.**

≡ *Agaricus riederi* Weinm.<sup>1</sup>

EASTERN EUROPE: **Saint Petersburg** (<sup>1</sup>Weinmann, 1836).

***Cortinarius rigens* (Pers.) Fr.<sup>1</sup>**

= *Cortinarius duracinus* var. *duracinus* Fr.<sup>2</sup> = *Cortinarius duracinus* var. *raphanicus* M.M. Moser<sup>3</sup>

EASTERN EUROPE: **Kaliningrad Oblast** (<sup>1</sup>Dedkov, Volodina, and Gubareva, 2007); **Karelia** (<sup>1</sup>Krutov et al., 2014); **Leningrad Oblast** (<sup>1</sup>Thesleff, 1920; <sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Fomina, 2000; <sup>1</sup>Popov et al., 2007; <sup>1</sup>Zmitrovich et al., 2015); **Moscow Oblast** (<sup>3</sup>Levitskaya, 2006; <sup>3</sup>Levitskaya, 2013); **Penza Oblast** (<sup>3</sup>Ivanov, 1983; <sup>2,3</sup>Ivanov and Durandin, 1996); **Perm Krai** (<sup>1</sup>Perevedentseva, 2008; <sup>1</sup>Belkovskaya et al., 2014); **Volgograd Oblast** (<sup>1</sup>Burova and Nezdojminogo, 1982).

SIBERIA: **Krasnoyarsk Krai** (<sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1</sup>Nezdojminogo, 1996; <sup>1</sup>Pavlov et al., 2007).

FAR EAST: **Magadan Oblast** (<sup>1</sup>Sazanova, 2009a); **Primorsky Krai** (<sup>1</sup>Vassiljeva, 1973; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1</sup>Nezdojminogo, 1996; <sup>1</sup>Azbukina et al., 2006; <sup>1</sup>Bau, Bulakh, and Govorova, 2011).

### ***Cortinarius rigidipes* M.M. Moser**

EASTERN EUROPE: **Perm Krai** (Perevedentseva and Shishigin, 2014).

### ***Cortinarius rigidus* (Scop.) Fr.<sup>1</sup>**

≡ *Agaricus rigidus* Scop.<sup>2</sup>

EASTERN EUROPE: **Adygea** (<sup>1</sup>Sopina, 2001a); **Karelia** (<sup>1</sup>Freindling, 1949; <sup>1</sup>Nezdojminogo, 1978b; <sup>1</sup>Bondartseva et al., 2001; <sup>1</sup>Krutov et al., 2014); **Kirov Oblast** (<sup>1</sup>Kirillov, 2011; <sup>1</sup>Kirillov, Perevedentseva, and Egoshina, 2011); **Komi Republic** (<sup>1</sup>Palamarchuk, 2016a; <sup>1</sup>Palamarchuk, 2016b); **Leningrad Oblast** (<sup>2</sup>Weinmann, 1835; <sup>1</sup>Thesleff, 1920; <sup>1</sup>Nezdojminogo, 1978b; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1</sup>Nezdojminogo, 1996; <sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Morozova, 2007; <sup>1</sup>Popov et al., 2007; <sup>1</sup>Zmitrovich et al., 2015); **Moscow Oblast** (<sup>1</sup>Levitskaya, 2006; <sup>1</sup>Levitskaya, 2013); **Murmansk Oblast** (<sup>1</sup>Nezdojminogo, 1978b); **Orenburg Oblast** (<sup>1</sup>Desyatova, 2008); **Perm Krai** (<sup>1</sup>Perevedentseva, 2008; <sup>1</sup>Perevedentseva and Shishigin, 2014; <sup>1</sup>Perevedentseva and Shishigin, 2015); **Pskov Oblast** (<sup>1</sup>Popov et al., 2013); **Saint Petersburg** (<sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Kotkova, Morozova, and Popov, 2005); **Sverdlovsk Oblast** (<sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1</sup>Nezdojminogo, 1996; <sup>1</sup>Marina, 2006); **Tver Oblast** (<sup>1</sup>Kurochkin, 1993); **Udmurt Republic** (<sup>1</sup>Tychinin, 1990; <sup>1</sup>Tychinin and Kuzmina, 2003); **Yaroslavl Oblast** (<sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990).

SIBERIA: **Irkutsk Oblast** (<sup>1</sup>Kutafjeva and Astapenko, 1988; <sup>1</sup>Kutafjeva and Astapenko, 1989; <sup>1</sup>Astapenko, 1990a; <sup>1</sup>Astapenko, 1990b); **Krasnoyarsk Krai** (<sup>1</sup>Beglyanova, 1972a; <sup>1</sup>Nezdojminogo, 1978b; <sup>1</sup>Kryuchkova, 2009); **Novosibirsk Oblast** (<sup>1</sup>Perova and Gorbunova, 2001).

FAR EAST: **Amur Oblast** (<sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990); **Jewish Autonomous Oblast** (<sup>1</sup>Bulakh, Govorova, Nazarova, and Vassiljeva, 2007); **Kamchatka Krai** (<sup>1</sup>Nezdojminogo, 1996); **Khabarovsk Krai** (<sup>1</sup>Bulakh, Vassiljeva, and Erofeeva, 2010); **Magadan Oblast** (<sup>1</sup>Sazanova, 2005; <sup>1</sup>Sazanova, 2009a); **Primorsky Krai** (<sup>1</sup>Vassiljeva, 1973; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990).

### ***Cortinarius roseocastaneus* Niskanen, Liimat. & Kytöv.**

SIBERIA: **Altai Republic** (Brandrud et al., 2019).

### ***Cortinarius rubellus* Cooke<sup>1</sup>**

= *Cortinarius orellanoides* Rob. Henry<sup>2</sup> = *Cortinarius speciosissimus* Kühner & Romagn.<sup>3</sup>

EASTERN EUROPE: **Kaliningrad Oblast** (<sup>1</sup>Dedkov, Volodina, and Gubareva, 2007; <sup>1</sup>Volodina, 2007); **Karelia** (<sup>1</sup>Bondartseva et al., 2001; <sup>1</sup>Krutov et al., 2014; <sup>1</sup>Predtechenskaya, 2015); **Komi Republic** (<sup>1</sup>Palamarchuk (Bobretsova), 2009; <sup>1</sup>Palamarchuk, 2012); **Leningrad Oblast** (<sup>3</sup>Nezdojminogo, 1979; <sup>1</sup>Nezdojminogo, 1996; <sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Fomina, 2000; <sup>1</sup>Tzvelev, 2000; <sup>1</sup>Popov et al., 2007; <sup>1</sup>Geltman et al., 2018); **Mordovia** (<sup>1</sup>Bolshakov and Ivoilov, 2012a); **Novgorod Oblast** (<sup>1</sup>Arslanov, 2014; <sup>1</sup>Vetkin et al., 2015); **Penza Oblast** (<sup>2</sup>Ivanov, 1988c; <sup>2</sup>Ivanov and Durandin, 1996); **Saint Petersburg** (<sup>1</sup>Morozova et al., 2020); **Sverdlovsk Oblast** (<sup>1</sup>Marina, 2006); **Vologda Oblast** (<sup>1</sup>Kirillova, 2007).

### ***Cortinarius rubicundulus* (Rea) A. Pearson**

SIBERIA: **Krasnoyarsk Krai** (Kryuchkova, 2009).

FAR EAST: **Primorsky Krai** (Kovalenko and Nezdojminogo, 1989; Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; Nezdojminogo, 1996; Bau, Bulakh, and Govorova, 2011).

### ***Cortinarius rubricosus* (Fr.) Fr.**

EASTERN EUROPE: **Karelia** (Freindling, 1949; Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; Nezdojminogo, 1996; Bondartseva et al., 2001; Krutov et al., 2014); **Leningrad Oblast** (Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; Nezdojminogo, 1996; Kovalenko and Morozova, 1999a; Popov et al., 2007); **Lipetsk Oblast** (Sarycheva et al., 2009; Sarycheva, 2014a; Sarycheva, 2016); **Moscow Oblast** (Levitskaya, 1995a; Levitskaya, 2013); **Perm Krai** (Botalov, Perevedentseva, and Denisov, 2015; Botalov, 2017); **Sverdlovsk Oblast** (Marina, 2006); **Tatarstan** (Vassiljeva, 1977).

SIBERIA: **Irkutsk Oblast** (Petrov, Nezdojminogo, and Bulakh, 1987; Petrov, 1991; Petrov, 2008); **Krasnoyarsk Krai** (Kryuchkova, 2009).

FAR EAST: **Jewish Autonomous Oblast** (Bulakh, Govorova, Nazarova, and Vassiljeva, 2007; Bau, Bulakh, and Govorova, 2011); **Primorsky Krai** (Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; Nezdojminogo, 1996).

***Cortinarius rufoallutus* Rob. Henry ex Bidaud & Reumaux**

= *Cortinarius allutus* var. *xanthus* (M.M. Moser) Quadr.<sup>1</sup>

SIBERIA: **Irkutsk Oblast** (<sup>1</sup>Petrov, Nezdojminogo, and Bulakh, 1987; <sup>1</sup>Petrov, 1991; <sup>1</sup>Petrov, 2008).

***Cortinarius rufo-olivaceus* (Pers.) Fr.<sup>1</sup>**

≡ *Agaricus rufo-olivaceus* Pers.<sup>2</sup> = *Cortinarius rufo-olivaceus* var. *pallidus* (M.M. Moser) Quadr.<sup>3</sup>

EASTERN EUROPE: **Adygea** (<sup>1</sup>Sopina, 2001a); **Belgorod Oblast** (<sup>1</sup>Bedenko, 1979a; <sup>1</sup>Nezdojminogo, 1996); **Crimea** (<sup>1</sup>Sarkina and Prydiuk, 2012); **Krasnodar Krai** (<sup>3</sup>Kovalenko, 1980a; <sup>3</sup>Kovalenko, 1980b; <sup>1</sup>Nezdojminogo, 1996); **Leningrad Oblast** (<sup>1</sup>Morozova and Kovalenko, 2000; <sup>1</sup>Popov et al., 2007); **Lipetsk Oblast** (<sup>1</sup>Sarycheva, 2014a; <sup>1</sup>Shcherbakov, 2014; <sup>1</sup>Sarycheva, 2016); **Mordovia** (<sup>1</sup>Bolshakov and Ivoilov, 2012a; <sup>1</sup>Bolshakov and Ivoilov, 2012b; <sup>1</sup>Silaeva, 2017); **Penza Oblast** (<sup>1</sup>Ivanov, 1983; <sup>1</sup>Ivanov and Durandin, 1996; <sup>1</sup>Nezdojminogo, 1996); **Saint Petersburg** (<sup>2</sup>Weinmann, 1828; <sup>2</sup>Weinmann, 1837; <sup>1</sup>Kovalenko and Morozova, 1999a); **Saratov Oblast** (<sup>1</sup>Nagumanov, 2015); **Stavropol Krai** (<sup>1</sup>Rebriev, Popov, and Svetasheva, 2015); **Tatarstan** (<sup>1</sup>Vassiljeva, 1977; <sup>1</sup>Nezdojminogo, 1996); **Arid territories** (<sup>1</sup>Rebriev, Rusanov, et al., 2012).

SIBERIA: **Irkutsk Oblast** (<sup>1</sup>Kutafjeva, 1984).

***Cortinarius rufostriatus* J. Favre**

SIBERIA: **Buryatia** (Nezdojminogo, 1973; Petrov, 1991); **Krasnoyarsk Krai** (Nezdojminogo, 1993a; Karatygin, Nezdojminogo, Novozhilov, and Zhurbenko, 1999).

***Cortinarius rusticellus* J. Favre**

SIBERIA: **Sakha Republic** (Karatygin, Nezdojminogo, Novozhilov, and Zhurbenko, 1999; Nezdojminogo, 2003).

***Cortinarius rusticus* P. Karst.<sup>1</sup>**

= *Cortinarius canabarba* M.M. Moser<sup>2</sup>

SIBERIA: **Irkutsk Oblast** (<sup>2</sup>Astapenko and Kutafjeva, 1990; <sup>2</sup>Astapenko, 1990b; <sup>2</sup>Nezdojminogo, 1996); **Krasnoyarsk Krai** (<sup>2</sup>Stepanov, 2012; <sup>1</sup>Malysheva, Malysheva, Kiyashko, et al., 2017).

***Cortinarius saginus* (Fr.) Fr.**

EASTERN EUROPE: **Karelia** (Bondartseva et al., 2001; Krutov et al., 2014); **Leningrad Oblast** (Nezdojminogo, 1996; Kovalenko and Morozova, 1999a; Popov et al., 2007); **Novgorod Oblast** (Arslanov, 2012); **Penza Oblast** (Ivanov and Durandin, 1996; Nezdojminogo, 1996).

***Cortinarius salor* Fr.**

EASTERN EUROPE: **Crimea** (Sarkina and Mironova, 2015); **Komi Republic** (Palamarchuk, 2012); **Krasnodar Krai** (Sopina, 2001a); **Murmansk Oblast** (Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; Nezdojminogo, 1996); **Sverdlovsk Oblast** (Marina, 2006).

SIBERIA: **Irkutsk Oblast** (Petrov, Nezdojminogo, and Bulakh, 1987; Astapenko and Kutafjeva, 1990; Astapenko, 1990b; Petrov, 1991; Nezdojminogo, 1996; Petrov, 2008; Trofimova, Popov, and Merkacheva, 2020); **Khakassia** (Zauzolkova and Gorbunova, 2013; Zauzolkova, 2015); **Krasnoyarsk Krai** (Beglyanova, 1972a; Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; Nezdojminogo, 1996; Stepanov, 2012).

FAR EAST: **Jewish Autonomous Oblast** (Bulakh, Govorova, Nazarova, and Vassiljeva, 2007; Bau, Bulakh, and Govorova, 2011); **Khabarovsk Krai** (Azbukina et al., 1986; Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; Nezdojminogo, 1996; Bau, Bulakh, and Govorova, 2011; Erofeeva and Bulakh, 2015a); **Primorsky Krai** (Vassiljeva, 1973; Bulakh, 1977; Bunkina and Nazarova, 1978; Azbukina et al., 1984; Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; Nezdojminogo, 1996; Azbukina et al., 2006; Bau, Bulakh, and Govorova, 2011).

***Cortinarius sanguineus* (Wulfen) Gray<sup>1</sup>**

≡ *Dermocybe sanguinea* (Wulfen) Wünsche<sup>2</sup>

EASTERN EUROPE: **Arkhangelsk Oblast** (<sup>1</sup>Ezhov, Zmitrovich, and Ruokolainen, 2019; <sup>1</sup>Anufriev et al., 2020); **Bryansk Oblast** (<sup>1</sup>Kruglikov, 2007); **Kaliningrad Oblast** (<sup>1</sup>Dedkov, Volodina, and Gubareva, 2007; <sup>1</sup>Volodina,



2007); **Karelia** (<sup>1</sup>Nezdojminogo, 1980b; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1</sup>Nezdojminogo, 1996; <sup>1</sup>Kovalenko, Morozova, Fomina, and Särkisilta, 1998; <sup>1</sup>Bondartseva et al., 2001; <sup>1</sup>Ivanter and Kuznetsov, 2007; <sup>1</sup>Krutov et al., 2014; <sup>1</sup>Savelev and Kikeeva, 2018; <sup>1</sup>Kuznetsov, 2020); **Kirov Oblast** (<sup>1</sup>Kirillov, 2011; <sup>1</sup>Kirillov, Perevedentseva, and Egoshina, 2011; <sup>1</sup>Stavishenko, Luginina, Kirillov, and Egoshina, 2019); **Komi Republic** (<sup>1</sup>Bobretsova, 2004; <sup>1</sup>Palamarchuk, 2012; <sup>1</sup>Palamarchuk, 2016a; <sup>1</sup>Palamarchuk, 2016b; <sup>1</sup>Palamarchuk, 2017); **Krasnodar Krai** (<sup>2</sup>Vaasma, Kalamees, and Raitviir, 1986); **Leningrad Oblast** (<sup>1</sup>Thesleff, 1920; <sup>1</sup>Nezdojminogo, 1967; <sup>1</sup>Chastukhin and Nikolaevskaya, 1969; <sup>2</sup>Kalamees and Kovalenko, 1984; <sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Fomina, 2000; <sup>1</sup>Fomina, 2001; <sup>1</sup>Popov et al., 2007; <sup>1</sup>Zmitrovich et al., 2015); **Mordovia** (<sup>1</sup>Chastukhin, 1948a; <sup>1</sup>Chastukhin, 2011); **Moscow Oblast** (<sup>2</sup>Gorlenko, Sidorova, and Sidorova, 1989; <sup>1</sup>Voronina et al., 2014); **Murmansk Oblast** (<sup>1</sup>Pystina, Pavlova, and Shestakova, 1969); **Novgorod Oblast** (<sup>1</sup>Kovalenko, Morozova, Nezdojminogo, and Popov, 2005; <sup>1</sup>Malysheva, Malysheva, and Zmitrovich, 2007; <sup>1</sup>Popov et al., 2013); **Perm Krai** (<sup>1</sup>Perevedentseva, 2008; <sup>1</sup>Belkovskaya et al., 2014; <sup>1</sup>Perevedentseva and Shishigin, 2014; <sup>1</sup>Perevedentseva and Shishigin, 2015; <sup>1</sup>Botalov, 2017); **Saint Petersburg** (<sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Morozova et al., 2020); **Sverdlovsk Oblast** (<sup>1</sup>Marina, 2006); **Tatarstan** (<sup>1</sup>Vassiljeva, 1977; <sup>1</sup>Nezdojminogo, 1980b; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1</sup>Nezdojminogo, 1996); **Tula Oblast** (<sup>1</sup>Svetasheva, 2004; <sup>1</sup>Svetasheva, 2005a; <sup>1</sup>Svetasheva, 2005b; <sup>1</sup>Shcherbakov, 2010); **Tver Oblast** (<sup>1</sup>Mukhina, 2011a; <sup>1</sup>Mukhina, 2011b; <sup>1</sup>Kotkova, 2014); **Udmurt Republic** (<sup>1</sup>Tychinin and Kuzmina, 2003); **Vologda Oblast** (<sup>1</sup>Kutova, 1957; <sup>1</sup>Kirillova, 2007); **Voronezh Oblast** (<sup>1</sup>Agafonov, 2011); **Yaroslavl Oblast** (<sup>1</sup>Nezdojminogo, 1980b; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1</sup>Nezdojminogo, 1996; <sup>1</sup>Lazareva, 1998a; <sup>1</sup>Lazareva, 2002).

SIBERIA: **Irkutsk Oblast** (<sup>2</sup>Astapenko and Kutafjeva, 1990; <sup>2</sup>Astapenko, 1990b); **Khanty-Mansi Autonomous Okrug** (<sup>1</sup>Filippova and Bulyonkova, 2017a; <sup>1</sup>Filippova and Bulyonkova, 2017b); **Krasnoyarsk Krai** (<sup>1</sup>Lapitskaya, 1993); **Tomsk Oblast** (<sup>1</sup>Perova, 1972; <sup>1</sup>Nezdojminogo, 1980b; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1</sup>Nezdojminogo, 1996; <sup>1</sup>Perova and Gorbunova, 2001; <sup>1</sup>Kudashova, Gashkov, and Kutafjeva, 2013; <sup>1</sup>Vaishlya et al., 2017).

FAR EAST: **Amur Oblast** (<sup>1</sup>Bulakh, Govorova, and Taranina, 2003); **Jewish Autonomous Oblast** (<sup>1</sup>Bulakh, Govorova, Nazarova, and Vassiljeva, 2007; <sup>1</sup>Bau, Bulakh, and Govorova, 2011); **Khбаровsk Krai** (<sup>2</sup>Azbukina et al., 1986; <sup>2</sup>Azbukina et al., 1989; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1</sup>Nezdojminogo, 1996; <sup>1</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Bulakh, 2013; <sup>1</sup>Bogacheva, Bulakh, Bukharova, and Egorova, 2015); **Magadan Oblast** (<sup>1</sup>Sazanova, 2009a; <sup>1</sup>Sazanova, 2009b; <sup>1</sup>Sazanova, 2011); **Primorsky Krai** (<sup>1</sup>Vassiljeva, 1973; <sup>1</sup>Nezdojminogo, 1980b; <sup>2</sup>Azbukina et al., 1984; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>2</sup>Azbukina et al., 1990; <sup>1</sup>Nezdojminogo, 1996; <sup>1</sup>Bardunov et al., 2002; <sup>1</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Bulakh et al., 2016); **Sakhalin Oblast** (<sup>1</sup>Vassiljeva and Nazarova, 1972; <sup>1</sup>Nezdojminogo, 1980b; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1</sup>Nezdojminogo, 1996; <sup>1</sup>Bulakh, Govorova, and Bogatov, 1999).

### ***Cortinarius saniosus* (Fr.) Fr.<sup>1</sup>**

= *Cortinarius bavaricus* M.M. Moser<sup>2</sup> = *Cortinarius rufoanuliferus* M.M. Moser & McKnight<sup>3</sup>

EASTERN EUROPE: **Karelia** (<sup>1</sup>Nezdojminogo, 1979; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1</sup>Nezdojminogo, 1996; <sup>1</sup>Kovalenko, Morozova, Fomina, and Särkisilta, 1998; <sup>1,2</sup>Krutov et al., 2014); **Komi Republic** (<sup>1</sup>Palamarchuk, 2011b; <sup>1</sup>Palamarchuk, 2016a; <sup>1</sup>Palamarchuk, 2016b; <sup>1</sup>Palamarchuk, 2020a); **Kostroma Oblast** (<sup>1</sup>Burova, 1982); **Leningrad Oblast** (<sup>1</sup>Thesleff, 1920; <sup>1,2</sup>Kovalenko and Morozova, 1999a; <sup>1,2</sup>Popov et al., 2007; <sup>1,2</sup>Zmitrovich et al., 2015); **Lipetsk Oblast** (<sup>1</sup>Alferova, 1977; <sup>1</sup>Sarycheva, 1999; <sup>1</sup>Sarycheva et al., 2009; <sup>1</sup>Sarycheva, 2011; <sup>1</sup>Sarycheva, 2014a; <sup>1</sup>Sarycheva, 2016); **Moscow Oblast** (<sup>1</sup>Voronina et al., 2014); **Orenburg Oblast** (<sup>1</sup>Korshikova, 2005; <sup>1</sup>Desyatova, 2008); **Perm Krai** (<sup>1</sup>Botalov, Perevedentseva, and Denisov, 2015; <sup>1</sup>Botalov, 2017); **Pskov Oblast** (<sup>1</sup>Popov et al., 2013); **Tver Oblast** (<sup>1</sup>Mukhina, 2011a; <sup>1</sup>Mukhina, 2011b; <sup>1</sup>Kotkova, 2014); **Yaroslavl Oblast** (<sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1</sup>Nezdojminogo, 1996; <sup>1</sup>Lazareva, 1998a; <sup>1</sup>Lazareva, 2002).

SIBERIA: **Altai Krai** (<sup>1</sup>Gorbunova and Perova, 2006); **Altai Republic** (<sup>1</sup>Gorbunova, 2001b; <sup>1</sup>Perova and Gorbunova, 2001; <sup>1</sup>Brandrud et al., 2019); **Buryatia** (<sup>1</sup>Nezdojminogo, 1979; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1</sup>Nezdojminogo, 1996); **Irkutsk Oblast** (<sup>1</sup>Kutafjeva, 1984); **Khakassia** (<sup>1</sup>Beglyanova, 1972a; <sup>1</sup>Zauzolkova, 2015); **Krasnoyarsk Krai** (<sup>1</sup>Beglyanova, 1972a; <sup>1</sup>Nezdojminogo, 1979; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1</sup>Nezdojminogo, 1996); **Novosibirsk Oblast** (<sup>1</sup>Perova, 1977; <sup>1</sup>Perova and Gorbunova, 2001).

FAR EAST: **Amur Oblast** (<sup>1</sup>Nezdojminogo, 1979; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1</sup>Nezdojminogo, 1996); **Chukotka Autonomous Okrug** (<sup>3</sup>Karatygin, Nezdojminogo, Novozhilov, and Zhurbenko, 1999); **Khбаровsk Krai** (<sup>1</sup>Erofeeva and Bulakh, 2015a); **Primorsky Krai** (<sup>1</sup>Kovalenko and Nezdojminogo, 1989; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1</sup>Nezdojminogo, 1996).

***Cortinarius saporatus* Britzelm.**

EASTERN EUROPE: **Adygea** (Sopina, 2000; Sopina, 2001a; Zamotajlov, Sirotyuk (Kuvaeva), Akatova, and Lipka, 2012).

***Cortinarius saturatus* J.E. Lange**

EASTERN EUROPE: **Penza Oblast** (Ivanov, 1983; Ivanov and Durandin, 1996; Ivanov, 2019).

***Cortinarius saturninus* (Fr.) Fr.**

EASTERN EUROPE: **Bryansk Oblast** (Kruglikov, 2007); **Crimea** (Sarkina and Mironova, 2015); **Kaliningrad Oblast** (Volodina, 2007); **Karachay-Cherkess Republic** (Kalamees and Botashev, 2000); **Karelia** (Krutov et al., 2014); **Leningrad Oblast** (Thesleff, 1920; Kovalenko and Morozova, 1999a; Fomina, 2000; Fomina, 2001; Popov et al., 2007); **Lipetsk Oblast** (Afanasyev, Rtishcheva, and Starodubtseva, 2007; Sarycheva et al., 2009; Sarycheva, Starodubtseva, and Sapelnikova, 2017); **Voronezh Oblast** (Rtishcheva, 1999; Afanasyev, Rtishcheva, and Starodubtseva, 2007; Sarycheva, Starodubtseva, and Sapelnikova, 2017; Agafonov, 2018).

SIBERIA: **Altai Krai** (Gorbunova, 2018a); **Altai Republic** (Gorbunova, 2001b; Perova and Gorbunova, 2001); **Buryatia** (Nezdojminogo, 1973; Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; Petrov, 1991; Nezdojminogo, 1996); **Khanty-Mansi Autonomous Okrug** (Filippova and Bulyonkova, 2017a; Filippova and Bulyonkova, 2017b); **Krasnoyarsk Krai** (Beglyanova, 1972a; Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; Nezdojminogo, 1996).

FAR EAST: **Khabarovsk Krai** (Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; Bau, Bulakh, and Govorova, 2011); **Primorsky Krai** (Vassiljeva, 1972; Vassiljeva, 1973; Bunkina and Nazarova, 1978; Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; Nezdojminogo, 1996).

***Cortinarius scandens* Fr.**

EASTERN EUROPE: **Komi Republic** (Palamarchuk, 2012); **Leningrad Oblast** (Nezdojminogo, 1996; Kovalenko and Morozova, 1999a; Fomina, 2000; Popov et al., 2007); **Moscow Oblast** (Levitskaya, 1995c; Levitskaya, 2013); **Perm Krai** (Botalov, 2017); **Saint Petersburg** (Morozova and Smirnov, 2011); **Yaroslavl Oblast** (Lazareva, 1998a; Lazareva, 2002).

SIBERIA: **Krasnoyarsk Krai** (Nezdojminogo, 1996); **Tomsk Oblast** (Kudashova, Gashkov, and Vaishlya, 2016a; Vaishlya et al., 2017).

***Cortinarius scaurus* (Fr.) Fr.<sup>1</sup>**

≡ *Agaricus scaurus* Fr.<sup>2</sup> = *Cortinarius herpeticus* Fr.<sup>3</sup> = *Cortinarius herpeticus* f. *altaicus* M.M. Moser & Peintner<sup>4</sup> = *Cortinarius herpeticus* var. *fageticola* (M.M. Moser) Nezdojm.<sup>5</sup> = *Cortinarius herpeticus* var. *herpeticus* Fr.<sup>6</sup> = *Cortinarius scaurus* var. *herpeticus* (Fr.) Quél.<sup>7</sup>

EASTERN EUROPE: **Karelia** (<sup>3</sup>Freindling, 1949; <sup>3</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>3</sup>Nezdojminogo, 1996; <sup>1</sup>Bondartseva et al., 2001; <sup>7</sup>Krutov et al., 2014); **Komi Republic** (<sup>1</sup>Palamarchuk, 2016a; <sup>1</sup>Palamarchuk, 2016b); **Krasnodar Krai** (<sup>3</sup>Vassiljeva, 1939; <sup>5</sup>Nezdojminogo, 1996); **Leningrad Oblast** (<sup>1,3</sup>Thesleff, 1920; <sup>3</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>3</sup>Nezdojminogo, 1996; <sup>1,3</sup>Kovalenko and Morozova, 1999a; <sup>3</sup>Fomina, 2000; <sup>1,3</sup>Popov et al., 2007); **Penza Oblast** (<sup>3</sup>Ivanov, 1983; <sup>3</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>3</sup>Ivanov and Durandin, 1996; <sup>3</sup>Nezdojminogo, 1996); **Perm Krai** (<sup>6</sup>Perevedentseva, 2008; <sup>3</sup>Botalov, 2017); **Saint Petersburg** (<sup>2</sup>Weinmann, 1828; <sup>2</sup>Weinmann, 1836; <sup>2</sup>Weinmann, 1837); **Tatarstan** (<sup>1</sup>Vassiljeva, 1977; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1</sup>Nezdojminogo, 1996).

SIBERIA: **Altai Republic** (<sup>4</sup>Moser and Peintner, 2002); **Khanty-Mansi Autonomous Okrug** (<sup>1</sup>Filippova and Bulyonkova, 2017b).

FAR EAST: **Magadan Oblast** (<sup>3</sup>Nazarova, 1976; <sup>3</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>3</sup>Nezdojminogo, 1996; <sup>3</sup>Sazanova, 2005; <sup>7</sup>Sazanova, 2009a; <sup>1</sup>Sazanova and Golodnova, 2015); **Primorsky Krai** (<sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1</sup>Bulakh et al., 2016).

***Cortinarius scotoides* J. Favre**

SIBERIA: **Sakha Republic** (Nezdojminogo, 2003).

***Cortinarius scutulatus* (Fr.) Fr.**

EASTERN EUROPE: **Karelia** (Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; Nezdojminogo, 1996; Krutov et al., 2014); **Komi Republic** (Palamarchuk (Bobretsova), 2009; Palamarchuk, 2012); **Moscow Oblast** (Levitskaya, 2013).

FAR EAST: **Primorsky Krai** (Vassiljeva, 1972; Vassiljeva, 1973; Azbukina et al., 1984; Bulakh, Wasser, Nazarova, and Nezdjominogo, 1990; Nezdjominogo, 1996; Bau, Bulakh, and Govorova, 2011; Bulakh et al., 2016); **Sakhalin Oblast** (Vassiljeva and Nazarova, 1972; Bulakh, Wasser, Nazarova, and Nezdjominogo, 1990).

***Cortinarius sebaceus* Fr.**

EASTERN EUROPE: **Smolensk Oblast** (Jaczewski, 1896).

SIBERIA: **Irkutsk Oblast** (Petrov, Nezdjominogo, and Bulakh, 1987; Petrov, 1989; Petrov, 1991).

***Cortinarius semisanguineus* (Fr.) Gillet<sup>1</sup>**

≡ *Agaricus cinnamomeus* a *semisanguineus* Fr.<sup>2</sup> ≡ *Cortinarius cinnamomeus* var. *semisanguineus* (Fr.) Fr.<sup>3</sup> ≡ *Dermocybe semisanguinea* (Fr.) M.M. Moser<sup>4</sup>

EASTERN EUROPE: **Kabardino-Balkarian Republic** (<sup>1</sup>Shkhagapsoev and Krapivina, 2004); **Kaliningrad Oblast** (<sup>1</sup>Dedkov, Volodina, and Gubareva, 2007; <sup>1</sup>Volodina, 2007); **Kaluga Oblast** (<sup>1</sup>Sionova, 2003); **Karelia** (<sup>1</sup>Freindling, 1949; <sup>1</sup>Nezdjominogo, 1980b; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdjominogo, 1990; <sup>1</sup>Bondartseva et al., 2001; <sup>1</sup>Predtechenskaya and Ruokolainen, 2008; <sup>1</sup>Predtechenskaya and Ruokolainen, 2013; <sup>1</sup>Predtechenskaya, 2013; <sup>1</sup>Krutov et al., 2014; <sup>1</sup>Predtechenskaya, 2015; <sup>1</sup>Savelev and Kikeeva, 2020); **Kirov Oblast** (<sup>1</sup>Kirillov and Luginina, 2011; <sup>1</sup>Kirillov, 2011; <sup>1</sup>Kirillov, Perevedentseva, and Egoshina, 2011; <sup>1</sup>Stavishenko, Luginina, Kirillov, and Egoshina, 2019); **Komi Republic** (<sup>1</sup>Bobretsova, 2004; <sup>1</sup>Palamarchuk, 2012; <sup>1</sup>Palamarchuk, 2016a; <sup>1</sup>Palamarchuk, 2016b; <sup>1</sup>Palamarchuk and Kirillov, 2017; <sup>1</sup>Palamarchuk, 2017); **Kostroma Oblast** (<sup>4</sup>Burova, 1982); **Leningrad Oblast** (<sup>3</sup>Thesleff, 1920; <sup>1</sup>Nezdjominogo, 1980b; <sup>4</sup>Kalamees and Kovalenko, 1984; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdjominogo, 1990; <sup>1</sup>Stolyarskaya, 1993; <sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Fomina, 2000; <sup>1</sup>Fomina, 2001; <sup>1</sup>Morozova, 2007; <sup>1</sup>Popov et al., 2007; <sup>1</sup>Zmitrovich et al., 2015); **Mordovia** (<sup>1</sup>Kuznetsov, 1960; <sup>1</sup>Chastukhin, 2011; <sup>1</sup>Ivoilov and Bolshakov, 2011a); **Moscow Oblast** (<sup>4</sup>Gorlenko, Sidorova, and Sidorova, 1989; <sup>1</sup>Levitskaya, 1995c; <sup>1</sup>Voronina et al., 2012; <sup>1</sup>Levitskaya, 2013; <sup>1</sup>Voronina et al., 2014); **Murmansk Oblast** (<sup>1</sup>Pystina, Pavlova, and Shestakova, 1969; <sup>1</sup>Karatygin, Nezdjominogo, Novozhilov, and Zhurbenko, 1999); **Novgorod Oblast** (<sup>1</sup>Kovalenko, Morozova, Nezdjominogo, and Popov, 2005; <sup>1</sup>Popov et al., 2013); **Penza Oblast** (<sup>1</sup>Ivanov, 1983; <sup>1</sup>Ivanov and Durandin, 1996); **Perm Krai** (<sup>1</sup>Perevedentseva, 2008; <sup>1</sup>Perevedentseva and Shishigin, 2015; <sup>1</sup>Botalov, 2017; <sup>1</sup>Botalov and Perevedentseva, 2018); **Pskov Oblast** (<sup>1</sup>Popov, 2001a; <sup>1</sup>Popov et al., 2013); **Ryazan Oblast** (<sup>4</sup>Volosnova, 1997; <sup>1</sup>Volosnova, 2014); **Saint Petersburg** (<sup>2</sup>Weinmann, 1836; <sup>2</sup>Weinmann, 1837; <sup>1</sup>Morozova and Smirnov, 2011; <sup>1</sup>Morozova et al., 2020); **Sverdlovsk Oblast** (<sup>4</sup>Tomilin, 1965; <sup>4</sup>Stepanova and Sirko, 1977; <sup>1</sup>Nezdjominogo, 1980b; <sup>1</sup>Marina, 2006); **Tatarstan** (<sup>1</sup>Vassiljeva, 1977; <sup>1</sup>Nezdjominogo, 1980b; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdjominogo, 1990); **Tula Oblast** (<sup>1</sup>Svetasheva, 2003; <sup>1</sup>Svetasheva, 2004); **Tver Oblast** (<sup>1</sup>Chastukhin, 1948b; <sup>1</sup>Chastukhin and Nikolaevskaya, 1969; <sup>1</sup>Kurochkin, 1993; <sup>1</sup>Mukhina and Garibova, 2010; <sup>1</sup>Mukhina, 2011a; <sup>1</sup>Kotkova, 2014); **Udmurt Republic** (<sup>1</sup>Tychinin, 1990; <sup>1</sup>Tychinin and Kuzmina, 2003); **Vologda Oblast** (<sup>1</sup>Kirillova, 2007); **Yaroslavl Oblast** (<sup>1</sup>Nezdjominogo, 1980b; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdjominogo, 1990; <sup>1</sup>Lazareva, 1997; <sup>1</sup>Lazareva, 1998a).

SIBERIA: **Altai Republic** (<sup>1</sup>Gorbunova, 2001b; <sup>1</sup>Perova and Gorbunova, 2001; <sup>1</sup>Gorbunova, 2010; <sup>1</sup>Brandrud et al., 2019); **Buryatia** (<sup>1</sup>Nezdjominogo, 1970a; <sup>1</sup>Nezdjominogo, 1980b; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdjominogo, 1990; <sup>4</sup>Petrov, 1991); **Irkutsk Oblast** (<sup>4</sup>Kutafjeva, 1984; <sup>4</sup>Petrov, Nezdjominogo, and Bulakh, 1987; <sup>4</sup>Astapenko, 1990a; <sup>4</sup>Astapenko, 1990b; <sup>4</sup>Petrov, 1991; <sup>4</sup>Bardunov et al., 2005; <sup>4</sup>Petrov, 2008; <sup>1</sup>Muzyka, 2009; <sup>1</sup>Gorbunova and Stepantsova, 2015; <sup>1</sup>Muzyka and Penzina, 2017); **Khanty-Mansi Autonomous Okrug** (<sup>1</sup>Filippova, 2009; <sup>1</sup>Filippova and Thormann, 2014; <sup>1</sup>Filippova, 2014; <sup>1</sup>Filippova, Mourgues, and Philippe, 2014; <sup>1</sup>Filippova, Bulyonkova, and Lapshina, 2015; <sup>1</sup>Filippova and Bulyonkova, 2017a; <sup>1</sup>Filippova and Bulyonkova, 2017b); **Krasnoyarsk Krai** (<sup>1</sup>Nezdjominogo, 1976a; <sup>1</sup>Nezdjominogo, 1980b; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdjominogo, 1990; <sup>1</sup>Kryuchkova, 2009; <sup>1</sup>Kryuchkova, 2014a); **Novosibirsk Oblast** (<sup>1</sup>Gorbunova, 2007); **Sakha Republic** (<sup>1</sup>Nezdjominogo, 1980b; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdjominogo, 1990; <sup>1</sup>Peintner, Moncalvo, and Vilgalys, 2004); **Tomsk Oblast** (<sup>1</sup>Perova, 1972; <sup>1</sup>Nezdjominogo, 1980b; <sup>4</sup>Milovidova, 1980; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdjominogo, 1990; <sup>1</sup>Perova and Gorbunova, 2001; <sup>1</sup>Kosheleva and Kutafjeva, 2004; <sup>1</sup>Kudashova, Gashkov, and Kutafjeva, 2013; <sup>1</sup>Vaishlya et al., 2017).

FAR EAST: **Amur Oblast** (<sup>1</sup>Nezdjominogo, 1980b; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdjominogo, 1990; <sup>1</sup>Azbukina et al., 1998; <sup>1</sup>Kochunova and Erofeeva, 2017); **Khabarovsk Krai** (<sup>4</sup>Azbukina et al., 1989; <sup>1</sup>Bulakh, 2013; <sup>1</sup>Bogacheva, Bulakh, Bukharova, and Egorova, 2015); **Magadan Oblast** (<sup>1</sup>Nazarova, 1976; <sup>1</sup>Nezdjominogo, 1980b; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdjominogo, 1990; <sup>1</sup>Sazanova, 2005; <sup>1</sup>Sazanova, 2009a; <sup>1</sup>Sazanova, 2011; <sup>1</sup>Sazanova and Golodnova, 2015); **Primorsky Krai** (<sup>1</sup>Vassiljeva, 1973; <sup>1</sup>Bunkina and Nazarova, 1978; <sup>1</sup>Nezdjominogo, 1980b; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdjominogo, 1990; <sup>1</sup>Azbukina et al., 2006; <sup>1</sup>Bau, Bulakh, and Govorova, 2011); **Sakhalin Oblast** (<sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdjominogo, 1990).

***Cortinarius semivestitus* M.M. Moser**

EASTERN EUROPE: **Penza Oblast** (Ivanov and Durandin, 1996; Nezdjominogo, 1996).

***Cortinarius septentrionalis* Bendiksen, K. Bendiksen & Brandrud**

EASTERN EUROPE: **Komi Republic** (Palamarchuk, 2011a; Palamarchuk, 2011b; Palamarchuk, 2012; Palamarchuk, 2016a; Palamarchuk, 2016b).

SIBERIA: **Khanty-Mansi Autonomous Okrug** (Filippova and Bulyonkova, 2017a; Filippova and Bulyonkova, 2017b).

***Cortinarius serratissimus* M.M. Moser**

EASTERN EUROPE: **Leningrad Oblast** (Nezdjominogo, 1976b); **Tver Oblast** (Kurochkin, 1993).

***Cortinarius simulatus* P.D. Orton**

EASTERN EUROPE: **Yaroslavl Oblast** (Nezdjominogo, 1996; Lazareva, 1998a; Lazareva, 2002).

SIBERIA: **Buryatia** (Nezdjominogo, 1970a; Petrov, 1991); **Irkutsk Oblast** (Kutafjeva, 1984; Nezdjominogo, 1996); **Krasnoyarsk Krai** (Nezdjominogo, 1978a; Nezdjominogo, 1996).

FAR EAST: **Chukotka Autonomous Okrug** (Nezdjominogo, 1993a; Nezdjominogo, 1997a).

***Cortinarius sodagnitus* Rob. Henry**

EASTERN EUROPE: **Krasnodar Krai** (Sopina, 2001a; Litvinskaya, 2007; Litvinskaya, 2017); **Penza Oblast** (Ivanov, 1983; Bulakh, Wasser, Nazarova, and Nezdjominogo, 1990; Ivanov and Durandin, 1996; Nezdjominogo, 1996; Ivanov, 2013a).

FAR EAST: **Primorsky Krai** (Kovalenko and Nezdjominogo, 1989; Bulakh, Wasser, Nazarova, and Nezdjominogo, 1990).

***Cortinarius solis-occasus* Melot**

SIBERIA: **Khanty-Mansi Autonomous Okrug** (Filippova, Bulyonkova, and Lapshina, 2015).

***Cortinarius sommerfeltii* Høil.**

EASTERN EUROPE: **Komi Republic** (Palamarchuk, 2012; Palamarchuk and Kirillov, 2018a); **Leningrad Oblast** (Nezdjominogo, 1996; Kovalenko and Morozova, 1999a; Popov et al., 2007); **Moscow Oblast** (Levitskaya, 1998; Levitskaya, 2013); **Ryazan Oblast** (Volosnova, 2014); **Sverdlovsk Oblast** (Nezdjominogo, 1996); **Tatarstan** (Nezdjominogo, 1996); **Tver Oblast** (Nezdjominogo, 1996).

***Cortinarius sphaerospermus* Kauffman**

FAR EAST: **Khabarovsk Krai** (Bau, Bulakh, and Govorova, 2011; Erofeeva and Bulakh, 2015a); **Magadan Oblast** (Sazanova, 2009a); **Primorsky Krai** (Vassiljeva, 1972; Vassiljeva, 1973; Bulakh, 1977; Azbukina et al., 1984; Bulakh, Wasser, Nazarova, and Nezdjominogo, 1990; Nezdjominogo, 1996; Bau, Bulakh, and Govorova, 2011).

***Cortinarius sphagneti* Singer**

EASTERN EUROPE: **Karelia** (Freindling, 1949; Nezdjominogo, 1977; Nezdjominogo, 1996; Bondartseva et al., 2001; Krutov et al., 2014); **Komi Republic** (Palamarchuk, 2012); **Leningrad Oblast** (Stolyarskaya, 1993; Kovalenko and Morozova, 1999a; Popov et al., 2007; Zmitrovich et al., 2015); **Moscow Oblast** (Levitskaya, 1995c; Levitskaya, 2013); **Perm Krai** (Perevedentseva, 2008; Botalov, 2017; Botalov and Perevedentseva, 2018); **Ryazan Oblast** (Volosnova, 2014); **Sverdlovsk Oblast** (Marina, 2006); **Tula Oblast** (Svetasheva, 2003; Svetasheva, 2004).

SIBERIA: **Krasnoyarsk Krai** (Nezdjominogo, 1977; Nezdjominogo, 1996).

***Cortinarius sphagnogenus* (M.M. Moser) Nezdjomin.<sup>1</sup>**

≡ *Dermocybe sphagnogena* M.M. Moser<sup>2</sup>

EASTERN EUROPE: **Leningrad Oblast** (<sup>1</sup>Nezdjominogo, 1980b); **Murmansk Oblast** (<sup>1</sup>Nezdjominogo, 1980b); **Tver Oblast** (<sup>1</sup>Nezdjominogo, 1980b).

SIBERIA: **Buryatia** (<sup>1</sup>Nezdjominogo, 1980b); **Irkutsk Oblast** (<sup>2</sup>Petrov, Nezdjominogo, and Bulakh, 1987; <sup>2</sup>Petrov, 1989; <sup>2</sup>Petrov, 1991); **Krasnoyarsk Krai** (<sup>1</sup>Nezdjominogo, 1976a; <sup>1</sup>Nezdjominogo, 1980b); **Sakha Republic** (<sup>1</sup>Nezdjominogo, 1980b).

FAR EAST: **Kamchatka Krai** (<sup>2</sup>Kalamees and Vaasma, 1981); **Magadan Oblast** (<sup>2</sup>Nazarova, 1976; <sup>1</sup>Nezdjominogo, 1980b).

***Cortinarius sphagnophilus* Peck<sup>1</sup>**

≡ *Cortinarius scaurus* var. *sphagnophilus* (Peck) Brandrud<sup>2</sup>

EASTERN EUROPE: **Komi Republic** (<sup>1</sup>Nezdojminogo, 1996; <sup>1</sup>Karatygin, Nezdojminogo, Novozhilov, and Zhurbenko, 1999).

SIBERIA: **Khanty-Mansi Autonomous Okrug** (<sup>2</sup>Filippova and Thormann, 2014; <sup>2</sup>Filippova, 2014; <sup>2</sup>Filippova, Mourgues, and Philippe, 2014; <sup>2</sup>Filippova and Bulyonkova, 2017a); **Krasnoyarsk Krai** (<sup>1</sup>Nezdojminogo, 1976a; <sup>1</sup>Nezdojminogo, 1976b; <sup>1</sup>Nezdojminogo, 1996).

FAR EAST: **Magadan Oblast** (<sup>1</sup>Rebriev, Bulakh, Sazanova, and Shiryaev, 2020).

***Cortinarius spilomeus* (Fr.) Fr.**

EASTERN EUROPE: **Leningrad Oblast** (Thesleff, 1920; Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; Nezdojminogo, 1996; Kovalenko and Morozova, 1999a; Popov et al., 2007); **Moscow Oblast** (Levitskaya, 2006; Levitskaya, 2013); **Perm Krai** (Perevedentseva, 2008); **Ulyanovsk Oblast** (Ilyukhin, 2009; Ilyukhin, 2010a); **Yaroslavl Oblast** (Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; Nezdojminogo, 1996; Lazareva, 1998a; Lazareva, 2002).

SIBERIA: **Altai Republic** (Brandrud et al., 2019); **Khanty-Mansi Autonomous Okrug** (Filippova and Bulyonkova, 2017a; Filippova and Bulyonkova, 2017b); **Krasnoyarsk Krai** (Nezdojminogo, 1978a; Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; Nezdojminogo, 1996).

FAR EAST: **Amur Oblast** (Nezdojminogo, 1978a; Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; Nezdojminogo, 1996); **Primorsky Krai** (Vassiljeva, 1973; Nezdojminogo, 1978a; Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; Nezdojminogo, 1996).

***Cortinarius splendens* Rob. Henry**

EASTERN EUROPE: **Komi Republic** (Palamarchuk, 2012); **Penza Oblast** (Nezdojminogo, 1996).

***Cortinarius spurcus* (Weinm.) Moënne-Locc. & Reumaux**

≡ *Agaricus violaceocinereus* var. *spurcus* Weinm.<sup>1</sup>

EASTERN EUROPE: **Saint Petersburg** (<sup>1</sup>Weinmann, 1836).

***Cortinarius stenospermus* Lamoure**

FAR EAST: **Chukotka Autonomous Okrug** (Karatygin, Nezdojminogo, Novozhilov, and Zhurbenko, 1999).

***Cortinarius stillatitius* Fr.**

EASTERN EUROPE: **Adygea** (Sopina, 2001a); **Karelia** (Kovalenko, Morozova, Fomina, and Särkisilta, 1998; Bondartseva et al., 2001; Krutov et al., 2014); **Komi Republic** (Nezdojminogo, 1996; Palamarchuk (Bobretsova), 2009; Palamarchuk, 2012; Palamarchuk and Kirillov, 2018a); **Leningrad Oblast** (Nezdojminogo, 1996; Kovalenko and Morozova, 1999a; Fomina, 2000; Fomina, 2001; Popov et al., 2007); **Murmansk Oblast** (Pystina, Pavlova, and Shestakova, 1969; Nezdojminogo, 1996); **Tatarstan** (Vassiljeva, 1977; Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; Nezdojminogo, 1996).

SIBERIA: **Khanty-Mansi Autonomous Okrug** (Filippova and Thormann, 2014; Filippova, 2014; Filippova, Mourgues, and Philippe, 2014).

FAR EAST: **Khabarovsk Krai** (Bulakh, 2013; Bogacheva, Bulakh, Bukharova, and Egorova, 2015); **Magadan Oblast** (Sazanova, 2009a; Sazanova, 2009b; Sazanova, 2011); **Primorsky Krai** (Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; Bardunov et al., 2002); **Sakhalin Oblast** (Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990).

***Cortinarius subarquatus* (M.M. Moser) M.M. Moser**

EASTERN EUROPE: **Arid territories** (Rebriev, Rusanov, et al., 2012).

***Cortinarius subbalaustinus* Rob. Henry**

EASTERN EUROPE: **Karelia** (Krutov et al., 2014); **Leningrad Oblast** (Kovalenko and Morozova, 1999a; Fomina, 2000; Fomina, 2001; Popov et al., 2007; Zmitrovich et al., 2015); **Penza Oblast** (Ivanov, 1983; Nezdojminogo, 1996); **Sverdlovsk Oblast** (Marina, 2006).

SIBERIA: **Irkutsk Oblast** (Petrov, Nezdojminogo, and Bulakh, 1987; Petrov, 1991; Petrov, 2008); **Krasnoyarsk Krai** (Nezdojminogo, 1996; Zauzolkova, 2015; Zauzolkova and Gorbunova, 2016).

***Cortinarius subbalteatus* Kühner**

EASTERN EUROPE: **Kirov Oblast** (Kirillov, 2011; Kirillov, Perevedentseva, and Egoshina, 2011); **Leningrad Oblast** (Nezdojminogo, 1996; Kovalenko and Morozova, 1999a; Fomina, 2000; Popov et al., 2007); **Murmansk Oblast** (Nezdojminogo, 1996).

SIBERIA: **Buryatia** (Nezdojminogo, 1970a; Nezdojminogo, 1976b; Petrov, 1991; Nezdojminogo, 1996); **Irkutsk Oblast** (Kutafjeva, 1984).

***Cortinarius suberi* Soop<sup>1</sup>**

= *Cortinarius brunneogriseus* Soop<sup>2</sup>

EASTERN EUROPE: **Leningrad Oblast** (<sup>1</sup>Malysheva, Malysheva, Shchepin, and Novozhilov, 2018); **Lipetsk Oblast** (<sup>2</sup>Sarycheva, 2011).

***Cortinarius subfloccopus* Kytöv., Niskanen & Liimat.**

EASTERN EUROPE: **Leningrad Oblast** (Malysheva, Malysheva, Shchepin, and Novozhilov, 2018).

***Cortinarius subheterocyclus* Liimat., Niskanen & Kytöv.**

SIBERIA: **Altai Republic** (Brandrud et al., 2019).

***Cortinarius sublanatus* (Sowerby) Fr.**

EASTERN EUROPE: **Adygea** (Vassiljeva, 1939); **Krasnodar Krai** (Vassiljeva, 1939).

***Cortinarius subporphyropus* Pilát**

EASTERN EUROPE: **Perm Krai** (Perevedentseva, Nezdojminogo, and Kovalenko, 1990).

SIBERIA: **Altai Republic** (Gorbunova, 2017b; Brandrud et al., 2019).

***Cortinarius subscaurus* (M.M. Moser) M.M. Moser**

SIBERIA: **Krasnoyarsk Krai** (Nezdojminogo, 1976a; Nezdojminogo, 1976b; Nezdojminogo, 1996).

***Cortinarius subtilior* J. Favre**

SIBERIA: **Sakha Republic** (Nezdojminogo, 1993a; Karatygin, Nezdojminogo, Novozhilov, and Zhurbenko, 1999).

***Cortinarius subtortus* (Pers.) Fr.**

EASTERN EUROPE: **Karelia** (Krutov et al., 2014); **Komi Republic** (Shiryayeva and Palamarchuk, 2019); **Leningrad Oblast** (Kovalenko and Morozova, 1999a; Fomina, 2000; Fomina, 2001; Popov et al., 2007; Zmitrovich et al., 2015); **Tatarstan** (Vassiljeva, 1977; Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; Nezdojminogo, 1996); **Tver Oblast** (Nezdojminogo, 1976b; Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; Kurochkin, 1993; Nezdojminogo, 1996; Mukhina, 2011a; Kotkova, 2014).

SIBERIA: **Buryatia** (Nezdojminogo, 1973; Nezdojminogo, 1976b; Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; Petrov, 1991; Nezdojminogo, 1996); **Krasnoyarsk Krai** (Nezdojminogo, 1976a; Nezdojminogo, 1976b; Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; Nezdojminogo, 1996; Kutafjeva and Kosheleva, 2005; Gorbunova, 2016).

***Cortinarius subtorvus* Lamoure**

SIBERIA: **Altai Krai** (Gorbunova, 2018a); **Altai Republic** (Gorbunova, 2019); **Krasnoyarsk Krai** (Nezdojminogo and Kuvaev, 1993; Nezdojminogo, 1993a; Nezdojminogo, 1997a; Karatygin, Nezdojminogo, Novozhilov, and Zhurbenko, 1999; Nezdojminogo, 2002; Zmitrovich and Ezhov, 2015; Shiryayev, Zmitrovich, and Ezhov, 2018).

FAR EAST: **Chukotka Autonomous Okrug** (Karatygin, Nezdojminogo, Novozhilov, and Zhurbenko, 1999).

***Cortinarius subvalidus* Rob. Henry**

EASTERN EUROPE: **Penza Oblast** (Ivanov, 1983; Ivanov and Durandin, 1996).

SIBERIA: **Irkutsk Oblast** (Petrov, Nezdojminogo, and Bulakh, 1987; Petrov, 2008).

***Cortinarius subviolascens* Rob. Henry ex Nezdojm.**

EASTERN EUROPE: **Karelia** (Kovalenko, Morozova, Fomina, and Särkisilta, 1998; Krutov et al., 2014); **Leningrad Oblast** (Kovalenko and Morozova, 1999a; Fomina, 2000; Popov et al., 2007); **Moscow Oblast** (Nezdojminogo, 1996); **Penza Oblast** (Ivanov, 1983; Ivanov and Durandin, 1996; Nezdojminogo, 1996).

***Cortinarius suillus* Fr.**

EASTERN EUROPE: **Orenburg Oblast** (Desyatova, 2008); **Penza Oblast** (Ivanov, 1992; Ivanov and Durandin, 1996).

***Cortinarius sulfurinus* Quél.**

EASTERN EUROPE: **Penza Oblast** (Ivanov and Durandin, 1996).

SIBERIA: **Buryatia** (Nezdojminogo, 1973; Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; Petrov, 1991; Nezdojminogo, 1996).

FAR EAST: **Primorsky Krai** (Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; Nezdojminogo, 1996).

***Cortinarius tabularis* (Fr.) Fr.<sup>1</sup>**

= *Cortinarius decoloratus* (Fr.) Fr.<sup>2</sup>

EASTERN EUROPE: **Crimea** (<sup>2</sup>Sarkina, 2010b); **Kabardino-Balkarian Republic** (<sup>2</sup>Shkhagapsoev and Krapivina, 2004); **Karelia** (<sup>1</sup>Krutov et al., 2014); **Komi Republic** (<sup>2</sup>Nezdojminogo, 1978a; <sup>2</sup>Nezdojminogo, 1996; <sup>2</sup>Palamarchuk, 2012; <sup>1</sup>Palamarchuk and Kirillov, 2017; <sup>1</sup>Palamarchuk, 2017); **Leningrad Oblast** (<sup>2</sup>Nezdojminogo, 1996; <sup>2</sup>Kovalenko and Morozova, 1999a; <sup>2</sup>Fomina, 2000; <sup>2</sup>Morozova and Kovalenko, 2000; <sup>2</sup>Morozova, 2007; <sup>2</sup>Popov et al., 2007; <sup>1</sup>Zmitrovich et al., 2015); **Moscow Oblast** (<sup>2</sup>Nezdojminogo, 1978a; <sup>2</sup>Levitskaya, 1995c; <sup>2</sup>Nezdojminogo, 1996; <sup>2</sup>Levitskaya, 2013; <sup>1</sup>Voronina et al., 2014); **Penza Oblast** (<sup>2</sup>Ivanov, 1983; <sup>2</sup>Ivanov and Durandin, 1996; <sup>1</sup>Ivanov, 2019); **Perm Krai** (<sup>1</sup>Perevedentseva, 2008; <sup>1</sup>Belkovskaya et al., 2014; <sup>1,2</sup>Botalov, 2017); **Samara Oblast** (<sup>2</sup>Malysheva and Malysheva, 2006); **Sverdlovsk Oblast** (<sup>2</sup>Marina, 2006); **Tatarstan** (<sup>2</sup>Vassiljeva, 1977; <sup>2</sup>Nezdojminogo, 1978a; <sup>2</sup>Nezdojminogo, 1996); **Tula Oblast** (<sup>2</sup>Svetasheva, 2003; <sup>2</sup>Svetasheva, 2004); **Tver Oblast** (<sup>2</sup>Kurochkin, 1993); **Vologda Oblast** (<sup>1</sup>Kirillova, 2007); **Yaroslavl Oblast** (<sup>2</sup>Nezdojminogo, 1996; <sup>2</sup>Lazareva, 1998a; <sup>2</sup>Lazareva, 2002).

SIBERIA: **Buryatia** (<sup>1</sup>Nezdojminogo, 1970a; <sup>2</sup>Nezdojminogo, 1973; <sup>2</sup>Nezdojminogo, 1978a; <sup>2</sup>Nezdojminogo, 1996); **Irkutsk Oblast** (<sup>1</sup>Kutafjeva, 1984; <sup>2</sup>Petrov, Nezdojminogo, and Bulakh, 1987; <sup>2</sup>Petrov, 1989; <sup>2</sup>Nezdojminogo, 1996; <sup>2</sup>Petrov, 2008); **Khakassia** (<sup>1</sup>Beglyanova, 1972a); **Krasnoyarsk Krai** (<sup>1,2</sup>Beglyanova, 1972a; <sup>2</sup>Nezdojminogo, 1976a; <sup>2</sup>Nezdojminogo, 1978a; <sup>2</sup>Nezdojminogo, 1996); **Novosibirsk Oblast** (<sup>1</sup>Perova, 1977; <sup>1</sup>Perova and Gorbunova, 2001); **Tomsk Oblast** (<sup>1</sup>Perova, 1972; <sup>2</sup>Nezdojminogo, 1978a; <sup>2</sup>Nezdojminogo, 1996; <sup>1,2</sup>Perova and Gorbunova, 2001; <sup>2</sup>Kosheleva and Kutafjeva, 2004; <sup>1</sup>Kudashova, Gashkov, and Kutafjeva, 2013; <sup>1</sup>Vaishlya et al., 2017); **Tyva Republic** (<sup>2</sup>Gorbunova, 2015); **Yamalo-Nenets Autonomous Okrug** (<sup>2</sup>Nezdojminogo, 1978a; <sup>2</sup>Nezdojminogo, 1996).

FAR EAST: **Amur Oblast** (<sup>1</sup>Kochunova and Erofeeva, 2017).

***Cortinarius talus* Fr.**

EASTERN EUROPE: **Crimea** (Moser, 1993; Sarkina, 2001; Dudka et al., 2004; Sarkina, 2011); **Karelia** (Kovalenko, Morozova, Fomina, and Särkisilta, 1998; Krutov et al., 2014); **Komi Republic** (Bobretsova, 2004; Palamarchuk, 2012); **Leningrad Oblast** (Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; Nezdojminogo, 1996; Kovalenko and Morozova, 1999a; Popov et al., 2007; Zmitrovich et al., 2015); **Pskov Oblast** (Kalinina, Bolshakov, and Bulyonkova, 2020); **Sverdlovsk Oblast** (Marina, 2006); **Tula Oblast** (Svetasheva, 2004; Svetasheva, 2005a; Shcherbakov, 2010); **Vologda Oblast** (Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; Nezdojminogo, 1996; Kirillova, 2007); **Yamalo-Nenets Autonomous Okrug** (Karatygin, Nezdojminogo, Novozhilov, and Zhurbenko, 1999).

SIBERIA: **Buryatia** (Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; Petrov, 1991; Nezdojminogo, 1996); **Irkutsk Oblast** (Petrov, Nezdojminogo, and Bulakh, 1987; Petrov, 1991; Petrov, 2008); **Khanty-Mansi Autonomous Okrug** (Filippova and Bulyonkova, 2017a; Filippova and Bulyonkova, 2017b); **Krasnoyarsk Krai** (Zauzolkova, 2015; Zauzolkova and Gorbunova, 2016); **Novosibirsk Oblast** (Perova and Gorbunova, 2001; Perova and Gorbunova, 2007); **Tyumen Oblast** (Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; Nezdojminogo, 1996).

FAR EAST: **Amur Oblast** (Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; Nezdojminogo, 1996); **Kamchatka Krai** (Peintner et al., 2001); **Primorsky Krai** (Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; Nezdojminogo, 1996).

***Cortinarius tenebricus* J. Favre**

SIBERIA: **Krasnoyarsk Krai** (Nezdojminogo, 1993a; Nezdojminogo and Zhurbenko, 1996; Nezdojminogo, 1997a; Karatygin, Nezdojminogo, Novozhilov, and Zhurbenko, 1999).

***Cortinarius tofaceus* Fr.**

SIBERIA: **Irkutsk Oblast** (Kutafjeva and Astapenko, 1987); **Krasnoyarsk Krai** (Nezdojminogo, 1976a).

FAR EAST: **Primorsky Krai** (Vassiljeva, 1973; Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990).

***Cortinarius tortuosus* (Fr.) Fr.<sup>1</sup>**≡ *Agaricus tortuosus* Fr.<sup>2</sup>

EASTERN EUROPE: **Karelia** (<sup>1</sup>Freindling, 1949; <sup>1</sup>Nezdojminogo, 1996; <sup>1</sup>Bondartseva et al., 2001; <sup>1</sup>Krutov et al., 2014); **Leningrad Oblast** (<sup>1</sup>Nezdojminogo, 1996; <sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Fomina, 2000; <sup>1</sup>Popov et al., 2007; <sup>1</sup>Zmitrovich et al., 2015); **Murmansk Oblast** (<sup>1</sup>Pystina, Pavlova, and Shestakova, 1969); **Saint Petersburg** (<sup>2</sup>Weinmann, 1837).

SIBERIA: **Khanty-Mansi Autonomous Okrug** (<sup>1</sup>Filippova, Bulyonkova, and Lapshina, 2015; <sup>1</sup>Filippova and Bulyonkova, 2017a; <sup>1</sup>Filippova and Bulyonkova, 2017b); **Tomsk Oblast** (<sup>1</sup>Perova, 1972; <sup>1</sup>Perova and Gorbunova, 2001; <sup>1</sup>Kudashova, Gashkov, and Kutafjeva, 2013; <sup>1</sup>Vaishlya et al., 2017).

***Cortinarius torvus* (Fr.) Fr.<sup>1</sup>**≡ *Agaricus torvus* Fr.<sup>2</sup>

EASTERN EUROPE: **Adygea** (<sup>1</sup>Sopina, 2001a); **Belgorod Oblast** (<sup>1</sup>Bedenko, 1979a; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1</sup>Nezdojminogo, 1996); **Crimea** (<sup>1</sup>Zerova, 1962; <sup>1</sup>Dudka et al., 2004; <sup>1</sup>Sarkina, 2011; <sup>1</sup>Sarkina and Prydiuk, 2012); **Kaliningrad Oblast** (<sup>1</sup>Volodina, 2007); **Karelia** (<sup>1</sup>Kovalenko, Morozova, Fomina, and Särkisilta, 1998; <sup>1</sup>Krutov et al., 2014); **Leningrad Oblast** (<sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Popov et al., 2007); **Lipetsk Oblast** (<sup>1</sup>Alferova, 1977; <sup>1</sup>Sarycheva, 1999; <sup>1</sup>Sarycheva et al., 2009; <sup>1</sup>Sarycheva, 2014a; <sup>1</sup>Sarycheva, 2016); **Moscow Oblast** (<sup>1</sup>Levitskaya, 2006; <sup>1</sup>Levitskaya, 2013); **Penza Oblast** (<sup>1</sup>Ivanov, 1983; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1</sup>Ivanov and Durandin, 1996; <sup>1</sup>Nezdojminogo, 1996); **Perm Krai** (<sup>1</sup>Botalov, Perevedentseva, and Shishigin, 2020); **Pskov Oblast** (<sup>1</sup>Kalinina, Bolshakov, and Bulyonkova, 2020); **Saint Petersburg** (<sup>2</sup>Weinmann, 1828; <sup>2</sup>Weinmann, 1836; <sup>2</sup>Weinmann, 1837); **Tula Oblast** (<sup>1</sup>Svetasheva, 2004; <sup>1</sup>Svetasheva, 2005a; <sup>1</sup>Svetasheva, 2005b).

SIBERIA: **Krasnoyarsk Krai** (<sup>1</sup>Zauzolkova, 2012; <sup>1</sup>Zauzolkova, 2015); **Novosibirsk Oblast** (<sup>1</sup>Koropachinskiy and Banaev, 2014); **Tomsk Oblast** (<sup>1</sup>Perova, 1972; <sup>1</sup>Perova and Gorbunova, 2001; <sup>1</sup>Kudashova, Gashkov, and Kutafjeva, 2013).

FAR EAST: **Magadan Oblast** (<sup>1</sup>Sazanova, 2011); **Primorsky Krai** (<sup>1</sup>Vassiljeva, 1972; <sup>1</sup>Vassiljeva, 1973; <sup>1</sup>Azbukina et al., 1990; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1</sup>Nezdojminogo, 1996; <sup>1</sup>Bardunov et al., 2002).

***Cortinarius traganus* (Fr.) Fr.<sup>1</sup>**≡ *Agaricus traganus* Fr.<sup>2</sup> ≡ *Cortinarius traganus* var. *traganus* (Fr.) Fr.<sup>3</sup> ≡ *Phlegmacium traganum* (Fr.) M.M. Moser<sup>4</sup>

EASTERN EUROPE: **Arkhangelsk Oblast** (<sup>1</sup>Ezhov, Zmitrovich, and Ruokolainen, 2019); **Bryansk Oblast** (<sup>1</sup>Kruglikov, 2007); **Kaliningrad Oblast** (<sup>1</sup>Dedkov, Volodina, and Gubareva, 2007; <sup>1</sup>Volodina, 2007; <sup>1</sup>Atayev and Volodina, 2020); **Kaluga Oblast** (<sup>1</sup>Antokhina et al., 2015); **Karelia** (<sup>1</sup>Nezdojminogo, 1996; <sup>1</sup>Bondartseva et al., 2001; <sup>1</sup>Predtechenskaya and Ruokolainen, 2008; <sup>1</sup>Predtechenskaya and Ruokolainen, 2013; <sup>1</sup>Predtechenskaya, 2013; <sup>1</sup>Krutov et al., 2014; <sup>1</sup>Predtechenskaya and Ruokolainen, 2014; <sup>1</sup>Predtechenskaya, 2015; <sup>1</sup>Savelev and Kikeeva, 2020); **Kirov Oblast** (<sup>1</sup>Kirillov, 2011; <sup>1</sup>Kirillov, Perevedentseva, and Egoshina, 2011); **Komi Republic** (<sup>1</sup>Palamarchuk and Kirillov, 2018a); **Leningrad Oblast** (<sup>1</sup>Thesleff, 1920; <sup>1</sup>Nezdojminogo, 1978a; <sup>1</sup>Nezdojminogo, 1996; <sup>3</sup>Kovalenko and Morozova, 1999a; <sup>3</sup>Fomina, 2000; <sup>3</sup>Fomina, 2001; <sup>1</sup>Morozova, 2007; <sup>3</sup>Popov et al., 2007; <sup>1</sup>Malysheva, Malysheva, Shchepin, and Novozhilov, 2018); **Moscow Oblast** (<sup>1</sup>Gorlenko, Sidorova, and Sidorova, 1989; <sup>1</sup>Voronina et al., 2014); **Murmansk Oblast** (<sup>1</sup>Nezdojminogo, 1978a; <sup>1</sup>Nezdojminogo, 1996); **Novgorod Oblast** (<sup>3</sup>Kovalenko, Morozova, Nezdojminogo, and Popov, 2005; <sup>3</sup>Popov et al., 2013); **Perm Krai** (<sup>1</sup>Perevedentseva, 2008; <sup>1</sup>Belkovskaya et al., 2014); **Ryazan Oblast** (<sup>1</sup>Volosnova, 2014); **Saint Petersburg** (<sup>2</sup>Weinmann, 1828; <sup>2</sup>Weinmann, 1836; <sup>2</sup>Weinmann, 1837; <sup>3</sup>Kovalenko and Morozova, 1999a); **Smolensk Oblast** (<sup>1</sup>Jaczewski, 1896); **Sverdlovsk Oblast** (<sup>4</sup>Tomilin, 1965; <sup>1</sup>Stepanova and Sirko, 1977; <sup>1</sup>Nezdojminogo, 1996); **Tatarstan** (<sup>1</sup>Vassiljeva, 1977; <sup>1</sup>Nezdojminogo, 1978a; <sup>1</sup>Nezdojminogo, 1996); **Tula Oblast** (<sup>1</sup>Svetasheva, 2004; <sup>1</sup>Svetasheva, 2005a; <sup>1</sup>Shcherbakov, 2010); **Tver Oblast** (<sup>1</sup>Kurochkin, 1993; <sup>1</sup>Kotkova, 2014); **Udmurt Republic** (<sup>1</sup>Tychinin and Kuzmina, 2003); **Ulyanovsk Oblast** (<sup>1</sup>Ilyukhin, 2010a); **Vologda Oblast** (<sup>1</sup>Kutova, 1957; <sup>1</sup>Nezdojminogo, 1978a; <sup>1</sup>Nezdojminogo, 1996; <sup>1</sup>Kirillova, 2007); **Yamalo-Nenets Autonomous Okrug** (<sup>1</sup>Karatygin, Nezdojminogo, Novozhilov, and Zhurbenko, 1999); **Yaroslavl Oblast** (<sup>1</sup>Nezdojminogo, 1978a; <sup>1</sup>Nezdojminogo, 1996; <sup>1</sup>Lazareva, 1998a; <sup>1</sup>Lazareva, 2002).

SIBERIA: **Altai Republic** (<sup>1</sup>Brandrud et al., 2019); **Buryatia** (<sup>1</sup>Nezdojminogo, 1970a; <sup>1</sup>Nezdojminogo, 1978a; <sup>1</sup>Nezdojminogo, 1996); **Irkutsk Oblast** (<sup>1</sup>Kutafjeva, 1984; <sup>1</sup>Petrov, Nezdojminogo, and Bulakh, 1987; <sup>1</sup>Bardunov et al., 2005; <sup>1</sup>Petrov, 2008; <sup>1</sup>Muzyka and Penzina, 2017); **Khanty-Mansi Autonomous Okrug** (<sup>1</sup>Filippova and Bulyonkova, 2017a; <sup>1</sup>Filippova and Bulyonkova, 2017b); **Krasnoyarsk Krai** (<sup>1</sup>Beglyanova, 1972a; <sup>1</sup>Nezdojminogo,



1976a; <sup>1</sup>Nezdojminogo, 1978a; <sup>1</sup>Nezdojminogo, 1996); **Novosibirsk Oblast** (<sup>1</sup>Perova and Gorbunova, 2001; <sup>1</sup>Perova and Gorbunova, 2007); **Tomsk Oblast** (<sup>3</sup>Kudashova, Gashkov, and Kutafjeva, 2013; <sup>1</sup>Vaishlya et al., 2017).

FAR EAST: **Magadan Oblast** (<sup>1</sup>Sazanova and Golodnova, 2015; <sup>1</sup>Sazanova, 2015).

### ***Cortinarius triformis* Fr.<sup>1</sup>**

= *Cortinarius triformis* var. *schaefferi* Fr.<sup>2</sup>

EASTERN EUROPE: **Karachay-Cherkess Republic** (<sup>2</sup>Hollós, 1902; <sup>2</sup>Hollós, 1905; <sup>2</sup>Filarszky, 1907); **Karelia** (<sup>1</sup>Krutov et al., 2014); **Leningrad Oblast** (Stolyarskaya, 1993 [as *Cortinarius melleopallens* (Fr.) Lange, redet. in Zmitrovich et al., 2015]; <sup>1</sup>Nezdojminogo, 1996; <sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Fomina, 2000; <sup>1</sup>Fomina, 2001; <sup>1</sup>Popov et al., 2007; <sup>1</sup>Zmitrovich et al., 2015); **Saint Petersburg** (<sup>1</sup>Morozova and Smirnov, 2011); **Tatarstan** (<sup>1</sup>Nezdojminogo, 1996); **Udmurt Republic** (<sup>1</sup>Tychinin, 1990); **Yaroslavl Oblast** (<sup>1</sup>Nezdojminogo, 1996; <sup>1</sup>Lazareva, 1998a; <sup>1</sup>Lazareva, 2002).

SIBERIA: **Irkutsk Oblast** (<sup>1</sup>Kutafjeva and Astapenko, 1989; <sup>1</sup>Astapenko, 1990b); **Krasnoyarsk Krai** (<sup>1</sup>Nezdojminogo, 1976a; <sup>1</sup>Nezdojminogo, 1996).

### ***Cortinarius triumphans* Fr.<sup>1</sup>**

= *Cortinarius crocolitus* Quél.<sup>2</sup>

EASTERN EUROPE: **Bryansk Oblast** (<sup>1</sup>Kruglikov, 2007); **Chuvash Republic** (<sup>1</sup>Nezdojminogo, 1974; <sup>1</sup>Ivanov, 2001); **Kabardino-Balkarian Republic** (<sup>1</sup>Shkhagapsoev and Krapivina, 2004); **Kaliningrad Oblast** (<sup>1</sup>Dedkov, Volodina, and Gubareva, 2007; <sup>1</sup>Atayev and Volodina, 2020); **Kaluga Oblast** (<sup>1</sup>Sionova, 2003); **Karelia** (<sup>1</sup>Kovalenko, Morozova, Fomina, and Särkisilta, 1998; <sup>1</sup>Bondartseva et al., 2001; <sup>1</sup>Krutov et al., 2014); **Kirov Oblast** (<sup>1</sup>Kirillov, 2011; <sup>1</sup>Kirillov, Perevedentseva, and Egoshina, 2011; <sup>1</sup>Stavishenko, Luginina, Kirillov, and Egoshina, 2019); **Leningrad Oblast** (<sup>1</sup>Thesleff, 1920; <sup>1</sup>Nezdojminogo, 1974; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1</sup>Nezdojminogo, 1996; <sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Fomina, 2000; <sup>1</sup>Morozova and Kovalenko, 2000; <sup>1</sup>Popov et al., 2007; <sup>1</sup>Bondartseva et al., 2015; <sup>1</sup>Zmitrovich et al., 2015); **Lipetsk Oblast** (<sup>1</sup>Rtishcheva, 1999; <sup>1</sup>Sarycheva, 1999; <sup>1</sup>Afanasyev, Rtishcheva, and Starodubtseva, 2007; <sup>1</sup>Sarycheva et al., 2009; <sup>1</sup>Sarycheva, 2011; <sup>1</sup>Sarycheva, 2014a; <sup>1</sup>Sarycheva, 2016; <sup>1</sup>Sarycheva, Starodubtseva, and Sapelnikova, 2017); **Moscow** (<sup>1</sup>Samoilov and Morozova, 2011; <sup>1</sup>Muchnik et al., 2020); **Moscow Oblast** (<sup>1</sup>Gorlenko, Sidorova, and Sidorova, 1989; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1</sup>Levitskaya, 1995a; <sup>1</sup>Nezdojminogo, 1996; <sup>1</sup>Varlygina, Zubakin, and Sobolev, 2008; <sup>1</sup>Levitskaya, 2013; <sup>1</sup>Voronina et al., 2014); **North Ossetia** (<sup>1</sup>Nikolayev, 2001); **Novgorod Oblast** (<sup>1</sup>Morozova, 2012; <sup>1</sup>Popov et al., 2013); **Penza Oblast** (<sup>1</sup>Ivanov, 1983; <sup>1</sup>Ivanov and Durandin, 1996; <sup>1</sup>Ivanov, 2019); **Perm Krai** (<sup>1</sup>Perevedentseva, 2008); **Ryazan Oblast** (<sup>1</sup>Volosnova, 2014); **Saint Petersburg** (<sup>1</sup>Morozova et al., 2020); **Samara Oblast** (<sup>1</sup>Malysheva and Malysheva, 2004; <sup>1</sup>Rosenberg and Saksonov, 2007; <sup>1</sup>Malysheva and Malysheva, 2008; <sup>1</sup>Senator and Saksonov, 2017); **Sverdlovsk Oblast** (<sup>1</sup>Stepanova and Sirko, 1977; <sup>1</sup>Marina, 2006); **Tatarstan** (<sup>1</sup>Potapov, 2016a); **Tula Oblast** (<sup>1</sup>Svetasheva, 2001; <sup>1</sup>Svetasheva, 2003; <sup>1</sup>Svetasheva, 2004); **Tver Oblast** (<sup>1</sup>Kurochkin, 1993; <sup>1</sup>Mukhina, 2011a; <sup>1</sup>Mukhina, 2011b; <sup>1</sup>Kotkova, 2014); **Udmurt Republic** (<sup>1</sup>Tychinin, 1990; <sup>1</sup>Tychinin and Kuzmina, 2003); **Ulyanovsk Oblast** (<sup>1</sup>Ilyukhin, 2009; <sup>1</sup>Ilyukhin, 2010a; <sup>1</sup>Artemyeva, Maslennikov, and Korepov, 2015); **Vologda Oblast** (<sup>1</sup>Kirillova, 2007); **Voronezh Oblast** (<sup>1</sup>Rtishcheva, 1999; <sup>1</sup>Afanasyev, Rtishcheva, and Starodubtseva, 2007; <sup>1</sup>Sarycheva, Starodubtseva, and Sapelnikova, 2017; <sup>1</sup>Kochergina and Furmenkova, 2019).

SIBERIA: **Altai Krai** (<sup>1</sup>Gorbunova and Perova, 2006); **Altai Republic** (<sup>1</sup>Brandrud et al., 2019); **Irkutsk Oblast** (<sup>1</sup>Petrov, Nezdojminogo, and Bulakh, 1987; <sup>1</sup>Kutafjeva, 1989; <sup>1</sup>Astapenko, 1990b; <sup>1</sup>Petrov, 1991; <sup>1</sup>Muzyka, 2002; <sup>1</sup>Petrov, 2008); **Khanty-Mansi Autonomous Okrug** (<sup>1</sup>Filippova, Bulyonkova, and Lapshina, 2015); **Krasnoyarsk Krai** (<sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1</sup>Nezdojminogo, 1996; <sup>1</sup>Krom and Kapitonov, 2019); **Novosibirsk Oblast** (<sup>2</sup>Perova, 1977; <sup>1</sup>Perova and Gorbunova, 2001); **Tomsk Oblast** (<sup>1</sup>Kosheleva and Kutafjeva, 2004; <sup>1</sup>Agaphonova, Kutafjeva, and Gashkov, 2009a; <sup>1</sup>Kudashova, Gashkov, and Kutafjeva, 2013); **Yamalo-Nenets Autonomous Okrug** (<sup>1</sup>Tarчевskaya, 1990).

FAR EAST: **Primorsky Krai** (<sup>1</sup>Vassiljeva, 1972; <sup>1</sup>Vassiljeva, 1973; <sup>1</sup>Nezdojminogo, 1974; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1</sup>Nezdojminogo, 1996).

### ***Cortinarius trivialis* J.E. Lange<sup>1</sup>**

≡ *Cortinarius trivialis* var. *trivialis* J.E. Lange<sup>2</sup> ≡ *Inocybe trivialis* (J.E. Lange) M.M. Moser<sup>3</sup>

EASTERN EUROPE: **Adygea** (<sup>1</sup>Sopina, 2001a); **Bryansk Oblast** (<sup>1</sup>Kruglikov, 2007); **Crimea** (<sup>1</sup>Moser, 1993; <sup>1</sup>Dudka et al., 2004; <sup>1</sup>Sarkina, 2010b; <sup>1</sup>Sarkina, 2011; <sup>1</sup>Sarkina and Prydiuk, 2012; <sup>1</sup>Sarkina, 2013; <sup>1</sup>Sarkina and Mironova, 2015; <sup>1</sup>Sarkina and Stavishenko, 2019); **Kabardino-Balkarian Republic** (<sup>1</sup>Shkhagapsoev and Krapivina, 2004); **Karachay-Cherkess Republic** (<sup>1</sup>Kalamees and Botashev, 2000); **Karelia** (<sup>1</sup>Kovalenko, Morozova, Fomina, and Särkisilta, 1998;

<sup>1</sup>Bondartseva et al., 2001; <sup>1</sup>Krutov et al., 2014; <sup>1</sup>Predtechenskaya and Ruokolainen, 2014; <sup>1</sup>Savelev and Kikeeva, 2020); **Kirov Oblast** (<sup>1</sup>Kirillov, 2011; <sup>1</sup>Kirillov, Perevedentseva, and Egoshina, 2011; <sup>1</sup>Stavishenko, Luginina, Kirillov, and Egoshina, 2019); **Komi Republic** (<sup>1</sup>Palamarchuk, 2016a; <sup>1</sup>Palamarchuk, 2016b; <sup>1</sup>Palamarchuk and Kirillov, 2017; <sup>1</sup>Palamarchuk, 2017); **Krasnodar Krai** (<sup>1</sup>Kovalenko, 1980a; <sup>1</sup>Kovalenko, 1980b); **Leningrad Oblast** (<sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1</sup>Nezdojminogo, 1996; <sup>2</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Fomina, 2000; <sup>2</sup>Fomina, 2001; <sup>1</sup>Morozova, 2007; <sup>2</sup>Popov et al., 2007; <sup>1</sup>Zmitrovich et al., 2015; <sup>1</sup>Kalinina, 2018); **Lipetsk Oblast** (<sup>1</sup>Alferova, 1977; <sup>1</sup>Rtishcheva, 1999; <sup>1</sup>Sarycheva, 1999; <sup>1</sup>Afanasyev, Rtishcheva, and Starodubtseva, 2007; <sup>1</sup>Sarycheva et al., 2009; <sup>1</sup>Sarycheva, 2011; <sup>1</sup>Sarycheva, 2014a; <sup>1</sup>Sarycheva, 2016; <sup>1</sup>Sarycheva, Starodubtseva, and Sapelnikova, 2017); **Moscow Oblast** (<sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1</sup>Levitskaya, 1995c; <sup>3</sup>Levitskaya, 1995c; <sup>1</sup>Nezdojminogo, 1996; <sup>1</sup>Levitskaya, 2013); **Penza Oblast** (<sup>1</sup>Ivanov, 1983; <sup>1</sup>Ivanov and Durandin, 1996); **Perm Krai** (<sup>1</sup>Belkovskaya et al., 2014; <sup>1</sup>Perevedentseva and Shishigin, 2015; <sup>1</sup>Botalov, 2017; <sup>1</sup>Botalov and Perevedentseva, 2018); **Pskov Oblast** (<sup>1</sup>Popov, 2001a; <sup>1</sup>Popov et al., 2013); **Ryazan Oblast** (<sup>1</sup>Volosnova, 1997; <sup>1</sup>Volosnova, 2014); **Saint Petersburg** (<sup>1</sup>Morozova and Smirnov, 2011; <sup>1</sup>Morozova et al., 2020); **Sevastopol** (<sup>1</sup>Sarkina, 2016b); **Sverdlovsk Oblast** (<sup>1</sup>Stepanova and Sirko, 1977); **Tula Oblast** (<sup>1</sup>Svetasheva, 2004); **Tver Oblast** (<sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1</sup>Kurochkin, 1993; <sup>1</sup>Nezdojminogo, 1996); **Udmurt Republic** (<sup>1</sup>Tychinin and Kuzmina, 2003); **Vologda Oblast** (<sup>1</sup>Kirillova, 2007); **Voronezh Oblast** (<sup>1</sup>Rtishcheva, 1999; <sup>1</sup>Afanasyev, Rtishcheva, and Starodubtseva, 2007; <sup>1</sup>Selochnik, 2015; <sup>1</sup>Sarycheva, Starodubtseva, and Sapelnikova, 2017); **Yaroslavl Oblast** (<sup>1</sup>Lazareva, 1998a; <sup>1</sup>Lazareva, 2002); **Arid territories** (<sup>1</sup>Rebriev, Rusanov, et al., 2012).

**SIBERIA: Altai Krai** (<sup>1</sup>Gorbunova and Perova, 2006); **Altai Republic** (<sup>1</sup>Gorbunova, 2001b; <sup>1</sup>Perova and Gorbunova, 2001; <sup>1</sup>Gorbunova, 2003; <sup>1</sup>Gorbunova, 2010); **Irkutsk Oblast** (<sup>1</sup>Kutafjeva, 1984; <sup>1</sup>Petrov, Nezdojminogo, and Bulakh, 1987; <sup>1</sup>Kutafjeva and Astapenko, 1989; <sup>1</sup>Petrov, 1989; <sup>1</sup>Astapenko, 1990b; <sup>1</sup>Nezdojminogo, 1996; <sup>1</sup>Muzyka, 2002; <sup>1</sup>Petrov, 2008; <sup>1</sup>Muzyka, 2009; <sup>1</sup>Muzyka and Penzina, 2017); **Khakassia** (<sup>1</sup>Zauzolkova and Gorbunova, 2013; <sup>1</sup>Zauzolkova, 2015); **Khanty-Mansi Autonomous Okrug** (<sup>1</sup>Zvyagina, Baykalova, and Gorbunova, 2007; <sup>1</sup>Zvyagina, 2008; <sup>1</sup>Shepeleva et al., 2014; <sup>1</sup>Filippova and Bulyonkova, 2017a; <sup>1</sup>Filippova and Bulyonkova, 2017b); **Krasnoyarsk Krai** (<sup>1</sup>Stepanova and Tomilin, 1973; <sup>1</sup>Nezdojminogo, 1976a; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1</sup>Nezdojminogo, 1996; <sup>1</sup>Pavlov et al., 2007; <sup>1</sup>Kosheleva and Kutafjeva, 2008a; <sup>1</sup>Kryuchkova, 2009; <sup>1</sup>Kryuchkova, 2014a; <sup>1</sup>Malysheva, Malysheva, Kiyashko, et al., 2017; <sup>1</sup>Krom and Kapitonov, 2019); **Novosibirsk Oblast** (<sup>1</sup>Perova and Gorbunova, 2001; <sup>1</sup>Perova and Gorbunova, 2007; <sup>1</sup>Koropachinskiy and Banaev, 2014); **Sakha Republic** (<sup>1</sup>Nezdojminogo, 2003); **Tomsk Oblast** (<sup>1</sup>Kosheleva and Kutafjeva, 2004; <sup>1</sup>Kudashova, Gashkov, and Kutafjeva, 2013).

**FAR EAST: Chukotka Autonomous Okrug** (<sup>1</sup>Nezdojminogo, 1996); **Khabarovsk Krai** (<sup>1</sup>Azbukina et al., 1986; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1</sup>Nezdojminogo, 1996; <sup>1</sup>Bau, Bulakh, and Govorova, 2011); **Magadan Oblast** (<sup>1</sup>Rebriev, Bulakh, Sazanova, and Shiryaev, 2020).

### ***Cortinarius trossingenensis* Melot**

**EASTERN EUROPE: Sverdlovsk Oblast** (Marina, 2006).

### ***Cortinarius tubarius* Ammirati & A.H. Sm.<sup>1</sup>**

= *Cortinarius palustris* var. *sphagneti* (M.M. Moser) Nezdojm.<sup>2</sup> = *Dermocybe palustris* var. *sphagneti* M.M. Moser<sup>3</sup> = *Dermocybe sphagneti* (M.M. Moser) M.M. Moser<sup>4</sup>

**EASTERN EUROPE: Karelia** (<sup>1</sup>Krutov et al., 2014); **Komi Republic** (<sup>1</sup>Bobretsova, 2004; <sup>1</sup>Palamarchuk, 2011b; <sup>1</sup>Palamarchuk, 2012; <sup>1</sup>Palamarchuk, 2016a; <sup>1</sup>Palamarchuk, 2016b; <sup>1</sup>Palamarchuk, 2017); **Leningrad Oblast** (<sup>2</sup>Nezdojminogo, 1980b; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Morozova, 2007; <sup>1</sup>Popov et al., 2007; <sup>1</sup>Zmitrovich et al., 2015); **Murmansk Oblast** (<sup>3</sup>Mikhailovskii, 1975b; <sup>2</sup>Nezdojminogo, 1980b; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990); **Perm Krai** (<sup>1</sup>Perevedentseva, 2008; <sup>1</sup>Belkovskaya et al., 2014; <sup>1</sup>Botalov, 2017; <sup>1</sup>Botalov and Perevedentseva, 2018); **Ryazan Oblast** (<sup>4</sup>Volosnova, 1997; <sup>1</sup>Volosnova, 2014); **Sverdlovsk Oblast** (<sup>1</sup>Marina, 2006); **Tver Oblast** (<sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990); **Vologda Oblast** (<sup>1</sup>Kirillova, 2007).

**SIBERIA: Buryatia** (<sup>2</sup>Nezdojminogo, 1980b; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1</sup>Nezdojminogo, 1996); **Khanty-Mansi Autonomous Okrug** (<sup>1</sup>Filippova and Bulyonkova, 2017a; <sup>1</sup>Filippova and Bulyonkova, 2017b); **Krasnoyarsk Krai** (<sup>3</sup>Beglyanova, 1972a; <sup>2</sup>Nezdojminogo, 1980b; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1</sup>Nezdojminogo, 1996; <sup>1</sup>Kosheleva and Kutafjeva, 2008a; <sup>1</sup>Kryuchkova, 2009); **Sakha Republic** (<sup>2</sup>Nezdojminogo, 1980b; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1</sup>Nezdojminogo, 1996).

**FAR EAST: Kamchatka Krai** (<sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1</sup>Nezdojminogo, 1996); **Magadan Oblast** (<sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1</sup>Nezdojminogo, 1996; <sup>1</sup>Sazanova, 2005);

<sup>1</sup>Sazanova, 2009a; <sup>1</sup>Sazanova, 2009b; <sup>1</sup>Sazanova, 2011; <sup>1</sup>Sazanova and Golodnova, 2015); **Sakhalin Oblast** (<sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdjominogo, 1990).

***Cortinarius turbinatus* (Bull.) Fr.<sup>1</sup>**

≡ *Agaricus turbinatus* Bull.<sup>2</sup>

EASTERN EUROPE: **Leningrad Oblast** (<sup>2</sup>Weinmann, 1836); **Moscow** (<sup>1</sup>Bucholtz, 1897b; <sup>1</sup>Bucholtz, 1897c; <sup>1</sup>Mosolov, 1906); **Saint Petersburg** (<sup>2</sup>Weinmann, 1836; <sup>2</sup>Weinmann, 1837).

FAR EAST: **Primorsky Krai** (<sup>1</sup>Vassiljeva, 1973).

***Cortinarius turgidus* Fr.**

EASTERN EUROPE: **Crimea** (Sarkina, 2010b; Sarkina and Mironova, 2015; Sarkina and Stavishenko, 2019); **Karelia** (Kovalenko, Morozova, Fomina, and Särkisilta, 1998; Krutov et al., 2014); **Sevastopol** (Sarkina, 2016b); **Tula Oblast** (Svetasheva, 2003; Svetasheva, 2004).

SIBERIA: **Irkutsk Oblast** (Petrov, Nezdjominogo, and Bulakh, 1987; Petrov, 1991; Petrov, 2008).

FAR EAST: **Primorsky Krai** (Vassiljeva, 1973; Nezdjominogo, 1978a; Bulakh, Wasser, Nazarova, and Nezdjominogo, 1990; Nezdjominogo, 1996; Bulakh et al., 2016).

***Cortinarius turmalis* Fr.**

SIBERIA: **Khakassia** (Zauzolkova and Gorbunova, 2013; Zauzolkova, 2015).

***Cortinarius uliginosus* Berk.<sup>1</sup>**

≡ *Cortinarius uliginosus* f. *uliginosus* Berk.<sup>2</sup> ≡ *Cortinarius uliginosus* var. *uliginosus* Berk.<sup>3</sup> ≡ *Dermocybe uliginosa* (Berk.) M.M. Moser<sup>4</sup> = *Cortinarius uliginosus* f. *luteus* (Gabriel & Lamoure) Høil.<sup>5</sup> = *Cortinarius uliginosus* var. *luteus* Gabriel & Lamoure<sup>6</sup>

EASTERN EUROPE: **Karelia** (<sup>2</sup>Kovalenko, Morozova, Fomina, and Särkisilta, 1998; <sup>1</sup>Krutov et al., 2014); **Komi Republic** (<sup>1</sup>Palamarchuk, 2016a); **Leningrad Oblast** (<sup>1</sup>Nezdjominogo, 1980b; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdjominogo, 1990; <sup>1</sup>Stolyarskaya, 1993; <sup>1</sup>Nezdjominogo, 1996; <sup>2</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Morozova and Kovalenko, 2000; <sup>1</sup>Morozova, 2007; <sup>2</sup>Popov et al., 2007; <sup>1</sup>Zmitrovich et al., 2015; <sup>1</sup>Kalinina, 2018); **Moscow Oblast** (<sup>1</sup>Levitskaya, 2006; <sup>1</sup>Levitskaya, 2013); **Murmansk Oblast** (<sup>1</sup>Nezdjominogo, 1980b; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdjominogo, 1990; <sup>1</sup>Nezdjominogo, 1996; <sup>3</sup>Karatygin, Nezdjominogo, Novozhilov, and Zhurbenko, 1999; <sup>3</sup>Berlina, 2005); **Novgorod Oblast** (<sup>1</sup>Malysheva, Malysheva, and Zmitrovich, 2007); **Penza Oblast** (<sup>1</sup>Ivanov, 1985; <sup>1</sup>Ivanov and Durandin, 1996); **Perm Krai** (<sup>4</sup>Shkaraba, Perevedentseva, and Moshkina, 1990; <sup>1</sup>Perevedentseva, 2008; <sup>1</sup>Botalov, 2017; <sup>1</sup>Botalov and Perevedentseva, 2018); **Pskov Oblast** (<sup>2,5</sup>Kovalenko, Kolmakov, Morozova, and Popov, 2003; <sup>2,5</sup>Popov et al., 2013); **Ryazan Oblast** (<sup>4</sup>Volosnova, 1997; <sup>1</sup>Volosnova, 2014); **Saint Petersburg** (<sup>1</sup>Morozova and Smirnov, 2011; <sup>1</sup>Morozova, Kovalenko, Rebriev, and Malysheva, 2014; <sup>1</sup>Morozova et al., 2020); **Sverdlovsk Oblast** (<sup>2</sup>Marina, 2006); **Tatarstan** (<sup>1</sup>Vassiljeva, 1977; <sup>1</sup>Nezdjominogo, 1980b; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdjominogo, 1990; <sup>1</sup>Nezdjominogo, 1996); **Tula Oblast** (<sup>1</sup>Svetasheva, 2004; <sup>1</sup>Svetasheva, 2005a); **Tver Oblast** (<sup>1</sup>Mukhina, 2011a; <sup>1</sup>Kotkova, 2014); **Ulyanovsk Oblast** (<sup>6</sup>Ilyukhin, 2009; <sup>6</sup>Ilyukhin, 2010a); **Vologda Oblast** (<sup>1</sup>Kutova, 1957); **Yamalo-Nenets Autonomous Okrug** (<sup>3</sup>Karatygin, Nezdjominogo, Novozhilov, and Zhurbenko, 1999); **Yaroslavl Oblast** (<sup>1</sup>Nezdjominogo, 1980b; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdjominogo, 1990; <sup>1</sup>Nezdjominogo, 1996; <sup>1</sup>Lazareva, 1998a; <sup>1</sup>Lazareva, 2002); **Arid territories** (<sup>1</sup>Rebriev, Rusanov, et al., 2012).

SIBERIA: **Altai Krai** (<sup>1</sup>Gorbunova and Chubarova, 2008; <sup>1</sup>Gorbunova, Vlasenko, and Tzhubarova, 2011); **Buryatia** (<sup>1</sup>Nezdjominogo, 1980b; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdjominogo, 1990; <sup>4</sup>Petrov, 1991; <sup>1</sup>Nezdjominogo, 1996); **Irkutsk Oblast** (<sup>4</sup>Petrov, Nezdjominogo, and Bulakh, 1987; <sup>4</sup>Petrov, 1991; <sup>4</sup>Petrov, 2008); **Khanty-Mansi Autonomous Okrug** (<sup>1</sup>Filippova, Bulyonkova, and Lapshina, 2015); **Krasnoyarsk Krai** (<sup>4</sup>Beglyanova, 1972a; <sup>1</sup>Nezdjominogo, 1976a; <sup>1</sup>Nezdjominogo, 1980b; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdjominogo, 1990; <sup>1</sup>Nezdjominogo, 1996).

FAR EAST: **Amur Oblast** (<sup>1</sup>Nezdjominogo, 1980b; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdjominogo, 1990; <sup>1</sup>Nezdjominogo, 1996; <sup>1</sup>Azbukina et al., 1998; <sup>1</sup>Taranina, 2005); **Jewish Autonomous Oblast** (<sup>1</sup>Bulakh, Govorova, Nazarova, and Vassiljeva, 2007; <sup>1</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Erofeeva, Bukharova, and Bulakh, 2019); **Khabarovsk Krai** (<sup>4</sup>Azbukina et al., 1986; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdjominogo, 1990; <sup>1</sup>Nezdjominogo, 1996; <sup>1</sup>Bau, Bulakh, and Govorova, 2011); **Magadan Oblast** (<sup>1</sup>Nazarova, 1976; <sup>1</sup>Nezdjominogo, 1980b; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdjominogo, 1990; <sup>1</sup>Sazanova, 2005; <sup>1</sup>Sazanova, 2009a; <sup>1</sup>Sazanova, 2009b; <sup>1</sup>Sazanova, 2011; <sup>1</sup>Sazanova and Golodnova, 2015); **Primorsky Krai** (<sup>1</sup>Nezdjominogo, 1980b; <sup>4</sup>Azbukina et al., 1984; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdjominogo, 1990; <sup>1</sup>Nezdjominogo, 1996; <sup>1</sup>Bau, Bulakh, and Govorova, 2011).

***Cortinarius umbrinolens* P.D. Orton**

SIBERIA: **Altai Republic** (Brandrud et al., 2019); **Khanty-Mansi Autonomous Okrug** (Filippova, Bulyonkova, and Lapshina, 2015; Filippova and Bulyonkova, 2017a; Filippova and Bulyonkova, 2017b).

FAR EAST: **Jewish Autonomous Oblast** (Bau, Bulakh, and Govorova, 2011).

***Cortinarius uraceus* Fr.**

EASTERN EUROPE: **Adygea** (Vassiljeva, 1939; Sopina, 2001a); **Karelia** (Bondartseva et al., 2001; Krutov et al., 2014); **Leningrad Oblast** (Thesleff, 1920; Kovalenko and Morozova, 1999a; Popov et al., 2007; Zmitrovich et al., 2015); **Lipetsk Oblast** (Sarycheva et al., 2009); **Perm Krai** (Perevedentseva, 2008; Perevedentseva and Shishigin, 2015; Botalov, 2017); **Sverdlovsk Oblast** (Nezdojminogo, 1996; Marina, 2006); **Vologda Oblast** (Kirillova, 2007); **Voronezh Oblast** (Agafonov, 2018).

SIBERIA: **Altai Krai** (Gorbunova, 2018a); **Altai Republic** (Gorbunova, 2008; Gorbunova, 2017b); **Buryatia** (Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; Petrov, 1991; Nezdojminogo, 1996); **Irkutsk Oblast** (Kutafjeva, 1984); **Krasnoyarsk Krai** (Beglyanova, 1972a; Beglyanova, 1972b; Beglyanova, 1972c; Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; Nezdojminogo, 1996); **Novosibirsk Oblast** (Koropachinskiy and Banaev, 2014); **Tomsk Oblast** (Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; Nezdojminogo, 1996; Perova and Gorbunova, 2001; Kudashova, Gashkov, and Kutafjeva, 2013; Vaishlya et al., 2017).

FAR EAST: **Magadan Oblast** (Nazarova, 1976; Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; Nezdojminogo, 1996; Sazanova, 2005; Sazanova, 2009a; Sazanova and Golodnova, 2015); **Primorsky Krai** (Vassiljeva, 1973; Bunkina and Nazarova, 1978; Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; Nezdojminogo, 1996; Azbukina et al., 2006; Bau, Bulakh, and Govorova, 2011; Bulakh et al., 2016).

***Cortinarius urbicus* (Fr.) Fr.<sup>1</sup>**

≡ *Agaricus urbicus* Fr.<sup>2</sup>

EASTERN EUROPE: **Leningrad Oblast** (<sup>1</sup>Popov et al., 2007); **Mordovia** (<sup>1</sup>Chastukhin, 1948a; <sup>1</sup>Chastukhin and Nikolaevskaya, 1969; <sup>1</sup>Chastukhin, 2011; <sup>1</sup>Ivoilov and Bolshakov, 2011a); **Moscow Oblast** (<sup>1</sup>Nezdojminogo, 1978a; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1</sup>Nezdojminogo, 1996); **Penza Oblast** (<sup>1</sup>Ivanov, 1983; <sup>1</sup>Ivanov and Durandin, 1996; <sup>1</sup>Nezdojminogo, 1996); **Saint Petersburg** (<sup>2</sup>Weinmann, 1836; <sup>1</sup>Kovalenko and Morozova, 1999a); **Sverdlovsk Oblast** (<sup>1</sup>Marina, 2006).

SIBERIA: **Altai Krai** (<sup>1</sup>Gorbunova, 2018a); **Altai Republic** (<sup>1</sup>Gorbunova, 2003; <sup>1</sup>Gorbunova, 2010); **Irkutsk Oblast** (<sup>1</sup>Petrov, Nezdojminogo, and Bulakh, 1987; <sup>1</sup>Petrov, 1991; <sup>1</sup>Petrov, 2008); **Krasnoyarsk Krai** (<sup>1</sup>Beglyanova, 1972a; <sup>1</sup>Nezdojminogo, 1978a; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1</sup>Nezdojminogo, 1996); **Novosibirsk Oblast** (<sup>1</sup>Perova and Gorbunova, 2001; <sup>1</sup>Perova and Gorbunova, 2007).

FAR EAST: **Primorsky Krai** (<sup>1</sup>Vassiljeva, 1973; <sup>1</sup>Nezdojminogo, 1978a; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1</sup>Nezdojminogo, 1996; <sup>1</sup>Azbukina et al., 2006; <sup>1</sup>Bau, Bulakh, and Govorova, 2011).

***Cortinarius valgus* Fr.<sup>1</sup>**

= *Cortinarius camurus* Fr.<sup>2</sup>

EASTERN EUROPE: **Karelia** (<sup>1</sup>Bondartseva et al., 2001; <sup>1</sup>Krutov et al., 2014); **Leningrad Oblast** (<sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Fomina, 2000; <sup>1</sup>Morozova and Kovalenko, 2000; <sup>1</sup>Tzvelev, 2000; <sup>1</sup>Popov et al., 2007; <sup>1</sup>Geltman et al., 2018); **Murmansk Oblast** (<sup>2</sup>Mikhailovskii, 1975a; <sup>2</sup>Nezdojminogo, 1996); **Penza Oblast** (<sup>1</sup>Ivanov, 1983; <sup>1</sup>Ivanov and Durandin, 1996; <sup>1</sup>Nezdojminogo, 1996); **Perm Krai** (<sup>1</sup>Perevedentseva, 2008; <sup>1</sup>Botalov, 2017); **Tula Oblast** (<sup>1</sup>Svetasheva, 2004; <sup>1</sup>Svetasheva, 2005a).

***Cortinarius variegatus* Bres.**

EASTERN EUROPE: **Murmansk Oblast** (Nezdojminogo, 1996); **Tatarstan** (Vassiljeva, 1977; Nezdojminogo, 1996).

***Cortinarius variicolor* (Pers.) Fr.<sup>1</sup>**

≡ *Phlegmacium variicolor* (Pers.) Wünsche<sup>2</sup> = *Cortinarius nemorensis* (Fr.) J.E. Lange<sup>3</sup> = *Cortinarius variicolor* var. *marginatus* (M.M. Moser) Quadr.<sup>4</sup>

EASTERN EUROPE: **Bryansk Oblast** (<sup>1</sup>Kruglikov, 2007); **Kabardino-Balkarian Republic** (<sup>1</sup>Shkhagapsoev and Krapivina, 2003; <sup>1</sup>Shkhagapsoev and Krapivina, 2004); **Kaliningrad Oblast** (<sup>1</sup>Dedkov, Volodina, and Gubareva, 2007); **Komi Republic** (<sup>1</sup>Palamarchuk, 2020b); **Krasnodar Krai** (<sup>3</sup>Kovalenko, 1980a; <sup>3</sup>Kovalenko, 1980b; <sup>3</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>3</sup>Nezdojminogo, 1996); **Leningrad Oblast** (<sup>1</sup>Nezdojminogo, 1996; <sup>1</sup>Kovalenko

and Morozova, 1999a; <sup>1</sup>Popov et al., 2007); **Lipetsk Oblast** (<sup>3</sup>Sarycheva, 2016); **Moscow Oblast** (<sup>3</sup>Levitskaya, 1995c; <sup>3</sup>Nezdojminogo, 1996; <sup>3</sup>Levitskaya, 2013); **Penza Oblast** (<sup>1</sup>Ivanov, 1983; <sup>1</sup>Ivanov, 1992; <sup>1</sup>Ivanov and Durandin, 1996); **Perm Krai** (<sup>1</sup>Shkaraba, Perevedentseva, and Moshkina, 1990; <sup>1,3</sup>Perevedentseva, 2008; <sup>3</sup>Perevedentseva and Shishigin, 2015); **Sverdlovsk Oblast** (<sup>1</sup>Stepanova and Sirko, 1977; <sup>1</sup>Nezdojminogo, 1996; <sup>3</sup>Marina, 2006); **Tula Oblast** (<sup>3</sup>Svetasheva, 2003; <sup>3,4</sup>Svetasheva, 2004; <sup>4</sup>Svetasheva, 2005a; <sup>3,4</sup>Svetasheva, 2005b); **Udmurt Republic** (<sup>1</sup>Tychinin and Kuzmina, 2003); **Ulyanovsk Oblast** (<sup>3</sup>Ilyukhin, 2010a; <sup>3</sup>Ilyukhin, 2010b).

SIBERIA: **Altai Krai** (<sup>3</sup>Zhukov, 1979); **Khanty-Mansi Autonomous Okrug** (<sup>1</sup>Zvyagina, 2008; <sup>1</sup>Shepeleva et al., 2014); **Novosibirsk Oblast** (<sup>3</sup>Perova, 1982; <sup>3</sup>Perova and Gorbunova, 2001); **Tomsk Oblast** (<sup>2</sup>Milovidova, 1980); **Yamalo-Nenets Autonomous Okrug** (<sup>1</sup>Tarчевskaya, 1990).

FAR EAST: **Chukotka Autonomous Okrug** (<sup>1</sup>Nezdojminogo, 1996); **Primorsky Krai** (<sup>1</sup>Vassiljeva, 1973; <sup>3</sup>Vassiljeva, 1973; <sup>3</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1</sup>Nezdojminogo, 1996; <sup>3</sup>Nezdojminogo, 1996).

### ***Cortinarius variiformis* Malençon**

SIBERIA: **Novosibirsk Oblast** (Koropachinskiy and Banaev, 2014).

### ***Cortinarius varius* (Schaeff.) Fr.<sup>1</sup>**

= *Agaricus lateritius* Batsch<sup>2</sup> = *Cortinarius decolorans* (Pers.) Fr.<sup>3</sup>

EASTERN EUROPE: **Kabardino-Balkarian Republic** (<sup>1</sup>Shkhagapsoev and Krapivina, 2004); **Kaluga Oblast** (<sup>1</sup>Sionova, 2003); **Karelia** (<sup>1</sup>Krutov et al., 2014); **Kirov Oblast** (<sup>1</sup>Kirillov, 2011; <sup>1</sup>Kirillov, Perevedentseva, and Egoshina, 2011); **Krasnodar Krai** (<sup>1</sup>Vassiljeva, 1939; <sup>1</sup>Nezdojminogo, 1996); **Leningrad Oblast** (<sup>1,3</sup>Thesleff, 1920; <sup>1,3</sup>Kovalenko and Morozova, 1999a; <sup>1,3</sup>Popov et al., 2007); **Perm Krai** (<sup>1</sup>Perevedentseva, 2008); **Tatarstan** (<sup>1</sup>Vassiljeva, 1977; <sup>1</sup>Nezdojminogo, 1996); **Udmurt Republic** (<sup>1</sup>Kapitonov, 2013).

SIBERIA: **Khakassia** (<sup>1</sup>Beglyanova, 1972a); **Krasnoyarsk Krai** (<sup>2</sup>Thümen, 1882; <sup>1</sup>Nezdojminogo, 1996); **Tomsk Oblast** (<sup>1</sup>Milovidova, 1980; <sup>1</sup>Nezdojminogo, 1996; <sup>1</sup>Perova and Gorbunova, 2001; <sup>1</sup>Kudashova, Gashkov, and Kutafjeva, 2013; <sup>1</sup>Vaishlya et al., 2017).

### ***Cortinarius velutinellus* Singer**

EASTERN EUROPE: **Karelia** (Freindling, 1949; Bondartseva et al., 2001; Krutov et al., 2014).

### ***Cortinarius venetus* (Fr.) Fr.<sup>1</sup>**

≡ *Cortinarius venetus* var. *venetus* (Fr.) Fr.<sup>2</sup> = *Cortinarius venetus* var. *montanus* M.M. Moser<sup>3</sup>

EASTERN EUROPE: **Belgorod Oblast** (<sup>2</sup>Bedenko, 1979a; <sup>2</sup>Nezdojminogo, 1979; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1</sup>Nezdojminogo, 1996); **Crimea** (<sup>1</sup>Sarkina, 2010b; <sup>1</sup>Sarkina, 2011); **Krasnodar Krai** (<sup>3</sup>Kovalenko, 1980a; <sup>3</sup>Kovalenko, 1980b; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1</sup>Nezdojminogo, 1996); **Moscow Oblast** (<sup>1</sup>Gorlenko, Sidorova, and Sidorova, 1989; <sup>1</sup>Varlygina, Zubakin, and Sobolev, 2008); **Pskov Oblast** (<sup>1</sup>Popov et al., 2013).

SIBERIA: **Altai Krai** (<sup>1</sup>Gorbunova and Perova, 2006); **Altai Republic** (<sup>1</sup>Gorbunova, 2008); **Irkutsk Oblast** (<sup>3</sup>Nezdojminogo, 1979; <sup>1</sup>Kutafjeva, 1984; <sup>1</sup>Astapenko, 1990b; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1</sup>Nezdojminogo, 1996); **Krasnoyarsk Krai** (<sup>1</sup>Beglyanova, 1972a; <sup>3</sup>Nezdojminogo, 1979; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1</sup>Nezdojminogo, 1996; <sup>1</sup>Kryuchkova, 2009); **Novosibirsk Oblast** (<sup>1</sup>Perova, 1977; <sup>1</sup>Perova and Gorbunova, 2001); **Tomsk Oblast** (<sup>3</sup>Kudashova, Gashkov, and Kutafjeva, 2013; <sup>1</sup>Kudashova, Gashkov, and Vaishlya, 2016b; <sup>1</sup>Vaishlya et al., 2017).

FAR EAST: **Amur Oblast** (<sup>3</sup>Nezdojminogo, 1979; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1</sup>Nezdojminogo, 1996; <sup>1</sup>Azbukina et al., 1998); **Jewish Autonomous Oblast** (<sup>1</sup>Bulakh, Govorova, Nazarova, and Vassiljeva, 2007; <sup>1</sup>Bau, Bulakh, and Govorova, 2011); **Khбаровsk Krai** (<sup>1</sup>Azbukina et al., 1989); **Primorsky Krai** (<sup>1</sup>Vassiljeva, 1972; <sup>1</sup>Vassiljeva, 1973; <sup>3</sup>Nezdojminogo, 1979; <sup>1,3</sup>Azbukina et al., 1984; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1</sup>Nezdojminogo, 1996; <sup>1</sup>Azbukina et al., 2006; <sup>1</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Bulakh et al., 2016).

### ***Cortinarius venustus* P. Karst.**

EASTERN EUROPE: **Karelia** (Krutov et al., 2014); **Perm Krai** (Perevedentseva, 2008; Belkovskaya et al., 2014).

SIBERIA: **Khanty-Mansi Autonomous Okrug** (Filippova, Bulyonkova, and Lapshina, 2015; Filippova and Bulyonkova, 2017a; Filippova and Bulyonkova, 2017b).

***Cortinarius vernus* H. Lindstr. & Melot**

EASTERN EUROPE: **Pskov Oblast** (Popov et al., 2013); **Tula Oblast** (Svetasheva, 2003; Svetasheva, 2004).

SIBERIA: **Altai Republic** (Brandrud et al., 2019); **Khanty-Mansi Autonomous Okrug** (Filippova and Bulyonkova, 2017a; Filippova and Bulyonkova, 2017b); **Krasnoyarsk Krai** (Kosheleva and Kutafjeva, 2008b).

***Cortinarius vibratilis* (Fr.) Fr.<sup>1</sup>**

≡ *Agaricus vibratilis* Fr.<sup>2</sup>

EASTERN EUROPE: **Karelia** (<sup>1</sup>Bondartseva et al., 2001; <sup>1</sup>Krutov et al., 2014); **Leningrad Oblast** (<sup>1</sup>Thesleff, 1920; <sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Fomina, 2000; <sup>1</sup>Fomina, 2001; <sup>1</sup>Morozova, 2007; <sup>1</sup>Popov et al., 2007; <sup>1</sup>Malysheva, Malysheva, Shchepin, and Novozhilov, 2018); **Penza Oblast** (<sup>1</sup>Ivanov, 1983; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1</sup>Ivanov and Durandin, 1996; <sup>1</sup>Nezdojminogo, 1996); **Perm Krai** (<sup>1</sup>Perevedentseva, 2008; <sup>1</sup>Botalov, 2017); **Pskov Oblast** (<sup>1</sup>Popov et al., 2013); **Saint Petersburg** (<sup>2</sup>Weinmann, 1836; <sup>2</sup>Weinmann, 1837; <sup>1</sup>Morozova and Smirnov, 2011); **Sverdlovsk Oblast** (<sup>1</sup>Marina, 2006); **Tatarstan** (<sup>1</sup>Vassiljeva, 1977; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1</sup>Nezdojminogo, 1996).

SIBERIA: **Altai Republic** (<sup>1</sup>Gorbunova, 2008; <sup>1</sup>Brandrud et al., 2019); **Irkutsk Oblast** (<sup>1</sup>Kutafjeva, 1984; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1</sup>Nezdojminogo, 1996); **Khakassia** (<sup>1</sup>Zauzolkova and Gorbunova, 2013; <sup>1</sup>Zauzolkova, 2015); **Khanty-Mansi Autonomous Okrug** (<sup>1</sup>Filippova and Thormann, 2014; <sup>1</sup>Filippova, 2014; <sup>1</sup>Filippova, Mourgues, and Philippe, 2014; <sup>1</sup>Filippova, Bulyonkova, and Lapshina, 2015; <sup>1</sup>Filippova and Bulyonkova, 2017a; <sup>1</sup>Filippova and Bulyonkova, 2017b); **Novosibirsk Oblast** (<sup>1</sup>Perova and Gorbunova, 2001; <sup>1</sup>Perova and Gorbunova, 2007).

FAR EAST: **Magadan Oblast** (<sup>1</sup>Sazanova, 2005; <sup>1</sup>Sazanova, 2009a); **Primorsky Krai** (<sup>1</sup>Vassiljeva, 1973; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1</sup>Nezdojminogo, 1996; <sup>1</sup>Bulakh et al., 2016).

***Cortinarius violaceipes* Bidaud & Consiglio**

EASTERN EUROPE: **Arid territories** (Rebriev, Rusanov, et al., 2012).

***Cortinarius violaceus* (L.) Gray<sup>1</sup>**

≡ *Agaricus violaceus* L.<sup>2</sup>

EASTERN EUROPE: **Arkhangelsk Oblast** (<sup>1</sup>Anufriev et al., 2020); **Bashkortostan** (<sup>1</sup>Mirkin, 2011); **Bryansk Oblast** (<sup>1</sup>Fedotov, 2004; <sup>1</sup>Kruglikov, 2007; <sup>1</sup>Bulokhov, Panasenko, Semenishchenkov, and Sitnikova, 2016); **Chelyabinsk Oblast** (<sup>1</sup>Sirko and Stepanova, 1977; <sup>1</sup>Stepanova and Sirko, 1977; <sup>1</sup>Bolshakov, Bogdanov, Knyazev, and Lagunov, 2017); **Chuvash Republic** (<sup>1</sup>Ivanov, 2001; <sup>1</sup>Gafurova, Ignatov, Tolpysheva, and Svetasheva, 2020); **Crimea** (<sup>1</sup>Sarkina, 2001; <sup>1</sup>Dudka et al., 2004; <sup>1</sup>Sarkina, 2010b); **Kabardino-Balkarian Republic** (<sup>1</sup>Shkhagapsoev and Krapivina, 2004); **Kaliningrad Oblast** (<sup>1</sup>Dedkov, Volodina, and Gubareva, 2007; <sup>1</sup>Dedkov and Grishanov, 2010); **Kaluga Oblast** (<sup>1</sup>Sionova, 2003; <sup>1</sup>Alekseev et al., 2006; <sup>1</sup>Sionova, 2009; <sup>1</sup>Antokhina et al., 2015); **Karelia** (<sup>1</sup>Bondartseva et al., 2001; <sup>1</sup>Ivanter and Kuznetsov, 2007; <sup>1</sup>Predtechenskaya, 2013; <sup>1</sup>Krutov et al., 2014; <sup>1</sup>Kuznetsov, 2020); **Kirov Oblast** (<sup>1</sup>Kirillov, 2011; <sup>1</sup>Kirillov, Perevedentseva, and Egoshina, 2011; <sup>1</sup>Baranova et al., 2014; <sup>1</sup>Stavishenko, Luginina, Kirillov, and Egoshina, 2019); **Komi Republic** (<sup>1</sup>Bobretsova, 2004; <sup>1</sup>Taskaev, 2009; <sup>1</sup>Palamarchuk, 2012; <sup>1</sup>Palamarchuk, 2016a; <sup>1</sup>Palamarchuk, 2016b; <sup>1</sup>Palamarchuk and Kirillov, 2017; <sup>1</sup>Dyogteva, 2019); **Leningrad Oblast** (<sup>1</sup>Thesleff, 1920; <sup>1</sup>Stolyarskaya, 1993; <sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Fomina, 2000; <sup>1</sup>Morozova and Kovalenko, 2000; <sup>1</sup>Tzvelev, 2000; <sup>1</sup>Morozova, 2007; <sup>1</sup>Popov et al., 2007; <sup>1</sup>Zmitrovich et al., 2015; <sup>1</sup>Geltman et al., 2018; <sup>1</sup>Kalinina, 2018); **Lipetsk Oblast** (<sup>1</sup>Afanasyev, Rtishcheva, and Starodubtseva, 2007; <sup>1</sup>Sarycheva et al., 2009; <sup>1</sup>Shcherbakov, 2014; <sup>1</sup>Sarycheva, Starodubtseva, and Sapelnikova, 2017); **Mari El Republic** (<sup>1</sup>Bogdanov, Abramov, Urbanavichus, and Bogdanova, 2013); **Mordovia** (<sup>1</sup>Silaeva, 2017); **Moscow** (<sup>2</sup>Weinmann, 1836; <sup>1</sup>Bucholtz, 1897a); **Moscow Oblast** (<sup>1</sup>Gorlenko, Sidorova, and Sidorova, 1989; <sup>1</sup>Levitskaya, 1995c; <sup>1</sup>Varlygina, Zubakin, and Sobolev, 2008; <sup>1</sup>Levitskaya, 2013; <sup>1</sup>Voronina et al., 2014; <sup>1</sup>Varlygina, Zubakin, Nikitsky, and Sviridov, 2018); **Murmansk Oblast** (<sup>1</sup>Pystina, Pavlova, and Shestakova, 1969; <sup>1</sup>Berlina, 2005; <sup>1</sup>Konstantinova, Koryakin, Makarova, and Bianki, 2014); **Nenets Autonomous Okrug** (<sup>1</sup>Matveyeva, 2006; <sup>1</sup>Matveyeva, 2020); **North Ossetia** (<sup>1</sup>Komzha, Lipkovich, and Popov, 1999; <sup>1</sup>Nikolayev, 2001); **Novgorod Oblast** (<sup>1</sup>Morozova, 2012; <sup>1</sup>Popov et al., 2013); **Oryol Oblast** (<sup>1</sup>Prigoryanu, 2007; <sup>1</sup>Radygina, Derzhavina, and Tsutsupa, 2014); **Penza Oblast** (<sup>1</sup>Ivanov, 1983; <sup>1</sup>Ivanov and Durandin, 1996; <sup>1</sup>Ivanov, 2013a); **Perm Krai** (<sup>1</sup>Perevedentseva, 2008; <sup>1</sup>Shepel', 2008; <sup>1</sup>Belkovskaya et al., 2014); **Pskov Oblast** (<sup>1</sup>Popov, 2001a; <sup>1</sup>Popov, 2001b; <sup>1</sup>Popov et al., 2013; <sup>1</sup>Aleksandrov et al., 2014); **Ryazan Oblast** (<sup>1</sup>Volosnova, 1997; <sup>1</sup>Ivanchev and Kazakova, 2011; <sup>1</sup>Volosnova, 2014); **Saint Petersburg** (<sup>2</sup>Weinmann, 1828; <sup>2</sup>Weinmann, 1837; <sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Noskov, 2004; <sup>1</sup>Morozova and Smirnov, 2011; <sup>1</sup>Morozova et al., 2020); **Samara Oblast** (<sup>1</sup>Rosenberg and Saksonov, 2007; <sup>1</sup>Senator and Saksonov, 2017); **Smolensk Oblast** (<sup>1</sup>Jaczewski, 1893; <sup>1</sup>Jaczewski, 1895); **Sverdlovsk Oblast**

(<sup>1</sup>Marina, 2006; <sup>1</sup>Shiryayeva, 2015a; <sup>1</sup>Korytin, 2018); **Tambov Oblast** (<sup>1</sup>Elenevskiy, 2002; <sup>1</sup>Konakov et al., 2019); **Tatarstan** (<sup>1</sup>Shchepovskih, Boroznov, Bojko, and Liubarsky, 1995; <sup>1</sup>Shchepovskih, Bojko, Gorshkov, and Rogova, 2006; <sup>1</sup>Nazirov, Gorshkov, Ivanov, and Rogova, 2016); **Tver Oblast** (<sup>1</sup>Sorokin, 2002; <sup>1</sup>Mukhina and Garibova, 2010; <sup>1</sup>Mukhina, 2011a; <sup>1</sup>Mukhina, 2011b; <sup>1</sup>Kotkova, 2014); **Udmurt Republic** (<sup>1</sup>Tychinin, 1990; <sup>1</sup>Tychinin and Kuzmina, 2003); **Vladimir Oblast** (<sup>1</sup>Azbukina et al., 2010; <sup>1</sup>Kanishcheva and Sergeev, 2018; <sup>1</sup>Mishulin, Blinov, and Gushchina, 2018); **Vologda Oblast** (<sup>1</sup>Konechnaya and Suslova, 2004); **Voronezh Oblast** (<sup>1</sup>Afanasyev, Rtishcheva, and Starodubtseva, 2007; <sup>1</sup>Agafonov, 2011; <sup>1</sup>Sarycheva, Starodubtseva, and Sapelnikova, 2017; <sup>1</sup>Agafonov, 2018); **Yaroslavl Oblast** (<sup>1</sup>Lazareva, 1998a; <sup>1</sup>Lazareva, 2002; <sup>1</sup>Nyankovsky, 2015).

SIBERIA: **Altai Krai** (<sup>1</sup>Shmakov and Silantjeva, 2016); **Altai Republic** (<sup>1</sup>Gorbunova, 1996; <sup>1</sup>Gorbunova, 1997; <sup>1</sup>Perova and Gorbunova, 2001; <sup>1</sup>Gorbunova, 2008; <sup>1</sup>Gorbunova, 2017b; <sup>1</sup>Maneev, Achimova, Sedelnikova, and Gorbunova, 2017); **Irkutsk Oblast** (<sup>1</sup>Astapenko and Kutafjeva, 1990; <sup>1</sup>Astapenko, 1990b; <sup>1</sup>Muzyka and Penzina, 2017; <sup>1</sup>Trofimova, Popov, and Merkacheva, 2020); **Khakassia** (<sup>1</sup>Ankipovich, 2012); **Khanty-Mansi Autonomous Okrug** (<sup>1</sup>Baykalova and Zvyagina, 2008; <sup>1</sup>Zvyagina, 2012; <sup>1</sup>Vasin and Vasina, 2013; <sup>1</sup>Filippova, Bulyonkova, and Lapshina, 2015; <sup>1</sup>Filippova and Bulyonkova, 2017a; <sup>1</sup>Filippova and Bulyonkova, 2017b); **Krasnoyarsk Krai** (<sup>1</sup>Lapitskaya, 1993; <sup>1</sup>Stepanov, 2012; <sup>1</sup>Malysheva, Malysheva, Kiyashko, et al., 2017); **Kurgan Oblast** (<sup>1</sup>Stepanova and Sirko, 1977); **Novosibirsk Oblast** (<sup>1</sup>Perova, 1982; <sup>1</sup>Perova and Gorbunova, 2001; <sup>1</sup>Perova and Gorbunova, 2007; <sup>1</sup>Yudkin and Shaulo, 2008; <sup>1</sup>Glupov and Shaulo, 2018); **Tomsk Oblast** (<sup>1</sup>Perova and Gorbunova, 2001; <sup>1</sup>Kosheleva and Kutafjeva, 2004; <sup>1</sup>Adam, 2013; <sup>1</sup>Kudashova, Gashkov, and Kutafjeva, 2013; <sup>1</sup>Kudashova, Gashkov, and Vaishlya, 2016b); **Yamalo-Nenets Autonomous Okrug** (<sup>1</sup>Tarchevskaya, 1990).

FAR EAST: **Jewish Autonomous Oblast** (<sup>1</sup>Shlotgauer and Rubtsova, 2006; <sup>1</sup>Bulakh, Govorova, Nazarova, and Vassiljeva, 2007; <sup>1</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Erofeeva and Bukharova, 2019; <sup>1</sup>Shlotgauer and Rubtsova, 2019); **Khabarovsk Krai** (<sup>1</sup>Azbukina et al., 1989; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdjominogo, 1990; <sup>1</sup>Voronov, 2008; <sup>1</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Bulakh, 2013; <sup>1</sup>Bogacheva, Bulakh, Bukharova, and Egorova, 2015; <sup>1</sup>Ermolin et al., 2018); **Primorsky Krai** (<sup>1</sup>Vassiljeva, 1973; <sup>1</sup>Bunkina and Nazarova, 1978; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdjominogo, 1990; <sup>1</sup>Azbukina et al., 2006; <sup>1</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Bulakh et al., 2016).

### ***Cortinarius violascens* A. Blytt**

FAR EAST: **Khabarovsk Krai** (Azbukina et al., 1986).

### ***Cortinarius vitellinopes* Secr. ex Gillet**

EASTERN EUROPE: **Penza Oblast** (Ivanov, 1983; Ivanov and Durandin, 1996; Ivanov, 2019).

SIBERIA: **Tomsk Oblast** (Nezdjominogo, 1996; Perova and Gorbunova, 2001; Kudashova, Gashkov, and Kutafjeva, 2013; Vaishlya et al., 2017).

### ***Cortinarius vitiosus* (M.M. Moser) Niskanen, Kytöv., Liimat. & S. Laine**

SIBERIA: **Sakha Republic** (Niskanen, Liimatainen, Ammirati, and Hughes, 2013).

### ***Cortinarius vulpinus* (Velen.) Rob. Henry**

EASTERN EUROPE: **Crimea** (Sarkina, 2010b).

SIBERIA: **Irkutsk Oblast** (Gorbunova and Stepantsova, 2015).

### ***Cortinarius xanthocephaloides* A.I. Ivanov**

EASTERN EUROPE: **Penza Oblast** (Ivanov, 1988c; Ivanov and Durandin, 1996).

### ***Cortinarius xanthocephalus* P.D. Orton**

EASTERN EUROPE: **Karelia** (Freindling, 1949 [as *Cortinarius decolorans* (Pers.) Fr., redet. in Bondartseva et al., 2001]; Bondartseva et al., 2001); **Penza Oblast** (Ivanov, 1985; Ivanov and Durandin, 1996).

### ***Cortinarius xantho-ochraceus* P.D. Orton<sup>1</sup>**

= *Cortinarius langei* Rob. Henry<sup>2</sup>

EASTERN EUROPE: **Perm Krai** (<sup>1</sup>Perevedentseva, 2008; <sup>2</sup>Botalov, 2017).

### ***Cortinarius zinziberatus* (Scop.) Fr.**

EASTERN EUROPE: **Karelia** (Krutov et al., 2014); **Leningrad Oblast** (Nezdjominogo, 1996; Kovalenko and Morozova, 1999a; Fomina, 2000; Fomina, 2001; Popov et al., 2007; Zmitrovich et al., 2015); **Penza Oblast** (Ivanov

and Durandin, 1996; Nezdoinog, 1996; Ivanov, 2019); **Sverdlovsk Oblast** (Nezdoinog, 1996); **Arid territories** (Rebriev, Rusanov, et al., 2012).

SIBERIA: **Irkutsk Oblast** (Nezdoinog, 1996); **Krasnoyarsk Krai** (Nezdoinog, 1996).

***Crepidotus albissimus* Murrill**

FAR EAST: **Khabarovsk Krai** (Azbukina et al., 1986).

***Crepidotus alveolus* (Lasch) P. Kumm.**

EASTERN EUROPE: **Leningrad Oblast** (Thesleff, 1920).

***Crepidotus applanatus* (Pers.) P. Kumm.<sup>1</sup>**

≡ *Crepidotus applanatus* var. *applanatus* (Pers.) P. Kumm.<sup>2</sup>

EASTERN EUROPE: **Adygea** (<sup>1</sup>Vassiljeva, 1939; <sup>2</sup>Sopina, 2001a); **Chechen Republic** (<sup>1</sup>Taysumov, Krapivina, and Kushaliev, 2016); **Chelyabinsk Oblast** (<sup>1</sup>Stepanova and Sirko, 1977); **Crimea** (<sup>1</sup>Zerova, 1962; <sup>1</sup>Sarkina, 2001; <sup>1</sup>Dudka et al., 2004; <sup>1</sup>Sarkina, 2011; <sup>1</sup>Sarkina and Prydiuk, 2012); **Kabardino-Balkarian Republic** (<sup>1</sup>Shkhagapsoev and Krapivina, 2004); **Kaliningrad Oblast** (<sup>1</sup>Dedkov, Volodina, and Gubareva, 2007); **Karelia** (<sup>1</sup>Czerepanova, Perfiljeva, and Tobias, 1982; <sup>2</sup>Krutov et al., 2014); **Komi Republic** (<sup>1</sup>Palamarchuk, 2020b); **Krasnodar Krai** (<sup>1</sup>Vassiljeva, 1939; <sup>1</sup>Kovalenko, 1980a; <sup>1</sup>Kovalenko, 1980b; <sup>2</sup>Sopina, 2001a; <sup>1</sup>Psurtseva, Kiyashko, Gachkova, and Belova, 2007); **Leningrad Oblast** (<sup>1</sup>Thesleff, 1920; <sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Zmitrovich, Malysheva, Malysheva, and Spirin, 2004; <sup>1</sup>Popov et al., 2007; <sup>1</sup>Psurtseva, Kiyashko, Gachkova, and Belova, 2007); **Lipetsk Oblast** (<sup>1</sup>Afanasyev, Rtishcheva, and Starodubtseva, 2007; <sup>1</sup>Sarycheva et al., 2009; <sup>1</sup>Sarycheva, 2011; <sup>1</sup>Sarycheva, 2016); **Mordovia** (<sup>1</sup>Bolshakov and Ivoilov, 2012a; <sup>1</sup>Bolshakov, 2015); **Moscow Oblast** (<sup>1</sup>Gorlenko, Sidorova, and Sidorova, 1989; <sup>1</sup>Levitskaya, 1998; <sup>1</sup>Levitskaya, 2013); **Novgorod Oblast** (<sup>1</sup>Kalinina, 2019); **Orenburg Oblast** (<sup>1</sup>Desyatova, 2008); **Penza Oblast** (<sup>1</sup>Ivanov, 1983); **Perm Krai** (<sup>1</sup>Perevedentseva, 2008); **Pskov Oblast** (<sup>1</sup>Kalinina, Bolshakov, and Bulyonkova, 2020); **Ryazan Oblast** (<sup>1</sup>Volosnova, 2014); **Saint Petersburg** (<sup>1</sup>Morozova et al., 2020); **Tatarstan** (<sup>1</sup>Vassiljeva, 1977); **Tver Oblast** (<sup>1</sup>Kurochkin, 1993; <sup>1</sup>Kotkova, 2014); **Udmurt Republic** (<sup>1</sup>Tychinin and Kuzmina, 2003); **Voronezh Oblast** (<sup>1</sup>Afanasyev, Rtishcheva, and Starodubtseva, 2007; <sup>1</sup>Sarycheva, Starodubtseva, and Sapelnikova, 2017).

SIBERIA: **Khakassia** (<sup>1</sup>Beglyanova, 1972a); **Khanty-Mansi Autonomous Okrug** (<sup>1</sup>Zvyagina, Baykalova, and Gorbunova, 2007; <sup>1</sup>Filippova, Bulyonkova, and Lapshina, 2015); **Krasnoyarsk Krai** (<sup>1</sup>Beglyanova, 1972a; <sup>1</sup>Beglyanova, 1972b; <sup>1</sup>Zauzolkova, 2012; <sup>1</sup>Zauzolkova, 2015); **Novosibirsk Oblast** (<sup>2</sup>Koropachinskiy and Banaev, 2014); **Tomsk Oblast** (<sup>1</sup>Perova and Gorbunova, 2001; <sup>1</sup>Kudashova, Gashkov, and Kutafjeva, 2013).

FAR EAST: **Amur Oblast** (<sup>1</sup>Azbukina et al., 1998; <sup>1</sup>Taranina, 2005; <sup>1</sup>Kochunova and Erofeeva, 2017); **Jewish Autonomous Oblast** (<sup>1</sup>Bulakh, Govorova, Nazarova, and Vassiljeva, 2007; <sup>1</sup>Bau, Bulakh, and Govorova, 2011); **Khabarovsk Krai** (<sup>1</sup>Azbukina et al., 1989; <sup>1</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Bulakh, 2013; <sup>1</sup>Bogacheva, Bulakh, Bukharova, and Egorova, 2015); **Primorsky Krai** (<sup>1</sup>Vassiljeva, 1972; <sup>1</sup>Vassiljeva, 1973; <sup>1</sup>Bunkina and Nazarova, 1978; <sup>1</sup>Azbukina et al., 1984; <sup>1</sup>Bardunov et al., 2002; <sup>1</sup>Azbukina et al., 2006; <sup>1</sup>Bau, Bulakh, Zhuang, and Li, 2007; <sup>1</sup>Bau, Bulakh, and Govorova, 2011).

***Crepidotus autochthonus* J.E. Lange<sup>1</sup>**

= *Crepidotus fragilis* Joss.<sup>2</sup>

EASTERN EUROPE: **Crimea** (<sup>1</sup>Prydiuk, 2002; <sup>1</sup>Dudka et al., 2004; <sup>1</sup>Sarkina and Prydiuk, 2012); **Lipetsk Oblast** (<sup>1</sup>Sarycheva et al., 2009; <sup>1</sup>Sarycheva, 2011; <sup>1</sup>Sarycheva, 2014a; <sup>1</sup>Sarycheva, 2016); **Tatarstan** (<sup>1</sup>Vassiljeva, 1977); **Udmurt Republic** (<sup>1</sup>Tychinin and Kuzmina, 2003); **Vologda Oblast** (<sup>2</sup>Kutova, 1957); **Arid territories** (<sup>1</sup>Rebriev, Rusanov, et al., 2012).

SIBERIA: **Khakassia** (<sup>1</sup>Zauzolkova, 2015); **Krasnoyarsk Krai** (<sup>1</sup>Zauzolkova, 2012; <sup>1</sup>Zauzolkova, 2015); **Novosibirsk Oblast** (<sup>1</sup>Perova, 1982; <sup>1</sup>Perova and Gorbunova, 2001; <sup>1</sup>Perova and Gorbunova, 2007); **Tomsk Oblast** (<sup>1</sup>Kudashova, Gashkov, and Vaishlya, 2016a).

FAR EAST: **Amur Oblast** (<sup>1</sup>Nazarova, 1986; <sup>1</sup>Kochunova and Erofeeva, 2017; <sup>1</sup>Kochunova and Timchenko, 2019; <sup>1</sup>Kochunova, 2019); **Khabarovsk Krai** (<sup>1</sup>Azbukina et al., 1986); **Primorsky Krai** (<sup>1</sup>Vassiljeva, 1973).

***Crepidotus betulae* Murrill**

FAR EAST: **Primorsky Krai** (Azbukina et al., 1984; Bau, Bulakh, and Govorova, 2011).



***Crepidotus bresadolae* Pilát**

= *Crepidotus pubescens* Bres.<sup>1</sup> = *Crepidotus versutus* (Peck) Sacc.<sup>2</sup>

EASTERN EUROPE: **Leningrad Oblast** (<sup>2</sup>Zmitrovich, 2003; <sup>2</sup>Zmitrovich, Malysheva, Malysheva, and Spirin, 2004; <sup>2</sup>Popov et al., 2007; <sup>2</sup>Morozova and Popov, 2008); **Lipetsk Oblast** (<sup>1</sup>Alferova, 1977; <sup>1</sup>Sarycheva, 1999; <sup>2</sup>Sarycheva et al., 2009; <sup>2</sup>Sarycheva, 2011; <sup>2</sup>Sarycheva, 2014a; <sup>2</sup>Sarycheva, 2016); **Moscow Oblast** (<sup>1</sup>Levitskaya, 1998; <sup>1</sup>Levitskaya, 2013); **Perm Krai** (<sup>2</sup>Perevedentseva, 2008); **Ryazan Oblast** (<sup>1</sup>Volosnova, 2005; <sup>2</sup>Volosnova, 2014); **Saint Petersburg** (<sup>2</sup>Morozova and Smirnov, 2011); **Sverdlovsk Oblast** (<sup>2</sup>Marina, 2006); **Tula Oblast** (<sup>2</sup>Svetasheva, 2004; <sup>2</sup>Shcherbakov, 2010); **Tver Oblast** (<sup>1</sup>Kurochkin, 1993); **Udmurt Republic** (<sup>1</sup>Tychinin and Kuzmina, 2003); **Vologda Oblast** (<sup>2</sup>Kirillova, 2007); **Voronezh Oblast** (<sup>1</sup>Chastukhin, 1952; <sup>1</sup>Chastukhin and Nikolaevskaya, 1953; <sup>1</sup>Chastukhin and Nikolaevskaya, 1969).

SIBERIA: **Krasnoyarsk Krai** (<sup>2</sup>Krom and Kapitonov, 2019); **Yamalo-Nenets Autonomous Okrug** (<sup>1</sup>Mukhin, 1993).

FAR EAST: **Khabarovsk Krai** (<sup>1</sup>Azbukina et al., 1986); **Magadan Oblast** (<sup>2</sup>Sazanova, 2009a); **Primorsky Krai** (<sup>1</sup>Bunkina and Nazarova, 1978).

***Crepidotus calolepis* (Fr.) P. Karst.<sup>1</sup>**

≡ *Crepidotus mollis* var. *calolepis* (Fr.) Pilát<sup>2</sup>

EASTERN EUROPE: **Adygea** (<sup>1</sup>Vaasma, Kalamees, and Raitviir, 1986; <sup>1</sup>Sopina, 2001a); **Kaliningrad Oblast** (<sup>1</sup>Dedkov, Volodina, and Gubareva, 2007; <sup>1</sup>Volodina, 2007); **Karachay-Cherkess Republic** (<sup>2</sup>Kalamees and Botashev, 2000); **Karelia** (<sup>1</sup>Bondartseva et al., 2001; <sup>1</sup>Krutov et al., 2014); **Leningrad Oblast** (<sup>1</sup>Kalamees and Kovalenko, 1984; <sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Morozova and Kovalenko, 2000; <sup>1</sup>Zmitrovich, 2003; <sup>1</sup>Zmitrovich, Malysheva, Malysheva, and Spirin, 2004; <sup>1</sup>Morozova, 2007; <sup>1</sup>Popov et al., 2007; <sup>1</sup>Zmitrovich et al., 2015; <sup>1</sup>Kalinina, 2018); **Lipetsk Oblast** (<sup>1</sup>Sarycheva et al., 2009; <sup>1</sup>Sarycheva, 2011; <sup>1</sup>Sarycheva, 2014a; <sup>1</sup>Sarycheva, 2016; <sup>1</sup>Sarycheva, Starodubtseva, and Sapelnikova, 2017; <sup>1</sup>Volobuev, Bolshakov, and Shakhova, 2020); **Moscow Oblast** (<sup>1</sup>Gorlenko, Sidorova, and Sidorova, 1989; <sup>1</sup>Levitskaya, 2006; <sup>1</sup>Voronina et al., 2012; <sup>1</sup>Levitskaya, 2013; <sup>1</sup>Voronina et al., 2014); **Novgorod Oblast** (<sup>1</sup>Kovalenko, Morozova, Nezdoyminogo, and Popov, 2005; <sup>1</sup>Malysheva, Malysheva, and Zmitrovich, 2007; <sup>1</sup>Popov et al., 2013); **Orenburg Oblast** (<sup>1</sup>Desyatova, 2008); **Perm Krai** (<sup>1</sup>Perevedentseva, 2008; <sup>1</sup>Belkovskaya et al., 2014); **Pskov Oblast** (<sup>1</sup>Kovalenko, Kolmakov, Morozova, and Popov, 2003; <sup>1</sup>Popov et al., 2013); **Rostov Oblast** (<sup>1</sup>Morozova et al., 2008); **Ryazan Oblast** (<sup>1</sup>Volosnova, 2014); **Saint Petersburg** (<sup>1</sup>Zmitrovich, Malysheva, Malysheva, and Spirin, 2004; <sup>1</sup>Kotkova, Morozova, and Popov, 2006; <sup>1</sup>Morozova and Smirnov, 2011; <sup>1</sup>Morozova, Kovalenko, Rebriev, and Malysheva, 2014; <sup>1</sup>Morozova et al., 2020); **Tatarstan** (<sup>1</sup>Potapov, 2016a); **Tula Oblast** (<sup>1</sup>Svetasheva, 2004); **Vologda Oblast** (<sup>1</sup>Kirillova, 2007); **Arid territories** (<sup>1</sup>Rebriev, Rusanov, et al., 2012).

SIBERIA: **Irkutsk Oblast** (<sup>2</sup>Astapenko, 1990a); **Krasnoyarsk Krai** (<sup>1</sup>Krom and Kapitonov, 2019); **Novosibirsk Oblast** (<sup>2</sup>Perova, 1977); **Tomsk Oblast** (<sup>1</sup>Kudashova, Gashkov, and Vaishlya, 2016a).

FAR EAST: **Kamchatka Krai** (<sup>1</sup>Kalamees and Vaasma, 1981); **Khabarovsk Krai** (<sup>1</sup>Bau, Bulakh, and Govorova, 2011); **Primorsky Krai** (<sup>1</sup>Azbukina et al., 2006; <sup>1</sup>Bau, Bulakh, and Govorova, 2011).

***Crepidotus carpaticus* Pilát<sup>1</sup>**

= *Crepidotus wakefieldiae* Pilát<sup>2</sup>

EASTERN EUROPE: **Krasnodar Krai** (<sup>1</sup>Psurtseva, Kiyashko, Gachkova, and Belova, 2007).

SIBERIA: **Tomsk Oblast** (<sup>2</sup>Perova and Gorbunova, 2001; <sup>1</sup>Kudashova, Gashkov, and Kutafjeva, 2013).

***Crepidotus caspari* Velen.<sup>1</sup>**

= *Crepidotus amygdalosporus* Kühner<sup>2</sup> = *Crepidotus lundellii* Pilát<sup>3</sup>

EASTERN EUROPE: **Belgorod Oblast** (<sup>3</sup>Bedenko, 1980); **Leningrad Oblast** (<sup>3</sup>Zmitrovich, Malysheva, Malysheva, and Spirin, 2004; <sup>3</sup>Morozova, 2007; <sup>3</sup>Popov et al., 2007); **Moscow Oblast** (<sup>3</sup>Levitskaya, 1998); **Orenburg Oblast** (<sup>3</sup>Desyatova, 2008); **Rostov Oblast** (<sup>3</sup>Morozova et al., 2008; <sup>1</sup>Rusanov, Rebriev, and Bulgakov, 2018); **Ryazan Oblast** (<sup>3</sup>Malysheva and Volosnova, 2008; <sup>3</sup>Volosnova, 2014); **Saint Petersburg** (<sup>3</sup>Kotkova, Morozova, and Popov, 2005); **Samara Oblast** (<sup>3</sup>Malysheva and Malysheva, 2005b; <sup>3</sup>Malysheva and Malysheva, 2008); **Tula Oblast** (<sup>3</sup>Svetasheva et al., 2017; <sup>3</sup>Svetasheva, Aleksandrova, Zaytseva, and Solovjova, 2017); **Tver Oblast** (<sup>1</sup>Kotkova, 2014); **Ulyanovsk Oblast** (<sup>3</sup>Ilyukhin, 2010a); **Yamalo-Nenets Autonomous Okrug** (<sup>3</sup>Kazanthseva, 1970; <sup>3</sup>Stepanova and Sirko, 1977); **Arid territories** (<sup>1,3</sup>Rebriev, Rusanov, et al., 2012).

SIBERIA: **Krasnoyarsk Krai** (<sup>3</sup>Krom and Kapitonov, 2019); **Novosibirsk Oblast** (<sup>3</sup>Perova and Gorbunova, 2001; <sup>3</sup>Perova and Gorbunova, 2007; <sup>1</sup>Koropachinskiy and Banaev, 2014); **Sverdlovsk Oblast** (<sup>2</sup>Mukhin et al., 2003); **Tomsk Oblast** (<sup>1</sup>Kudashova, Gashkov, and Vaishlya, 2016a); **Yamalo-Nenets Autonomous Okrug** (<sup>3</sup>Tarchevskaya, 1990).

FAR EAST: **Amur Oblast** (<sup>3</sup>Taranina, 2005; <sup>1</sup>Kochunova and Erofeeva, 2017); **Jewish Autonomous Oblast** (<sup>3</sup>Bulakh, Govorova, Nazarova, and Vassiljeva, 2007; <sup>3</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Erofeeva, Bukharova, and Bulakh, 2019); **Khabarovsk Krai** (<sup>3</sup>Azbukina et al., 1989; <sup>3</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Erofeeva and Bulakh, 2015a); **Magadan Oblast** (<sup>2</sup>Nazarova, 1976; <sup>2</sup>Sazanova, 2005; <sup>1</sup>Sazanova, 2009a; <sup>1</sup>Sazanova, 2009b; <sup>1</sup>Sazanova, 2011); **Primorsky Krai** (<sup>3</sup>Bardunov et al., 2002; <sup>3</sup>Azbukina et al., 2006; <sup>3</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Bogacheva, Bulakh, Bukharova, and Egorova, 2020).

***Crepidotus cesatii* (Rabenh.) Sacc.<sup>1</sup>**

≡ *Crepidotus cesatii* var. *cesatii* (Rabenh.) Sacc.<sup>2</sup> = *Crepidotus cesatii* var. *subsphaerosporus* (J.E. Lange) Senn-Irlet<sup>3</sup> = *Crepidotus sphaerosporus* (Pat.) J.E. Lange<sup>4</sup> = *Crepidotus subsphaerosporus* (J.E. Lange) Kühner & Romagn.<sup>5</sup>

EASTERN EUROPE: **Crimea** (<sup>5</sup>Prydiuk, 2002; <sup>4,5</sup>Dudka et al., 2004; <sup>4,5</sup>Sarkina, 2011; <sup>1</sup>Sarkina, 2014a; <sup>1</sup>Sarkina and Mironova, 2015); **Komi Republic** (<sup>3</sup>Palamarchuk, 2016a; <sup>3</sup>Palamarchuk, 2016b); **Krasnodar Krai** (<sup>1</sup>Kovalenko, 1980a; <sup>1</sup>Kovalenko, 1980b); **Leningrad Oblast** (<sup>1</sup>Zmitrovich, 2003; <sup>1</sup>Zmitrovich, Malysheva, Malysheva, and Spirin, 2004; <sup>2</sup>Zmitrovich, Malysheva, Malysheva, and Spirin, 2004; <sup>3</sup>Zmitrovich, Malysheva, Malysheva, and Spirin, 2004; <sup>1</sup>Popov et al., 2007); **Lipetsk Oblast** (<sup>3</sup>Sarycheva et al., 2009); **Moscow Oblast** (<sup>4</sup>Levitskaya, 2006; <sup>4</sup>Levitskaya, 2013); **Novgorod Oblast** (<sup>1</sup>Svetasheva et al., 2017); **Penza Oblast** (<sup>5</sup>Ivanov, 1986); **Perm Krai** (<sup>2</sup>Perevedentseva, 2008); **Rostov Oblast** (<sup>1</sup>Rusanov, Rebriev, and Bulgakov, 2018); **Ryazan Oblast** (<sup>1</sup>Volosnova, 2014); **Saint Petersburg** (<sup>2</sup>Zmitrovich, Malysheva, Malysheva, and Spirin, 2004); **Samara Oblast** (<sup>1</sup>Malysheva and Malysheva, 2004; <sup>5</sup>Malysheva and Malysheva, 2005b; <sup>3</sup>Malysheva and Malysheva, 2008); **Sverdlovsk Oblast** (<sup>1</sup>Shiryayeva and Palamarchuk, 2019); **Arid territories** (<sup>2,3</sup>Rebriev, Rusanov, et al., 2012).

SIBERIA: **Altai Krai** (<sup>1</sup>Gorbunova and Perova, 2006); **Khanty-Mansi Autonomous Okrug** (<sup>1</sup>Filippova and Bulyonkova, 2017a; <sup>1</sup>Filippova and Bulyonkova, 2017b); **Krasnoyarsk Krai** (<sup>5</sup>Beglyanova, 1972a; <sup>1</sup>Zauzolkova, 2012; <sup>1</sup>Zauzolkova, 2015); **Novosibirsk Oblast** (<sup>1</sup>Perova and Gorbunova, 2001); **Tyumen Oblast** (<sup>5</sup>Mukhin, 1993).

FAR EAST: **Amur Oblast** (<sup>4</sup>Azbukina et al., 1998; <sup>1</sup>Kochunova, 2019); **Jewish Autonomous Oblast** (<sup>1</sup>Bulakh, Govorova, Nazarova, and Vassiljeva, 2007; <sup>2</sup>Bau, Bulakh, and Govorova, 2011); **Khabarovsk Krai** (<sup>5</sup>Azbukina et al., 1986; <sup>3</sup>Bulakh, Vassiljeva, and Erofeeva, 2010; <sup>2</sup>Bau, Bulakh, and Govorova, 2011); **Primorsky Krai** (<sup>5</sup>Azbukina et al., 1990; <sup>1</sup>Bardunov et al., 2002; <sup>1</sup>Azbukina et al., 2006; <sup>2</sup>Bau, Bulakh, and Govorova, 2011).

***Crepidotus cinnabarinus* Peck**

SIBERIA: **Krasnoyarsk Krai** (Zauzolkova, 2012; Zauzolkova, 2015); **Tomsk Oblast** (Perova and Gorbunova, 2001; Kudashova, Gashkov, and Kutafjeva, 2013).

FAR EAST: **Jewish Autonomous Oblast** (Bau, Bulakh, and Govorova, 2011); **Primorsky Krai** (Bulakh, 1977; Azbukina et al., 1984; Bau, Bulakh, and Govorova, 2011).

***Crepidotus citrinus* Petch**

FAR EAST: **Primorsky Krai** (Bau, Bulakh, and Govorova, 2011).

***Crepidotus croceotinctus* Peck**

FAR EAST: **Primorsky Krai** (Bau, Bulakh, and Govorova, 2011; Bogacheva et al., 2018).

***Crepidotus crocophyllus* (Berk.) Sacc.<sup>1</sup>**

= *Crepidotus fulvifibrillosus* var. *fulvifibrillosus* Murrill<sup>2</sup>

EASTERN EUROPE: **Adygea** (<sup>1</sup>Vaasma, Kalamees, and Raitviir, 1986; <sup>1</sup>Sopina, 2001a); **Crimea** (<sup>1</sup>Prydiuk, 2002; <sup>1</sup>Dudka et al., 2004); **Karachay-Cherkess Republic** (<sup>1</sup>Kalamees and Botashev, 2000); **Kirov Oblast** (<sup>1</sup>Kirillov, 2011; <sup>1</sup>Kirillov, Perevedentseva, and Egoshina, 2011); **Krasnodar Krai** (<sup>1</sup>Vaasma, Kalamees, and Raitviir, 1986); **Leningrad Oblast** (<sup>1</sup>Morozova, 2002; <sup>1</sup>Zmitrovich, Malysheva, Malysheva, and Spirin, 2004; <sup>1</sup>Morozova, 2007; <sup>1</sup>Popov et al., 2007; <sup>1</sup>Psurtseva, Kiyashko, Gachkova, and Belova, 2007); **Mordovia** (<sup>1</sup>Bolshakov, 2015); **Moscow Oblast** (<sup>1</sup>Levitskaya, 1998; <sup>1</sup>Levitskaya, 2013); **Novgorod Oblast** (<sup>1</sup>Kalinina, 2019); **Penza Oblast** (<sup>1</sup>Ivanov, 1981b; <sup>1</sup>Ivanov, 1983); **Perm Krai** (<sup>1</sup>Perevedentseva, 2008); **Pskov Oblast** (<sup>1</sup>Kalinina, Bolshakov, and Bulyonkova, 2020); **Ryazan Oblast** (<sup>1</sup>Volosnova, 2014); **Samara Oblast** (<sup>1</sup>Malysheva and Malysheva, 2005b; <sup>1</sup>Malysheva and Malysheva, 2008); **Sverdlovsk Oblast** (<sup>1</sup>Shiryayeva, 2015a; <sup>1</sup>Shiryayeva, 2018); **Tula Oblast** (<sup>1</sup>Svetasheva, 2004); **Udmurt Republic** (<sup>1</sup>Kapitonov, 2013); **Ulyanovsk Oblast** (<sup>1</sup>Ilyukhin, 2010a).

SIBERIA: **Altai Krai** (<sup>1</sup>Gorbunova, 2018a); **Altai Republic** (<sup>1</sup>Gorbunova, 1997; <sup>1</sup>Perova and Gorbunova, 2001); **Irkutsk Oblast** (<sup>1</sup>Astapenko and Kutafjeva, 1990; <sup>1</sup>Astapenko, 1990a); **Krasnoyarsk Krai** (<sup>1</sup>Kryuchkova, 2015);

<sup>1</sup>Krom and Kapitonov, 2019); **Novosibirsk Oblast** (<sup>2</sup>Koropachinskiy and Banaev, 2014); **Tomsk Oblast** (<sup>1</sup>Kudashova, Gashkov, and Kutafjeva, 2013).

FAR EAST: **Amur Oblast** (<sup>1</sup>Taranina, 2005); **Jewish Autonomous Oblast** (<sup>1</sup>Bulakh, Govorova, Nazarova, and Vassiljeva, 2007; <sup>1</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Bogacheva et al., 2018); **Khabarovsk Krai** (<sup>1</sup>Bulakh, Vassiljeva, and Erofeeva, 2010; <sup>1</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Erofeeva and Bulakh, 2015a; <sup>1</sup>Bogacheva et al., 2018); **Primorsky Krai** (<sup>1</sup>Bardunov et al., 2002; <sup>1</sup>Azbukina et al., 2006; <sup>1</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Bogacheva et al., 2018; <sup>1</sup>Bogacheva, Bulakh, Bukharova, and Egorova, 2020).

### ***Crepidotus epibryus* (Fr.) Quél.<sup>1</sup>**

≡ *Agaricus epibryus* Fr.<sup>2</sup> ≡ *Pleurotellus epibryus* (Fr.) Zmitr.<sup>3</sup> = *Pleurotellus graminicola* Fayod<sup>4</sup> = *Pleurotellus herbarum* Singer<sup>5</sup> = *Pleurotellus hypnophilus* (Pers.) Fayod<sup>6</sup>

EASTERN EUROPE: **Crimea** (<sup>1</sup>Prydiuk, 2002; <sup>1</sup>Sarkina, 2011); **Kaliningrad Oblast** (<sup>1</sup>Dedkov, Volodina, and Gubareva, 2007; <sup>1</sup>Volodina, 2007); **Kirov Oblast** (<sup>3</sup>Kirillov, 2011; <sup>3</sup>Kirillov, Perevedentseva, and Egoshina, 2011); **Leningrad Oblast** (<sup>1</sup>Kovalenko and Morozova, 1999a; <sup>3</sup>Zmitrovich, Malysheva, Malysheva, and Spirin, 2004; <sup>3</sup>Popov et al., 2007); **Novgorod Oblast** (<sup>3</sup>Zmitrovich, Malysheva, Malysheva, and Spirin, 2004; <sup>4</sup>Kovalenko, Morozova, Nezdojminogo, and Popov, 2005; <sup>3</sup>Malysheva, Malysheva, and Zmitrovich, 2007; <sup>3</sup>Popov et al., 2013); **Penza Oblast** (<sup>5</sup>Ivanov, 1999); **Perm Krai** (<sup>1</sup>Perevedentseva, 2008); **Pskov Oblast** (<sup>3</sup>Popov et al., 2013); **Saint Petersburg** (<sup>2</sup>Weinmann, 1836; <sup>2</sup>Weinmann, 1837; <sup>3</sup>Zmitrovich, Malysheva, Malysheva, and Spirin, 2004); **Samara Oblast** (<sup>3</sup>Malysheva and Malysheva, 2006; <sup>3</sup>Malysheva and Malysheva, 2007; <sup>1</sup>Malysheva and Malysheva, 2008); **Sverdlovsk Oblast** (<sup>3</sup>Marina, 2006); **Yaroslavl Oblast** (<sup>1,4</sup>Lazareva, 1998a; <sup>4</sup>Lazareva, 1998b).

SIBERIA: **Altai Republic** (<sup>1</sup>Gorbunova, 2019); **Irkutsk Oblast** (<sup>1,6</sup>Petrov, 1986; <sup>1,6</sup>Petrov, 1991; <sup>1,6</sup>Petrov, 2008); **Khanty-Mansi Autonomous Okrug** (<sup>1</sup>Filippova and Bulyonkova, 2017a; <sup>1</sup>Filippova and Bulyonkova, 2017b); **Kurgan Oblast** (<sup>1</sup>Mukhin, 1993); **Novosibirsk Oblast** (<sup>6</sup>Perova, 1977; <sup>6</sup>Perova and Gorbunova, 2001); **Sverdlovsk Oblast** (<sup>1</sup>Mukhin, 1993; <sup>1</sup>Mukhin et al., 2003); **Yamalo-Nenets Autonomous Okrug** (<sup>1</sup>Mukhin, 1993).

FAR EAST: **Khabarovsk Krai** (<sup>6</sup>Azbukina et al., 1989; <sup>1</sup>Bau, Bulakh, and Govorova, 2011); **Primorsky Krai** (<sup>6</sup>Azbukina et al., 1984; <sup>4</sup>Azbukina et al., 2006; <sup>1</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Bulakh et al., 2016).

### ***Crepidotus fulvifibrillosus* Murrill**

EASTERN EUROPE: **Kabardino-Balkarian Republic** (Shkhagapsoev and Krapivina, 2004); **Perm Krai** (Perevedentseva, Shilkova, and Botalov, 2011).

SIBERIA: **Khanty-Mansi Autonomous Okrug** (Zvyagina, Baykalova, and Gorbunova, 2007; Baykalova and Zvyagina, 2008); **Novosibirsk Oblast** (Perova and Gorbunova, 2007); **Tyumen Oblast** (Mukhin, 1993).

FAR EAST: **Amur Oblast** (Nazarova, 1986); **Khabarovsk Krai** (Azbukina et al., 1986; Azbukina et al., 1989); **Primorsky Krai** (Vassiljeva, 1972; Vassiljeva, 1973; Azbukina et al., 1984).

### ***Crepidotus hygrophanus* Murrill**

FAR EAST: **Primorsky Krai** (Bulakh, 1977; Azbukina et al., 1984; Azbukina et al., 2006).

### ***Crepidotus kauffmanii* Hesler & A.H. Sm.**

FAR EAST: **Primorsky Krai** (Azbukina et al., 2006; Bau, Bulakh, and Govorova, 2011).

### ***Crepidotus latifolius* Peck**

FAR EAST: **Primorsky Krai** (Azbukina et al., 2006; Bau, Bulakh, and Govorova, 2011).

### ***Crepidotus luteolus* Sacc.**

EASTERN EUROPE: **Leningrad Oblast** (Zmitrovich, Malysheva, Malysheva, and Spirin, 2004; Popov et al., 2007); **Lipetsk Oblast** (Afanasyev, Rtishcheva, and Starodubtseva, 2007); **Orenburg Oblast** (Desyatova, 2008; Safonov, Malenkova, Rusakov, and Leneva, 2013; Safonov, 2015); **Rostov Oblast** (Morozova et al., 2008); **Samara Oblast** (Malysheva and Malysheva, 2005b; Malysheva and Malysheva, 2008); **Ulyanovsk Oblast** (Ilyukhin, 2010a); **Voronezh Oblast** (Afanasyev, Rtishcheva, and Starodubtseva, 2007; Sarycheva, Starodubtseva, and Sapelnikova, 2017); **Arid territories** (Rebriev, Rusanov, et al., 2012).

SIBERIA: **Krasnoyarsk Krai** (Krom and Kapitonov, 2019).

FAR EAST: **Magadan Oblast** (Sazanova, 2009a; Sazanova, 2009b; Sazanova, 2011).

***Crepidotus macedonicus* Pilát**EASTERN EUROPE: **Crimea** (Prydiuk, 2005; Sarkina, 2011; Sarkina and Prydiuk, 2012).FAR EAST: **Primorsky Krai** (Azbukina et al., 2006).***Crepidotus malachus* Sacc.<sup>1</sup>**= *Crepidotus malachus* var. *trichifer* Hesler & A.H. Sm.<sup>2</sup>EASTERN EUROPE: **Crimea** (<sup>2</sup>Prydiuk, 2005; <sup>2</sup>Sarkina, 2011).FAR EAST: **Khabarovsk Krai** (<sup>1</sup>Azbukina et al., 1986); **Primorsky Krai** (<sup>1</sup>Azbukina et al., 1984).***Crepidotus mollis* (Schaeff.) Staudé<sup>1</sup>**≡ *Agaricus mollis* Schaeff.<sup>2</sup> ≡ *Crepidotus mollis* var. *mollis* (Schaeff.) Staudé<sup>3</sup> ≡ *Derminus mollis* (Schaeff.) J. Schröt.<sup>4</sup>

EASTERN EUROPE: **Adygea** (<sup>1</sup>Vaasma, Kalamees, and Raitviir, 1986; <sup>1</sup>Sopina, 2001a); **Bashkortostan** (<sup>1</sup>Stepanova and Sirko, 1977); **Belgorod Oblast** (<sup>1</sup>Brezhnev, 1950); **Bryansk Oblast** (<sup>1</sup>Kruglikov, 2007); **Chechen Republic** (<sup>1</sup>Taysumov, Krapivina, and Kushaliev, 2016); **Crimea** (<sup>2</sup>Léveillé, 1842; <sup>1</sup>Sarkina, 2001; <sup>1</sup>Dudka et al., 2004; <sup>1</sup>Sarkina, 2011; <sup>1</sup>Sarkina and Prydiuk, 2012; <sup>1</sup>Sarkina and Mironova, 2015); **Kabardino-Balkarian Republic** (<sup>1</sup>Shkhagapsoev and Krapivina, 2003; <sup>1</sup>Shkhagapsoev and Krapivina, 2004); **Kaliningrad Oblast** (<sup>1</sup>Dedkov, Volodina, and Gubareva, 2007; <sup>1</sup>Volodina, 2007; <sup>1</sup>Atayev and Volodina, 2020); **Karachay-Cherkess Republic** (<sup>3</sup>Kalamees and Botashev, 2000); **Karelia** (<sup>1</sup>Kovalenko, Morozova, Fomina, and Särkisilta, 1998; <sup>1</sup>Bondartseva et al., 2001; <sup>1</sup>Predtechenskaya and Ruokolainen, 2013; <sup>1</sup>Krutov et al., 2014); **Kirov Oblast** (<sup>3</sup>Kirillov and Luginina, 2011; <sup>3</sup>Kirillov, 2011; <sup>3</sup>Kirillov, Perevedentseva, and Egoshina, 2011; <sup>1</sup>Stavishenko, Luginina, Kirillov, and Egoshina, 2019); **Komi Republic** (<sup>1</sup>Palamarchuk and Kirillov, 2017; <sup>1</sup>Palamarchuk and Kirillov, 2018a); **Krasnodar Krai** (<sup>1</sup>Kovalenko, 1980a; <sup>1</sup>Kovalenko, 1980b; <sup>1</sup>Vaasma, Kalamees, and Raitviir, 1986); **Leningrad Oblast** (<sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Morozova and Kovalenko, 2000; <sup>1</sup>Zmitrovich, 2003; <sup>1</sup>Zmitrovich, Malysheva, Malysheva, and Spirin, 2004; <sup>1</sup>Morozova, 2007; <sup>1</sup>Popov et al., 2007; <sup>1</sup>Zmitrovich et al., 2015; <sup>1</sup>Kalinina, 2018); **Lipetsk Oblast** (<sup>1</sup>Sarycheva et al., 2009; <sup>1</sup>Sarycheva, 2011; <sup>1</sup>Sarycheva, 2016); **Mordovia** (<sup>1</sup>Ivoilov and Bolshakov, 2011a); **Moscow** (<sup>2</sup>Weinmann, 1836; <sup>4</sup>Bucholtz, 1897a; <sup>1</sup>Hennings, 1905; <sup>4</sup>Mosolov, 1906); **Moscow Oblast** (<sup>1</sup>Gorlenko, Sidorova, and Sidorova, 1989; <sup>1</sup>Levitskaya, 1995c; <sup>1</sup>Levitskaya, 2013; <sup>1</sup>Voronina et al., 2014); **Murmansk Oblast** (<sup>1</sup>Pystina, Pavlova, and Shestakova, 1969); **Novgorod Oblast** (<sup>1</sup>Kovalenko and Morozova, 1999b; <sup>1</sup>Malysheva, Malysheva, and Zmitrovich, 2007); **Orenburg Oblast** (<sup>1</sup>Safonov, 2002; <sup>1</sup>Desyatova, 2008; <sup>1</sup>Safonov, 2015); **Penza Oblast** (<sup>1</sup>Ivanov, 1981b; <sup>1</sup>Ivanov, 1983); **Perm Krai** (<sup>3</sup>Perevedentseva, 2008; <sup>1</sup>Belkovskaya et al., 2014; <sup>1</sup>Perevedentseva and Shishigin, 2014); **Pskov Oblast** (<sup>1</sup>Kovalenko and Morozova, 1999b; <sup>1</sup>Popov, 2001a; <sup>1</sup>Popov et al., 2013); **Rostov Oblast** (<sup>1</sup>Rusanov, Rebriev, and Bulgakov, 2018); **Ryazan Oblast** (<sup>1</sup>Volosnova, 1997; <sup>1</sup>Volosnova, 2014); **Saint Petersburg** (<sup>2</sup>Weinmann, 1828; <sup>2</sup>Weinmann, 1837; <sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Morozova and Kovalenko, 2000; <sup>1</sup>Zmitrovich, Malysheva, Malysheva, and Spirin, 2004; <sup>1</sup>Kotkova, Morozova, and Popov, 2006; <sup>1</sup>Morozova and Smirnov, 2011; <sup>1</sup>Morozova et al., 2020); **Samara Oblast** (<sup>1</sup>Malysheva and Malysheva, 2004; <sup>1</sup>Malysheva and Malysheva, 2008); **Saratov Oblast** (<sup>1</sup>Nagumanov, 2015); **Sevastopol** (<sup>1</sup>Sarkina, 2016b; <sup>1</sup>Sarkina, 2020c); **Sverdlovsk Oblast** (<sup>1</sup>Stepanova and Sirko, 1977; <sup>1</sup>Marina, 2006); **Tatarstan** (<sup>1</sup>Vassiljeva, 1977); **Tula Oblast** (<sup>1</sup>Svetasheva, 2001; <sup>1</sup>Svetasheva, 2004; <sup>1</sup>Svetasheva, 2013); **Udmurt Republic** (<sup>1</sup>Tychinin and Kuzmina, 2003); **Ulyanovsk Oblast** (<sup>1</sup>Ilyukhin, 2010a; <sup>1</sup>Ilyukhin, 2010b); **Vladimir Oblast** (<sup>1</sup>Mishulin, Blinov, and Gushchina, 2018); **Vologda Oblast** (<sup>1</sup>Kirillova, 2007); **Yaroslavl Oblast** (<sup>1</sup>Lazareva, 1997; <sup>1</sup>Lazareva, 1998a); **Arid territories** (<sup>1</sup>Rebriev, Rusanov, et al., 2012).

SIBERIA: **Altai Republic** (<sup>1</sup>Gorbunova, 2001b); **Irkutsk Oblast** (<sup>1</sup>Petrov, 1986; <sup>1</sup>Kutafjeva, 1989; <sup>1</sup>Petrov, 1989; <sup>1</sup>Astapenko, 1990a; <sup>1</sup>Muzyka, 2002; <sup>1</sup>Petrov, 2008; <sup>1</sup>Muzyka and Penzina, 2017); **Kemerovo Oblast** (<sup>1</sup>Zhukov, 1972; <sup>1</sup>Zhukov, 1980); **Khakassia** (<sup>1</sup>Beglyanova, 1972a; <sup>1</sup>Zauzolkova, 2015); **Khanty-Mansi Autonomous Okrug** (<sup>1</sup>Mukhin, 1993; <sup>1</sup>Filippova, Bulyonkova, and Lapshina, 2015; <sup>1</sup>Filippova and Bulyonkova, 2017a; <sup>1</sup>Filippova and Bulyonkova, 2017b); **Krasnoyarsk Krai** (<sup>1</sup>Beglyanova, 1972a; <sup>1</sup>Pavlov et al., 2007; <sup>1</sup>Kosheleva and Kutafjeva, 2008b; <sup>1</sup>Kosheleva, 2010; <sup>1</sup>Kryuchkova, 2014a; <sup>1</sup>Krom and Kapitonov, 2019); **Novosibirsk Oblast** (<sup>1</sup>Zaytseva, 1971; <sup>1</sup>Zhukov, 1972; <sup>1</sup>Zhukov, 1980; <sup>1</sup>Perova and Gorbunova, 2007; <sup>1</sup>Koropachinskiy and Banaev, 2014); **Sverdlovsk Oblast** (<sup>1</sup>Mukhin, 1993; <sup>1</sup>Mukhin et al., 2003); **Tomsk Oblast** (<sup>1</sup>Kudashova, Gashkov, and Kutafjeva, 2013); **Tyumen Oblast** (<sup>1</sup>Mukhin, 1993); **Yamalo-Nenets Autonomous Okrug** (<sup>1</sup>Mukhin, 1993).

FAR EAST: **Amur Oblast** (<sup>1</sup>Taranina, 2005; <sup>1</sup>Kochunova, 2019); **Jewish Autonomous Oblast** (<sup>1</sup>Bulakh, Govorova, Nazarova, and Vassiljeva, 2007; <sup>1</sup>Bau, Bulakh, and Govorova, 2011); **Khabarovsk Krai** (<sup>1</sup>Azbukina et al., 1986; <sup>1</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Erofeeva and Bulakh, 2015a); **Primorsky Krai** (<sup>1</sup>Vassiljeva, 1973; <sup>1</sup>Bunkina and Nazarova, 1978; <sup>1</sup>Azbukina et al., 1984; <sup>1</sup>Azbukina et al., 1990; <sup>1</sup>Bardunov et al., 2002; <sup>1</sup>Azbukina et al., 2006; <sup>1</sup>Bau, Bulakh, Zhuang, and Li, 2007; <sup>1</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Bogacheva, Bulakh, Bukharova, and Egorova, 2020).

***Crepidotus nephrodes* (Berk. & M.A. Curtis) Sacc.**

FAR EAST: **Amur Oblast** (Nazarova, 1986); **Primorsky Krai** (Vassiljeva, 1973; Bunkina and Nazarova, 1978).

***Crepidotus occidentalis* Hesler & A.H. Sm.**

FAR EAST: **Magadan Oblast** (Sazanova, 2009a; Sazanova, 2009b; Sazanova, 2011).

***Crepidotus parvulus* Murrill**

FAR EAST: **Khabarovsk Krai** (Azbukina et al., 1986).

***Crepidotus paxilloides* Singer**

FAR EAST: **Primorsky Krai** (Vassiljeva, 1973; Bunkina and Nazarova, 1978).

***Crepidotus quitensis* Pat.**

FAR EAST: **Primorsky Krai** (Vassiljeva, 1973; Bunkina and Nazarova, 1978).

***Crepidotus sinuosus* Hesler & A.H. Sm.**

EASTERN EUROPE: **Crimea** (Moser, 1993; Sarkina, 2001; Dudka et al., 2004; Sarkina, 2011).

***Crepidotus stenocystis* Pouzar**

EASTERN EUROPE: **Udmurt Republic** (Kapitonov, 2013).

***Crepidotus submollis* Murrill**

FAR EAST: **Amur Oblast** (Nazarova, 1986; Azbukina et al., 1998; Kochunova and Erofeeva, 2017; Kochunova, 2019); **Primorsky Krai** (Vassiljeva, 1972; Vassiljeva, 1973; Bunkina and Nazarova, 1978).

***Crepidotus subverrucisporus* Pilát<sup>1</sup>**

= *Crepidotus bickhamensis* P.D. Orton<sup>2</sup>

EASTERN EUROPE: **Crimea** (<sup>1</sup>Dudka et al., 2004); **Leningrad Oblast** (<sup>1</sup>Morozova, 2002; <sup>1</sup>Zmitrovich, Malysheva, and Spirin, 2004; <sup>1</sup>Popov et al., 2007); **Orenburg Oblast** (<sup>1</sup>Desyatova, 2008); **Pskov Oblast** (<sup>1</sup>Kovalenko, Kolmakov, Morozova, and Popov, 2003; <sup>1</sup>Popov et al., 2013); **Saint Petersburg** (<sup>1</sup>Kotkova, Morozova, and Popov, 2005); **Samara Oblast** (<sup>1</sup>Malysheva and Malysheva, 2008); **Tula Oblast** (<sup>1</sup>Svetasheva, Aleksandrova, Zaytseva, and Solovjova, 2017); **Yaroslavl Oblast** (<sup>2</sup>Lazareva, 1997).

FAR EAST: **Magadan Oblast** (<sup>1</sup>Sazanova, 2009a; <sup>1</sup>Sazanova, 2009b; <sup>1</sup>Sazanova, 2011); **Primorsky Krai** (<sup>1</sup>Azbukina et al., 2006; <sup>1</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Bogacheva, Bulakh, Bukharova, and Egorova, 2020).

***Crepidotus tobolensis* Kapitonov, Biketova & Zmitr.**

SIBERIA: **Tyumen Oblast** (Crous, Carnegie, et al., 2019).

***Crepidotus variabilis* (Pers.) P. Kumm.<sup>1</sup>**

≡ *Agaricus variabilis* Pers.<sup>2</sup> ≡ *Claudopus variabilis* (Pers.) Gillet<sup>3</sup> ≡ *Dochmiopus variabilis* (Pers.) Pat.<sup>4</sup> = *Agaricus variabilis* var. *albidus* (Balb.) Fr.<sup>5</sup>

EASTERN EUROPE: **Chelyabinsk Oblast** (<sup>1</sup>Sirko and Stepanova, 1977; <sup>1</sup>Stepanova and Sirko, 1977); **Crimea** (<sup>1</sup>Sarkina, 2001; <sup>1</sup>Dudka et al., 2004; <sup>1</sup>Sarkina, 2010b; <sup>1</sup>Sarkina, 2011; <sup>1</sup>Sarkina and Prydiuk, 2012; <sup>1</sup>Sarkina and Mironova, 2015); **Karelia** (<sup>1</sup>Bondartseva et al., 2001; <sup>1</sup>Krutov et al., 2014); **Kirov Oblast** (<sup>1</sup>Kirillov and Luginina, 2011); **Komi Republic** (<sup>1</sup>Palamarchuk, 2020b); **Leningrad Oblast** (<sup>2</sup>Weinmann, 1836; <sup>4</sup>Thesleff, 1920; <sup>1</sup>Zmitrovich, 2003; <sup>1</sup>Zmitrovich, Malysheva, Malysheva, and Spirin, 2004; <sup>1</sup>Popov et al., 2007); **Lipetsk Oblast** (<sup>1</sup>Afanasyev, Rtishcheva, and Starodubtseva, 2007; <sup>1</sup>Sarycheva et al., 2009; <sup>1</sup>Sarycheva, 2011; <sup>1</sup>Sarycheva, 2014a; <sup>1</sup>Sarycheva, 2016); **Moscow Oblast** (<sup>1</sup>Gorlenko, Sidorova, and Sidorova, 1989); **Novgorod Oblast** (<sup>1</sup>Malysheva, Malysheva, and Zmitrovich, 2007); **Orenburg Oblast** (<sup>1</sup>Desyatova, 2008; <sup>1</sup>Safonov, Malenkova, Rusakov, and Leneva, 2013; <sup>1</sup>Safonov, 2015); **Penza Oblast** (<sup>1</sup>Ivanov, 1983); **Rostov Oblast** (<sup>1</sup>Rusanov et al., 2004; <sup>1</sup>Morozova et al., 2008; <sup>1</sup>Zmitrovich et al., 2008; <sup>1</sup>Rusanov, Rebriev, and Bulgakov, 2018); **Saint Petersburg** (<sup>2,5</sup>Weinmann, 1828; <sup>2</sup>Weinmann, 1836; <sup>2,5</sup>Weinmann, 1837; <sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Zmitrovich, Malysheva, Malysheva, and Spirin, 2004; <sup>1</sup>Morozova, Kovalenko, Rebriev, and Malysheva, 2014); **Saratov Oblast** (<sup>1</sup>Nagumanov, 2015); **Sevastopol** (<sup>1</sup>Sarkina, 2016b; <sup>1</sup>Sarkina, 2020b); **Tatarstan** (<sup>1</sup>Vassiljeva, 1977); **Tula Oblast** (<sup>1</sup>Svetasheva, 2004); **Tver Oblast** (<sup>1</sup>Mukhina,

2011a; <sup>1</sup>Mukhina, 2011b; <sup>1</sup>Kotkova, 2014); **Voronezh Oblast** (<sup>1</sup>Afanasyev, Rtishcheva, and Starodubtseva, 2007; <sup>1</sup>Sarycheva, Starodubtseva, and Sapelnikova, 2017); **Arid territories** (<sup>1</sup>Rebriev, Rusanov, et al., 2012).

SIBERIA: **Irkutsk Oblast** (<sup>1</sup>Petrov, 1986; <sup>1</sup>Astapenko and Kutafjeva, 1990; <sup>1</sup>Astapenko, 1990a; <sup>1</sup>Petrov, 1991; <sup>1</sup>Petrov, 2008); **Kemerovo Oblast** (<sup>1</sup>Perova and Gorbunova, 2001); **Khakassia** (<sup>1</sup>Zauzolkova and Gorbunova, 2013; <sup>1</sup>Zauzolkova, 2015); **Khanty-Mansi Autonomous Okrug** (<sup>1</sup>Mukhin, 1993; <sup>1</sup>Zvyagina, Baykalova, and Gorbunova, 2007); **Krasnoyarsk Krai** (<sup>2</sup>Thümen, 1877; <sup>3</sup>Kalchbrenner, 1878; <sup>1</sup>Beglyanova, 1972a; <sup>1</sup>Nezdojminogo, 1982a; <sup>1</sup>Kosheleva and Kutafjeva, 2008b; <sup>1</sup>Zauzolkova, 2012; <sup>1</sup>Zauzolkova, 2015); **Novosibirsk Oblast** (<sup>1</sup>Perova, 1977; <sup>1</sup>Perova and Gorbunova, 2001; <sup>1</sup>Perova and Gorbunova, 2007; <sup>1</sup>Koropachinskiy and Banaev, 2014); **Tyumen Oblast** (<sup>1</sup>Mukhin, 1993); **Yamalo-Nenets Autonomous Okrug** (<sup>1</sup>Mukhin, 1993).

FAR EAST: **Khabarovsk Krai** (<sup>1</sup>Bau, Bulakh, Zhuang, and Li, 2007; <sup>1</sup>Bau, Bulakh, and Govorova, 2011).

### *Crepidotus versutus* Peck

SIBERIA: **Khanty-Mansi Autonomous Okrug** (Filippova, Bulyonkova, and Lapshina, 2015).

### *Crinipellis excentrica* (Pat. & Gaillard) Pat. ex Singer

FAR EAST: **Primorsky Krai** (Vassiljeva, 1972; Vassiljeva, 1973).

### *Crinipellis piceae* Singer

EASTERN EUROPE: **Komi Republic** (Palamarchuk (Bobretsova), 2009; Palamarchuk, 2012; Dyogteva, 2019; Palamarchuk et al., 2019); **Tula Oblast** (Svetasheva, Aleksandrova, Zaytseva, and Solovjova, 2017).

SIBERIA: **Altai Republic** (Singer, 1939; Singer, 1943; Gorbunova, 2008; Gorbunova, 2017b); **Tomsk Oblast** (Kudashova, Gashkov, and Vaishlya, 2016a).

FAR EAST: **Amur Oblast** (Nazarova, 1986; Kochunova and Erofeeva, 2017); **Jewish Autonomous Oblast** (Bulakh, Govorova, Nazarova, and Vassiljeva, 2007; Bau, Bulakh, and Govorova, 2011); **Khabarovsk Krai** (Azbukina et al., 1986; Azbukina et al., 1989; Bau, Bulakh, and Govorova, 2011; Bulakh, 2013; Bogacheva, Bulakh, Bukharova, and Egorova, 2015); **Primorsky Krai** (Vassiljeva, 1973; Bulakh, 1977; Bunkina and Nazarova, 1978; Azbukina et al., 1984; Azbukina et al., 2006; Bau, Bulakh, and Govorova, 2011; Bulakh et al., 2016).

### *Crinipellis scabella* (Alb. & Schwein.) Murrill<sup>1</sup>

= *Agaricus stipitarius* Fr.<sup>2</sup> = *Crinipellis stipitaria* (Fr.) Pat.<sup>3</sup>

EASTERN EUROPE: **Astrakhan Oblast** (<sup>1</sup>Rebriev, Aleksandrova, et al., 2012); **Crimea** (<sup>3</sup>Sarkina, 2010b; <sup>3</sup>Sarkina, 2013; <sup>1</sup>Sarkina and Mironova, 2015); **Kaliningrad Oblast** (<sup>3</sup>Dedkov, Volodina, and Gubareva, 2007; <sup>3</sup>Volodina, 2007; <sup>1</sup>Atayev and Volodina, 2020); **Lipetsk Oblast** (<sup>3</sup>Sarycheva, 1999; <sup>1</sup>Sarycheva et al., 2009; <sup>1</sup>Sarycheva, 2011; <sup>1</sup>Sarycheva, 2014a; <sup>1</sup>Sarycheva, 2016); **Novgorod Oblast** (<sup>3</sup>Morozova, Popov, and Fedosova, 2014); **Penza Oblast** (<sup>3</sup>Ivanov, 1981a; <sup>3</sup>Ivanov, 1999); **Perm Krai** (<sup>1</sup>Perevedentseva, 2008); **Rostov Oblast** (<sup>1</sup>Morozova et al., 2008; <sup>1</sup>Zmitrovich et al., 2008; <sup>1</sup>Rebriev, 2018); **Ryazan Oblast** (<sup>3</sup>Volosnova, 1997; <sup>3</sup>Volosnova, 2014); **Samara Oblast** (<sup>3</sup>Malysheva and Malysheva, 2006; <sup>3</sup>Malysheva and Malysheva, 2007; <sup>3</sup>Malysheva and Malysheva, 2008); **Voronezh Oblast** (<sup>3</sup>Chastukhin and Nikolaevskaya, 1969); **Arid territories** (<sup>1</sup>Rebriev, Rusanov, et al., 2012).

SIBERIA: **Altai Krai** (<sup>3</sup>Gorbunova, 2006; <sup>1</sup>Gorbunova, 2018a); **Altai Republic** (<sup>3</sup>Gorbunova, 2006; <sup>3</sup>Gorbunova, 2008; <sup>1</sup>Gorbunova, 2017a); **Irkutsk Oblast** (<sup>3</sup>Petrov, 1991; <sup>1</sup>Gorbunova and Stepantsova, 2015); **Khakassia** (<sup>3</sup>Beglyanova, 1972a; <sup>1</sup>Gorbunova and Majnagasheva, 2013; <sup>1</sup>Zauzolkova, 2015); **Krasnoyarsk Krai** (<sup>3</sup>Beglyanova, 1972a); **Novosibirsk Oblast** (<sup>3</sup>Gorbunova, 2006); **Yamalo-Nenets Autonomous Okrug** (<sup>3</sup>Tarchevskaya, 1990).

FAR EAST: **Chukotka Autonomous Okrug** (<sup>2</sup>Berkeley and Curtis, 1978); **Primorsky Krai** (<sup>3</sup>Vassiljeva, 1973; <sup>1</sup>Psurtseva, Kiyashko, Gachkova, and Belova, 2007; <sup>1</sup>Bau, Bulakh, and Govorova, 2011).

### *Crinipellis setipes* (Peck) Singer

FAR EAST: **Primorsky Krai** (Vassiljeva, 1972; Vassiljeva, 1973; Nazarova, 1978; Bau, Bulakh, and Govorova, 2011).

### *Crinipellis siparunae* Singer

EASTERN EUROPE: **Saint Petersburg** (Singer, 1943).

### *Crinipellis zonata* (Peck) Sacc.

According to Antonín and Noordeloos (2010) *Collybia zonata* (Peck) Sacc. is synonym of *Crinipellis zonata* (Peck) Sacc.

FAR EAST: **Jewish Autonomous Oblast** (Bulakh, Govorova, Nazarova, and Vassiljeva, 2007; Bau, Bulakh, and Govorova, 2011); **Khabarovsk Krai** (Azbukina et al., 1986; Azbukina et al., 1989; Bau, Bulakh, and Govorova, 2011; Erofeeva and Bulakh, 2015a); **Primorsky Krai** (Vassiljeva, 1972; Vassiljeva, 1973; Bunkina and Nazarova, 1978; Azbukina et al., 1984; Azbukina et al., 2006; Bau, Bulakh, and Govorova, 2011; Bulakh et al., 2016).

***Cruentomyces kedrovayae* R.H. Petersen, Kovalenko & O.V. Morozova**

FAR EAST: **Primorsky Krai** (Petersen et al., 2008).

***Cryptomarasmius aucubae* (Neda) T.S. Jenkinson & Desjardin**

FAR EAST: **Primorsky Krai** (Kiyashko et al., 2014; Bulakh et al., 2016).

***Cryptomarasmius minutus* (Peck) T.S. Jenkinson & Desjardin<sup>1</sup>**

≡ *Marasmius minutus* Peck<sup>2</sup> = *Marasmius capillipes* Sacc.<sup>3</sup>

EASTERN EUROPE: **Belgorod Oblast** (<sup>3</sup>Bedenko, 1980; <sup>3</sup>Nikolayev, 1986); **Arid territories** (<sup>2</sup>Rebriev, Rusanov, et al., 2012).

FAR EAST: **Jewish Autonomous Oblast** (<sup>3</sup>Bulakh, Govorova, Nazarova, and Vassiljeva, 2007; <sup>2</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Erofeeva, Bukharova, and Bulakh, 2019); **Khabarovsk Krai** (<sup>3</sup>Azbukina et al., 1986; <sup>3</sup>Azbukina et al., 1989; <sup>2</sup>Bau, Bulakh, and Govorova, 2011; <sup>2</sup>Erofeeva and Bulakh, 2015a); **Primorsky Krai** (<sup>3</sup>Vassiljeva, 1972; <sup>3</sup>Vassiljeva, 1973; <sup>3</sup>Bulakh, 1977; <sup>3</sup>Bunkina and Nazarova, 1978; <sup>3</sup>Azbukina et al., 1984; <sup>3</sup>Bardunov et al., 2002; <sup>3</sup>Azbukina et al., 2006; <sup>2</sup>Bau, Bulakh, and Govorova, 2011; <sup>2</sup>Bogacheva, Bulakh, Bukharova, and Egorova, 2020; <sup>3</sup>Bogacheva, Bulakh, Bukharova, and Egorova, 2020).

***Cuphophyllus cinerellus* (Kühner) Bon<sup>1</sup>**

≡ *Hygrocybe cinerella* (Kühner) Arnolds<sup>2</sup>

EASTERN EUROPE: **Komi Republic** (<sup>2</sup>Palamarchuk and Kirillov, 2016; <sup>2</sup>Palamarchuk, 2016a; <sup>2</sup>Palamarchuk, 2016b; <sup>1</sup>Dyogteva, 2019; <sup>1</sup>Palamarchuk et al., 2019); **Yamalo-Nenets Autonomous Okrug** (<sup>2</sup>Knudsen and Mukhin, 1998; <sup>1</sup>Kovalenko, 1999; <sup>2</sup>Karatygin, Nezdoyminogo, Novozhilov, and Zhurbenko, 1999).

SIBERIA: **Khanty-Mansi Autonomous Okrug** (<sup>2</sup>Filippova and Thormann, 2014; <sup>2</sup>Filippova, 2014; <sup>2</sup>Filippova, Mourgues, and Philippe, 2014); **Krasnoyarsk Krai** (<sup>2</sup>Gorbunova, 2016).

***Cuphophyllus colemannianus* (A. Bloxam) Bon<sup>1</sup>**

≡ *Camarophyllus colemannianus* (A. Bloxam) Ricken<sup>2</sup>

EASTERN EUROPE: **Novgorod Oblast** (<sup>1</sup>Morozova, 2012; <sup>1</sup>Popov et al., 2013); **Udmurt Republic** (<sup>2</sup>Tychinin and Kuzmina, 2003).

***Cuphophyllus flavipes* (Britzelm.) Bon**

FAR EAST: **Primorsky Krai** (Kovalenko, 1989; Kovalenko, 1995).

***Cuphophyllus fornicatus* (Fr.) Lodge, Padamsee & Vizzini**

≡ *Hygrocybe fornicata* (Fr.) Singer<sup>1</sup> ≡ *Neohygrocybe fornicata* (Fr.) Kovalenko<sup>2</sup> = *Neohygrocybe fornicata* var. *streptopus* (Fr.) Kovalenko<sup>3</sup>

EASTERN EUROPE: **Pskov Oblast** (<sup>3</sup>Popov et al., 2013); **Sverdlovsk Oblast** (<sup>2</sup>Marina, 2006).

SIBERIA: **Buryatia** (<sup>1</sup>Nezdoyminogo, 1973; <sup>2</sup>Kovalenko, 1989; <sup>2</sup>Petrov, 1991; <sup>2</sup>Kovalenko, 1995); **Krasnoyarsk Krai** (<sup>1</sup>Beglyanova, 1972a).

***Cuphophyllus lacmus* (Schumach.) Bon<sup>1</sup>**

≡ *Camarophyllus lacmus* (Schumach.) J.E. Lange<sup>2</sup> = *Cuphophyllus subviolaceus* (Peck) Bon<sup>3</sup>

EASTERN EUROPE: **Leningrad Oblast** (<sup>3</sup>Kovalenko, 1989; <sup>3</sup>Kovalenko, 1995; <sup>3</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Tzvelev, 2000; <sup>3</sup>Popov et al., 2007; <sup>1</sup>Geltman et al., 2018; <sup>1</sup>Geltman, 2018b); **Sverdlovsk Oblast** (<sup>3</sup>Marina, 2006).

FAR EAST: **Primorsky Krai** (<sup>2</sup>Vassiljeva, 1973; <sup>3</sup>Kovalenko, 1989; <sup>3</sup>Kovalenko, 1995).

***Cuphophyllus pratensis* (Pers.) Bon<sup>1</sup>**

≡ *Agaricus pratensis* Pers.<sup>2</sup> ≡ *Camarophyllus pratensis* (Pers.) P. Kumm.<sup>3</sup> ≡ *Hygrocybe pratensis* (Pers.) Murrill<sup>4</sup> ≡ *Hygrocybe pratensis* var. *pratensis* (Pers.) Murrill<sup>5</sup> ≡ *Hygrophorus pratensis* (Pers.) Fr.<sup>6</sup> = *Camarophyllus bicolor*

P. Karst.<sup>7</sup> = *Cuphophyllus berkeleyi* (P.D. Orton & Watling) Bon<sup>8</sup> = *Hygrocybe pratensis* var. *pallida* (Berk. & Broome) Arnolds<sup>9</sup> = *Hygrophorus karstenii* Sacc. & Cub.<sup>10</sup>

EASTERN EUROPE: **Adygea** (<sup>1</sup>Sopina, 2004b); **Kaliningrad Oblast** (<sup>1</sup>Dedkov, Volodina, and Gubareva, 2007); **Karelia** (<sup>3</sup>Freindling, 1949; <sup>3,10</sup>Bondartseva et al., 2001; <sup>10</sup>Predtechenskaya and Ruokolainen, 2013; <sup>5,10</sup>Krutov et al., 2014); **Komi Republic** (<sup>4</sup>Palamarchuk, 2016a; <sup>4</sup>Palamarchuk, 2016b); **Krasnodar Krai** (<sup>3</sup>Kovalenko, 1980a; <sup>3</sup>Kovalenko, 1980b); **Leningrad Oblast** (<sup>3,7</sup>Thesleff, 1920; <sup>3</sup>Pavlova, 1969; <sup>8</sup>Kovalenko, 1989; <sup>8</sup>Kovalenko, 1995; <sup>1,8</sup>Kovalenko and Morozova, 1999a; <sup>8</sup>Tzvelev, 2000; <sup>1,8</sup>Popov et al., 2007; <sup>8</sup>Geltman et al., 2018); **Moscow Oblast** (<sup>1</sup>Voronina et al., 2014); **Novgorod Oblast** (<sup>1</sup>Morozova, Popov, and Fedosova, 2014); **Penza Oblast** (<sup>1</sup>Ivanov, 1999); **Perm Krai** (<sup>1</sup>Perevedentseva, 2008); **Pskov Oblast** (<sup>1</sup>Popov et al., 2013); **Ryazan Oblast** (<sup>5</sup>Malysheva and Volosnova, 2008; <sup>5</sup>Volosnova, 2014); **Saint Petersburg** (<sup>2</sup>Weinmann, 1828; <sup>2</sup>Weinmann, 1836; <sup>2</sup>Weinmann, 1837); **Samara Oblast** (<sup>1,8</sup>Malysheva and Malysheva, 2007; <sup>5</sup>Malysheva and Malysheva, 2008; <sup>9</sup>Malysheva and Malysheva, 2008); **Smolensk Oblast** (<sup>6</sup>Jaczewski, 1896); **Sverdlovsk Oblast** (<sup>3</sup>Stepanova and Sirko, 1977; <sup>1</sup>Marina, 2006); **Tatarstan** (<sup>1</sup>Nazirov, Gorshkov, Ivanov, and Rogova, 2016; <sup>1</sup>Potapov, 2016a); **Tula Oblast** (<sup>1</sup>Svetasheva, 2004); **Tver Oblast** (<sup>1</sup>Morozova, Aleksandrova, Popov, and Malysheva, 2016); **Arid territories** (<sup>1</sup>Rebriev, Rusanov, et al., 2012).

SIBERIA: **Altai Krai** (<sup>1</sup>Gorbunova, 2018a); **Altai Republic** (<sup>1</sup>Kovalenko, 1992; <sup>1</sup>Perova and Gorbunova, 2001; <sup>5</sup>Gorbunova, 2010); **Buryatia** (<sup>10</sup>Nezdojminogo, 1970a); **Irkutsk Oblast** (<sup>3</sup>Petrov, 1984; <sup>1</sup>Petrov, 1991; <sup>1</sup>Muzyka, 2002; <sup>1</sup>Petrov, 2008); **Khakassia** (<sup>1</sup>Zauzolkova, 2015); **Krasnoyarsk Krai** (<sup>3</sup>Beglyanova, 1972a; <sup>4</sup>Kosheleva and Kutafjeva, 2008a; <sup>5</sup>Gorbunova, 2016); **Novosibirsk Oblast** (<sup>1</sup>Perova and Gorbunova, 2001; <sup>5</sup>Perova and Gorbunova, 2007); **Tomsk Oblast** (<sup>10</sup>Perova and Gorbunova, 2001).

FAR EAST: **Jewish Autonomous Oblast** (<sup>4</sup>Bulakh, Govorova, Nazarova, and Vassiljeva, 2007; <sup>4</sup>Bau, Bulakh, and Govorova, 2011); **Khabarovsk Krai** (<sup>3</sup>Azbukina et al., 1986; <sup>3</sup>Bau, Bulakh, Zhuang, and Li, 2007; <sup>4</sup>Bau, Bulakh, and Govorova, 2011); **Magadan Oblast** (<sup>1</sup>Kovalenko, 1995; <sup>1</sup>Sazanova, 2005; <sup>5</sup>Sazanova, 2009a; <sup>1</sup>Sazanova and Golodnova, 2015); **Primorsky Krai** (<sup>3</sup>Vassiljeva, 1972; <sup>3</sup>Vassiljeva, 1973; <sup>3</sup>Bunkina and Nazarova, 1978; <sup>3</sup>Azbukina et al., 1984; <sup>1</sup>Kovalenko, 1995; <sup>1</sup>Azbukina et al., 2006; <sup>4</sup>Bau, Bulakh, and Govorova, 2011; <sup>4</sup>Bulakh et al., 2016; <sup>1</sup>Bogacheva, Bulakh, Bukharova, and Egorova, 2020); **Sakhalin Oblast** (<sup>3,10</sup>Vassiljeva and Nazarova, 1972).

### *Cuphophyllus russocoriaceus* (Berk. & T.K. Mill.) Bon<sup>1</sup>

≡ *Camarophyllus russocoriaceus* (Berk. & T.K. Mill.) J.E. Lange<sup>2</sup>

EASTERN EUROPE: **Leningrad Oblast** (<sup>1</sup>Kovalenko, 1989; <sup>1</sup>Kovalenko, 1995; <sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Popov et al., 2007); **Moscow Oblast** (<sup>1</sup>Levitskaya, 1995b; <sup>1</sup>Levitskaya, 2013); **Penza Oblast** (<sup>2</sup>Ivanov, 1982; <sup>1</sup>Kovalenko, 1989; <sup>1</sup>Kovalenko, 1995); **Sverdlovsk Oblast** (<sup>1</sup>Marina, 2006).

FAR EAST: **Amur Oblast** (<sup>1</sup>Kovalenko, 1989; <sup>1</sup>Kovalenko, 1995).

### *Cuphophyllus virgineus* (Wulfen) Kovalenko<sup>1</sup>

≡ *Agaricus virgineus* Wulfen<sup>2</sup> ≡ *Camarophyllus virgineus* (Wulfen) P. Kumm.<sup>3</sup> ≡ *Hygrocybe virginea* (Wulfen) P.D. Orton & Watling<sup>4</sup> ≡ *Hygrocybe virginea* var. *virginea* (Wulfen) P.D. Orton & Watling<sup>5</sup> ≡ *Hygrophorus virgineus* (Wulfen) Fr.<sup>6</sup> = *Camarophyllus niveus* (Scop.) Wünsche<sup>7</sup> = *Camarophyllus subradiatus* (Schumach.) Wünsche<sup>8</sup> = *Cuphophyllus fuscescens* (Bres.) Bon<sup>9</sup> = *Cuphophyllus subradiatus* (Schumach.) Bon<sup>10</sup> = *Hygrocybe virginea* var. *fuscescens* (Bres.) Arnolds<sup>11</sup> = *Hygrophorus niveus* (Scop.) Fr.<sup>12</sup> = *Hygrophorus subradiatus* (Schumach.) Fr.<sup>13</sup>

EASTERN EUROPE: **Crimea** (<sup>7</sup>Sarkina, 2010b; <sup>4</sup>Sarkina and Prydiuk, 2012; <sup>1</sup>Sarkina and Stavishenko, 2019); **Kaliningrad Oblast** (<sup>1</sup>Dedkov, Volodina, and Gubareva, 2007; <sup>1</sup>Volodina, 2007); **Kaluga Oblast** (<sup>7</sup>Sionova, 2003); **Karachay-Cherkess Republic** (<sup>3</sup>Onipchenko and Kaverina, 1989; <sup>1</sup>Kalamees and Botashev, 2000); **Karelia** (<sup>7</sup>Freindling, 1949; <sup>7</sup>Bondartseva et al., 2001; <sup>5</sup>Krutov et al., 2014); **Komi Republic** (<sup>4</sup>Palamarchuk, 2012; <sup>1</sup>Palamarchuk and Kirillov, 2017); **Krasnodar Krai** (<sup>7</sup>Kovalenko, 1980a; <sup>7</sup>Kovalenko, 1980b); **Leningrad Oblast** (<sup>3,8</sup>Thesleff, 1920; <sup>7</sup>Pavlova, 1969; <sup>1,10</sup>Kovalenko and Morozova, 1999a; <sup>9</sup>Morozova, 2005; <sup>1,9,10</sup>Popov et al., 2007); **Lipetsk Oblast** (<sup>1</sup>Sarycheva et al., 2009); **Moscow** (<sup>12</sup>Bucholtz, 1897b; <sup>12</sup>Bucholtz, 1897c; <sup>12</sup>Mosolov, 1906); **Moscow Oblast** (<sup>3,7</sup>Gorlenko, Sidorova, and Sidorova, 1989; <sup>1</sup>Levitskaya, 2006; <sup>1</sup>Levitskaya, 2013; <sup>1</sup>Voronina et al., 2014); **Novgorod Oblast** (<sup>1,9</sup>Morozova, 2012; <sup>1,9</sup>Popov et al., 2013; <sup>1,9</sup>Morozova, Popov, and Fedosova, 2014); **Penza Oblast** (<sup>8</sup>Ivanov, 1982; <sup>7</sup>Ivanov, 1985; <sup>10</sup>Kovalenko, 1989; <sup>10</sup>Kovalenko, 1995; <sup>10</sup>Ivanov, 1999); **Perm Krai** (<sup>1</sup>Perevedentseva, 2008; <sup>4</sup>Belkovskaya et al., 2014); **Pskov Oblast** (<sup>1</sup>Kovalenko, Kolmakov, Morozova, and Popov, 2003; <sup>1</sup>Popov et al., 2013; <sup>9</sup>Morozova et al., 2015); **Rostov Oblast** (<sup>1</sup>Vyshchepan, 1992); **Saint Petersburg** (<sup>2</sup>Weinmann, 1828; <sup>2</sup>Weinmann, 1836; <sup>2</sup>Weinmann, 1837; <sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Morozova and Kovalenko, 2000; <sup>1</sup>Kotkova, Morozova, and Popov, 2006; <sup>1</sup>Morozova and Smirnov, 2011; <sup>1</sup>Morozova, Kovalenko, Rebriev, and Malysheva, 2014; <sup>1</sup>Morozova et al., 2020); **Smolensk Oblast** (<sup>12</sup>Jaczewski, 1896; <sup>6</sup>Jaczewski, 1898); **Sverdlovsk Oblast** (<sup>8</sup>Stepanova and Sirko, 1977; <sup>10</sup>Kovalenko, 1989; <sup>10</sup>Kovalenko, 1995; <sup>1</sup>Marina, 2006); **Tatarstan** (<sup>1</sup>Potapov, 2016a); **Tula Oblast** (<sup>1</sup>Svetasheva, 2004);



<sup>9</sup>Shcherbakov, 2010; <sup>11</sup>Svetasheva, Sheremetyeva, and Lakomov, 2019); **Tver Oblast** (<sup>9</sup>Morozova, Aleksandrova, Popov, and Malysheva, 2016); **Udmurt Republic** (<sup>7</sup>Tychinin and Kuzmina, 2003); **Vologda Oblast** (<sup>6</sup>Kutova, 1957); **Yamalo-Nenets Autonomous Okrug** (<sup>1</sup>Kovalenko, 1999); **Arid territories** (<sup>1</sup>Rebriev, Rusanov, et al., 2012).

SIBERIA: **Altai Krai** (<sup>1</sup>Gorbunova, 2018a); **Altai Republic** (<sup>1</sup>Kovalenko, 1992; <sup>3</sup>Gorbunova, 1996; <sup>3</sup>Gorbunova, 1997; <sup>3</sup>Gorbunova, 2001b; <sup>4</sup>Gorbunova, 2010); **Buryatia** (<sup>4</sup>Nezdojminogo, 1973; <sup>1</sup>Kovalenko, 1999); **Irkutsk Oblast** (<sup>7</sup>Kutafjeva, 1983; <sup>3</sup>Petrov, 1984; <sup>7</sup>Petrov, 1984; <sup>7</sup>Petrov, 1989; <sup>1</sup>Muzyka, 2002; <sup>1</sup>Petrov, 2008); **Khakassia** (<sup>4</sup>Zauzolkova and Gorbunova, 2013; <sup>4</sup>Zauzolkova, 2015); **Khanty-Mansi Autonomous Okrug** (<sup>1</sup>Filippova and Bulyonkova, 2017a; <sup>1</sup>Filippova and Bulyonkova, 2017b); **Krasnoyarsk Krai** (<sup>3,7,8</sup>Beglyanova, 1972a; <sup>13</sup>Beglyanova, 1972b; <sup>3</sup>Nezdojminogo, 1982a; <sup>4</sup>Kosheleva and Kutafjeva, 2008a); **Novosibirsk Oblast** (<sup>5</sup>Perova and Gorbunova, 2007); **Sverdlovsk Oblast** (<sup>7</sup>Stepanova and Sirko, 1977); **Tomsk Oblast** (<sup>4</sup>Kudashova, Gashkov, and Kutafjeva, 2013).

FAR EAST: **Chukotka Autonomous Okrug** (<sup>6</sup>Berkeley and Curtis, 1978); **Jewish Autonomous Oblast** (<sup>4</sup>Bulakh, Govorova, Nazarova, and Vassiljeva, 2007; <sup>4</sup>Bau, Bulakh, and Govorova, 2011); **Khabarovsk Krai** (<sup>7</sup>Azbukina et al., 1986; <sup>7</sup>Azbukina et al., 1989; <sup>1</sup>Kovalenko, 1995; <sup>3</sup>Bau, Bulakh, Zhuang, and Li, 2007; <sup>4</sup>Bau, Bulakh, and Govorova, 2011); **Magadan Oblast** (<sup>4</sup>Sazanova, 2009a); **Primorsky Krai** (<sup>3,7,8</sup>Vassiljeva, 1972; <sup>3,7,8</sup>Vassiljeva, 1973; <sup>7</sup>Shalapugina, 1976; <sup>3,7</sup>Bunkina and Nazarova, 1978; <sup>7</sup>Azbukina et al., 1984; <sup>10</sup>Kovalenko, 1989; <sup>7</sup>Azbukina et al., 1990; <sup>1,10</sup>Kovalenko, 1995; <sup>7</sup>Bardunov et al., 2002; <sup>1</sup>Azbukina et al., 2006; <sup>4</sup>Bau, Bulakh, and Govorova, 2011; <sup>4</sup>Bulakh et al., 2016); **Sakhalin Oblast** (<sup>3</sup>Vassiljeva and Nazarova, 1972; <sup>1</sup>Kovalenko, 1995).

### ***Cyanoboletus pulverulentus* (Opat.) Gelardi, Vizzini & Simonini<sup>1</sup>**

≡ *Boletus pulverulentus* Opat.<sup>2</sup> ≡ *Xerocomus pulverulentus* (Opat.) E.-J. Gilbert<sup>3</sup>

EASTERN EUROPE: **Crimea** (<sup>2</sup>Sarkina, 2010b; <sup>2</sup>Sarkina and Prydiuk, 2012; <sup>2</sup>Sarkina, 2013; <sup>2</sup>Sarkina and Mironova, 2015); **Kaliningrad Oblast** (<sup>3</sup>Dedkov, Volodina, and Gubareva, 2007); **Karachay-Cherkess Republic** (<sup>2</sup>Kalamees and Botashev, 2000; <sup>2</sup>Onipchenko et al., 2013); **Krasnodar Krai** (<sup>2</sup>Kovalenko, 1980a; <sup>2</sup>Kovalenko, 1980b; <sup>2</sup>Vaasma, Kalamees, and Raitviir, 1986); **Lipetsk Oblast** (<sup>3</sup>Afanasyev, Rtishcheva, and Starodubtseva, 2007; <sup>1</sup>Sarycheva, Starodubtseva, and Sapelnikova, 2017); **North Ossetia** (<sup>3</sup>Nikolayev, 2001); **Penza Oblast** (<sup>2</sup>Ivanov, 2013a; <sup>1</sup>Ivanov, 2019); **Voronezh Oblast** (<sup>3</sup>Afanasyev, Rtishcheva, and Starodubtseva, 2007; <sup>1</sup>Sarycheva, Starodubtseva, and Sapelnikova, 2017; <sup>1</sup>Agafonov, 2018).

FAR EAST: **Amur Oblast** (<sup>1</sup>Kochunova, 2019); **Kamchatka Krai** (<sup>2</sup>Chernyagina, 2018); **Primorsky Krai** (<sup>3</sup>Vassiljeva, 1956; <sup>3</sup>Vassiljeva, 1972; <sup>3</sup>Vassiljeva, 1973; <sup>3</sup>Bunkina and Nazarova, 1978; <sup>3</sup>Azbukina et al., 2006; <sup>2</sup>Bau, Bulakh, and Govorova, 2011; <sup>2</sup>Bulakh et al., 2016); **Sakhalin Oblast** (<sup>3</sup>Eremin, 2005; <sup>1</sup>Eremin, 2019).

### ***Cyclocybe aegerita* (V. Brig.) Vizzini**

≡ *Agrocybe aegerita* (V. Brig.) Singer<sup>1</sup>

EASTERN EUROPE: **Sverdlovsk Oblast** (<sup>1</sup>Stepanova and Sirko, 1977).

SIBERIA: **Altai Republic** (<sup>1</sup>Gorbunova, 2001b; <sup>1</sup>Perova and Gorbunova, 2001); **Krasnoyarsk Krai** (<sup>1</sup>Beglyanova, 1972a).

FAR EAST: **Primorsky Krai** (<sup>1</sup>Azbukina et al., 2006).

### ***Cyclocybe cylindracea* (DC.) Vizzini & Angelini**

≡ *Agrocybe cylindracea* (DC.) Maire<sup>1</sup> ≡ *Pholiota cylindracea* (DC.) Gillet<sup>2</sup>

EASTERN EUROPE: **Crimea** (<sup>1</sup>Sarkina, 2014b); **Kabardino-Balkarian Republic** (<sup>2</sup>Shkhagapsoev and Krapivina, 2004); **Komi Republic** (<sup>1</sup>Bobretsova, 2004; <sup>1</sup>Palamarchuk, 2012); **Leningrad Oblast** (<sup>1</sup>Morozova, 2002; <sup>1</sup>Popov et al., 2007); **Novgorod Oblast** (<sup>1</sup>Kovalenko, Morozova, Nezdojminogo, and Popov, 2005; <sup>1</sup>Popov et al., 2013); **Arid territories** (<sup>1</sup>Rebriev, Rusanov, et al., 2012).

FAR EAST: **Jewish Autonomous Oblast** (<sup>1</sup>Bulakh, Govorova, Nazarova, and Vassiljeva, 2007; <sup>1</sup>Bau, Bulakh, and Govorova, 2011); **Magadan Oblast** (<sup>1</sup>Sazanova, 2012); **Primorsky Krai** (<sup>1</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Bulakh et al., 2016).

### ***Cyclocybe erebia* (Fr.) Vizzini & Matheny<sup>1</sup>**

≡ *Agaricus erebius* Fr.<sup>2</sup> ≡ *Agrocybe erebia* (Fr.) Kühner ex Singer<sup>3</sup> ≡ *Pholiota erebia* (Fr.) Gillet<sup>4</sup>

EASTERN EUROPE: **Crimea** (<sup>4</sup>Sarkina, 2001; <sup>3</sup>Dudka et al., 2004; <sup>3</sup>Sarkina, 2011); **Karachay-Cherkess Republic** (<sup>3</sup>Kalamees and Botashev, 2000); **Karelia** (<sup>3</sup>Czerepanova, Perfiljeva, and Tobias, 1982; <sup>3</sup>Krutov et al., 2014); **Krasnodar Krai** (<sup>3</sup>Vassiljeva, 1939; <sup>3</sup>Singer, 1950a; <sup>3</sup>Sopina, 2001a); **Leningrad Oblast** (<sup>3</sup>Singer, 1950a; <sup>3</sup>Kovalenko and Morozova, 1999a; <sup>3</sup>Popov et al., 2007); **Lipetsk Oblast** (<sup>3</sup>Sarycheva et al., 2009; <sup>3</sup>Sarycheva, 2014a; <sup>3</sup>Sarycheva,

2016); **Penza Oblast** (<sup>3</sup>Ivanov, 1986); **Pskov Oblast** (<sup>3</sup>Kolmakov and Popov, 2005; <sup>3</sup>Popov et al., 2013); **Rostov Oblast** (<sup>3</sup>Morozova et al., 2008); **Saint Petersburg** (<sup>2</sup>Weinmann, 1828; <sup>2</sup>Weinmann, 1836; <sup>2</sup>Weinmann, 1837; <sup>3</sup>Kovalenko and Morozova, 1999a; <sup>3</sup>Morozova and Kovalenko, 2000; <sup>3</sup>Kotkova, Morozova, and Popov, 2006; <sup>1</sup>Morozova, Kovalenko, Rebriev, and Malysheva, 2014; <sup>1</sup>Zhukova, Morozova, Volobuev, and Bryantseva, 2017); **Samara Oblast** (<sup>3</sup>Malysheva and Malysheva, 2005b; <sup>3</sup>Malysheva and Malysheva, 2008); **Tatarstan** (<sup>3</sup>Potapov, 2015b; <sup>1</sup>Potapov, 2016b); **Tula Oblast** (<sup>3</sup>Svetasheva, 2004); **Udmurt Republic** (<sup>3</sup>Tychinin, 1990; <sup>3</sup>Tychinin and Kuzmina, 2003); **Ulyanovsk Oblast** (<sup>3</sup>Ilyukhin, 2010a; <sup>3</sup>Ilyukhin, 2010b); **Voronezh Oblast** (<sup>3</sup>Sarycheva, Starodubtseva, and Sapelnikova, 2017); **Arid territories** (<sup>3</sup>Rebriev, Rusanov, et al., 2012).

SIBERIA: **Khakassia** (<sup>3</sup>Zauzolkova, 2015; <sup>3</sup>Zauzolkova and Gorbunova, 2016); **Krasnoyarsk Krai** (<sup>3</sup>Beglyanova, 1972a); **Novosibirsk Oblast** (<sup>3</sup>Koropachinskiy and Banaev, 2014); **Sakha Republic** (<sup>4</sup>Birkenhof, 1936).

FAR EAST: **Khabarovsk Krai** (<sup>3</sup>Azbukina et al., 1989); **Primorsky Krai** (<sup>3</sup>Vassiljeva, 1973; <sup>3</sup>Bunkina and Nazarova, 1978; <sup>3</sup>Azbukina et al., 1984; <sup>3</sup>Kovalenko and Nezdoininog, 1989; <sup>3</sup>Azbukina et al., 2006; <sup>3</sup>Bau, Bulakh, and Govorova, 2011).

### *Cymatellopsis ilmiana* Parmasto

FAR EAST: **Khabarovsk Krai** (Parmasto, 1984).

### *Cyptotrama asprata* (Berk.) Redhead & Ginns

FAR EAST: **Primorsky Krai** (Bulakh, 2008).

### *Cystoagaricus hirtosquamulosus* (Peck) Örstadius & E. Larss.

≡ *Psathyrella hirtosquamulosa* (Peck) A.H. Sm.<sup>1</sup>

EASTERN EUROPE: **Crimea** (<sup>1</sup>Dudka et al., 2004; <sup>1</sup>Sarkina, 2011).

### *Cystoagaricus sylvestris* (Gillet) Örstadius & E. Larss.<sup>1</sup>

≡ *Psathyrella sylvestris* (Gillet) Konrad & Maubl.<sup>1</sup> = *Psathyrella populina* (Britzelm.) Kits van Wav.<sup>2</sup>

EASTERN EUROPE: **Karachay-Cherkess Republic** (<sup>2</sup>Malysheva and Svetasheva, 2011); **Penza Oblast** (<sup>1</sup>Ivanov, 1983); **Rostov Oblast** (<sup>2</sup>Morozova et al., 2008); **Volgograd Oblast** (<sup>1</sup>Svetasheva, 2015); **Arid territories** (<sup>1</sup>Rebriev, Rusanov, et al., 2012).

SIBERIA: **Irkutsk Oblast** (<sup>1</sup>Kutafjeva and Astapenko, 1987; <sup>1</sup>Astapenko, 1990a); **Krasnoyarsk Krai** (<sup>1</sup>Beglyanova, 1972a); **Novosibirsk Oblast** (<sup>1</sup>Koropachinskiy and Banaev, 2014); **Tomsk Oblast** (<sup>1</sup>Perova and Gorbunova, 2001; <sup>1</sup>Kudashova, Gashkov, and Kutafjeva, 2013).

### *Cystoderma amianthinum* (Scop.) Fayod<sup>1</sup>

≡ *Cystoderma amianthinum* var. *amianthinum* (Scop.) Fayod<sup>2</sup> ≡ *Lepiota amianthina* (Scop.) P. Karst.<sup>3</sup> = *Cystoderma amianthinum* f. *olivaceum* Singer<sup>4</sup> = *Cystoderma amianthinum* f. *rugosoreticulatum* (F. Lorinser) A.H. Sm. & Singer<sup>5</sup> = *Cystoderma rugosoreticulatum* (F. Lorinser) Wasser<sup>6</sup>

EASTERN EUROPE: **Arkhangelsk Oblast** (<sup>1</sup>Karatygin, Nezdoininog, Novozhilov, and Zhurbenko, 1999); **Belgorod Oblast** (<sup>1</sup>Bedenko, 1980); **Bryansk Oblast** (<sup>1</sup>Kruglikov, 2007); **Crimea** (<sup>1</sup>Zerova, 1962; <sup>1</sup>Wasser, 1980; <sup>1</sup>Sarkina, 2001; <sup>1</sup>Dudka et al., 2004; <sup>1</sup>Sarkina, 2010b; <sup>1</sup>Sarkina, 2011; <sup>1</sup>Sarkina and Prydiuk, 2012; <sup>1</sup>Sarkina, 2013); **Kabardino-Balkarian Republic** (<sup>1</sup>Shkhagapsoev and Krapivina, 2004); **Kaliningrad Oblast** (<sup>1</sup>Dedkov, Volodina, and Gubareva, 2007; <sup>1</sup>Volodina, 2007); **Kaluga Oblast** (<sup>1</sup>Sionova, 2003; <sup>1</sup>Sionova, 2006); **Karachay-Cherkess Republic** (<sup>1</sup>Kalamees and Botashev, 2000); **Karelia** (<sup>1</sup>Freindling, 1949; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdoininog, 1990; <sup>1</sup>Bondartseva et al., 2001; <sup>1</sup>Predtechenskaya and Ruokolainen, 2013; <sup>1</sup>Predtechenskaya, 2013; <sup>1</sup>Krutov et al., 2014; <sup>1</sup>Predtechenskaya and Ruokolainen, 2014; <sup>1</sup>Predtechenskaya, 2015; <sup>1</sup>Savelev and Kikeeva, 2018); **Kirov Oblast** (<sup>1</sup>Kirillov and Luginina, 2011; <sup>1</sup>Kirillov, 2011; <sup>1</sup>Kirillov, Perevedentseva, and Egoshina, 2011; <sup>6</sup>Kirillov, 2011; <sup>6</sup>Kirillov, Perevedentseva, and Egoshina, 2011; <sup>1,6</sup>Stavishenko, Luginina, Kirillov, and Egoshina, 2019); **Komi Republic** (<sup>1</sup>Wasser, 1980; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdoininog, 1990; <sup>1</sup>Karatygin, Nezdoininog, Novozhilov, and Zhurbenko, 1999; <sup>1</sup>Bobretsova, 2004; <sup>1</sup>Palamarchuk, 2012; <sup>1</sup>Palamarchuk, 2016a; <sup>1</sup>Palamarchuk, 2016b; <sup>1</sup>Palamarchuk and Kirillov, 2017; <sup>1</sup>Palamarchuk, 2017); **Leningrad Oblast** (<sup>3</sup>Thesleff, 1920; <sup>1</sup>Nezdoininog, 1967; <sup>1</sup>Chastukhin and Nikolaevskaya, 1969; <sup>1</sup>Wasser, 1980; <sup>1</sup>Kalamees and Kovalenko, 1984; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdoininog, 1990; <sup>1</sup>Stolyarskaya, 1993; <sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Morozova, 2007; <sup>1</sup>Popov et al., 2007; <sup>1</sup>Zmitrovich et al., 2015); **Lipetsk Oblast** (<sup>1</sup>Rtishcheva, 1999; <sup>1</sup>Afanasyev, Rtishcheva, and Starodubtseva, 2007; <sup>1</sup>Sarycheva et al., 2009; <sup>1</sup>Sarycheva, 2011; <sup>1</sup>Sarycheva, 2014a; <sup>1</sup>Sarycheva, 2016); **Mordovia** (<sup>1</sup>Kuznetsov, 1960; <sup>1</sup>Ivoilov and Bolshakov, 2011a); **Moscow Oblast** (<sup>1</sup>Wasser, 1980; <sup>1</sup>Gorlenko, Sidorova, and Sidorova, 1989; <sup>1</sup>Bulakh, Wasser, Nazarova, and

Nezdojminogo, 1990; <sup>1</sup>Levitskaya, 1995c; <sup>1</sup>Vishnevsky, 1998; <sup>1</sup>Levitskaya, 2013; <sup>1</sup>Voronina et al., 2014); **Murmansk Oblast** (<sup>1</sup>Mikhailovskii, 1975b; <sup>1</sup>Karatygin, Nezdojminogo, Novozhilov, and Zhurbenko, 1999); **Novgorod Oblast** (<sup>1</sup>Kovalenko, Morozova, Nezdojminogo, and Popov, 2005; <sup>2</sup>Popov et al., 2013); **Perm Krai** (<sup>1,6</sup>Perevedentseva, 2008; <sup>1</sup>Belkovskaya et al., 2014; <sup>1</sup>Perevedentseva and Shishigin, 2014; <sup>5</sup>Belkovskaya et al., 2014; <sup>1,6</sup>Botalov, 2017; <sup>1,6</sup>Botalov and Perevedentseva, 2020); **Pskov Oblast** (<sup>2</sup>Popov et al., 2013); **Ryazan Oblast** (<sup>1</sup>Volosnova, 1997; <sup>1</sup>Volosnova, 2014); **Saint Petersburg** (<sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Kotkova, Morozova, and Popov, 2005; <sup>1</sup>Morozova and Smirnov, 2011; <sup>1</sup>Morozova et al., 2020); **Sverdlovsk Oblast** (<sup>1,6</sup>Marina, 2006); **Tula Oblast** (<sup>1</sup>Svetasheva, 2001; <sup>1</sup>Svetasheva, 2004); **Tver Oblast** (<sup>1</sup>Chastukhin and Nikolaevskaya, 1969; <sup>1</sup>Kurochkin, 1993; <sup>1</sup>Mukhina, 2011a; <sup>1</sup>Kotkova, 2014); **Udmurt Republic** (<sup>1</sup>Tychinin, 1990; <sup>1</sup>Tychinin and Kuzmina, 2003); **Vologda Oblast** (<sup>1</sup>Kutova, 1957; <sup>1</sup>Kirillova, 2006; <sup>1</sup>Kirillova, 2007); **Voronezh Oblast** (<sup>1</sup>Rtishcheva, 1999; <sup>1</sup>Afanasyev, Rtishcheva, and Starodubtseva, 2007; <sup>1</sup>Sarycheva, Starodubtseva, and Sapelnikova, 2017); **Yamalo-Nenets Autonomous Okrug** (<sup>1</sup>Stepanova and Sirko, 1977; <sup>1</sup>Karatygin, Nezdojminogo, Novozhilov, and Zhurbenko, 1999); **Yaroslavl Oblast** (<sup>1</sup>Lazareva, 1998a; <sup>1</sup>Lazareva, 1998b); **Arid territories** (<sup>1</sup>Rebriev, Rusanov, et al., 2012).

**SIBERIA:** **Altai Republic** (<sup>1</sup>Smith and Singer, 1945; <sup>1</sup>Wasser, 1980; <sup>1</sup>Gorbunova, 2001a; <sup>1</sup>Gorbunova, 2001b; <sup>1</sup>Perova and Gorbunova, 2001; <sup>1</sup>Gorbunova, 2008; <sup>1</sup>Gorbunova, 2010; <sup>6</sup>Gorbunova, 2017b); **Buryatia** (<sup>1</sup>Nezdojminogo, 1970a; <sup>1</sup>Wasser, 1980; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990); **Irkutsk Oblast** (<sup>1</sup>Kutafjeva, 1983; <sup>1</sup>Petrov, 1986; <sup>6</sup>Kutafjeva and Astapenko, 1988; <sup>1</sup>Petrov, 1989; <sup>1</sup>Astapenko, 1990a; <sup>1</sup>Petrov, 2008; <sup>1</sup>Muzyka, 2009; <sup>1</sup>Muzyka and Penzina, 2017); **Khanty-Mansi Autonomous Okrug** (<sup>1,6</sup>Zvyagina, Baykalova, and Gorbunova, 2007; <sup>1</sup>Filippova, Bulyonkova, and Lapshina, 2015; <sup>1</sup>Zvyagina and Vasina, 2015; <sup>1</sup>Filippova and Bulyonkova, 2017a; <sup>1</sup>Filippova and Bulyonkova, 2017b); **Krasnoyarsk Krai** (<sup>1</sup>Vassilkov, 1967; <sup>1</sup>Vassilkov, 1971b; <sup>1</sup>Beglyanova, 1972a; <sup>1</sup>Nezdojminogo, 1976a; <sup>1</sup>Wasser, 1980; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1</sup>Karatygin, Nezdojminogo, Novozhilov, and Zhurbenko, 1999; <sup>1</sup>Pavlov et al., 2007; <sup>1</sup>Kosheleva and Kutafjeva, 2008a; <sup>1</sup>Zauzolkova, 2015; <sup>1</sup>Malysheva, Malysheva, Kiyashko, et al., 2017; <sup>1,5</sup>Krom and Kapitonov, 2019); **Novosibirsk Oblast** (<sup>1</sup>Perova and Gorbunova, 2001; <sup>1</sup>Perova and Gorbunova, 2007); **Sakha Republic** (<sup>1</sup>Karatygin, Nezdojminogo, Novozhilov, and Zhurbenko, 1999); **Tomsk Oblast** (<sup>1</sup>Perova, 1972; <sup>1</sup>Wasser, 1980; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1</sup>Perova and Gorbunova, 2001; <sup>1</sup>Kosheleva and Kutafjeva, 2004; <sup>1</sup>Agaphonova, Kutafjeva, and Gashkov, 2007; <sup>2,6</sup>Kudashova, Gashkov, and Kutafjeva, 2013); **Tyva Republic** (<sup>1</sup>Gorbunova, 2015); **Yamalo-Nenets Autonomous Okrug** (<sup>1</sup>Tarчевskaya, 1990; <sup>1</sup>Karatygin, Nezdojminogo, Novozhilov, and Zhurbenko, 1999); **Siberia** (<sup>4</sup>Smith and Singer, 1945).

**FAR EAST:** **Amur Oblast** (<sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1</sup>Azbukina et al., 1998; <sup>1</sup>Bulakh, Govorova, and Taranina, 2003); **Chukotka Autonomous Okrug** (<sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1</sup>Sazanova, 1993); **Jewish Autonomous Oblast** (<sup>1</sup>Bau, Bulakh, Zhuang, and Li, 2007; <sup>1</sup>Bulakh, Govorova, Nazarova, and Vassiljeva, 2007; <sup>1</sup>Bau, Bulakh, and Govorova, 2011); **Kamchatka Krai** (<sup>1</sup>Kalamees and Vaasma, 1981; <sup>1,6</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990); **Khabarovsk Krai** (<sup>1</sup>Azbukina et al., 1986; <sup>1</sup>Azbukina et al., 1989; <sup>1,6</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1,6</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Erofeeva and Bulakh, 2015a); **Magadan Oblast** (<sup>1</sup>Nazarova, 1976; <sup>1,6</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1,6</sup>Sazanova, 2005; <sup>1,6</sup>Sazanova, 2009a; <sup>5</sup>Sazanova, 2009b; <sup>1,6</sup>Sazanova, 2011; <sup>1,6</sup>Sazanova and Golodnova, 2015); **Primorsky Krai** (<sup>1</sup>Vassiljeva, 1972; <sup>1</sup>Vassiljeva, 1973; <sup>1</sup>Bunkina and Nazarova, 1978; <sup>1</sup>Wasser, 1980; <sup>1</sup>Azbukina et al., 1984; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1</sup>Azbukina et al., 2006; <sup>1</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Bulakh et al., 2016; <sup>1</sup>Bogacheva et al., 2018); **Sakhalin Oblast** (<sup>1</sup>Vassiljeva and Nazarova, 1972; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990).

### *Cystoderma arcticum* Harmaja

**SIBERIA:** **Krasnoyarsk Krai** (Karatygin, Nezdojminogo, Novozhilov, and Zhurbenko, 1999; Nezdojminogo, 2002; Zmitrovich and Ezhov, 2015; Shiryaev, Zmitrovich, and Ezhov, 2018); **Sakha Republic** (Karatygin, Nezdojminogo, Novozhilov, and Zhurbenko, 1999).

### *Cystoderma carcharias* (Pers.) Fayod<sup>1</sup>

≡ *Lepiota carcharias* (Pers.) P. Karst.<sup>2</sup>

**EASTERN EUROPE:** **Bryansk Oblast** (<sup>1</sup>Kruglikov, 2007); **Crimea** (<sup>1</sup>Wasser, 1980; <sup>1</sup>Sarkina, 2001; <sup>1</sup>Dudka et al., 2004; <sup>1</sup>Sarkina, 2011; <sup>1</sup>Sarkina and Prydiuk, 2012); **Kabardino-Balkarian Republic** (<sup>2</sup>Singer, 1931); **Kaliningrad Oblast** (<sup>1</sup>Dedkov, Volodina, and Gubareva, 2007; <sup>1</sup>Volodina, 2007); **Kaluga Oblast** (<sup>1</sup>Sionova, 2003); **Karachay-Cherkess Republic** (<sup>1</sup>Kalamees and Botashev, 2000); **Karelia** (<sup>1</sup>Predtechenskaya, 2013; <sup>1</sup>Krutov et al., 2014); **Krasnodar Krai** (<sup>1</sup>Vassiljeva, 1939); **Leningrad Oblast** (<sup>2</sup>Thesleff, 1920; <sup>1</sup>Wasser, 1980; <sup>1</sup>Stolyarskaya, 1989; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Morozova, 2007; <sup>1</sup>Popov et al., 2007);

<sup>1</sup>Zmitrovich et al., 2015); **Lipetsk Oblast** (<sup>1</sup>Alferova, 1977; <sup>1</sup>Sarycheva, 1999; <sup>1</sup>Sarycheva et al., 2009; <sup>1</sup>Sarycheva, 2011; <sup>1</sup>Sarycheva, 2014a; <sup>1</sup>Sarycheva, 2016); **Moscow** (<sup>2</sup>Bucholtz, 1897b; <sup>2</sup>Bucholtz, 1897c; <sup>2</sup>Mosolov, 1906; <sup>1</sup>Burova, 1968); **Moscow Oblast** (<sup>1</sup>Wasser, 1980; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdoininogo, 1990; <sup>1</sup>Levitskaya, 1995c; <sup>1</sup>Vishnevsky, 1998; <sup>1</sup>Levitskaya, 2013); **Murmansk Oblast** (<sup>1</sup>Kalamees and Raitviir, 2006); **Novgorod Oblast** (<sup>1</sup>Malysheva, Malysheva, and Zmitrovich, 2007); **Penza Oblast** (<sup>1</sup>Ivanov, 1982); **Perm Krai** (<sup>1</sup>Perevedentseva, 2008; <sup>1</sup>Botalov, 2017; <sup>1</sup>Botalov and Perevedentseva, 2020); **Pskov Oblast** (<sup>1</sup>Popov et al., 2013); **Rostov Oblast** (<sup>1</sup>Rusanov et al., 2004; <sup>1</sup>Zmitrovich et al., 2008); **Ryazan Oblast** (<sup>1</sup>Volosnova, 1997; <sup>1</sup>Volosnova, 2014); **Saint Petersburg** (<sup>1</sup>Smith and Singer, 1945; <sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Morozova and Smirnov, 2011; <sup>1</sup>Morozova et al., 2020); **Samara Oblast** (<sup>1</sup>Malysheva and Malysheva, 2008); **Sverdlovsk Oblast** (<sup>1</sup>Marina, 2006); **Tatarstan** (<sup>1</sup>Vassiljeva, 1977; <sup>1</sup>Potapov, 2015b); **Tula Oblast** (<sup>1</sup>Svetasheva, 2004); **Tver Oblast** (<sup>1</sup>Kurochkin, 1993); **Udmurt Republic** (<sup>1</sup>Tychinin and Kuzmina, 2003); **Vologda Oblast** (<sup>1</sup>Kutova, 1957); **Yaroslavl Oblast** (<sup>1</sup>Lazareva, 1998a; <sup>1</sup>Lazareva, 1998b); **Arid territories** (<sup>1</sup>Rebriev, Rusanov, et al., 2012).

SIBERIA: **Altai Republic** (<sup>1</sup>Wasser, 1980; <sup>1</sup>Gorbunova, 2001b; <sup>1</sup>Perova and Gorbunova, 2001); **Irkutsk Oblast** (<sup>1</sup>Muzyka, 2009); **Khanty-Mansi Autonomous Okrug** (<sup>1</sup>Filippova and Bulyonkova, 2017b); **Krasnoyarsk Krai** (<sup>1</sup>Perova, 1970; <sup>1</sup>Beglyanova, 1972a; <sup>1</sup>Nezdoininogo, 1976a; <sup>1</sup>Wasser, 1980; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdoininogo, 1990; <sup>1</sup>Krom and Kapitonov, 2019); **Kurgan Oblast** (<sup>1</sup>Stepanova and Sirko, 1977); **Novosibirsk Oblast** (<sup>1</sup>Perova and Gorbunova, 2001; <sup>1</sup>Perova and Gorbunova, 2007); **Sakha Republic** (<sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdoininogo, 1990); **Tomsk Oblast** (<sup>1</sup>Milovidova, 1980; <sup>1</sup>Kudashova, Gashkov, and Kutafjeva, 2013); **Yamalo-Nenets Autonomous Okrug** (<sup>1</sup>Tarchevskaya, 1990).

FAR EAST: **Chukotka Autonomous Okrug** (<sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdoininogo, 1990); **Jewish Autonomous Oblast** (<sup>1</sup>Bulakh, Govorova, Nazarova, and Vassiljeva, 2007; <sup>1</sup>Bau, Bulakh, and Govorova, 2011); **Khabarovsk Krai** (<sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdoininogo, 1990); **Primorsky Krai** (<sup>1</sup>Vassiljeva, 1973; <sup>1</sup>Bulakh, 1977; <sup>1</sup>Wasser, 1980; <sup>1</sup>Azbukina et al., 1984; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdoininogo, 1990; <sup>1</sup>Bardunov et al., 2002; <sup>1</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Bulakh et al., 2016); **Sakhalin Oblast** (<sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdoininogo, 1990).

### *Cystoderma caucasicum* Singer

EASTERN EUROPE: **Adygea** (Smith and Singer, 1945; Zamotajlov, Sirotyuk (Kuvaeva), Akatova, and Lipka, 2012).

### *Cystoderma fallax* A.H. Sm. & Singer<sup>1</sup>

≡ *Cystoderma carcharias* var. *fallax* (A.H. Sm. & Singer) I. Saar<sup>2</sup>

EASTERN EUROPE: **Adygea** (<sup>1</sup>Vaasma, Kalamees, and Raitviir, 1986); **Crimea** (<sup>1</sup>Dudka et al., 2004; <sup>1</sup>Sarkina, 2011); **Karachay-Cherkess Republic** (<sup>1</sup>Kalamees and Botashev, 2000); **Komi Republic** (<sup>1</sup>Palamarchuk, 2016a; <sup>1</sup>Palamarchuk, 2016b); **Leningrad Oblast** (<sup>1</sup>Zmitrovich et al., 2015); **Novgorod Oblast** (<sup>1</sup>Svetasheva et al., 2017); **Perm Krai** (<sup>1</sup>Perevedentseva, 2008; <sup>1</sup>Belkovskaya et al., 2014); **Saint Petersburg** (<sup>1</sup>Morozova et al., 2020); **Sverdlovsk Oblast** (<sup>1</sup>Marina, 2006); **Tatarstan** (<sup>1</sup>Potapov, 2015b; <sup>1</sup>Nazirov, Gorshkov, Ivanov, and Rogova, 2016); **Tver Oblast** (<sup>1</sup>Morozova, Aleksandrova, Popov, and Malysheva, 2016); **Udmurt Republic** (<sup>1</sup>Kapitonov, 2013).

SIBERIA: **Buryatia** (<sup>1</sup>Nezdoininogo, 1970a; <sup>1</sup>Wasser, 1980; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdoininogo, 1990; <sup>1</sup>Petrov, 1991); **Irkutsk Oblast** (<sup>1</sup>Astapenko and Kutafjeva, 1990); **Khanty-Mansi Autonomous Okrug** (<sup>2</sup>Filippova and Bulyonkova, 2017a); **Krasnoyarsk Krai** (<sup>1</sup>Stepanova and Tomilin, 1973; <sup>1</sup>Wasser, 1980; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdoininogo, 1990; <sup>1</sup>Stepanov, 2012; <sup>1</sup>Kryuchkova and Yaskova, 2017; <sup>1</sup>Krom and Kapitonov, 2019).

FAR EAST: **Chukotka Autonomous Okrug** (<sup>1</sup>Sazanova, 1993); **Magadan Oblast** (<sup>1</sup>Sazanova, 2009a; <sup>1</sup>Sazanova and Golodnova, 2015).

### *Cystoderma haematites* (Sacc.) Konrad & Maubl.

EASTERN EUROPE: **Crimea** (Zerova, 1962); **Karelia** (Freindling, 1949; Bondartseva et al., 2001; Krutov et al., 2014).

### *Cystoderma intermedium* Harmaja

SIBERIA: **Krasnoyarsk Krai** (Krom and Kapitonov, 2019).

### *Cystoderma jasonis* (Cooke & Masee) Harmaja<sup>1</sup>

= *Cystoderma amianthinum* var. *longisporum* Kühner ex Wasser<sup>2</sup>

EASTERN EUROPE: **Arkhangelsk Oblast** (<sup>1</sup>Karatygin, Nezdoininogo, Novozhilov, and Zhurbenko, 1999); **Kaliningrad Oblast** (<sup>1</sup>Dedkov, Volodina, and Gubareva, 2007; <sup>1</sup>Volodina, 2007); **Karelia** (<sup>1</sup>Bondartseva et al.,

2001); **Komi Republic** (<sup>1</sup>Palamarchuk and Kirillov, 2017); **Leningrad Oblast** (<sup>1</sup>Morozova, 2002; <sup>1</sup>Popov et al., 2007; <sup>1</sup>Bondartseva et al., 2015; <sup>1</sup>Zmitrovich et al., 2015); **Moscow Oblast** (<sup>1</sup>Levitskaya, 1995c; <sup>1</sup>Vishnevsky, 1998; <sup>1</sup>Levitskaya, 2013); **Tver Oblast** (<sup>1</sup>Morozova, Aleksandrova, Popov, and Malysheva, 2016); **Vologda Oblast** (<sup>1</sup>Kirillova, 2006; <sup>1</sup>Kirillova, 2007).

SIBERIA: **Irkutsk Oblast** (<sup>1</sup>Gorbunova and Stepanova, 2015); **Khanty-Mansi Autonomous Okrug** (<sup>1</sup>Filippova and Bulyonkova, 2017a; <sup>1</sup>Filippova and Bulyonkova, 2017b); **Krasnoyarsk Krai** (<sup>1</sup>Krom and Kapitonov, 2019); **Tomsk Oblast** (<sup>1</sup>Kudashova, Gashkov, and Kutafjeva, 2013).

FAR EAST: **Primorsky Krai** (<sup>2</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990).

### *Cystoderma lilacipes* Harmaja

EASTERN EUROPE: **Vologda Oblast** (Kirillova, 2006; Kirillova, 2007).

### *Cystoderma simulatum* P.D. Orton

SIBERIA: **Khakassia** (Zauzolkova and Gorbunova, 2013; Zauzolkova, 2015).

### *Cystoderma superbum* Huijsman

EASTERN EUROPE: **Crimea** (Wasser, 1980; Sarkina, 2001; Dudka et al., 2004; Sarkina, 2011; Sarkina and Prydiuk, 2012); **Karelia** (Wasser, 1980; Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990).

SIBERIA: **Krasnoyarsk Krai** (Beglyanova, 1972a; Wasser, 1980).

### *Cystoderma tuomikoskii* Harmaja

SIBERIA: **Krasnoyarsk Krai** (Nezdojminogo and Zhurbenko, 1996; Nezdojminogo, 1997a; Karatygin, Nezdojminogo, Novozhilov, and Zhurbenko, 1999; Nezdojminogo, 2003); **Sakha Republic** (Nezdojminogo, 1997a; Karatygin, Nezdojminogo, Novozhilov, and Zhurbenko, 1999).

### *Cystodermella adnatifolia* (Peck) Harmaja<sup>1</sup>

≡ *Cystoderma adnatifolium* (Peck) Harmaja<sup>2</sup>

EASTERN EUROPE: **Komi Republic** (<sup>2</sup>Bobretsova, 2004; <sup>1</sup>Palamarchuk, 2012; <sup>1</sup>Palamarchuk, 2016a; <sup>1</sup>Palamarchuk, 2016b; <sup>1</sup>Palamarchuk and Kirillov, 2017); **Leningrad Oblast** (<sup>2</sup>Wasser, 1980; <sup>2</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>2</sup>Kovalenko and Morozova, 1999a; <sup>2</sup>Popov et al., 2007); **Perm Krai** (<sup>2</sup>Perevedentseva, 2008; <sup>2</sup>Botalov, 2017; <sup>2</sup>Botalov and Perevedentseva, 2020); **Tatarstan** (<sup>1</sup>Potapov, 2015b).

SIBERIA: **Khanty-Mansi Autonomous Okrug** (<sup>1</sup>Filippova and Bulyonkova, 2017a; <sup>1</sup>Filippova and Bulyonkova, 2017b); **Krasnoyarsk Krai** (<sup>2</sup>Kosheleva and Kutafjeva, 2008b).

### *Cystodermella ambrosii* (Bres.) Harmaja<sup>1</sup>

≡ *Cystoderma ambrosii* (Bres.) Singer<sup>2</sup> ≡ *Cystodermella granulosa* var. *ambrosii* (Bres.) I. Saar<sup>3</sup>

EASTERN EUROPE: **Belgorod Oblast** (<sup>2</sup>Bedenko, 1980); **Karachay-Cherkess Republic** (<sup>2</sup>Onipchenko and Kaverina, 1989; <sup>2</sup>Kalamees and Botashev, 2000); **Komi Republic** (<sup>2</sup>Bobretsova, 2004; <sup>3</sup>Palamarchuk, 2012); **Leningrad Oblast** (<sup>2</sup>Kovalenko and Morozova, 1999a; <sup>2</sup>Morozova, 1999; <sup>2</sup>Tzvelev, 2000; <sup>2</sup>Popov et al., 2007; <sup>2</sup>Geltman et al., 2018).

SIBERIA: **Altai Krai** (<sup>1</sup>Gorbunova, 2018a); **Altai Republic** (<sup>2</sup>Gorbunova, 2008); **Krasnoyarsk Krai** (<sup>2</sup>Beglyanova, 1972a; <sup>2</sup>Beglyanova, 1972b; <sup>2</sup>Wasser, 1980); **Tomsk Oblast** (<sup>2</sup>Perova and Gorbunova, 2001; <sup>2</sup>Kudashova, Gashkov, and Kutafjeva, 2013; <sup>1</sup>Kudashova, Gashkov, and Vaishlya, 2016b).

FAR EAST: **Chukotka Autonomous Okrug** (<sup>2</sup>Karatygin, Nezdojminogo, Novozhilov, and Zhurbenko, 1999).

### *Cystodermella cinnabarina* (Alb. & Schwein.) Harmaja<sup>1</sup>

≡ *Agaricus granulosis* var. *cinnabarinus* Alb. & Schwein.<sup>2</sup> ≡ *Cystoderma cinnabarinum* (Alb. & Schwein.) Fayod<sup>3</sup> ≡ *Lepiota cinnabarina* (Alb. & Schwein.) P. Karst.<sup>4</sup>

EASTERN EUROPE: **Belgorod Oblast** (<sup>3</sup>Bedenko, 1980); **Bryansk Oblast** (<sup>3</sup>Kruglikov, 2007); **Chelyabinsk Oblast** (<sup>3</sup>Sirko and Stepanova, 1977; <sup>3</sup>Stepanova and Sirko, 1977); **Crimea** (<sup>1</sup>Sarkina and Prydiuk, 2012); **Kaluga Oblast** (<sup>3</sup>Sionova, 2003; <sup>1</sup>Antokhina et al., 2015); **Karelia** (<sup>3</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1</sup>Krutov et al., 2014; <sup>1</sup>Kuznetsov, 2020); **Kirov Oblast** (<sup>3</sup>Kirillov, 2011; <sup>3</sup>Kirillov, Perevedentseva, and Egoshina, 2011); **Komi Republic** (<sup>1</sup>Palamarchuk, 2012; <sup>1</sup>Palamarchuk, 2016a; <sup>1</sup>Palamarchuk, 2016b; <sup>1</sup>Palamarchuk, 2017); **Krasnodar Krai** (<sup>3</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990); **Leningrad Oblast** (<sup>4</sup>Thesleff, 1920; <sup>3</sup>Wasser, 1980; <sup>3</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>3</sup>Stolyarskaya, 1993; <sup>1</sup>Zmitrovich et al., 2015; <sup>1</sup>Kalinina, 2018);

**Lipetsk Oblast** (<sup>3</sup>Rtishcheva, 1999; <sup>3</sup>Afanasyev, Rtishcheva, and Starodubtseva, 2007; <sup>1</sup>Sarycheva, Starodubtseva, and Sapelnikova, 2017); **Moscow Oblast** (<sup>3</sup>Gorlenko, Sidorova, and Sidorova, 1989; <sup>3</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990); **Novgorod Oblast** (<sup>3</sup>Popov et al., 2013); **Penza Oblast** (<sup>3</sup>Ivanov, 1982); **Perm Krai** (<sup>3</sup>Perevedentseva, 2008; <sup>1</sup>Belkovskaya et al., 2014); **Saint Petersburg** (<sup>2</sup>Weinmann, 1828; <sup>3</sup>Morozova and Smirnov, 2011); **Sverdlovsk Oblast** (<sup>3</sup>Tomilin, 1965; <sup>3</sup>Stepanova and Sirko, 1977); **Tatarstan** (<sup>3</sup>Vassiljeva, 1977; <sup>1</sup>Potapov, 2015b); **Tver Oblast** (<sup>1</sup>Kotkova, 2014); **Udmurt Republic** (<sup>3</sup>Tychinin and Kuzmina, 2003); **Vologda Oblast** (<sup>3</sup>Kirillova, 2006; <sup>3</sup>Kirillova, 2007); **Voronezh Oblast** (<sup>3</sup>Rtishcheva, 1999; <sup>3</sup>Afanasyev, Rtishcheva, and Starodubtseva, 2007; <sup>1</sup>Sarycheva, Starodubtseva, and Sapelnikova, 2017).

**SIBERIA: Altai Krai** (<sup>3</sup>Gorbunova and Perova, 2006; <sup>3</sup>Gorbunova and Chubarova, 2008; <sup>1</sup>Gorbunova, Vlasenko, and Tzhubarova, 2011); **Altai Republic** (<sup>3</sup>Smith and Singer, 1945; <sup>3</sup>Wasser, 1980; <sup>3</sup>Gorbunova, 1996; <sup>3</sup>Gorbunova, 1997; <sup>3</sup>Perova and Gorbunova, 2001; <sup>3</sup>Gorbunova, 2008; <sup>3</sup>Gorbunova, 2010); **Buryatia** (<sup>3</sup>Nezdojminogo, 1970a; <sup>3</sup>Wasser, 1980; <sup>3</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>3</sup>Penzina and Petrov, 1994); **Irkutsk Oblast** (<sup>3</sup>Kutafjeva, 1983; <sup>3</sup>Petrov, 1986; <sup>3</sup>Petrov, 1989; <sup>3</sup>Astapenko, 1990a; <sup>3</sup>Muzyka, 2002; <sup>3</sup>Bardunov et al., 2005; <sup>3</sup>Petrov, 2008; <sup>3</sup>Muzyka, 2009; <sup>3</sup>Muzyka and Penzina, 2017); **Khakassia** (<sup>1</sup>Zauzolkova, 2015); **Khanty-Mansi Autonomous Okrug** (<sup>1</sup>Zvyagina, Baykalova, and Gorbunova, 2007; <sup>1</sup>Zvyagina, 2008; <sup>1</sup>Shepeleva et al., 2014; <sup>1</sup>Filippova, Bulyonkova, and Lapshina, 2015; <sup>1</sup>Filippova and Bulyonkova, 2017a; <sup>1</sup>Filippova and Bulyonkova, 2017b); **Krasnoyarsk Krai** (<sup>3</sup>Beglyanova, 1972a; <sup>3</sup>Wasser, 1980; <sup>3</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>3</sup>Pavlov et al., 2007; <sup>3</sup>Kosheleva and Kutafjeva, 2008a; <sup>1</sup>Kryuchkova, 2009; <sup>1</sup>Zauzolkova, 2012; <sup>1</sup>Zauzolkova, 2015; <sup>3</sup>Gorbunova, 2016; <sup>1</sup>Krom and Kapitonov, 2019); **Novosibirsk Oblast** (<sup>3</sup>Perova and Gorbunova, 2001; <sup>3</sup>Gorbunova, 2007; <sup>3</sup>Perova and Gorbunova, 2007; <sup>1</sup>Koropachinskiy and Banaev, 2014); **Sakha Republic** (<sup>3</sup>Wasser, 1980; <sup>3</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990); **Sverdlovsk Oblast** (<sup>3</sup>Stepanova and Sirko, 1977); **Tomsk Oblast** (<sup>3</sup>Perova, 1972; <sup>3</sup>Perova and Gorbunova, 2001; <sup>3</sup>Agaphonova, Kutafjeva, and Gashkov, 2007; <sup>3</sup>Kudashova, Gashkov, and Kutafjeva, 2013).

**FAR EAST: Amur Oblast** (<sup>3</sup>Tomilin, 1962; <sup>3</sup>Wasser, 1980); **Jewish Autonomous Oblast** (<sup>3</sup>Bulakh, Govorova, Nazarova, and Vassiljeva, 2007; <sup>3</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Bogacheva et al., 2018); **Kamchatka Krai** (<sup>3</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>3</sup>Psurtseva, Kiyashko, Gachkova, and Belova, 2007); **Khabarovsk Krai** (<sup>3</sup>Azbukina et al., 1989; <sup>1</sup>Bogacheva et al., 2018); **Magadan Oblast** (<sup>3</sup>Nazarova, 1976; <sup>3</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>3</sup>Sazanova, 1996; <sup>3</sup>Sazanova, 2005; <sup>1</sup>Sazanova, 2009a; <sup>1</sup>Sazanova, 2011); **Primorsky Krai** (<sup>3</sup>Vassiljeva, 1973; <sup>3</sup>Bunkina and Nazarova, 1978; <sup>3</sup>Wasser, 1980; <sup>3</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>3</sup>Azbukina et al., 2006; <sup>3</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Bulakh et al., 2016; <sup>1</sup>Bogacheva et al., 2018; <sup>1</sup>Bogacheva, Bulakh, Bukharova, and Egorova, 2020).

### ***Cystodermella granulosa* (Batsch) Harmaja<sup>1</sup>**

≡ *Agaricus granulosis* Batsch<sup>2</sup> ≡ *Cystoderma granulorum* (Batsch) Fayod<sup>3</sup> ≡ *Cystodermella granulosa* var. *granulosa* (Batsch) Harmaja<sup>4</sup> ≡ *Lepiota granulosa* (Batsch) Gray<sup>5</sup> = *Cystoderma granulorum* var. *occidentale* A.H. Sm.<sup>6</sup>

**EASTERN EUROPE: Belgorod Oblast** (<sup>3</sup>Bedenko, 1980); **Chelyabinsk Oblast** (<sup>3</sup>Sirko and Stepanova, 1977; <sup>3</sup>Stepanova and Sirko, 1977); **Crimea** (<sup>3</sup>Wasser, 1980; <sup>3</sup>Sarkina, 2001; <sup>3</sup>Dudka et al., 2004; <sup>1</sup>Sarkina and Prydiuk, 2012; <sup>1</sup>Sarkina and Stavishenko, 2019); **Kaluga Oblast** (<sup>3</sup>Sionova, 2012); **Karachay-Cherkess Republic** (<sup>3</sup>Onipchenko and Kaverina, 1989; <sup>3</sup>Kalamees and Botashev, 2000); **Karelia** (<sup>3</sup>Freindling, 1949; <sup>3</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>3</sup>Bondartseva et al., 2001; <sup>1</sup>Krutov et al., 2014; <sup>1</sup>Predtechenskaya, 2015); **Kirov Oblast** (<sup>3</sup>Kirillov, 2011; <sup>3</sup>Kirillov, Perevedentseva, and Egoshina, 2011); **Krasnodar Krai** (<sup>3</sup>Vassiljeva, 1939; <sup>3</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990); **Leningrad Oblast** (<sup>5</sup>Thesleff, 1920; <sup>3</sup>Wasser, 1980; <sup>3</sup>Kalamees and Kovalenko, 1984; <sup>3</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>3</sup>Stolyarskaya, 1993; <sup>3</sup>Kovalenko and Morozova, 1999a; <sup>3</sup>Morozova, 2007; <sup>3</sup>Popov et al., 2007; <sup>3</sup>Zmitrovich et al., 2015); **Mari El Republic** (<sup>3</sup>Prokhorov, 2007); **Mordovia** (<sup>5</sup>Chastukhin, 1948a; <sup>3</sup>Kuznetsov, 1960; <sup>3</sup>Chastukhin and Nikolaevskaya, 1969; <sup>3</sup>Wasser, 1980; <sup>3</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1</sup>Ivoilov and Bolshakov, 2011a; <sup>5</sup>Chastukhin, 2011); **Moscow** (<sup>5</sup>Hennings, 1905; <sup>5</sup>Mosolov, 1906); **Moscow Oblast** (<sup>3</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>3</sup>Levitskaya, 1998; <sup>3</sup>Vishnevsky, 1998; <sup>3</sup>Levitskaya, 2013); **Murmansk Oblast** (<sup>3</sup>Mikhailovskii, 1975b; <sup>3</sup>Karatygin, Nezdojminogo, Novozhilov, and Zhurbenko, 1999); **Penza Oblast** (<sup>3</sup>Ivanov, 1982); **Perm Krai** (<sup>3</sup>Perevedentseva, 2008; <sup>1</sup>Belkovskaya et al., 2014; <sup>3</sup>Botalov, 2017; <sup>3</sup>Botalov and Perevedentseva, 2020); **Pskov Oblast** (<sup>3</sup>Popov et al., 2013); **Rostov Oblast** (<sup>3</sup>Morozova et al., 2008); **Ryazan Oblast** (<sup>3</sup>Volosnova, 1997); **Saint Petersburg** (<sup>2</sup>Weinmann, 1828; <sup>2</sup>Weinmann, 1836; <sup>2</sup>Weinmann, 1837; <sup>3</sup>Kovalenko and Morozova, 1999a; <sup>3</sup>Morozova and Smirnov, 2011; <sup>3</sup>Morozova et al., 2020); **Sverdlovsk Oblast** (<sup>3</sup>Marina, 2006); **Tatarstan** (<sup>3</sup>Vassiljeva, 1977); **Tula Oblast** (<sup>3</sup>Svetasheva, 2004); **Tver Oblast** (<sup>5</sup>Chastukhin, 1948b; <sup>3</sup>Chastukhin and Nikolaevskaya, 1969; <sup>3</sup>Kurochkin, 1993; <sup>1</sup>Kotkova, 2014); **Vologda Oblast** (<sup>3</sup>Kirillova, 2006; <sup>3</sup>Kirillova, 2007); **Yamalo-Nenets Autonomous Okrug** (<sup>3</sup>Kazantseva, 1972; <sup>3</sup>Stepanova and Sirko, 1977; <sup>3</sup>Karatygin, Nezdojminogo, Novozhilov, and Zhurbenko, 1999; <sup>3</sup>Nezdojminogo, 2001); **Yaroslavl Oblast**

(<sup>3</sup>Lazareva, 1998a; <sup>3</sup>Lazareva, 1998b); **Arid territories** (<sup>3</sup>Rebriev, Rusanov, et al., 2012); **Northern Caucasus** (<sup>3</sup>Smith and Singer, 1945).

SIBERIA: **Altai Krai** (<sup>3</sup>Gorbunova and Perova, 2006; <sup>1</sup>Gorbunova, 2018a); **Altai Republic** (<sup>3</sup>Smith and Singer, 1945; <sup>3</sup>Wasser, 1980; <sup>3</sup>Gorbunova, 1996; <sup>3</sup>Gorbunova, 1997; <sup>3</sup>Gorbunova, 2001a; <sup>3</sup>Gorbunova, 2001b); **Buryatia** (<sup>3</sup>Nezdojminogo, 1970a; <sup>3</sup>Wasser, 1980; <sup>3</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990); **Irkutsk Oblast** (<sup>3</sup>Kutafjeva, 1983; <sup>3</sup>Petrov, 1986; <sup>3</sup>Petrov, 1989; <sup>3</sup>Astapenko, 1990a; <sup>3</sup>Bardunov et al., 2005; <sup>3</sup>Petrov, 2008); **Khakassia** (<sup>3</sup>Beglyanova, 1972a; <sup>1</sup>Zauzolkova, 2015); **Khanty-Mansi Autonomous Okrug** (<sup>1</sup>Zvyagina, Baykalova, and Gorbunova, 2007; <sup>1</sup>Filippova, Bulyonkova, and Lapshina, 2015; <sup>4</sup>Filippova and Bulyonkova, 2017a; <sup>1</sup>Filippova and Bulyonkova, 2017b); **Krasnoyarsk Krai** (<sup>3</sup>Perova, 1970; <sup>3</sup>Beglyanova, 1972a; <sup>3</sup>Beglyanova, 1972c; <sup>3</sup>Nezdojminogo, 1976a; <sup>3</sup>Wasser, 1980; <sup>3</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>3</sup>Pavlov et al., 2007; <sup>3</sup>Kosheleva and Kutafjeva, 2008a; <sup>3</sup>Kosheleva and Kutafjeva, 2008b; <sup>3</sup>Kosheleva, 2010; <sup>1</sup>Krom and Kapitonov, 2019); **Novosibirsk Oblast** (<sup>3</sup>Gorbunova, 2007; <sup>3</sup>Perova and Gorbunova, 2007); **Tomsk Oblast** (<sup>3</sup>Perova, 1972; <sup>3</sup>Kosheleva and Kutafjeva, 2004; <sup>1</sup>Kudashova, Gashkov, and Kutafjeva, 2013); **Tyva Republic** (<sup>3</sup>Gorbunova, 2015).

FAR EAST: **Amur Oblast** (<sup>3,6</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>3</sup>Azbukina et al., 1998; <sup>3</sup>Taranina, 2005; <sup>1</sup>Kochunova and Erofeeva, 2017); **Chukotka Autonomous Okrug** (<sup>3</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>3</sup>Karatygin, Nezdojminogo, Novozhilov, and Zhurbenko, 1999); **Jewish Autonomous Oblast** (<sup>3</sup>Bulakh, Govorova, Nazarova, and Vassiljeva, 2007; <sup>3</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Bogacheva et al., 2018); **Kamchatka Krai** (<sup>3</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>3</sup>Karatygin, Nezdojminogo, Novozhilov, and Zhurbenko, 1999; <sup>3</sup>Purtseva, Kiyashko, Gachkova, and Belova, 2007); **Khabarovsk Krai** (<sup>3</sup>Azbukina et al., 1986; <sup>3</sup>Azbukina et al., 1989; <sup>3</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>3</sup>Bulakh, Vassiljeva, and Erofeeva, 2010; <sup>3</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Bogacheva et al., 2018); **Magadan Oblast** (<sup>3</sup>Sazanova, 1996; <sup>3</sup>Sazanova, 2005; <sup>1</sup>Sazanova, 2009a; <sup>1</sup>Sazanova, 2009b; <sup>1</sup>Sazanova, 2011); **Primorsky Krai** (<sup>3</sup>Vassiljeva, 1972; <sup>3</sup>Vassiljeva, 1973; <sup>3</sup>Bunkina and Nazarova, 1978; <sup>3</sup>Wasser, 1980; <sup>3</sup>Azbukina et al., 1984; <sup>3</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>3</sup>Bardunov et al., 2002; <sup>3</sup>Azbukina et al., 2006; <sup>3</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Bulakh et al., 2016; <sup>1</sup>Bogacheva et al., 2018); **Sakhalin Oblast** (<sup>3</sup>Vassiljeva and Nazarova, 1972; <sup>3</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990).

#### *Cystodermella terryi* (Berk. & Broome) Bellù

≡ *Agaricus terryi* Berk. & Broome<sup>1</sup> ≡ *Cystoderma terryi* (Berk. & Broome) Harmaja<sup>2</sup> ≡ *Lepiota terryi* (Berk. & Broome) Sacc.<sup>3</sup>

EASTERN EUROPE: **Kaliningrad Oblast** (<sup>2</sup>Dedkov, Volodina, and Gubareva, 2007; <sup>2</sup>Volodina, 2007); **Karachay-Cherkess Republic** (<sup>2</sup>Kalamees and Botashev, 2000); **Karelia** (<sup>2</sup>Bondartseva et al., 2001; <sup>2</sup>Ivanter and Kuznetsov, 2007); **Leningrad Oblast** (<sup>3</sup>Thesleff, 1920; <sup>2</sup>Kovalenko and Morozova, 1999a; <sup>2</sup>Popov et al., 2007); **Moscow Oblast** (<sup>2</sup>Levitskaya, 1995c; <sup>2</sup>Vishnevsky, 1998; <sup>2</sup>Levitskaya, 2013); **Novgorod Oblast** (<sup>2</sup>Kovalenko, Morozova, Nezdojminogo, and Popov, 2005); **Orenburg Oblast** (<sup>2</sup>Korshikova, 2006; <sup>2</sup>Desyatova, 2007; <sup>2</sup>Desyatova, 2008); **Perm Krai** (<sup>2</sup>Botalov, 2017; <sup>2</sup>Botalov and Perevedentseva, 2020); **Rostov Oblast** (<sup>2</sup>Rusanov et al., 2004; <sup>2</sup>Zmitrovich et al., 2008); **Ryazan Oblast** (<sup>2</sup>Volosnova, 1997); **Sverdlovsk Oblast** (<sup>2</sup>Marina, 2006); **Tula Oblast** (<sup>2</sup>Svetasheva, 2001); **Tver Oblast** (<sup>2</sup>Mukhina, 2011a; <sup>2</sup>Mukhina, 2011b); **Yaroslavl Oblast** (<sup>2</sup>Lazareva, 1998a; <sup>2</sup>Lazareva, 1998b); **Arid territories** (<sup>2</sup>Rebriev, Rusanov, et al., 2012).

SIBERIA: **Altai Republic** (<sup>2</sup>Gorbunova, 2001a; <sup>2</sup>Gorbunova, 2001b); **Krasnoyarsk Krai** (<sup>1</sup>Thümen, 1878).

#### *Cystolepiota adulterina* (F.H. Møller) Bon

EASTERN EUROPE: **Leningrad Oblast** (Kovalenko and Morozova, 1999a; Morozova, 1999; Morozova and Kovalenko, 2000; Tzvelev, 2000; Popov et al., 2007; Geltman et al., 2018; Geltman, 2018b); **Pskov Oblast** (Popov et al., 2013); **Samara Oblast** (Malysheva and Malysheva, 2006; Malysheva and Malysheva, 2008).

#### *Cystolepiota bucknallii* (Berk. & Broome) Singer & Cléménçon

EASTERN EUROPE: **Samara Oblast** (Malysheva and Malysheva, 2005b; Morozova, 2005; Malysheva and Malysheva, 2008); **Tula Oblast** (Svetasheva, Sheremetyeva, and Lakomov, 2019).

SIBERIA: **Novosibirsk Oblast** (Gorbunova, 2012; Koropachinskiy and Banaev, 2014).

#### *Cystolepiota eriophora* (Peck) Knudsen<sup>1</sup>

≡ *Lepiota eriophora* Peck<sup>2</sup>

EASTERN EUROPE: **Arid territories** (<sup>2</sup>Rebriev, Rusanov, et al., 2012).

SIBERIA: **Altai Republic** (<sup>2</sup>Gorbunova, 2001b; <sup>2</sup>Perova and Gorbunova, 2001).

FAR EAST: **Amur Oblast** (<sup>2</sup>Azbukina et al., 1998); **Khabarovsk Krai** (<sup>1</sup>Bulakh, 2013; <sup>1</sup>Bogacheva, Bulakh, Bukharova, and Egorova, 2015); **Primorsky Krai** (<sup>2</sup>Vassiljeva, 1973; <sup>2</sup>Bunkina and Nazarova, 1978; <sup>2</sup>Wasser, 1980; <sup>2</sup>Azbukina et al., 2006; <sup>2</sup>Bau, Bulakh, and Govorova, 2011).

***Cystolepiota hetieri* (Boud.) Singer**

≡ *Lepiota hetieri* Boud.<sup>2</sup> = *Lepiota langei* Locq.<sup>3</sup>

EASTERN EUROPE: **Karelia** (<sup>1</sup>Krutov et al., 2014); **Murmansk Oblast** (<sup>2</sup>Pystina, Pavlova, and Shestakova, 1969); **Samara Oblast** (<sup>1</sup>Malysheva and Malysheva, 2008); **Tula Oblast** (<sup>1</sup>Svetasheva, 2004; <sup>1</sup>Shcherbakov, 2010); **Volgograd Oblast** (<sup>1</sup>Burova and Nezdjminogo, 1980).

FAR EAST: **Primorsky Krai** (<sup>2,3</sup>Vassiljeva, 1973; <sup>2,3</sup>Bunkina and Nazarova, 1978; <sup>2</sup>Wasser, 1980; <sup>2,3</sup>Azbukina et al., 2006; <sup>1</sup>Bau, Bulakh, and Govorova, 2011).

***Cystolepiota hetieriana* (Locq.) Bresinsky & H. Haas**

≡ *Lepiota hetieriana* Locq.<sup>1</sup>

FAR EAST: **Primorsky Krai** (<sup>1</sup>Vassiljeva, 1973; <sup>1</sup>Bunkina and Nazarova, 1978; <sup>1</sup>Azbukina et al., 2006; <sup>1</sup>Bau, Bulakh, and Govorova, 2011).

***Cystolepiota moelleri* Knudsen<sup>1</sup>**

= *Cystolepiota rosea* (Rea) Bon<sup>2</sup> = *Lepiota rosea* Rea<sup>3</sup>

EASTERN EUROPE: **Karachay-Cherkess Republic** (<sup>2</sup>Kalamees and Botashev, 2000); **Samara Oblast** (<sup>1</sup>Malysheva and Malysheva, 2008).

FAR EAST: **Primorsky Krai** (<sup>3</sup>Bunkina and Nazarova, 1978; <sup>3</sup>Wasser, 1980; <sup>3</sup>Azbukina et al., 2006; <sup>1</sup>Bau, Bulakh, and Govorova, 2011).

***Cystolepiota pseudogranulosa* (Berk. & Broome) Pegler<sup>1</sup>**

≡ *Lepiota pseudogranulosa* (Berk. & Broome) Sacc.<sup>2</sup>

FAR EAST: **Khabarovsk Krai** (<sup>2</sup>Bau, Bulakh, Zhuang, and Li, 2007; <sup>1</sup>Bau, Bulakh, and Govorova, 2011).

***Cystolepiota pulverulenta* (Huijsman) Vellinga<sup>1</sup>**

≡ *Lepiota pulverulenta* Huijsman<sup>2</sup>

EASTERN EUROPE: **Leningrad Oblast** (<sup>2</sup>Wasser, 1980; <sup>2</sup>Kovalenko and Morozova, 1999a; <sup>2</sup>Popov et al., 2007); **Rostov Oblast** (<sup>1</sup>Rusanov, Rebriev, and Bulgakov, 2018); **Arid territories** (<sup>1</sup>Rebriev, Rusanov, et al., 2012).

***Cystolepiota pusilla* Nezdjmin.**

SIBERIA: **Krasnoyarsk Krai** (Nezdjminogo, 1981; Nezdjminogo, 1982a).

***Cystolepiota seminuda* (Lasch) Bon<sup>1</sup>**

≡ *Lepiota seminuda* (Lasch) P. Kumm.<sup>2</sup>

EASTERN EUROPE: **Crimea** (<sup>2</sup>Wasser, 1980; <sup>2</sup>Sarkina, 2001; <sup>2</sup>Dudka et al., 2004); **Kaluga Oblast** (<sup>1</sup>Sionova, 2012); **Kirov Oblast** (<sup>1</sup>Kirillov, 2011; <sup>1</sup>Kirillov, Perevedentseva, and Egoshina, 2011); **Komi Republic** (<sup>1</sup>Palamarchuk and Kirillov, 2017); **Leningrad Oblast** (<sup>1</sup>Morozova, 2002; <sup>1</sup>Popov et al., 2007); **Lipetsk Oblast** (<sup>2</sup>Sarycheva, 1999; <sup>1</sup>Sarycheva et al., 2009; <sup>1</sup>Sarycheva, 2011; <sup>1</sup>Sarycheva, 2014a; <sup>1</sup>Sarycheva, 2016); **Mordovia** (<sup>1</sup>Bolshakov and Ivoilov, 2012a); **Moscow Oblast** (<sup>2</sup>Wasser, 1980; <sup>1</sup>Levitskaya, 2013; <sup>1</sup>Voronina et al., 2014); **Novgorod Oblast** (<sup>1</sup>Kovalenko, Morozova, Nezdjminogo, and Popov, 2005; <sup>1</sup>Popov et al., 2013); **Orenburg Oblast** (<sup>1</sup>Korshikova, 2005; <sup>1</sup>Desyatova, 2007; <sup>1</sup>Desyatova, 2008); **Penza Oblast** (<sup>2</sup>Ivanov, 1982); **Perm Krai** (<sup>1</sup>Perevedentseva, 2008; <sup>1</sup>Belkovskaya et al., 2014; <sup>1</sup>Perevedentseva and Shishigin, 2014); **Pskov Oblast** (<sup>1</sup>Popov et al., 2013); **Rostov Oblast** (<sup>1</sup>Morozova et al., 2008; <sup>1</sup>Zmitrovich et al., 2008); **Ryazan Oblast** (<sup>2</sup>Volosnova, 1997; <sup>1</sup>Volosnova, 2014); **Saint Petersburg** (<sup>1</sup>Morozova and Smirnov, 2011; <sup>1</sup>Morozova et al., 2020); **Samara Oblast** (<sup>1</sup>Malysheva and Malysheva, 2005b; <sup>1</sup>Malysheva and Malysheva, 2008); **Sverdlovsk Oblast** (<sup>1</sup>Marina, 2006); **Tatarstan** (<sup>2</sup>Vassiljeva, 1977); **Tula Oblast** (<sup>1</sup>Svetasheva, 2004; <sup>1</sup>Svetasheva, 2013); **Ulyanovsk Oblast** (<sup>1</sup>Ilyukhin, 2010a; <sup>1</sup>Ilyukhin, 2010b); **Vologda Oblast** (<sup>1</sup>Kirillova, 2006; <sup>1</sup>Kirillova, 2007); **Voronezh Oblast** (<sup>1</sup>Sarycheva, Starodubtseva, and Sapelnikova, 2017); **Yaroslavl Oblast** (<sup>1</sup>Lazareva, 1998a; <sup>1</sup>Lazareva, 1998b); **Arid territories** (<sup>1</sup>Rebriev, Rusanov, et al., 2012).

SIBERIA: **Khanty-Mansi Autonomous Okrug** (<sup>1</sup>Zvyagina, 2008; <sup>1</sup>Shepeleva et al., 2014; <sup>1</sup>Filippova and Bulyonkova, 2017a; <sup>1</sup>Filippova and Bulyonkova, 2017b); **Krasnoyarsk Krai** (<sup>2</sup>Beglyanova, 1972a; <sup>2</sup>Wasser, 1980; <sup>1</sup>Malysheva, Malysheva, Kiyashko, et al., 2017); **Novosibirsk Oblast** (<sup>2</sup>Perova, 1977; <sup>2</sup>Perova and Gorbunova, 2001);



<sup>1</sup>Perova and Gorbunova, 2007); **Tomsk Oblast** (<sup>2</sup>Perova and Gorbunova, 2001; <sup>1</sup>Kudashova, Gashkov, and Kutafjeva, 2013).

FAR EAST: **Jewish Autonomous Oblast** (<sup>2</sup>Bulakh, Govorova, Nazarova, and Vassiljeva, 2007; <sup>1</sup>Bau, Bulakh, and Govorova, 2011); **Khabarovsk Krai** (<sup>2</sup>Azbukina et al., 1986; <sup>1</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Bulakh, 2013; <sup>1</sup>Bogacheva, Bulakh, Bukharova, and Egorova, 2015; <sup>1</sup>Erofeeva and Bulakh, 2015a); **Primorsky Krai** (<sup>2</sup>Vassiljeva, 1972; <sup>2</sup>Vassiljeva, 1973; <sup>2</sup>Bunkina and Nazarova, 1978; <sup>2</sup>Wasser, 1980; <sup>2</sup>Azbukina et al., 1990; <sup>2</sup>Bardunov et al., 2002; <sup>2</sup>Azbukina et al., 2006; <sup>1</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Bulakh et al., 2016); **Sakhalin Oblast** (<sup>2</sup>Vassiljeva and Nazarova, 1972).

***Cystolepiota sistrata* (Fr.) Singer ex Bon & Bellù**

EASTERN EUROPE: **Moscow Oblast** (Levitskaya, 1995c).

SIBERIA: **Altai Krai** (Gorbunova and Perova, 2006); **Novosibirsk Oblast** (Gorbunova, 2007; Koropachinskiy and Banaev, 2014).

FAR EAST: **Primorsky Krai** (Azbukina et al., 1984).

***Deconica chionophila* (Lamoure) Noordel.**

≡ *Psilocybe chionophila* Lamoure<sup>1</sup>

EASTERN EUROPE: **Komi Republic** (<sup>1</sup>Palamarchuk, 2016a; <sup>1</sup>Palamarchuk, 2016b).

SIBERIA: **Krasnoyarsk Krai** (<sup>1</sup>Gorbunova, 2016).

***Deconica coprophila* (Bull.) P. Karst.<sup>1</sup>**

≡ *Psilocybe coprophila* (Bull.) P. Kumm.<sup>2</sup>

EASTERN EUROPE: **Arkhangelsk Oblast** (<sup>2</sup>Ezhov, Zmitrovich, and Ershov, 2016; <sup>1</sup>Shiryayev, Zmitrovich, and Ezhov, 2018); **Karelia** (<sup>2</sup>Krutov et al., 2014); **Leningrad Oblast** (<sup>1</sup>Thesleff, 1920; <sup>2</sup>Stolyarskaya, 1993; <sup>2</sup>Kovalenko and Morozova, 1999a; <sup>2</sup>Popov et al., 2007; <sup>2</sup>Zmitrovich et al., 2015); **Lipetsk Oblast** (<sup>2</sup>Sarycheva, 1999; <sup>2</sup>Sarycheva et al., 2009; <sup>2</sup>Sarycheva, 2011; <sup>2</sup>Sarycheva, 2014a; <sup>2</sup>Sarycheva, 2016); **Moscow** (<sup>2</sup>Bucholtz, 1897b; <sup>2</sup>Bucholtz, 1897c; <sup>2</sup>Mosolov, 1906); **Moscow Oblast** (<sup>2</sup>Gorlenko, Sidorova, and Sidorova, 1989); **Penza Oblast** (<sup>2</sup>Ivanov and Nezdojminogo, 1990); **Pskov Oblast** (<sup>2</sup>Popov et al., 2013); **Rostov Oblast** (<sup>2</sup>Vyshchepan, 1992); **Ryazan Oblast** (<sup>2</sup>Volosnova, 1997; <sup>2</sup>Volosnova, 2014); **Tula Oblast** (<sup>2</sup>Svetasheva, 2004; <sup>2</sup>Svetasheva, 2013); **Tver Oblast** (<sup>2</sup>Kurochkin, 1993); **Udmurt Republic** (<sup>2</sup>Tychinin and Kuzmina, 2003); **Yaroslavl Oblast** (<sup>2</sup>Lazareva, 1998a; <sup>2</sup>Lazareva, 2002); **Arid territories** (<sup>2</sup>Rebriev, Rusanov, et al., 2012).

SIBERIA: **Altai Krai** (<sup>1</sup>Gorbunova, 2018b); **Altai Republic** (<sup>2</sup>Gorbunova, 2001b; <sup>2</sup>Perova and Gorbunova, 2001; <sup>2</sup>Gorbunova, 2003; <sup>2</sup>Gorbunova, 2006; <sup>2</sup>Gorbunova, 2010); **Irkutsk Oblast** (<sup>2</sup>Gorbunova and Stepantsova, 2015); **Kemerovo Oblast** (<sup>2</sup>Perova and Gorbunova, 2001); **Khakassia** (<sup>2</sup>Gorbunova and Majnagasheva, 2013); **Krasnoyarsk Krai** (<sup>2</sup>Beglyanova, 1972a).

FAR EAST: **Amur Oblast** (<sup>2</sup>Azbukina et al., 1998); **Khabarovsk Krai** (<sup>2</sup>Azbukina et al., 1986; <sup>2</sup>Bau, Bulakh, and Govorova, 2011); **Primorsky Krai** (<sup>1</sup>Vassiljeva, 1972; <sup>1</sup>Vassiljeva, 1973; <sup>2</sup>Bau, Bulakh, and Govorova, 2011; <sup>2</sup>Bulakh et al., 2016).

***Deconica crobula* (Fr.) Romagn.<sup>1</sup>**

≡ *Psilocybe crobula* (Fr.) Singer<sup>2</sup> ≡ *Psilocybe inquilina* var. *crobula* (Fr.) Høil.<sup>3</sup> ≡ *Tubaria crobula* (Fr.) P. Karst.<sup>4</sup>

EASTERN EUROPE: **Adygea** (<sup>2</sup>Kovalenko, 1980b); **Crimea** (<sup>1</sup>Sarkina and Stavishenko, 2019); **Karelia** (<sup>2</sup>Psurtseva, Kiyashko, Gachkova, and Belova, 2007); **Krasnodar Krai** (<sup>2</sup>Kovalenko, 1980a; <sup>2</sup>Kovalenko, 1980b; <sup>2</sup>Psurtseva, Kiyashko, Gachkova, and Belova, 2007); **Leningrad Oblast** (<sup>4</sup>Thesleff, 1920; <sup>2</sup>Kovalenko and Morozova, 1999a; <sup>2</sup>Popov et al., 2007); **Novgorod Oblast** (<sup>2</sup>Kovalenko, Morozova, Nezdojminogo, and Popov, 2005; <sup>2</sup>Psurtseva, Kiyashko, Gachkova, and Belova, 2007; <sup>2</sup>Popov et al., 2013); **Penza Oblast** (<sup>2</sup>Ivanov, 1985); **Perm Krai** (<sup>2</sup>Perevedentseva, 2008; <sup>3</sup>Perevedentseva and Shishigin, 2014); **Rostov Oblast** (<sup>2</sup>Morozova et al., 2008); **Saint Petersburg** (<sup>2</sup>Zhukova, Morozova, Volobuev, and Bryantseva, 2017); **Vologda Oblast** (<sup>2</sup>Kirillova, 2007); **Arid territories** (<sup>2</sup>Rebriev, Rusanov, et al., 2012).

SIBERIA: **Altai Krai** (<sup>1</sup>Gorbunova, 2018a); **Khakassia** (<sup>2</sup>Zauzolkova, 2015; <sup>2</sup>Zauzolkova and Gorbunova, 2016); **Novosibirsk Oblast** (<sup>2</sup>Perova and Gorbunova, 2001; <sup>2</sup>Perova and Gorbunova, 2007; <sup>2</sup>Koropachinskiy and Banaev, 2014).

FAR EAST: **Jewish Autonomous Oblast** (<sup>2</sup>Bulakh, Govorova, Nazarova, and Vassiljeva, 2007; <sup>2</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Erofeeva, Bukharova, and Bulakh, 2019); **Primorsky Krai** (<sup>1</sup>Vassiljeva, 1973; <sup>1</sup>Azbukina et al., 1984; <sup>2</sup>Bau, Bulakh, and Govorova, 2011; <sup>2</sup>Bulakh et al., 2016).

***Deconica flocculosa* (Bas & Noordel.) Noordel.**SIBERIA: **Altai Krai** (Gorbunova, 2018a).***Deconica inquilina* (Fr.) Romagn.<sup>1</sup>**≡ *Agaricus inquilinus* Fr.<sup>2</sup> ≡ *Psilocybe inquilina* (Fr.) Bres.<sup>3</sup> ≡ *Tubaria inquilina* (Fr.) Gillet<sup>4</sup> = *Agaricus inquilinus* var. *squarrosulus* Fr.<sup>5</sup> = *Psilocybe muscorum* (P.D. Orton) M.M. Moser<sup>6</sup>EASTERN EUROPE: **Karachay-Cherkess Republic** (<sup>6</sup>Kalamees and Botashev, 2000); **Karelia** (<sup>3</sup>Bondartseva et al., 2001; <sup>3</sup>Krutov et al., 2014); **Leningrad Oblast** (<sup>3</sup>Kovalenko and Morozova, 1999a; <sup>3</sup>Popov et al., 2007); **Moscow Oblast** (<sup>3</sup>Gorlenko, Sidorova, and Sidorova, 1989); **Murmansk Oblast** (<sup>4</sup>Pystina, Pavlova, and Shestakova, 1969; <sup>6</sup>Mikhailovskii, 1975a; <sup>6</sup>Karatygin, Nezdoininogo, Novozhilov, and Zhurbenko, 1999); **Novgorod Oblast** (<sup>6</sup>Kovalenko, Morozova, Nezdoininogo, and Popov, 2005; <sup>6</sup>Popov et al., 2013); **Orenburg Oblast** (<sup>3</sup>Desyatova, 2008); **Penza Oblast** (<sup>6</sup>Ivanov, 1985); **Perm Krai** (<sup>3</sup>Belkovskaya et al., 2014); **Pskov Oblast** (<sup>3</sup>Kovalenko, Kolmakov, Morozova, and Popov, 2003; <sup>3</sup>Popov et al., 2013); **Rostov Oblast** (<sup>1</sup>Rusanov, Rebriev, and Bulgakov, 2018); **Ryazan Oblast** (<sup>3</sup>Volosnova, 1997; <sup>3</sup>Volosnova, 2014); **Saint Petersburg** (<sup>2,5</sup>Weinmann, 1836; <sup>2</sup>Weinmann, 1837); **Sverdlovsk Oblast** (<sup>6</sup>Marina, 2006); **Tatarstan** (<sup>3</sup>Vassiljeva, 1977); **Arid territories** (<sup>3</sup>Rebriev, Rusanov, et al., 2012).SIBERIA: **Altai Krai** (<sup>3</sup>Gorbunova and Perova, 2006; <sup>3</sup>Gorbunova, 2006; <sup>3</sup>Gorbunova and Chubarova, 2008; <sup>3</sup>Gorbunova, Vlasenko, and Tzhubarova, 2011); **Altai Republic** (<sup>3</sup>Gorbunova, 2006); **Buryatia** (<sup>3</sup>Nezdoininogo, 1973); **Irkutsk Oblast** (<sup>3</sup>Petrov, 1986; <sup>3</sup>Petrov, 2008; <sup>3</sup>Gorbunova and Stepantsova, 2015); **Khakassia** (<sup>3</sup>Zauzolkova, 2015); **Khanty-Mansi Autonomous Okrug** (<sup>3</sup>Filippova and Bulyonkova, 2017a; <sup>3</sup>Filippova and Bulyonkova, 2017b); **Krasnoyarsk Krai** (<sup>3</sup>Beglyanova, 1972a; <sup>3</sup>Nezdoininogo, 1982a; <sup>6</sup>Nezdoininogo, 1994; <sup>6</sup>Karatygin, Nezdoininogo, Novozhilov, and Zhurbenko, 1999; <sup>3</sup>Zauzolkova, 2012; <sup>3</sup>Zauzolkova, 2015); **Novosibirsk Oblast** (<sup>3</sup>Perova, 1977; <sup>3</sup>Gorbunova, 2007; <sup>3</sup>Perova and Gorbunova, 2007; <sup>3</sup>Koropachinskiy and Banaev, 2014); **Tomsk Oblast** (<sup>3</sup>Kudashova, Gashkov, and Kutafjeva, 2013).FAR EAST: **Khabarovsk Krai** (<sup>3</sup>Azbukina et al., 1986; <sup>3</sup>Azbukina et al., 1989; <sup>3</sup>Bau, Bulakh, and Govorova, 2011); **Primorsky Krai** (<sup>1</sup>Vassiljeva, 1973; <sup>1</sup>Azbukina et al., 1984; <sup>3</sup>Azbukina et al., 1990; <sup>3</sup>Bardunov et al., 2002; <sup>3</sup>Bau, Bulakh, and Govorova, 2011).***Deconica merdaria* (Fr.) Noordel.**≡ *Agaricus merdarius* Fr.<sup>1</sup> ≡ *Psilocybe merdaria* (Fr.) Ricken<sup>2</sup> ≡ *Stropharia merdaria* (Fr.) Quél.<sup>3</sup>EASTERN EUROPE: **Chechen Republic** (<sup>3</sup>Taysumov, Krapivina, and Kushalieva, 2016); **Chelyabinsk Oblast** (<sup>2</sup>Psurtseva, Kiyashko, Gachkova, and Belova, 2007); **Kabardino-Balkarian Republic** (<sup>3</sup>Singer, 1931; <sup>3</sup>Shkhagapsoev and Krapivina, 2004); **Karelia** (<sup>2</sup>Krutov et al., 2014); **Leningrad Oblast** (<sup>3</sup>Thesleff, 1920; <sup>2</sup>Kovalenko and Morozova, 1999a; <sup>2</sup>Popov et al., 2007); **Murmansk Oblast** (<sup>3</sup>Pystina, Pavlova, and Shestakova, 1969); **Orenburg Oblast** (<sup>2</sup>Korshikova, 2005; <sup>2</sup>Desyatova, 2007; <sup>2</sup>Desyatova, 2008); **Rostov Oblast** (<sup>2</sup>Morozova et al., 2008); **Ryazan Oblast** (<sup>2</sup>Volosnova, 2014); **Saint Petersburg** (<sup>1</sup>Weinmann, 1828; <sup>1</sup>Weinmann, 1836; <sup>1</sup>Weinmann, 1837); **Sverdlovsk Oblast** (<sup>2</sup>Marina, 2006); **Yamalo-Nenets Autonomous Okrug** (<sup>2</sup>Nezdoininogo, 1994; <sup>2</sup>Karatygin, Nezdoininogo, Novozhilov, and Zhurbenko, 1999); **Arid territories** (<sup>2</sup>Rebriev, Rusanov, et al., 2012).SIBERIA: **Altai Krai** (<sup>2</sup>Gorbunova and Perova, 2006; <sup>2</sup>Gorbunova, 2006); **Altai Republic** (<sup>2</sup>Gorbunova, 2001b; <sup>2</sup>Perova and Gorbunova, 2001; <sup>2</sup>Gorbunova, 2003; <sup>2</sup>Gorbunova, 2006; <sup>2</sup>Gorbunova, 2010); **Irkutsk Oblast** (<sup>2</sup>Petrov, 1986; <sup>2</sup>Kutafjeva and Astapenko, 1987; <sup>2</sup>Petrov, 1991; <sup>2</sup>Petrov, 2008); **Khakassia** (<sup>3</sup>Saccardo, 1896; <sup>2</sup>Beglyanova, 1972a); **Krasnoyarsk Krai** (<sup>2</sup>Beglyanova, 1972a); **Novosibirsk Oblast** (<sup>2</sup>Perova and Gorbunova, 2001; <sup>2</sup>Gorbunova, 2006; <sup>2</sup>Gorbunova, 2007; <sup>2</sup>Perova and Gorbunova, 2007); **Tomsk Oblast** (<sup>3</sup>Perova and Gorbunova, 2001; <sup>2</sup>Kudashova, Gashkov, and Kutafjeva, 2013).***Deconica merdicola* (Huijsman) Noordel.**≡ *Psilocybe merdicola* Huijsman<sup>1</sup>EASTERN EUROPE: **Astrakhan Oblast** (<sup>1</sup>Rebriev, Aleksandrova, et al., 2012); **Karelia** (<sup>1</sup>Krutov et al., 2014); **Leningrad Oblast** (<sup>1</sup>Stolyarskaya, 1993; <sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Popov et al., 2007; <sup>1</sup>Zmitrovich et al., 2015); **Rostov Oblast** (<sup>1</sup>Rebriev, 2018); **Arid territories** (<sup>1</sup>Rebriev, Rusanov, et al., 2012).SIBERIA: **Khakassia** (<sup>1</sup>Gorbunova and Majnagasheva, 2013).***Deconica micropora* (Noordel. & Verduin) Noordel.<sup>1</sup>**≡ *Psilocybe micropora* Noordel. & Verduin<sup>2</sup>EASTERN EUROPE: **Pskov Oblast** (<sup>2</sup>Morozova et al., 2015).SIBERIA: **Khanty-Mansi Autonomous Okrug** (<sup>1</sup>Zvyagina and Baykalova, 2017); **Krasnoyarsk Krai** (<sup>2</sup>Gorbunova, 2016).

***Deconica montana* (Pers.) P.D. Orton<sup>1</sup>**

≡ *Agaricus montanus* Pers.<sup>2</sup> ≡ *Psilocybe montana* (Pers.) P. Kumm.<sup>3</sup> = *Agaricus atrorufus* Schaeff.<sup>4</sup> = *Agaricus montanus* var. *atrорufus* (Schaeff.) Fr.<sup>5</sup> = *Deconica atrorufa* (Schaeff.) P. Karst.<sup>6</sup> = *Psilocybe atrorufa* (Schaeff.) Quél.<sup>7</sup> = *Psilocybe physaloides* (Bull.) Quél.<sup>8</sup>

EASTERN EUROPE: **Adygea** (<sup>8</sup>Sopina, 2001a; <sup>3</sup>Sopina, 2004b); **Arkhangelsk Oblast** (<sup>1</sup>Shiryaev, Zmitrovich, and Ezhov, 2018); **Kaliningrad Oblast** (<sup>3</sup>Dedkov, Volodina, and Gubareva, 2007; <sup>3</sup>Volodina, 2007); **Karachay-Cherkess Republic** (<sup>3</sup>Kalamees and Botashev, 2000); **Karelia** (<sup>3</sup>Bondartseva et al., 2001; <sup>3,7</sup>Krutov et al., 2014); **Kirov Oblast** (<sup>3</sup>Kirillov, 2011; <sup>3</sup>Kirillov, Perevedentseva, and Egoshina, 2011; <sup>3</sup>Stavishenko, Luginina, Kirillov, and Egoshina, 2019); **Komi Republic** (<sup>3</sup>Palamarchuk, 2011b; <sup>3</sup>Palamarchuk, 2016a; <sup>3</sup>Palamarchuk, 2016b; <sup>3</sup>Palamarchuk and Kirillov, 2017); **Leningrad Oblast** (<sup>6</sup>Thesleff, 1920; <sup>3</sup>Stolyarskaya, 1989; <sup>3</sup>Kovalenko and Morozova, 1999a; <sup>3</sup>Morozova, 2007; <sup>3</sup>Popov et al., 2007; <sup>3</sup>Zmitrovich et al., 2015); **Lipetsk Oblast** (<sup>3</sup>Sarycheva et al., 2009; <sup>3</sup>Sarycheva, 2014a; <sup>3</sup>Sarycheva, 2016); **Moscow** (<sup>7</sup>Bucholtz, 1897a); **Murmansk Oblast** (<sup>7</sup>Pystina, Pavlova, and Shestakova, 1969; <sup>3</sup>Karatygin, Nezdojminogo, Novozhilov, and Zhurbenko, 1999); **Penza Oblast** (<sup>3,8</sup>Ivanov, 1985); **Perm Krai** (<sup>3</sup>Perevedentseva, 2008; <sup>3</sup>Botalov, 2017); **Pskov Oblast** (<sup>3</sup>Popov et al., 2013); **Ryazan Oblast** (<sup>3</sup>Volosnova, 1997; <sup>3</sup>Volosnova, 2014); **Saint Petersburg** (<sup>2</sup>Weinmann, 1828; <sup>2,5</sup>Weinmann, 1836; <sup>2,5</sup>Weinmann, 1837; <sup>3</sup>Morozova and Smirnov, 2011); **Samara Oblast** (<sup>3</sup>Malysheva and Malysheva, 2008); **Tula Oblast** (<sup>3</sup>Svetasheva, 2004); **Ulyanovsk Oblast** (<sup>3</sup>Ilyukhin, 2010a; <sup>3</sup>Ilyukhin, 2010b); **Lapland** (<sup>4</sup>Karsten, 1866).

SIBERIA: **Altai Krai** (<sup>3</sup>Gorbunova and Perova, 2006; <sup>3</sup>Gorbunova, 2006; <sup>8</sup>Gorbunova and Perova, 2006; <sup>1</sup>Gorbunova, 2018a); **Altai Republic** (<sup>8</sup>Gorbunova, 1996; <sup>8</sup>Gorbunova, 1997; <sup>3</sup>Gorbunova, 2001a; <sup>8</sup>Perova and Gorbunova, 2001; <sup>3</sup>Gorbunova, 2003; <sup>3</sup>Gorbunova, 2006; <sup>3</sup>Gorbunova, 2008; <sup>3</sup>Gorbunova, 2010); **Buryatia** (<sup>3</sup>Nezdojminogo, 1973; <sup>3</sup>Petrov, 1991); **Irkutsk Oblast** (<sup>3</sup>Petrov, 1986; <sup>3</sup>Petrov, 1991; <sup>3</sup>Petrov, 2008; <sup>3</sup>Gorbunova and Stepantsova, 2015); **Khakassia** (<sup>3</sup>Gorbunova and Majnagasheva, 2013; <sup>3</sup>Zauzolkova and Gorbunova, 2013; <sup>3</sup>Zauzolkova, 2015); **Khanty-Mansi Autonomous Okrug** (<sup>3</sup>Filippova and Bulyonkova, 2017a; <sup>3</sup>Filippova and Bulyonkova, 2017b); **Krasnoyarsk Krai** (<sup>8</sup>Beglyanova, 1972a; <sup>8</sup>Nezdojminogo, 1994; <sup>8</sup>Nezdojminogo, 1997a; <sup>8</sup>Karatygin, Nezdojminogo, Novozhilov, and Zhurbenko, 1999; <sup>3</sup>Gorbunova, 2016); **Novosibirsk Oblast** (<sup>8</sup>Perova, 1977; <sup>8</sup>Perova and Gorbunova, 2001; <sup>3</sup>Gorbunova, 2006; <sup>3</sup>Gorbunova, 2007; <sup>3</sup>Perova and Gorbunova, 2007).

FAR EAST: **Chukotka Autonomous Okrug** (<sup>4</sup>Berkeley and Curtis, 1978; <sup>3</sup>Karatygin, Nezdojminogo, Novozhilov, and Zhurbenko, 1999); **Khabarovsk Krai** (<sup>3</sup>Azbukina et al., 1986; <sup>3</sup>Bau, Bulakh, and Govorova, 2011); **Magadan Oblast** (<sup>3</sup>Sazanova, 2009a; <sup>3</sup>Sazanova, 2012); **Primorsky Krai** (<sup>6</sup>Vassiljeva, 1973; <sup>3</sup>Bulakh et al., 2016).

***Deconica phillipsii* (Berk. & Broome) Noordel.**

≡ *Melanotus phillipsii* (Berk. & Broome) Singer<sup>1</sup>

EASTERN EUROPE: **Adygea** (<sup>1</sup>Kiyashko, 2009); **Leningrad Oblast** (<sup>1</sup>Morozova, 2007; <sup>1</sup>Popov et al., 2007); **Pskov Oblast** (<sup>1</sup>Popov et al., 2013).

FAR EAST: **Jewish Autonomous Oblast** (<sup>1</sup>Bau, Bulakh, and Govorova, 2011).

***Deconica phyllogena* (Sacc.) Noordel.<sup>1</sup>**

≡ *Psilocybe phyllogena* (Sacc.) Peck<sup>2</sup> = *Deconica rhombispora* (Britzelm.) Singer<sup>3</sup> = *Psilocybe rhombispora* (Britzelm.) Sacc.<sup>4</sup>

EASTERN EUROPE: **Adygea** (<sup>4</sup>Vaasma, Kalamees, and Raitviir, 1986); **Komi Republic** (<sup>2</sup>Palamarchuk, 2011b; <sup>2</sup>Palamarchuk, 2016a; <sup>2</sup>Palamarchuk, 2016b); **Krasnodar Krai** (<sup>3</sup>Vassiljeva, 1939); **Leningrad Oblast** (<sup>2</sup>Morozova, 2007; <sup>2</sup>Popov et al., 2007); **Orenburg Oblast** (<sup>2</sup>Desyatova, 2007; <sup>2</sup>Desyatova, 2008); **Penza Oblast** (<sup>4</sup>Ivanov, 1985); **Pskov Oblast** (<sup>1</sup>Kalinina, Bolshakov, and Bulyonkova, 2020); **Saint Petersburg** (<sup>2</sup>Kotkova, Morozova, and Popov, 2005); **Sverdlovsk Oblast** (<sup>2</sup>Marina, 2006); **Tula Oblast** (<sup>2</sup>Svetasheva, 2004); **Vologda Oblast** (<sup>2</sup>Kirillova, 2007).

SIBERIA: **Altai Krai** (<sup>2</sup>Gorbunova and Chubarova, 2008; <sup>2</sup>Gorbunova, Vlasenko, and Tzhubarova, 2011; <sup>1</sup>Gorbunova, 2018a); **Altai Republic** (<sup>2</sup>Gorbunova, 2010); **Buryatia** (<sup>4</sup>Nezdojminogo, 1973; <sup>4</sup>Petrov, 1991); **Khakassia** (<sup>2</sup>Zauzolkova and Gorbunova, 2013; <sup>2</sup>Zauzolkova, 2015); **Khanty-Mansi Autonomous Okrug** (<sup>4</sup>Filippova, Bulyonkova, and Lapshina, 2015; <sup>1</sup>Zvyagina and Baykalova, 2017; <sup>2</sup>Filippova and Bulyonkova, 2017a; <sup>2</sup>Filippova and Bulyonkova, 2017b); **Krasnoyarsk Krai** (<sup>4</sup>Nezdojminogo, 1982a; <sup>2</sup>Gorbunova, 2016); **Novosibirsk Oblast** (<sup>2</sup>Koropachinskiy and Banaev, 2014).

FAR EAST: **Khabarovsk Krai** (<sup>4</sup>Azbukina et al., 1989); **Primorsky Krai** (<sup>3</sup>Vassiljeva, 1973; <sup>4</sup>Azbukina et al., 2006; <sup>2</sup>Bau, Bulakh, and Govorova, 2011).

***Delicatula cuspidata* (Quél.) Cejp**

≡ *Omphalina cuspidata* (Quél.) Quél.<sup>1</sup>

EASTERN EUROPE: **Kaliningrad Oblast** (<sup>1</sup>Dedkov, Volodina, and Gubareva, 2007).

***Delicatula integrella* (Pers.) Fayod<sup>1</sup>**

≡ *Agaricus integrellus* Pers.<sup>2</sup> ≡ *Omphalia integrella* (Pers.) P. Kumm.<sup>3</sup>

EASTERN EUROPE: **Crimea** (<sup>1</sup>Sarkina, 2001; <sup>1</sup>Dudka et al., 2004; <sup>1</sup>Sarkina, 2010b; <sup>1</sup>Sarkina, 2013; <sup>1</sup>Sarkina and Mironova, 2015); **Kaliningrad Oblast** (<sup>1</sup>Dedkov, Volodina, and Gubareva, 2007; <sup>1</sup>Volodina, 2007); **Kaluga Oblast** (<sup>1</sup>Sionova, 2003); **Karelia** (<sup>1</sup>Bondartseva et al., 2001; <sup>1</sup>Krutov et al., 2014); **Krasnodar Krai** (<sup>1</sup>Kiyashko, 2009); **Kursk Oblast** (<sup>1</sup>Bedenko, 1987); **Leningrad Oblast** (<sup>3</sup>Thesleff, 1920; <sup>1</sup>Singer, 1943; <sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Morozova, 2007; <sup>1</sup>Popov et al., 2007; <sup>1</sup>Psurtseva, Kiyashko, Gachkova, and Belova, 2007; <sup>1</sup>Zmitrovich et al., 2015); **Lipetsk Oblast** (<sup>1</sup>Afanasyev, Rtishcheva, and Starodubtseva, 2007; <sup>1</sup>Sarycheva et al., 2009; <sup>1</sup>Sarycheva, 2011; <sup>1</sup>Sarycheva, 2014a; <sup>1</sup>Sarycheva, 2016); **Mordovia** (<sup>1</sup>Ivoilov and Bolshakov, 2011a); **Moscow** (<sup>2</sup>Bucholtz, 1897a); **Moscow Oblast** (<sup>1</sup>Gorlenko, Sidorova, and Sidorova, 1989; <sup>1</sup>Vishnevsky, 1998; <sup>1</sup>Voronina et al., 2012; <sup>1</sup>Voronina et al., 2014); **Novgorod Oblast** (<sup>1</sup>Kalinina, 2019); **Penza Oblast** (<sup>1</sup>Ivanov, 1981a; <sup>1</sup>Ivanov, 1981b); **Perm Krai** (<sup>1</sup>Perevedentseva, 2008); **Pskov Oblast** (<sup>1</sup>Popov et al., 2013); **Ryazan Oblast** (<sup>1</sup>Volosnova, 1997; <sup>1</sup>Volosnova, 2014); **Saint Petersburg** (<sup>2</sup>Weinmann, 1828; <sup>2</sup>Weinmann, 1836; <sup>2</sup>Weinmann, 1837; <sup>1</sup>Morozova and Smirnov, 2011; <sup>1</sup>Zhukova, Morozova, Volobuev, and Bryantseva, 2017; <sup>1</sup>Morozova et al., 2020); **Samara Oblast** (<sup>1</sup>Malysheva and Malysheva, 2006; <sup>1</sup>Psurtseva, Kiyashko, Gachkova, and Belova, 2007; <sup>1</sup>Malysheva and Malysheva, 2008); **Sevastopol** (<sup>1</sup>Sarkina, 2016b; <sup>1</sup>Sarkina, 2020b); **Sverdlovsk Oblast** (<sup>1</sup>Stepanova and Sirko, 1977); **Tula Oblast** (<sup>1</sup>Svetasheva, 2001; <sup>1</sup>Svetasheva, 2004; <sup>1</sup>Svetasheva, 2013); **Tver Oblast** (<sup>1</sup>Mukhina, 2011a; <sup>1</sup>Mukhina, 2011b; <sup>1</sup>Kotkova, 2014); **Udmurt Republic** (<sup>1</sup>Tychinin and Kuzmina, 2003); **Vologda Oblast** (<sup>1</sup>Kirillova, 2007; <sup>1</sup>Kirillova, 2009); **Voronezh Oblast** (<sup>1</sup>Bedenko, 1987; <sup>1</sup>Afanasyev, Rtishcheva, and Starodubtseva, 2007; <sup>1</sup>Sarycheva, Starodubtseva, and Sapelnikova, 2017).

SIBERIA: **Altai Krai** (<sup>1</sup>Gorbunova, 2018a); **Altai Republic** (<sup>1</sup>Gorbunova, 2010); **Khakassia** (<sup>1</sup>Zauzolkova, 2015); **Krasnoyarsk Krai** (<sup>1</sup>Zauzolkova, 2012; <sup>1</sup>Zauzolkova, 2015); **Novosibirsk Oblast** (<sup>1</sup>Perova, 1977; <sup>1</sup>Gorbunova, 2006; <sup>1</sup>Gorbunova, 2007; <sup>1</sup>Perova and Gorbunova, 2007; <sup>1</sup>Koropachinskiy and Banaev, 2014); **Tomsk Oblast** (<sup>1</sup>Kudashova, Gashkov, and Kutafjeva, 2013).

FAR EAST: **Amur Oblast** (<sup>1</sup>Gordienko, Petrova, and Tarasov, 1981; <sup>1</sup>Nazarova, 1986; <sup>1</sup>Azbukina et al., 1998); **Jewish Autonomous Oblast** (<sup>1</sup>Bulakh, Govorova, Nazarova, and Vassiljeva, 2007; <sup>1</sup>Bau, Bulakh, and Govorova, 2011); **Khabarovsk Krai** (<sup>1</sup>Azbukina et al., 1986; <sup>1</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Erofeeva and Bulakh, 2015a); **Primorsky Krai** (<sup>3</sup>Naoumoff, 1914; <sup>1</sup>Vassiljeva, 1973; <sup>1</sup>Bunkina and Nazarova, 1978; <sup>1</sup>Azbukina et al., 1984; <sup>1</sup>Azbukina et al., 2006; <sup>1</sup>Bau, Bulakh, and Govorova, 2011).

***Dendrocollybia racemosa* (Pers.) R.H. Petersen & Redhead<sup>1</sup>**

≡ *Collybia racemosa* (Pers.) Quél.<sup>2</sup>

EASTERN EUROPE: **Karelia** (<sup>2</sup>Bondartseva et al., 2001; <sup>1</sup>Krutov et al., 2014); **Komi Republic** (<sup>2</sup>Bobretsova, 2004; <sup>1</sup>Palamarchuk, 2012); **Leningrad Oblast** (<sup>1</sup>Zmitrovich et al., 2015); **Penza Oblast** (<sup>2</sup>Ivanov, 1983); **Perm Krai** (<sup>2</sup>Perevedentseva, 2008); **Pskov Oblast** (<sup>1</sup>Popov et al., 2013).

SIBERIA: **Khanty-Mansi Autonomous Okrug** (<sup>1</sup>Filippova and Bulyonkova, 2017a; <sup>1</sup>Filippova and Bulyonkova, 2017b).

***Dermoloma cuneifolium* (Fr.) Singer ex Bon<sup>1</sup>**

≡ *Dermoloma cuneifolium* var. *cuneifolium* (Fr.) Singer<sup>2</sup> = *Dermoloma atrocinerium* (Pers.) Herink<sup>3</sup> = *Dermoloma cuneifolium* var. *punctipes* Arnolds<sup>4</sup> = *Tricholoma atrocinerium* (Pers.) Quél.<sup>5</sup>

EASTERN EUROPE: **Crimea** (<sup>5</sup>Sarkina, 2001; <sup>5</sup>Dudka et al., 2004; <sup>5</sup>Sarkina, 2010b); **Kaliningrad Oblast** (<sup>1</sup>Volodina, 2007); **Karachay-Cherkess Republic** (<sup>2</sup>Malysheva and Svetasheva, 2011); **Leningrad Oblast** (<sup>2</sup>Morozova and Malysheva, 2006; <sup>1</sup>Popov et al., 2007); **Moscow Oblast** (<sup>1</sup>Vishnevsky, 1998); **Nizhny Novgorod Oblast** (<sup>2</sup>Morozova and Malysheva, 2006); **Penza Oblast** (<sup>3</sup>Ivanov, 1999; <sup>3</sup>Ivanov, 2013a); **Pskov Oblast** (<sup>1</sup>Popov et al., 2013); **Samara Oblast** (<sup>1</sup>Malysheva and Malysheva, 2006; <sup>2,4</sup>Morozova and Malysheva, 2006; <sup>2,4</sup>Malysheva and Malysheva, 2007; <sup>2,4</sup>Malysheva and Malysheva, 2008).

SIBERIA: **Altai Krai** (<sup>1</sup>Gorbunova and Perova, 2006); **Tomsk Oblast** (<sup>3</sup>Agaphonova, Kutafjeva, and Gashkov, 2009b; <sup>1</sup>Kudashova, Gashkov, and Kutafjeva, 2013).

FAR EAST: **Amur Oblast** (<sup>1</sup>Taranina, 2005); **Khabarovsk Krai** (<sup>1</sup>Azbukina et al., 1986).

***Dermoloma josserandii* Dennis & P.D. Orton<sup>1</sup>**

= *Dermoloma josserandii* var. *phaeopodium* (P.D. Orton) Arnolds<sup>2</sup> = *Dermoloma phaeopodium* P.D. Orton<sup>3</sup>

EASTERN EUROPE: **Kaliningrad Oblast** (<sup>3</sup>Dedkov, Volodina, and Gubareva, 2007); **Pskov Oblast** (<sup>2</sup>Popov et al., 2013; <sup>2</sup>Morozova et al., 2015); **Samara Oblast** (<sup>2</sup>Morozova and Malysheva, 2006; <sup>2</sup>Malysheva and Malysheva, 2007; <sup>2</sup>Malysheva and Malysheva, 2008).

SIBERIA: **Irkutsk Oblast** (<sup>1</sup>Petrov, 1991; <sup>1</sup>Petrov, 2008).

FAR EAST: **Primorsky Krai** (<sup>1</sup>Vassiljeva, 1972; <sup>1</sup>Vassiljeva, 1973).

***Dermoloma pseudocuneifolium* Herink ex Bon**

EASTERN EUROPE: **Karachay-Cherkess Republic** (Malysheva and Svetasheva, 2011); **Novgorod Oblast** (Morozova, Popov, and Fedosova, 2014); **Pskov Oblast** (Popov et al., 2013); **Samara Oblast** (Morozova and Malysheva, 2006; Malysheva and Malysheva, 2007; Malysheva and Malysheva, 2008).

***Desarmillaria ectypa* (Fr.) R.A. Koch & Aime**

≡ *Armillaria ectypa* (Fr.) Lamoure<sup>1</sup> ≡ *Armillariella ectypa* (Fr.) Singer<sup>2</sup> ≡ *Camarophyllus ectypus* (Fr.) P. Karst.<sup>3</sup>

EASTERN EUROPE: **Leningrad Oblast** (<sup>3</sup>Thesleff, 1920); **Moscow Oblast** (<sup>1</sup>Vishnevsky, 1998; <sup>1</sup>Levitskaya, 2013); **Saint Petersburg** (<sup>1</sup>Morozova and Smirnov, 2011; <sup>1</sup>Geltman, 2018a); **Tula Oblast** (<sup>1</sup>Svetasheva, 2004; <sup>1</sup>Svetasheva, 2005b; <sup>1</sup>Shcherbakov, 2010; <sup>1</sup>Svetasheva, 2018).

SIBERIA: **Khanty-Mansi Autonomous Okrug** (<sup>1</sup>Vasin and Vasina, 2013); **Tomsk Oblast** (<sup>2</sup>Perova and Gorbunova, 2001; <sup>1</sup>Kudashova, Gashkov, and Kutafjeva, 2013; <sup>1</sup>Kudashova, Gashkov, and Vaishlya, 2016b).

***Desarmillaria tabescens* (Scop.) R.A. Koch & Aime<sup>1</sup>**

≡ *Armillaria tabescens* (Scop.) Emel<sup>2</sup> ≡ *Armillariella tabescens* (Scop.) Singer<sup>3</sup>

EASTERN EUROPE: **Belgorod Oblast** (<sup>3</sup>Bedenko, 1980); **Chechen Republic** (<sup>2</sup>Taysumov, Krapivina, and Kushaliev, 2016); **Chuvash Republic** (<sup>1</sup>Gafurova, Ignatov, Tolpysheva, and Svetasheva, 2020); **Crimea** (<sup>2</sup>Isikov, 2003; <sup>2</sup>Sarkina and Prydiuk, 2012); **Kabardino-Balkarian Republic** (<sup>2</sup>Shkhagapsoev and Krapivina, 2004); **Karachay-Cherkess Republic** (<sup>2</sup>Kalamees and Botashev, 2000); **Krasnodar Krai** (<sup>2</sup>Kovalenko, 1980a; <sup>3</sup>Kovalenko, 1980b); **Moscow Oblast** (<sup>2</sup>Vishnevsky, 1998); **Sevastopol** (<sup>1</sup>Sarkina, 2020c); **Ulyanovsk Oblast** (<sup>2</sup>Ilyukhin, 2009).

***Descolea flavoannulata* (Lj.N. Vassiljeva) E. Horak<sup>1</sup>**

≡ *Rozites flavoannulatus* Lj.N. Vassiljeva<sup>2</sup>

FAR EAST: **Jewish Autonomous Oblast** (<sup>1</sup>Bulakh, Govorova, Nazarova, and Vassiljeva, 2007; <sup>1</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Bogacheva et al., 2018; <sup>1</sup>Erofeeva, Bukharova, and Bulakh, 2019); **Khabarovsk Krai** (<sup>1</sup>Azbukina et al., 1986; <sup>1</sup>Azbukina et al., 1989; <sup>1</sup>Bau, Bulakh, Zhuang, and Li, 2007; <sup>1</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Erofeeva and Bulakh, 2015a; <sup>1</sup>Bogacheva et al., 2018); **Primorsky Krai** (<sup>2</sup>Vassiljeva, 1950; <sup>2</sup>Vassiljeva, 1972; <sup>2</sup>Vassiljeva, 1973; <sup>2</sup>Bunkina and Nazarova, 1978; <sup>1</sup>Azbukina et al., 1990; <sup>1</sup>Bardunov et al., 2002; <sup>1</sup>Azbukina et al., 2006; <sup>1</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Bulakh et al., 2016; <sup>1</sup>Bogacheva et al., 2018; <sup>1</sup>Bogacheva, Bulakh, Bukharova, and Egorova, 2020).

***Descolea recedens* (Sacc.) Singer**

≡ *Pholiotina filaris* var. *recedens* (Sacc.) Singer<sup>1</sup>

EASTERN EUROPE: **Saint Petersburg** (<sup>1</sup>Singer, 1950a).

***Echinoderma asperum* (Pers.) Bon<sup>1</sup>**

≡ *Agaricus asper* Pers.<sup>2</sup> ≡ *Amanita aspera* (Pers.) Pers.<sup>3</sup> ≡ *Lepiota aspera* (Pers.) Quélet.<sup>4</sup> = *Agaricus acutesquamosus* Weinm.<sup>5</sup> = *Lepiota acutesquamosa* (Weinm.) P. Kumm.<sup>6</sup> = *Lepiota friesii* (Lasch) Quélet.<sup>7</sup>

*Amanita aspera sensu* Quélet (1886) et *auct. mult.* misapplied to *Amanita franchetii* (Boud.) Fayod (Neville, Poumarat, 2004). The locations of records do not allow to ascribe them to any of the species mentioned unambiguously.

EASTERN EUROPE: **Adygea** (<sup>6</sup>Vaasma, Kalamees, and Raitviir, 1986); **Arkhangelsk Oblast** (<sup>3</sup>Lebedeva, 1933); **Belgorod Oblast** (<sup>7</sup>Bedenko, 1979a); **Chechen Republic** (<sup>4</sup>Taysumov, Krapivina, Umarov, and Astamirova, 2012); **Crimea** (<sup>6</sup>Zerova, 1962; <sup>6</sup>Wasser, 1980; <sup>7</sup>Sarkina, 2001; <sup>4</sup>Dudka et al., 2004; <sup>4</sup>Sarkina, 2011); **Kabardino-Balkarian Republic** (<sup>6</sup>Shkhagapsoev and Krapivina, 2003; <sup>3,4,6</sup>Shkhagapsoev and Krapivina, 2004); **Kaliningrad Oblast** (<sup>6</sup>Dedkov, Volodina, and Gubareva, 2007; <sup>1</sup>Volodina, 2007; <sup>1</sup>Atayev and Volodina, 2020); **Kaluga Oblast** (<sup>6</sup>Sionova, 2012); **Karelia** (<sup>3</sup>Lebedeva, 1933; <sup>6</sup>Wasser, 1980; <sup>1</sup>Savelev and Kikeeva, 2018); **Krasnodar Krai** (<sup>6</sup>Vassiljeva, 1939; <sup>4</sup>Kovalenko, 1980a; <sup>4</sup>Kovalenko, 1980b); **Leningrad Oblast** (<sup>5</sup>Weinmann, 1824; <sup>5</sup>Weinmann, 1836; <sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Morozova and Kovalenko, 2000; <sup>4</sup>Popov et al., 2007); **Lipetsk Oblast** (<sup>6</sup>Sarycheva, 1999; <sup>4</sup>Sarycheva et al., 2009; <sup>4</sup>Sarycheva, 2011; <sup>6</sup>Sarycheva, 2014a; <sup>4</sup>Sarycheva, 2016); **Moscow Oblast** (<sup>6</sup>Wasser, 1980; <sup>4</sup>Levitskaya, 1995c; <sup>4</sup>Levitskaya, 2013; <sup>1</sup>Malysheva, Malysheva, Voronina, et al., 2017; <sup>1</sup>Malysheva, Malysheva, Voronina, and Kovalenko, 2018); **North Ossetia** (<sup>4</sup>Nikolayev, 2001); **Novgorod Oblast** (<sup>1</sup>Morozova, Popov, and Fedosova, 2014); **Orenburg Oblast** (<sup>4</sup>Korshikova, 2005; <sup>4</sup>Desyatova, 2007; <sup>4</sup>Desyatova, 2008); **Penza Oblast** (<sup>3</sup>Ivanov, 1982; <sup>6</sup>Ivanov,

1982); **Perm Krai** (<sup>4</sup>Perevedentseva, 2008); **Pskov Oblast** (<sup>4</sup>Popov et al., 2013); **Rostov Oblast** (<sup>4</sup>Rusanov et al., 2004; <sup>4</sup>Morozova et al., 2008; <sup>4</sup>Zmitrovich et al., 2008; <sup>1</sup>Rusanov, Rebriev, and Bulgakov, 2018); **Ryazan Oblast** (<sup>4</sup>Volosnova, 2014); **Saint Petersburg** (<sup>5</sup>Weinmann, 1824; <sup>2,5</sup>Weinmann, 1828; <sup>2,5</sup>Weinmann, 1836; <sup>2,5</sup>Weinmann, 1837; <sup>1</sup>Kovalenko and Morozova, 1999a; <sup>4</sup>Morozova, Kovalenko, Rebriev, and Malysheva, 2014); **Samara Oblast** (<sup>1</sup>Malysheva and Malysheva, 2005b; <sup>4</sup>Malysheva and Malysheva, 2008); **Sevastopol** (<sup>1</sup>Sarkina, 2020c); **Smolensk Oblast** (<sup>3</sup>Jaczevski, 1898); **Tambov Oblast** (<sup>6</sup>Elenevskiy, 2002; <sup>1</sup>Konakov et al., 2019); **Tatarstan** (<sup>6</sup>Vassiljeva, 1977); **Tver Oblast** (<sup>4</sup>Chastukhin and Nikolaevskaya, 1969; <sup>6</sup>Kurochkin, 1993; <sup>4</sup>Mukhina and Garibova, 2010; <sup>4</sup>Mukhina, 2011a; <sup>4</sup>Mukhina, 2011b; <sup>1</sup>Kotkova, 2014; <sup>4</sup>Kurochkin and Medvedev, 2015); **Udmurt Republic** (<sup>6</sup>Tychinin, 1990; <sup>6</sup>Tychinin and Kuzmina, 2003); **Ulyanovsk Oblast** (<sup>4</sup>Ilyukhin, 2010a; <sup>4</sup>Ilyukhin, 2010b); **Vologda Oblast** (<sup>1</sup>Bolshakov et al., 2018); **Voronezh Oblast** (<sup>6</sup>Agafonov, 2011; <sup>1</sup>Sarycheva, Starodubtseva, and Sapelnikova, 2017; <sup>4</sup>Agafonov, 2018); **Yaroslavl Oblast** (<sup>4</sup>Lazareva, 1998a; <sup>4</sup>Lazareva, 1998b); **Arid territories** (<sup>4</sup>Rebriev, Rusanov, et al., 2012).

SIBERIA: **Buryatia** (<sup>7</sup>Nezdojminogo, 1970a; <sup>7</sup>Petrov, 1991); **Irkutsk Oblast** (<sup>4</sup>Petrov, 1991); **Krasnoyarsk Krai** (<sup>6</sup>Beglyanova, 1972a; <sup>7</sup>Beglyanova, 1972b; <sup>6</sup>Wasser, 1980; <sup>1</sup>Zauzolkova, 2015; <sup>1</sup>Zauzolkova and Gorbunova, 2016; <sup>1</sup>Malysheva, Malysheva, Kiyashko, et al., 2017; <sup>1</sup>Krom and Kapitonov, 2019); **Novosibirsk Oblast** (<sup>4</sup>Perova and Gorbunova, 2007); **Sverdlovsk Oblast** (<sup>3</sup>Stepanova and Sirko, 1977); **Tomsk Oblast** (<sup>3,6</sup>Perova and Gorbunova, 2001; <sup>1</sup>Kudashova, Gashkov, and Kutafjeva, 2013; <sup>1</sup>Kudashova, Gashkov, and Vaishlya, 2016b).

FAR EAST: **Amur Oblast** (<sup>6</sup>Azbukina et al., 1998); **Jewish Autonomous Oblast** (<sup>6</sup>Bulakh, Govorova, Nazarova, and Vassiljeva, 2007; <sup>4</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Bogacheva et al., 2018); **Khabarovsk Krai** (<sup>6</sup>Azbukina et al., 1986; <sup>6</sup>Bau, Bulakh, Zhuang, and Li, 2007; <sup>4</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Bogacheva et al., 2018); **Primorsky Krai** (<sup>6</sup>Vassiljeva, 1973; <sup>6</sup>Bunkina and Nazarova, 1978; <sup>6</sup>Wasser, 1980; <sup>6</sup>Azbukina et al., 1984; <sup>6</sup>Kovalenko and Nezdojminogo, 1989; <sup>6</sup>Azbukina et al., 1990; <sup>6</sup>Bardunov et al., 2002; <sup>6</sup>Azbukina et al., 2006; <sup>4</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Bogacheva et al., 2018; <sup>1</sup>Bogacheva, Bulakh, Bukharova, and Egorova, 2020).

#### ***Echinoderma echinaceum* (J.E. Lange) Bon<sup>1</sup>**

≡ *Lepiota echinacea* J.E. Lange<sup>2</sup>

EASTERN EUROPE: **Adygea** (<sup>2</sup>Kovalenko, 1980b); **Crimea** (<sup>2</sup>Dudka et al., 2004; <sup>2</sup>Sarkina, 2011); **Komi Republic** (<sup>2</sup>Palamarchuk and Kirillov, 2017; <sup>1</sup>Dyogteva, 2019; <sup>1</sup>Palamarchuk et al., 2019); **Krasnodar Krai** (<sup>2</sup>Kovalenko, 1980a; <sup>2</sup>Kovalenko, 1980b); **Samara Oblast** (<sup>2</sup>Malysheva and Malysheva, 2004; <sup>2</sup>Malysheva and Malysheva, 2008); **Ulyanovsk Oblast** (<sup>2</sup>Ilyukhin, 2010a).

SIBERIA: **Tomsk Oblast** (<sup>1</sup>Kudashova, Gashkov, and Vaishlya, 2016a).

FAR EAST: **Primorsky Krai** (<sup>2</sup>Vassiljeva, 1972; <sup>2</sup>Vassiljeva, 1973; <sup>2</sup>Bunkina and Nazarova, 1978; <sup>2</sup>Wasser, 1980; <sup>2</sup>Azbukina et al., 1984; <sup>2</sup>Azbukina et al., 2006; <sup>2</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Bulakh et al., 2016).

#### ***Echinoderma hystrix* (F.H. Møller & J.E. Lange) Bon<sup>1</sup>**

≡ *Lepiota hystrix* F.H. Møller & J.E. Lange<sup>2</sup>

EASTERN EUROPE: **Moscow Oblast** (<sup>2</sup>Levitskaya, 2013); **Rostov Oblast** (<sup>2</sup>Rusanov, Rebriev, and Bulgakov, 2018); **Arid territories** (<sup>2</sup>Rebriev, Rusanov, et al., 2012).

SIBERIA: **Irkutsk Oblast** (<sup>2</sup>Kutafjeva, 1989).

FAR EAST: **Jewish Autonomous Oblast** (<sup>2</sup>Bulakh, Govorova, Nazarova, and Vassiljeva, 2007; <sup>2</sup>Bau, Bulakh, and Govorova, 2011); **Khabarovsk Krai** (<sup>2</sup>Azbukina et al., 1986; <sup>2</sup>Azbukina et al., 1989; <sup>2</sup>Bau, Bulakh, and Govorova, 2011); **Primorsky Krai** (<sup>2</sup>Vassiljeva, 1973; <sup>2</sup>Bunkina and Nazarova, 1978; <sup>2</sup>Wasser, 1980; <sup>2</sup>Azbukina et al., 1984; <sup>2</sup>Azbukina et al., 2006; <sup>2</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Bulakh et al., 2016).

#### ***Echinoderma jacobi* (Vellinga & Knudsen) Gminder<sup>1</sup>**

≡ *Lepiota jacobi* Vellinga & Knudsen<sup>2</sup>

SIBERIA: **Altai Krai** (<sup>1</sup>Gorbunova, 2018b).

FAR EAST: **Primorsky Krai** (<sup>2</sup>Bulakh et al., 2016).

#### ***Echinoderma perplexum* (Knudsen) Bon**

≡ *Lepiota perplexa* Knudsen<sup>1</sup>

EASTERN EUROPE: **Crimea** (<sup>1</sup>Dudka et al., 2004; <sup>1</sup>Sarkina, 2011; <sup>1</sup>Sarkina and Prydiuk, 2012); **Ryazan Oblast** (<sup>1</sup>Volosnova, 2005).

***Echinoderma pseudoasperulum* (Knudsen) Bon<sup>1</sup>**≡ *Lepiota pseudoasperula* (Knudsen) Knudsen<sup>2</sup>EASTERN EUROPE: **Crimea** (<sup>2</sup>Dudka et al., 2004; <sup>2</sup>Sarkina, 2011); **Orenburg Oblast** (<sup>2</sup>Desyatova, 2008); **Samara Oblast** (<sup>2</sup>Malysheva and Malysheva, 2004; <sup>2</sup>Malysheva, 2005; <sup>2</sup>Malysheva and Malysheva, 2008).FAR EAST: **Primorsky Krai** (<sup>1</sup>Bulakh et al., 2016).***Entocybe nitida* (Quél.) T.J. Baroni, Largent & V. Hofst.**≡ *Entoloma nitidum* Quél.<sup>1</sup> ≡ *Rhodophyllus nitidus* (Quél.) Quél.<sup>2</sup>EASTERN EUROPE: **Kabardino-Balkarian Republic** (<sup>2</sup>Shkhagapsoev and Krapivina, 2004); **Kaliningrad Oblast** (<sup>1</sup>Dedkov, Volodina, and Gubareva, 2007; <sup>1</sup>Volodina, 2007); **Kaluga Oblast** (<sup>1</sup>Sionova, 2009; <sup>1</sup>Sionova, 2012; <sup>1</sup>Antokhina et al., 2015); **Karelia** (<sup>1</sup>Krutov et al., 2014); **Leningrad Oblast** (<sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Morozova, 1999; <sup>1</sup>Tzvelev, 2000; <sup>1</sup>Popov et al., 2007; <sup>1</sup>Zmitrovich et al., 2015; <sup>1</sup>Geltman et al., 2018; <sup>1</sup>Geltman, 2018b); **Novgorod Oblast** (<sup>1</sup>Kovalenko, Morozova, Nezdoininogo, and Popov, 2005; <sup>1</sup>Morozova, 2012; <sup>1</sup>Popov et al., 2013; <sup>1</sup>Arslanov, 2014; <sup>1</sup>Vetkin et al., 2015); **Ryazan Oblast** (<sup>1</sup>Volosnova, 2005; <sup>1</sup>Volosnova, 2014); **Saint Petersburg** (<sup>1</sup>Morozova and Smirnov, 2011; <sup>1</sup>Geltman, 2018a); **Tatarstan** (<sup>1</sup>Nazirov, Gorshkov, Ivanov, and Rogova, 2016; <sup>1</sup>Potapov, 2016b).FAR EAST: **Primorsky Krai** (<sup>2</sup>Vassiljeva, 1973; <sup>1</sup>Kozhevnikov, 2008).***Entocybe turbida* (Fr.) T.J. Baroni, V. Hofst. & Largent<sup>1</sup>**≡ *Entoloma turbidum* (Fr.) Quél.<sup>2</sup> ≡ *Entoloma turbidum* var. *turbidum* (Fr.) Quél.<sup>3</sup> ≡ *Rhodophyllus turbidus* (Fr.) Quél.<sup>4</sup> = *Rhodophyllus cordae* (P. Karst.) J.E. Lange<sup>5</sup>EASTERN EUROPE: **Kaliningrad Oblast** (<sup>2</sup>Dedkov, Volodina, and Gubareva, 2007; <sup>3</sup>Volodina, 2007); **Komi Republic** (<sup>1</sup>Palamarchuk, 2020b); **Leningrad Oblast** (<sup>2</sup>Morozova, 2007; <sup>2</sup>Popov et al., 2007; <sup>2</sup>Zmitrovich et al., 2015); **Moscow Oblast** (<sup>2</sup>Levitskaya, 1998; <sup>2</sup>Levitskaya, 2013); **Novgorod Oblast** (<sup>3</sup>Malysheva, Malysheva, and Zmitrovich, 2007); **Perm Krai** (<sup>2</sup>Perevedentseva, 2008; <sup>2</sup>Botalov, 2017; <sup>2</sup>Botalov and Perevedentseva, 2020); **Saint Petersburg** (<sup>2</sup>Morozova et al., 2020); **Tatarstan** (<sup>4</sup>Vassiljeva, 1977); **Tula Oblast** (<sup>2</sup>Svetasheva, 2004; <sup>2</sup>Svetasheva, 2005b); **Tver Oblast** (<sup>2</sup>Morozova, Aleksandrova, Popov, and Malysheva, 2016); **Vologda Oblast** (<sup>2</sup>Kirillova, 2006; <sup>2</sup>Kirillova, 2007); **Yamalo-Nenets Autonomous Okrug** (<sup>4</sup>Stepanova and Sirko, 1977).SIBERIA: **Irkutsk Oblast** (<sup>2</sup>Astapenko and Kutafjeva, 1990; <sup>2</sup>Astapenko, 1990a); **Krasnoyarsk Krai** (<sup>5</sup>Beglyanova, 1972a; <sup>4</sup>Beglyanova, 1972b); **Tomsk Oblast** (<sup>2</sup>Perova and Gorbunova, 2001; <sup>2</sup>Kudashova, Gashkov, and Kutafjeva, 2013).FAR EAST: **Magadan Oblast** (<sup>2</sup>Sazanova, 2009a; <sup>2</sup>Sazanova, 2009b; <sup>2</sup>Sazanova, 2011).***Entocybe vinacea* (Scop.) T.J. Baroni, V. Hofst. & Largent**≡ *Entoloma vinaceum* (Scop.) Arnolds & Noordel.<sup>1</sup>EASTERN EUROPE: **Moscow Oblast** (<sup>1</sup>Levitskaya, 1995c; <sup>1</sup>Levitskaya, 2013); **Sverdlovsk Oblast** (<sup>1</sup>Marina, 2006).***Entoloma abortivum* (Berk. & M.A. Curtis) Donk<sup>1</sup>**≡ *Rhodophyllus abortivus* (Berk. & M.A. Curtis) Singer<sup>2</sup>EASTERN EUROPE: **Chechen Republic** (<sup>2</sup>Taysumov, Krapivina, and Kushalieva, 2016); **Kabardino-Balkarian Republic** (<sup>2</sup>Shkhagapsoev and Krapivina, 2004).SIBERIA: **Khakassia** (<sup>1</sup>Ankipovich, 2012; <sup>1</sup>Zauzolkova and Gorbunova, 2013; <sup>1</sup>Zauzolkova, 2015); **Krasnoyarsk Krai** (<sup>1</sup>Zauzolkova, 2012; <sup>1</sup>Kryuchkova, 2014b; <sup>1</sup>Zauzolkova, 2015; <sup>1</sup>Krom and Kapitonov, 2019); **Tomsk Oblast** (<sup>2</sup>Perova, 1968; <sup>1</sup>Perova and Gorbunova, 2001; <sup>1</sup>Kudashova, Gashkov, and Kutafjeva, 2013).FAR EAST: **Jewish Autonomous Oblast** (<sup>1</sup>Bulakh, Govorova, Nazarova, and Vassiljeva, 2007; <sup>1</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Erofeeva, Bukharova, and Bulakh, 2019); **Khabarovsk Krai** (<sup>2</sup>Azbukina et al., 1986; <sup>1</sup>Bau, Bulakh, and Govorova, 2011); **Primorsky Krai** (<sup>2</sup>Vassiljeva, 1972; <sup>2</sup>Vassiljeva, 1973; <sup>1</sup>Bulakh, 1977; <sup>2</sup>Bunkina and Nazarova, 1978; <sup>2</sup>Azbukina et al., 1984; <sup>2</sup>Azbukina et al., 1990; <sup>1</sup>Bardunov et al., 2002; <sup>1</sup>Psurtseva, Kiyashko, Gachkova, and Belova, 2007; <sup>1</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Bulakh et al., 2016); **Sakhalin Oblast** (<sup>2</sup>Vassiljeva and Nazarova, 1972); **Far East** (<sup>1</sup>Morozova, Noordeloos, Popov, and Alexandrova, 2018).***Entoloma aethiops* (Scop.) G. Stev.<sup>1</sup>**≡ *Leptonia aethiops* (Scop.) Gillet<sup>2</sup>EASTERN EUROPE: **Leningrad Oblast** (<sup>2</sup>Thesleff, 1920; <sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Popov et al., 2007).

***Entoloma albotomentosum* Noordel. & Hauskn.**

EASTERN EUROPE: **Leningrad Oblast** (Popov et al., 2007); **Novgorod Oblast** (Malysheva, Malysheva, and Zmitrovich, 2006; Malysheva, Malysheva, and Zmitrovich, 2007).

***Entoloma allochromum* Noordel.**

EASTERN EUROPE: **Karachay-Cherkess Republic** (Morozova, Noordeloos, and Vila, 2014); **Krasnodar Krai** (Morozova, Noordeloos, and Vila, 2014).

***Entoloma allospermum* Noordel.**

SIBERIA: **Khanty-Mansi Autonomous Okrug** (Filippova and Bulyonkova, 2017a; Filippova and Bulyonkova, 2017b).

***Entoloma alnetorum* Monthoux & Röllin<sup>1</sup>**

≡ *Entoloma tjallingiorum* var. *alnetorum* (Monthoux & Röllin) O.V. Morozova, Noordel. & Vila<sup>2</sup>

EASTERN EUROPE: **Leningrad Oblast** (<sup>2</sup>Morozova, Noordeloos, and Vila, 2014); **Samara Oblast** (<sup>1</sup>Malysheva and Malysheva, 2008; <sup>2</sup>Morozova, Noordeloos, and Vila, 2014).

SIBERIA: **Khanty-Mansi Autonomous Okrug** (<sup>2</sup>Morozova, Noordeloos, and Vila, 2014; <sup>2</sup>Zvyagina and Baykalova, 2017).

***Entoloma alpicola* (J. Favre) Bon & Jamoni**

EASTERN EUROPE: **Komi Republic** (Palamarchuk, 2016a; Palamarchuk, 2016b).

SIBERIA: **Altai Republic** (Gorbunova, 2019); **Krasnoyarsk Krai** (Karatygin, Nezdojminogo, Novozhilov, and Zhurbenko, 1999; Gorbunova, 2016).

FAR EAST: **Chukotka Autonomous Okrug** (Karatygin, Nezdojminogo, Novozhilov, and Zhurbenko, 1999).

***Entoloma ameides* (Berk. & Broome) Sacc.**

EASTERN EUROPE: **Perm Krai** (Perevedentseva, 2008; Belkovskaya et al., 2014); **Pskov Oblast** (Morozova et al., 2015).

***Entoloma anatinum* (Lasch) Donk**

EASTERN EUROPE: **Sverdlovsk Oblast** (Marina, 2006).

***Entoloma angustispermum* Noordel. & O.V. Morozova**

FAR EAST: **Primorsky Krai** (Noordeloos and Morozova, 2010).

***Entoloma anthracinum* (J. Favre) Noordel.**

EASTERN EUROPE: **Murmansk Oblast** (Nezdojminogo, 1997b; Karatygin, Nezdojminogo, Novozhilov, and Zhurbenko, 1999).

***Entoloma apiculatum* (Fr.) Noordel.<sup>1</sup>**

≡ *Rhodophyllus apiculatus* (Fr.) Kühner & Romagn.<sup>2</sup>

EASTERN EUROPE: **Penza Oblast** (<sup>1</sup>Ivanov, 1999).

FAR EAST: **Primorsky Krai** (<sup>2</sup>Vassiljeva, 1973; <sup>2</sup>Bunkina and Nazarova, 1978; <sup>1</sup>Azbukina et al., 2006; <sup>1</sup>Bau, Bulakh, and Govorova, 2011).

***Entoloma aprile* (Britzelm.) Sacc.<sup>1</sup>**

≡ *Rhodophyllus aprilis* (Britzelm.) Romagn.<sup>2</sup>

EASTERN EUROPE: **Leningrad Oblast** (<sup>1</sup>Popov et al., 2007); **Penza Oblast** (<sup>2</sup>Ivanov, 1985; <sup>1</sup>Ivanov, 1999); **Pskov Oblast** (<sup>1</sup>Popov et al., 2013); **Ryazan Oblast** (<sup>1</sup>Volosnova, 1997); **Saint Petersburg** (<sup>1</sup>Morozova, Kovalenko, Rebriev, and Malysheva, 2014); **Arid territories** (<sup>1</sup>Rebriev, Rusanov, et al., 2012).

SIBERIA: **Tomsk Oblast** (<sup>1</sup>Kudashova, Gashkov, and Kutafjeva, 2013).

FAR EAST: **Primorsky Krai** (<sup>2</sup>Vassiljeva, 1973; <sup>1</sup>Bardunov et al., 2002).

***Entoloma aranense* F. Caball. & Vila**

FAR EAST: **Primorsky Krai** (Bulakh et al., 2016).



***Entoloma araneosum* (Quél.) M.M. Moser<sup>1</sup>**= *Entoloma fulvostrigosum* (Berk. & Broome) M.M. Moser<sup>2</sup>

EASTERN EUROPE: **Crimea** (<sup>1</sup>Dudka et al., 2004; <sup>1</sup>Sarkina, 2011); **Leningrad Oblast** (<sup>1</sup>Popov et al., 2007); **Moscow Oblast** (<sup>1</sup>Levitskaya, 1995b; <sup>1</sup>Levitskaya, 2013); **Novgorod Oblast** (<sup>1</sup>Morozova, 2012; <sup>1</sup>Popov et al., 2013); **Penza Oblast** (<sup>2</sup>Ivanov, 1999); **Rostov Oblast** (<sup>1</sup>Rusanov, Rebriev, and Bulgakov, 2018); **Saint Petersburg** (<sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Kotkova, Morozova, and Popov, 2006; <sup>1</sup>Morozova and Popov, 2008; <sup>1</sup>Morozova, Kovalenko, Rebriev, and Malysheva, 2014; <sup>1</sup>Zhukova, Morozova, Volobuev, and Bryantseva, 2017; <sup>1</sup>Morozova et al., 2020); **Samara Oblast** (<sup>1</sup>Malysheva and Malysheva, 2004; <sup>1</sup>Malysheva and Malysheva, 2007; <sup>1</sup>Malysheva and Malysheva, 2008); **Tatarstan** (<sup>1</sup>Potapov, 2016b); **Tula Oblast** (<sup>1</sup>Svetasheva et al., 2017); **Ulyanovsk Oblast** (<sup>1</sup>Ilyukhin, 2009; <sup>1</sup>Ilyukhin, 2010a); **Yaroslavl Oblast** (<sup>1</sup>Lazareva, 1998a; <sup>1</sup>Lazareva, 1998b).

FAR EAST: **Khabarovsk Krai** (<sup>2</sup>Azbukina et al., 1986; <sup>1</sup>Bau, Bulakh, and Govorova, 2011); **Primorsky Krai** (<sup>1</sup>Kovalenko and Nezdojminogo, 1989; <sup>2</sup>Kovalenko and Nezdojminogo, 1989; <sup>1</sup>Bulakh et al., 2016).

***Entoloma asprellum* (Fr.) Fayod<sup>1</sup>**≡ *Leptonia asprella* (Fr.) P. Kumm.<sup>2</sup> ≡ *Rhodophyllus asprellus* (Fr.) Quél.<sup>3</sup>

EASTERN EUROPE: **Karelia** (<sup>1</sup>Krutov et al., 2014); **Komi Republic** (<sup>1</sup>Palamarchuk, 2016a; <sup>1</sup>Palamarchuk, 2016b); **Leningrad Oblast** (<sup>2</sup>Thesleff, 1920; <sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Popov et al., 2007); **Murmansk Oblast** (<sup>2</sup>Pystina, Pavlova, and Shestakova, 1969); **Sverdlovsk Oblast** (<sup>3</sup>Stepanova and Sirko, 1977); **Tula Oblast** (<sup>1</sup>Shcherbakov, 2010); **Tver Oblast** (<sup>1</sup>Morozova, Aleksandrova, Popov, and Malysheva, 2016).

SIBERIA: **Sverdlovsk Oblast** (<sup>3</sup>Stepanova and Sirko, 1977).

***Entoloma atrocoeruleum* Noordel.**

EASTERN EUROPE: **Leningrad Oblast** (Popov et al., 2007); **Moscow Oblast** (Levitskaya, 1998; Levitskaya, 2013; Varlygina, Zubakin, Nikitsky, and Sviridov, 2018); **Pskov Oblast** (Popov et al., 2013).

***Entoloma atromarginatum* (Romagn. & J. Favre) Zschiesch.**

EASTERN EUROPE: **Novgorod Oblast** (Morozova, Popov, and Fedosova, 2014).

***Entoloma atrosericeum* (Kühner) Noordel.**

SIBERIA: **Krasnoyarsk Krai** (Nezdojminogo and Kuvaev, 1993; Nezdojminogo and Zhurbenko, 1996; Nezdojminogo, 1997a; Karatygin, Nezdojminogo, Novozhilov, and Zhurbenko, 1999); **Sakha Republic** (Karatygin, Nezdojminogo, Novozhilov, and Zhurbenko, 1999).

***Entoloma atrum* (Hongo) Hongo**≡ *Entoloma ater* (Hongo) Hongo & Izawa<sup>1</sup>

FAR EAST: **Khabarovsk Krai** (<sup>1</sup>Bau, Bulakh, and Govorova, 2011).

***Entoloma babingtonii* (A. Bloxam) Hesler**

FAR EAST: **Sakhalin Oblast** (Bulakh, Govorova, and Bogatov, 1999).

***Entoloma bipellis* Noordel. & T. Borgen**

EASTERN EUROPE: **Komi Republic** (Palamarchuk, 2011b; Palamarchuk, 2016a; Palamarchuk, 2016b).

SIBERIA: **Krasnoyarsk Krai** (Karatygin, Nezdojminogo, Novozhilov, and Zhurbenko, 1999); **Sakha Republic** (Karatygin, Nezdojminogo, Novozhilov, and Zhurbenko, 1999; Nezdojminogo, 2003).

***Entoloma bloxamii* (Berk. & Broome) Sacc.**

EASTERN EUROPE: **Leningrad Oblast** (Kovalenko and Morozova, 1999a; Popov et al., 2007); **Novgorod Oblast** (Morozova, Popov, and Fedosova, 2014; Vetkin et al., 2015).

***Entoloma borgenii* Noordel.**

SIBERIA: **Krasnoyarsk Krai** (Nezdojminogo and Zhurbenko, 1996; Nezdojminogo, 1997a; Karatygin, Nezdojminogo, Novozhilov, and Zhurbenko, 1999).

***Entoloma bulakhae* O.V. Morozova & Noordel.**

FAR EAST: **Primorsky Krai** (Morozova, Noordeloos, Popov, and Alexandrova, 2018).

***Entoloma byssisedum* (Pers.) Donk<sup>1</sup>**

≡ *Claudopus byssisedus* (Pers.) Gillet<sup>2</sup> ≡ *Rhodophyllus byssisedus* (Pers.) Quél.<sup>3</sup> = *Entoloma byssisedum* var. *microsporum* Esteve-Rav. & Noordel.<sup>4</sup>

EASTERN EUROPE: **Adygea** (<sup>1</sup>Vaasma, Kalamees, and Raitviir, 1986); **Kaliningrad Oblast** (<sup>1</sup>Dedkov, Volodina, and Gubareva, 2007); **Komi Republic** (<sup>1</sup>Palamarchuk, 2020a; <sup>1</sup>Palamarchuk, 2020b); **Leningrad Oblast** (<sup>2</sup>Thesleff, 1920; <sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Zmitrovich, Malysheva, Malysheva, and Spirin, 2004; <sup>4</sup>Morozova, 2007; <sup>1,4</sup>Popov et al., 2007); **Novgorod Oblast** (<sup>1</sup>Popov et al., 2013); **Perm Krai** (<sup>1</sup>Perevedentseva, 2008); **Pskov Oblast** (<sup>1</sup>Popov et al., 2013); **Ryazan Oblast** (<sup>1</sup>Volosnova, 1997; <sup>1</sup>Volosnova, 2014); **Samara Oblast** (<sup>1</sup>Malysheva and Malysheva, 2005b; <sup>1</sup>Malysheva and Malysheva, 2008); **Tver Oblast** (<sup>1</sup>Morozova, Aleksandrova, Popov, and Malysheva, 2016); **Udmurt Republic** (<sup>1</sup>Kapitonov, 2013); **Volgograd Oblast** (<sup>3</sup>Burova and Nezdjominogo, 1980); **Volgoda Oblast** (<sup>1</sup>Kirillova, 2006; <sup>1</sup>Kirillova, 2007).

SIBERIA: **Irkutsk Oblast** (<sup>1</sup>Astapenko and Kutafjeva, 1990; <sup>1</sup>Astapenko, 1990a); **Novosibirsk Oblast** (<sup>1</sup>Perova and Gorbunova, 2001; <sup>1</sup>Perova and Gorbunova, 2007); **Tomsk Oblast** (<sup>1</sup>Perova and Gorbunova, 2001; <sup>1</sup>Kudashova, Gashkov, and Kutafjeva, 2013); **Tyumen Oblast** (<sup>1</sup>Mukhin, 1993); **Yamalo-Nenets Autonomous Okrug** (<sup>1</sup>Tarchevskaya, 1990).

FAR EAST: **Khabarovsk Krai** (<sup>3</sup>Azbukina et al., 1986; <sup>1</sup>Azbukina et al., 1989; <sup>1</sup>Bau, Bulakh, and Govorova, 2011); **Primorsky Krai** (<sup>3</sup>Vassiljeva, 1973; <sup>3</sup>Bunkina and Nazarova, 1978; <sup>1</sup>Azbukina et al., 2006; <sup>1</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Bulakh et al., 2016; <sup>1</sup>Bogacheva, Bulakh, Bukharova, and Egorova, 2020); **Sakhalin Oblast** (<sup>1</sup>Bulakh, Govorova, and Bogatov, 1999).

***Entoloma caccabus* (Kühner) Noordel.<sup>1</sup>**

= *Entoloma bisporigerum* (P.D. Orton) Noordel.<sup>2</sup>

EASTERN EUROPE: **Kaliningrad Oblast** (<sup>1</sup>Dedkov, Volodina, and Gubareva, 2007; <sup>1</sup>Atayev and Volodina, 2020); **Komi Republic** (<sup>1</sup>Palamarchuk, 2011b; <sup>1</sup>Palamarchuk, 2016a; <sup>1</sup>Palamarchuk, 2016b; <sup>1</sup>Palamarchuk, 2020a); **Leningrad Oblast** (<sup>1,2</sup>Popov et al., 2007); **Perm Krai** (<sup>1</sup>Perevedentseva, 2008); **Samara Oblast** (<sup>1</sup>Malysheva and Malysheva, 2004; <sup>1</sup>Malysheva and Malysheva, 2008); **Tula Oblast** (<sup>2</sup>Svetasheva, 2004; <sup>2</sup>Shcherbakov, 2010).

***Entoloma caeruleum* (P.D. Orton) Noordel.**

EASTERN EUROPE: **Adygea** (Kiyashko, 2009); **Karachay-Cherkess Republic** (Onipchenko et al., 2013).

***Entoloma caesiellum* Noordel. & Wölfel**

FAR EAST: **Primorsky Krai** (Noordeloos and Morozova, 2010).

***Entoloma caesiocinctum* (Kühner) Noordel.**

EASTERN EUROPE: **Adygea** (Sopina, 2004b); **Murmansk Oblast** (Nezdjominogo, 1997b; Karatygin, Nezdjominogo, Novozhilov, and Zhurbenko, 1999); **Novgorod Oblast** (Morozova, 2012; Popov et al., 2013).

SIBERIA: **Khanty-Mansi Autonomous Okrug** (Zvyagina, 2008; Shepeleva et al., 2014).

FAR EAST: **Primorsky Krai** (Noordeloos and Morozova, 2010; Bulakh et al., 2016).

***Entoloma caliginosum* (Romagn. & J. Favre) Bon & Courtec.**

FAR EAST: **Magadan Oblast** (Sazanova, 2009a).

***Entoloma callichroum* E. Horak & Noordel.**

EASTERN EUROPE: **Tatarstan** (Potapov, 2015b; Nazirov, Gorshkov, Ivanov, and Rogova, 2016; Potapov, 2016b).

***Entoloma canosericeum* (J.E. Lange) Noordel.**

EASTERN EUROPE: **Kirov Oblast** (Kirillov, 2011; Kirillov, Perevedentseva, and Egoshina, 2011); **Perm Krai** (Perevedentseva, 2008); **Tula Oblast** (Svetasheva, 2004; Shcherbakov, 2010).

SIBERIA: **Tomsk Oblast** (Perova and Gorbunova, 2001; Kudashova, Gashkov, and Kutafjeva, 2013).

***Entoloma cetratum* (Fr.) M.M. Moser<sup>1</sup>**

≡ *Nolanea cetrata* (Fr.) P. Kumm.<sup>2</sup> ≡ *Rhodophyllus cetratus* (Fr.) Quél.<sup>3</sup>

EASTERN EUROPE: **Arkhangelsk Oblast** (<sup>1</sup>Karatygin, Nezdjominogo, Novozhilov, and Zhurbenko, 1999); **Kaliningrad Oblast** (<sup>1</sup>Dedkov, Volodina, and Gubareva, 2007; <sup>1</sup>Volodina, 2007); **Karelia** (<sup>2</sup>Freindling, 1949; <sup>1</sup>Bondartseva et al., 2001); **Kirov Oblast** (<sup>1</sup>Kirillov, 2011; <sup>1</sup>Kirillov, Perevedentseva, and Egoshina, 2011); **Komi**

**Republic** (<sup>1</sup>Karatygin, Nezdoininogo, Novozhilov, and Zhurbenko, 1999; <sup>1</sup>Bobretsova, 2004; <sup>1</sup>Palamarchuk, 2011b; <sup>1</sup>Palamarchuk, 2012; <sup>1</sup>Palamarchuk, 2016a; <sup>1</sup>Palamarchuk, 2016b; <sup>1</sup>Palamarchuk and Kirillov, 2017; <sup>1</sup>Palamarchuk, 2017); **Leningrad Oblast** (<sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Morozova, 2007; <sup>1</sup>Popov et al., 2007; <sup>1</sup>Morozova, Noordeloos, and Vila, 2014; <sup>1</sup>Zmitrovich et al., 2015; <sup>1</sup>Morozova, Noordeloos, Popov, and Alexandrova, 2018); **Moscow Oblast** (<sup>1</sup>Levitskaya, 1995b; <sup>1</sup>Levitskaya, 2013; <sup>1</sup>Voronina et al., 2014; <sup>1</sup>Voronina et al., 2018); **Murmansk Oblast** (<sup>1</sup>Nezdoininogo, 1997b; <sup>1</sup>Karatygin, Nezdoininogo, Novozhilov, and Zhurbenko, 1999); **Perm Krai** (<sup>1</sup>Perevedentseva, 2008; <sup>1</sup>Belkovskaya et al., 2014; <sup>1</sup>Botalov, 2017; <sup>1</sup>Botalov and Perevedentseva, 2020); **Pskov Oblast** (<sup>1</sup>Kovalenko and Morozova, 1999b); **Saint Petersburg** (<sup>1</sup>Morozova and Smirnov, 2011; <sup>1</sup>Morozova et al., 2020); **Tula Oblast** (<sup>1</sup>Svetasheva, 2004; <sup>1</sup>Svetasheva, 2005b); **Tver Oblast** (<sup>1</sup>Morozova, Aleksandrova, Popov, and Malysheva, 2016); **Vologda Oblast** (<sup>1</sup>Kirillova, 2007); **Yaroslavl Oblast** (<sup>1</sup>Lazareva, 1998a; <sup>1</sup>Lazareva, 1998b).

**SIBERIA:** **Altai Krai** (<sup>1</sup>Gorbunova, 2018a); **Altai Republic** (<sup>1</sup>Gorbunova, 2008; <sup>1</sup>Gorbunova, 2010; <sup>1</sup>Gorbunova, 2017b); **Buryatia** (<sup>2</sup>Nezdoininogo, 1973; <sup>1</sup>Petrov, 1991); **Khanty-Mansi Autonomous Okrug** (<sup>1</sup>Filippova, Bulyonkova, and Lapshina, 2015; <sup>1</sup>Filippova and Bulyonkova, 2017a; <sup>1</sup>Filippova and Bulyonkova, 2017b); **Krasnoyarsk Krai** (<sup>1</sup>Nezdoininogo, 1982a; <sup>1</sup>Karatygin, Nezdoininogo, Novozhilov, and Zhurbenko, 1999; <sup>1</sup>Gorbunova, 2016); **Tyva Republic** (<sup>1</sup>Gorbunova, 2015); **Yamalo-Nenets Autonomous Okrug** (<sup>1</sup>Kapitonov, 2015).

**FAR EAST:** **Chukotka Autonomous Okrug** (<sup>1</sup>Karatygin, Nezdoininogo, Novozhilov, and Zhurbenko, 1999); **Magadan Oblast** (<sup>1</sup>Sazanova and Golodnova, 2015; <sup>1</sup>Sazanova, 2015); **Primorsky Krai** (<sup>2</sup>Bulakh, 1977; <sup>3</sup>Azbukina et al., 1984).

### *Entoloma chalybeum* (Pers.) Noordel.<sup>1</sup>

≡ *Entoloma chalybeum* (Pers.) Zerova<sup>2</sup> ≡ *Entoloma chalybeum* var. *chalybeum* (Pers.) Noordel.<sup>3</sup> ≡ *Leptonia chalybea* (Pers.) P. Kumm.<sup>4</sup> = *Entoloma chalybeum* var. *lazulinum* (Fr.) Noordel.<sup>5</sup> = *Entoloma lazulinum* (Fr.) Noordel.<sup>6</sup> = *Leptonia lazulina* (Fr.) Quél.<sup>7</sup> = *Rhodophyllus lazulinus* (Fr.) Quél.<sup>8</sup>

**EASTERN EUROPE:** **Kaliningrad Oblast** (<sup>3</sup>Dedkov, Volodina, and Gubareva, 2007); **Komi Republic** (<sup>1</sup>Palamarchuk and Kirillov, 2017; <sup>1</sup>Palamarchuk and Kirillov, 2018a); **Leningrad Oblast** (<sup>7</sup>Thesleff, 1920; <sup>3,5</sup>Kovalenko and Morozova, 1999a; <sup>3</sup>Morozova, 1999; <sup>1</sup>Tzvelev, 2000; <sup>3,5</sup>Popov et al., 2007; <sup>1</sup>Morozova, Noordeloos, and Vila, 2014; <sup>1</sup>Geltman et al., 2018; <sup>1</sup>Geltman, 2018b; <sup>1</sup>Morozova, Noordeloos, Popov, and Alexandrova, 2018); **Lipetsk Oblast** (<sup>2</sup>Sarycheva, 1999; <sup>1</sup>Sarycheva et al., 2009; <sup>2</sup>Shcherbakov, 2014; <sup>1</sup>Sarycheva, 2016); **Moscow Oblast** (<sup>1</sup>Gorlenko, Sidorova, and Sidorova, 1989); **Penza Oblast** (<sup>6</sup>Ivanov, 1999); **Perm Krai** (<sup>5</sup>Perevedentseva, 2008); **Sverdlovsk Oblast** (<sup>3</sup>Marina, 2006); **Tatarstan** (<sup>1</sup>Nazirov, Gorshkov, Ivanov, and Rogova, 2016; <sup>1</sup>Potapov, 2016b); **Tver Oblast** (<sup>1</sup>Morozova, Aleksandrova, Popov, and Malysheva, 2016).

**SIBERIA:** **Altai Krai** (<sup>3</sup>Gorbunova and Chubarova, 2008; <sup>3</sup>Gorbunova, Vlasenko, and Tzhubarova, 2011); **Altai Republic** (<sup>1</sup>Gorbunova, 1997; <sup>6</sup>Gorbunova, 2001b; <sup>6</sup>Perova and Gorbunova, 2001; <sup>5</sup>Gorbunova, 2006; <sup>1</sup>Svetasheva et al., 2019); **Krasnoyarsk Krai** (<sup>1</sup>Zauzolkova, 2012; <sup>1</sup>Zauzolkova, 2015); **Novosibirsk Oblast** (<sup>3</sup>Perova and Gorbunova, 2007; <sup>5</sup>Gorbunova, 2007); **Tomsk Oblast** (<sup>4</sup>Perova, 1972; <sup>6</sup>Agaphonova, Kutafjeva, and Gashkov, 2009b; <sup>1</sup>Kudashova, Gashkov, and Kutafjeva, 2013).

**FAR EAST:** **Amur Oblast** (<sup>8</sup>Azbukina et al., 1998); **Khabarovsk Krai** (<sup>8</sup>Azbukina et al., 1986; <sup>5</sup>Bau, Bulakh, and Govorova, 2011); **Primorsky Krai** (<sup>8</sup>Vassiljeva, 1973; <sup>8</sup>Bunkina and Nazarova, 1978; <sup>6</sup>Azbukina et al., 2006; <sup>5</sup>Bau, Bulakh, and Govorova, 2011; <sup>3,5</sup>Bulakh et al., 2016).

### *Entoloma chloropolium* (Fr.) M.M. Moser

**EASTERN EUROPE:** **Perm Krai** (Perevedentseva, 2008).

### *Entoloma chytrophilum* Wölfel, Noordel. & Dähncke

**EASTERN EUROPE:** **Karachay-Cherkess Republic** (Morozova, Noordeloos, and Vila, 2014); **Komi Republic** (Shiryayeva and Palamarchuk, 2019); **Moscow Oblast** (Voronina et al., 2012; Morozova, Noordeloos, and Vila, 2014; Voronina et al., 2014); **Novgorod Oblast** (Arslanov, 2014; Morozova, Noordeloos, and Vila, 2014; Vetkin et al., 2015); **Tula Oblast** (Svetasheva, Sheremetyeva, and Lakomov, 2019); **Vologda Oblast** (Kirillova, 2006 [as *Entoloma lepidissimum* (Svrček) Noordel., redet. in Morozova, Noordeloos, and Vila, 2014]; Morozova, Noordeloos, and Vila, 2014).

**SIBERIA:** **Altai Krai** (Gorbunova, 2018a); **Altai Republic** (Morozova, Noordeloos, and Vila, 2014); **Novosibirsk Oblast** (Morozova, Noordeloos, and Vila, 2014).

### *Entoloma cinereo-opacum* (Noordel.) Vila, Català & Noordel.

≡ *Entoloma sericeum* var. *cinereo-opacum* Noordel.<sup>1</sup>

**EASTERN EUROPE:** **Rostov Oblast** (<sup>1</sup>Morozova et al., 2008); **Arid territories** (<sup>1</sup>Rebriev, Rusanov, et al., 2012).

***Entoloma clandestinum* (Fr.) Noordel.**≡ *Rhodophyllus clandestinus* (Fr.) Quél.<sup>1</sup>EASTERN EUROPE: **Tatarstan** (<sup>1</sup>Vassiljeva, 1977).***Entoloma clypeatum* (L.) P. Kumm.<sup>1</sup>**≡ *Entoloma clypeatum* f. *clypeatum* (L.) P. Kumm.<sup>2</sup> ≡ *Entoloma clypeatum* var. *clypeatum* (L.) P. Kumm.<sup>3</sup> ≡ *Hyporrhodius clypeatus* (L.) J. Schröt.<sup>4</sup> ≡ *Rhodophyllus clypeatus* (L.) Quél.<sup>5</sup> = *Entoloma clypeatum* var. *defibulatum* Noordel.<sup>6</sup>

EASTERN EUROPE: **Adygea** (<sup>1</sup>Vaasma, Kalamees, and Raitviir, 1986); **Belgorod Oblast** (<sup>1</sup>Bedenko, 1980); **Bryansk Oblast** (<sup>1</sup>Kruglikov, 2007); **Crimea** (<sup>1</sup>Sarkina, 2001; <sup>1</sup>Dudka et al., 2004; <sup>1</sup>Sarkina, 2014b; <sup>1</sup>Sarkina, 2016a); **Kaliningrad Oblast** (<sup>1</sup>Atayev and Volodina, 2020); **Karelia** (<sup>2</sup>Predtechenskaya and Ruokolainen, 2013); **Krasnodar Krai** (<sup>1</sup>Kovalenko, 1980a; <sup>1</sup>Vaasma, Kalamees, and Raitviir, 1986); **Kursk Oblast** (<sup>1</sup>Baranov, 2002); **Leningrad Oblast** (<sup>1</sup>Thesleff, 1920; <sup>1</sup>Kovalenko and Morozova, 1999a; <sup>3,6</sup>Popov et al., 2007); **Lipetsk Oblast** (<sup>5</sup>Alferova, 1977; <sup>1</sup>Sarycheva, 1999; <sup>1</sup>Sarycheva et al., 2009; <sup>1</sup>Sarycheva, 2011; <sup>1</sup>Sarycheva, 2014a; <sup>1</sup>Sarycheva, 2016); **Mordovia** (<sup>1</sup>Ivoilov and Bolshakov, 2011a); **Moscow** (<sup>4</sup>Bucholtz, 1897a; <sup>4</sup>Bucholtz, 1897b; <sup>4</sup>Bucholtz, 1897c; <sup>4</sup>Mosolov, 1906); **Moscow Oblast** (<sup>1</sup>Gorlenko, Sidorova, and Sidorova, 1989); **North Ossetia** (<sup>1</sup>Nikolayev, 2001); **Penza Oblast** (<sup>5</sup>Ivanov, 1982; <sup>1</sup>Ivanov, 1999); **Perm Krai** (<sup>1</sup>Perevedentseva, 2008); **Pskov Oblast** (<sup>1</sup>Popov, 2001a; <sup>3</sup>Popov et al., 2013); **Rostov Oblast** (<sup>1</sup>Vyshchepan, 1992; <sup>1</sup>Rusanov, Rebriev, and Bulgakov, 2018); **Saint Petersburg** (<sup>1</sup>Kotkova, Morozova, and Popov, 2007; <sup>1</sup>Morozova and Smirnov, 2011; <sup>1</sup>Morozova, Kovalenko, Rebriev, and Malysheva, 2014); **Samara Oblast** (<sup>3</sup>Malysheva and Malysheva, 2008); **Smolensk Oblast** (<sup>1</sup>Jaczewski, 1896); **Stavropol Krai** (<sup>1</sup>Morozova, Noordeloos, and Vila, 2014); **Tatarstan** (<sup>5</sup>Vassiljeva, 1977); **Tula Oblast** (<sup>1</sup>Svetasheva, 2004); **Tver Oblast** (<sup>1</sup>Kurochkin, 1993); **Udmurt Republic** (<sup>1</sup>Tychinin and Kuzmina, 2003); **Ulyanovsk Oblast** (<sup>1</sup>Ilyukhin, 2009); **Volgograd Oblast** (<sup>5</sup>Burova and Nezdojminogo, 1980; <sup>5</sup>Burova and Nezdojminogo, 1982); **Yaroslavl Oblast** (<sup>1</sup>Lazareva, 1998a; <sup>1</sup>Lazareva, 1998b); **Arid territories** (<sup>1</sup>Rebriev, Rusanov, et al., 2012); **Northern Caucasus** (<sup>1</sup>Kovalenko, 1980b).

SIBERIA: **Altai Krai** (<sup>1</sup>Gorbunova and Perova, 2006; <sup>1</sup>Gorbunova, 2018a); **Altai Republic** (<sup>1</sup>Gorbunova, 2008); **Irkutsk Oblast** (<sup>1</sup>Petrov, 1986; <sup>1</sup>Petrov, 1991; <sup>1</sup>Petrov, 2008; <sup>1</sup>Gorbunova and Stepantsova, 2015); **Khanty-Mansi Autonomous Okrug** (<sup>1</sup>Zvyagina, Baykalova, and Gorbunova, 2007); **Krasnoyarsk Krai** (<sup>1</sup>Vassilkov, 1971b; <sup>5</sup>Beglyanova, 1972a; <sup>5</sup>Stepanova and Tomilin, 1973; <sup>1</sup>Gorbunova, 2016); **Novosibirsk Oblast** (<sup>1</sup>Perova, 1977; <sup>1</sup>Perova and Gorbunova, 2001; <sup>1</sup>Gorbunova, 2007; <sup>1</sup>Perova and Gorbunova, 2007; <sup>2</sup>Koropachinskiy and Banaev, 2014); **Tomsk Oblast** (<sup>1</sup>Agaphonova, Kutafjeva, and Gashkov, 2009b; <sup>1</sup>Kudashova, Gashkov, and Kutafjeva, 2013).

FAR EAST: **Primorsky Krai** (<sup>5</sup>Vassiljeva, 1973; <sup>1</sup>Bau, Bulakh, and Govorova, 2011).

***Entoloma coelestinum* (Fr.) Hesler**EASTERN EUROPE: **Sverdlovsk Oblast** (Marina, 2006; Morozova, Noordeloos, and Vila, 2014; Korytin, 2018).***Entoloma conferendum* (Britzelm.) Noordel.<sup>1</sup>**≡ *Entoloma conferendum* var. *conferendum* (Britzelm.) Noordel.<sup>2</sup> = *Entoloma conferendum* var. *pusillum* (Velen.) Noordel.<sup>3</sup> = *Entoloma staurosporum* (Bres.) E. Horak<sup>4</sup> = *Nolanea staurospora* Bres.<sup>5</sup> = *Nolanea xylophila* (J.E. Lange) P.D. Orton<sup>6</sup> = *Rhodophyllus staurosporus* (Bres.) J.E. Lange<sup>7</sup> = *Rhodophyllus xylophilus* J.E. Lange<sup>8</sup>

EASTERN EUROPE: **Adygea** (<sup>2</sup>Sopina, 2004b); **Kabardino-Balkarian Republic** (<sup>1</sup>Krapivina et al., 2020); **Karelia** (<sup>1</sup>Bondartseva et al., 2001; <sup>2</sup>Krutov et al., 2014); **Komi Republic** (<sup>2</sup>Bobretsova, 2004; <sup>2</sup>Palamarchuk, 2012; <sup>1</sup>Palamarchuk, 2016a; <sup>2</sup>Palamarchuk, 2016b); **Leningrad Oblast** (<sup>1</sup>Morozova and Kovalenko, 2000 [as *Entoloma rhombisporum* (Kühner & Boursier) E. Horak, redet. in Kalinina, 2018]; <sup>1</sup>Morozova, 2007; <sup>2</sup>Popov et al., 2007; <sup>1</sup>Zmitrovich et al., 2015; <sup>1</sup>Malysheva, Malysheva, Shchepin, and Novozhilov, 2018; <sup>2</sup>Kalinina, 2018); **Moscow Oblast** (<sup>1</sup>Gorlenko, Sidorova, and Sidorova, 1989; <sup>2</sup>Levitskaya, 1998; <sup>3</sup>Levitskaya, 1998; <sup>1</sup>Voronina et al., 2012; <sup>2</sup>Levitskaya, 2013; <sup>3</sup>Levitskaya, 2013; <sup>1</sup>Voronina et al., 2014); **Murmansk Oblast** (<sup>1</sup>Nezdojminogo, 1997b; <sup>1</sup>Karatygin, Nezdojminogo, Novozhilov, and Zhurbenko, 1999); **Novgorod Oblast** (<sup>1</sup>Kovalenko, Morozova, Nezdojminogo, and Popov, 2005; <sup>2</sup>Malysheva, Malysheva, and Zmitrovich, 2007; <sup>1</sup>Popov et al., 2013); **Penza Oblast** (<sup>7</sup>Ivanov, 1982); **Perm Krai** (<sup>2</sup>Perevedentseva, 2008; <sup>1</sup>Belkovskaya et al., 2014; <sup>1</sup>Botalov, 2017; <sup>1</sup>Botalov and Perevedentseva, 2020); **Pskov Oblast** (<sup>1</sup>Popov et al., 2013); **Rostov Oblast** (<sup>1</sup>Morozova et al., 2008); **Saint Petersburg** (<sup>1</sup>Kotkova, Morozova, and Popov, 2005; <sup>1</sup>Morozova and Smirnov, 2011; <sup>1</sup>Morozova et al., 2020); **Sverdlovsk Oblast** (<sup>2</sup>Marina, 2006; <sup>3</sup>Marina, 2006); **Tatarstan** (<sup>7</sup>Vassiljeva, 1977); **Tula Oblast** (<sup>1</sup>Svetasheva, 2004); **Vologda Oblast** (<sup>2</sup>Kirillova, 2006; <sup>1</sup>Kirillova, 2007); **Voronezh Oblast** (<sup>8</sup>Chastukhin and Nikolaevskaya, 1953; <sup>6</sup>Chastukhin and Nikolaevskaya, 1969); **Arid territories** (<sup>1</sup>Rebriev, Rusanov, et al., 2012).

SIBERIA: **Altai Krai** (<sup>1</sup>Gorbunova, 2018a); **Altai Republic** (<sup>2</sup>Gorbunova, 2008; <sup>1</sup>Gorbunova, 2010); **Buryatia** (<sup>5</sup>Nezdojminogo, 1973; <sup>4</sup>Petrov, 1991); **Irkutsk Oblast** (<sup>1</sup>Muzyka and Penzina, 2017); **Khanty-Mansi Autonomous Okrug** (<sup>1</sup>Filippova, Bulyonkova, and Lapshina, 2015; <sup>1</sup>Filippova and Bulyonkova, 2017a; <sup>1</sup>Filippova and Bulyonkova, 2017b; <sup>1</sup>Zvyagina and Baykalova, 2017); **Krasnoyarsk Krai** (<sup>8</sup>Beglyanova, 1972a; <sup>4</sup>Nezdojminogo, 1982a; <sup>1</sup>Gorbunova, 2016); **Novosibirsk Oblast** (<sup>6</sup>Perova, 1977; <sup>7</sup>Perova, 1982; <sup>4</sup>Perova and Gorbunova, 2001; <sup>2</sup>Perova and Gorbunova, 2007; <sup>2</sup>Koropachinskiy and Banaev, 2014).

FAR EAST: **Primorsky Krai** (<sup>7</sup>Nazarova, 1978; <sup>8</sup>Nazarova, 1978; <sup>1</sup>Bulakh et al., 2016).

***Entoloma corvinum* (Kühner) Noordel.**

EASTERN EUROPE: **Karachay-Cherkess Republic** (Onipchenko and Kaverina, 1989; Kalamees and Botashev, 2000; Onipchenko et al., 2013).

***Entoloma costatum* (Fr.) P. Kumm.**

EASTERN EUROPE: **Leningrad Oblast** (Thesleff, 1920; Kovalenko and Morozova, 1999a; Popov et al., 2007); **Murmansk Oblast** (Mikhailovskii, 1975b); **Perm Krai** (Perevedentseva, 2008; Belkovskaya et al., 2014).

SIBERIA: **Buryatia** (Nezdojminogo, 1973; Petrov, 1991); **Irkutsk Oblast** (Petrov, 1986; Petrov, 1989; Petrov, 1991; Petrov, 2008).

***Entoloma cuneatum* (Bres.) M.M. Moser**

EASTERN EUROPE: **Moscow Oblast** (Gorlenko, Sidorova, and Sidorova, 1989).

SIBERIA: **Tomsk Oblast** (Perova and Gorbunova, 2001; Kudashova, Gashkov, and Kutafjeva, 2013).

***Entoloma cuniculorum* Arnolds & Noordel.**

EASTERN EUROPE: **Pskov Oblast** (Popov et al., 2013).

***Entoloma cuspidiferum* (Kühner & Romagn.) Noordel.<sup>1</sup>**

≡ *Rhodophyllus cuspidatus* (Fr.) J. Favre<sup>2</sup>

EASTERN EUROPE: **Leningrad Oblast** (<sup>1</sup>Popov et al., 2007); **Tatarstan** (<sup>2</sup>Vassiljeva, 1977).

SIBERIA: **Tomsk Oblast** (<sup>1</sup>Kosheleva and Kutafjeva, 2004; <sup>1</sup>Kudashova, Gashkov, and Kutafjeva, 2013; <sup>1</sup>Vaishlya et al., 2017).

***Entoloma cyanulum* (Lasch) Noordel.**

EASTERN EUROPE: **Lipetsk Oblast** (Sarycheva et al., 2009); **Tula Oblast** (Shcherbakov, 2010; Svetasheva, Sheremetyeva, and Lakomov, 2019).

***Entoloma depluens* (Batsch) Hesler<sup>1</sup>**

≡ *Agaricus depluens* Batsch<sup>2</sup>

EASTERN EUROPE: **Saint Petersburg** (<sup>2</sup>Weinmann, 1828; <sup>2</sup>Weinmann, 1836); **Samara Oblast** (<sup>1</sup>Malysheva and Malysheva, 2006; <sup>1</sup>Malysheva and Malysheva, 2008); **Sverdlovsk Oblast** (<sup>1</sup>Marina, 2006); **Tula Oblast** (<sup>1</sup>Svetasheva, 2004; <sup>1</sup>Shcherbakov, 2010).

SIBERIA: **Khanty-Mansi Autonomous Okrug** (<sup>1</sup>Filippova and Bulyonkova, 2017a; <sup>1</sup>Filippova and Bulyonkova, 2017b).

***Entoloma dichroum* (Pers.) P. Kumm.<sup>1</sup>**

≡ *Rhodophyllus dichroum* (Pers.) Quél.<sup>2</sup>

EASTERN EUROPE: **Rostov Oblast** (<sup>1</sup>Morozova et al., 2008); **Samara Oblast** (<sup>1</sup>Malysheva and Malysheva, 2005b; <sup>1</sup>Malysheva and Malysheva, 2008; <sup>1</sup>Morozova, Noordeloos, and Vila, 2014); **Ulyanovsk Oblast** (<sup>1</sup>Ilyukhin, 2010a).

FAR EAST: **Primorsky Krai** (<sup>2</sup>Nazarova, 1978).

***Entoloma dysthales* (Peck) Sacc.<sup>1</sup>**

≡ *Rhodophyllus dysthales* (Peck) Romagn.<sup>2</sup>

EASTERN EUROPE: **Leningrad Oblast** (<sup>1</sup>Popov et al., 2007); **Perm Krai** (<sup>1</sup>Perevedentseva, 2008); **Pskov Oblast** (<sup>1</sup>Kalinina, Bolshakov, and Bulyonkova, 2020); **Samara Oblast** (<sup>1</sup>Malysheva and Malysheva, 2005b; <sup>1</sup>Malysheva and Malysheva, 2007; <sup>1</sup>Malysheva and Malysheva, 2008); **Vologda Oblast** (<sup>1</sup>Kirillova, 2007).

FAR EAST: **Amur Oblast** (<sup>2</sup>Azbukina et al., 1998); **Khabarovsk Krai** (<sup>2</sup>Azbukina et al., 1986; <sup>1</sup>Bau, Bulakh, and Govorova, 2011); **Primorsky Krai** (<sup>2</sup>Vassiljeva, 1973; <sup>1</sup>Bulakh et al., 2016).

***Entoloma dysthaloides* Noordel.**

EASTERN EUROPE: **Komi Republic** (Palamarchuk, 2020b); **Leningrad Oblast** (Popov et al., 2007); **Saint Petersburg** (Kotkova, Morozova, and Popov, 2007); **Samara Oblast** (Malysheva and Malysheva, 2006; Malysheva and Malysheva, 2007; Malysheva and Malysheva, 2008); **Sverdlovsk Oblast** (Marina, 2006).

***Entoloma ekaterinae* O.V. Morozova, Noordel., K. Nara, Dima & Brandrud**

FAR EAST: **Primorsky Krai** (Crous, Carnegie, et al., 2019).

***Entoloma elodes* (Fr.) P. Kumm.<sup>1</sup>**

≡ *Rhodophyllus elodes* (Fr.) J. Favre<sup>2</sup>

EASTERN EUROPE: **Kaliningrad Oblast** (<sup>1</sup>Dedkov, Volodina, and Gubareva, 2007); **Karelia** (<sup>1</sup>Krutov et al., 2014); **Komi Republic** (<sup>1</sup>Palamarchuk, 2016a; <sup>1</sup>Palamarchuk, 2016b); **Murmansk Oblast** (<sup>1</sup>Pystina, Pavlova, and Shestakova, 1969); **Saint Petersburg** (<sup>1</sup>Morozova and Smirnov, 2011; <sup>1</sup>Morozova, Kovalenko, Rebriev, and Malysheva, 2014); **Sverdlovsk Oblast** (<sup>2</sup>Stepanova and Sirko, 1977); **Yamalo-Nenets Autonomous Okrug** (<sup>1</sup>Karatygin, Nezdjominogo, Novozhilov, and Zhurbenko, 1999; <sup>1</sup>Nezdjominogo, 2001).

SIBERIA: **Altai Krai** (<sup>1</sup>Gorbunova, 2018b); **Krasnoyarsk Krai** (<sup>2</sup>Beglyanova, 1972a); **Tomsk Oblast** (<sup>1</sup>Perova and Gorbunova, 2001; <sup>1</sup>Kudashova, Gashkov, and Kutafjeva, 2013).

***Entoloma engadinum* (E. Horak) Noordel.**

EASTERN EUROPE: **Perm Krai** (Perevedentseva, 2008; Botalov, 2017).

***Entoloma erhardii* Noordel., Dima, Svetash., Læssøe & Kehlet**

EASTERN EUROPE: **Karachay-Cherkess Republic** (Crous, Carnegie, et al., 2019).

***Entoloma euchroum* (Pers.) Donk<sup>1</sup>**

≡ *Leptonia euchroa* (Pers.) P. Kumm.<sup>2</sup> ≡ *Rhodophyllus euchrous* (Pers.) Quél.<sup>3</sup>

EASTERN EUROPE: **Kaluga Oblast** (<sup>1</sup>Antokhina et al., 2015); **Karachay-Cherkess Republic** (<sup>1</sup>Onipchenko et al., 2013; <sup>1</sup>Morozova, Noordeloos, and Vila, 2014); **Karelia** (<sup>1</sup>Krutov et al., 2014); **Krasnodar Krai** (<sup>2</sup>Vassiljeva, 1939); **Leningrad Oblast** (<sup>1</sup>Morozova, Noordeloos, and Vila, 2014; <sup>1</sup>Geltman et al., 2018; <sup>1</sup>Geltman, 2018b); **Moscow Oblast** (<sup>1</sup>Morozova, Noordeloos, and Vila, 2014); **Murmansk Oblast** (<sup>2</sup>Pystina, Pavlova, and Shestakova, 1969); **Novgorod Oblast** (<sup>1</sup>Morozova, 2012; <sup>1</sup>Popov et al., 2013; <sup>1</sup>Morozova, Noordeloos, and Vila, 2014; <sup>1</sup>Vetkin et al., 2015); **Penza Oblast** (<sup>3</sup>Ivanov, 1985); **Ryazan Oblast** (<sup>1</sup>Morozova, Noordeloos, and Vila, 2014); **Samara Oblast** (<sup>1</sup>Malysheva and Malysheva, 2005b; <sup>1</sup>Malysheva and Malysheva, 2008); **Stavropol Krai** (<sup>1</sup>Morozova, Noordeloos, and Vila, 2014); **Arid territories** (<sup>1</sup>Rebriev, Rusanov, et al., 2012); **Northern Caucasus** (<sup>1</sup>Morozova, Noordeloos, Popov, and Alexandrova, 2018).

SIBERIA: **Krasnoyarsk Krai** (<sup>3</sup>Beglyanova, 1972a); **Tomsk Oblast** (<sup>1</sup>Kudashova, Gashkov, and Kutafjeva, 2013; <sup>1</sup>Morozova, Noordeloos, and Vila, 2014; <sup>1</sup>Kudashova, Gashkov, and Vaishlya, 2016b).

***Entoloma eugenei* Noordel. & O.V. Morozova**

FAR EAST: **Primorsky Krai** (Noordeloos and Morozova, 2010; Morozova, Noordeloos, and Vila, 2014).

***Entoloma excentricum* Bres.**

EASTERN EUROPE: **Belgorod Oblast** (Bedenko, 1980); **Leningrad Oblast** (Morozova and Kovalenko, 2000; Popov et al., 2007); **Novgorod Oblast** (Morozova, Popov, and Fedosova, 2014); **Pskov Oblast** (Morozova et al., 2015).

***Entoloma exile* (Fr.) Hesler**

EASTERN EUROPE: **Pskov Oblast** (Morozova et al., 2015).

***Entoloma farinasprellum* Arnolds**

EASTERN EUROPE: **Samara Oblast** (Malysheva and Malysheva, 2007; Malysheva and Malysheva, 2008).

***Entoloma favrei* Noordel.**

EASTERN EUROPE: **Pskov Oblast** (Popov et al., 2013); **Yamalo-Nenets Autonomous Okrug** (Nezdjominogo, 2001).

***Entoloma fernandae* (Romagn.) Noordel.**

EASTERN EUROPE: **Moscow Oblast** (Levitskaya, 1998; Levitskaya, 2013); **Murmansk Oblast** (Nezdojminogo, 1997b; Karatygin, Nezdojminogo, Novozhilov, and Zhurbenko, 1999); **Saint Petersburg** (Morozova and Smirnov, 2011).

***Entoloma flocculosum* (Bres.) Pacioni**

EASTERN EUROPE: **Rostov Oblast** (Rebriev, 2018); **Volgograd Oblast** (Rebriev, Popov, Pridyuk, and Svetasheva, 2014; Svetasheva, Popov, Rebriev, and Pridyuk, 2014); **Arid territories** (Rebriev, Rusanov, et al., 2012).

***Entoloma formosum* (Fr.) Noordel.<sup>1</sup>**

≡ *Rhodophyllus formosus* (Fr.) Quél.<sup>2</sup>

EASTERN EUROPE: **Adygea** (<sup>1</sup>Sopina, 2004b); **Chelyabinsk Oblast** (<sup>2</sup>Stepanova and Sirko, 1977); **Karelia** (<sup>1</sup>Krutov et al., 2014); **Moscow Oblast** (<sup>1</sup>Levitskaya, 1998; <sup>1</sup>Levitskaya, 2013).

FAR EAST: **Primorsky Krai** (<sup>2</sup>Nazarova, 1978).

***Entoloma fridolfingense* Noordel. & Lohmeyer**

EASTERN EUROPE: **Novgorod Oblast** (Morozova, Popov, and Fedosova, 2014); **Pskov Oblast** (Morozova et al., 2015).

***Entoloma fuscogrisellum* (Peck) Blanco-Dios**

≡ *Rhodophyllus fuscogrisellus* (Peck) Romagn.<sup>1</sup>

FAR EAST: **Primorsky Krai** (<sup>1</sup>Nazarova, 1978).

***Entoloma fuscomarginatum* P.D. Orton**

SIBERIA: **Khanty-Mansi Autonomous Okrug** (Vasin and Vasina, 2013; Filippova and Thormann, 2014; Filippova, 2014; Filippova, Mourgues, and Philippe, 2014; Zvyagina and Baykalova, 2017).

***Entoloma fuscotomentosum* F.H. Møller**

EASTERN EUROPE: **Komi Republic** (Palamarchuk and Kirillov, 2017); **Leningrad Oblast** (Popov et al., 2007); **Murmansk Oblast** (Karatygin, Nezdojminogo, Novozhilov, and Zhurbenko, 1999); **Sverdlovsk Oblast** (Marina, 2006).

***Entoloma glaucobasis* Huijsman ex Noordel.**

EASTERN EUROPE: **Pskov Oblast** (Morozova et al., 2015).

***Entoloma gomerense* Wölfel & Noordel.**

FAR EAST: **Primorsky Krai** (Noordeloos and Morozova, 2010).

***Entoloma griseocyaneum* (Fr.) P. Kumm.<sup>1</sup>**

≡ *Agaricus griseocyaneus* Fr.<sup>2</sup> ≡ *Rhodophyllus griseocyaneus* (Fr.) Quél.<sup>3</sup>

EASTERN EUROPE: **Crimea** (<sup>1</sup>Sarkina, 2010b; <sup>1</sup>Sarkina, 2013); **Leningrad Oblast** (<sup>1</sup>Thesleff, 1920; <sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Popov et al., 2007); **Murmansk Oblast** (<sup>2</sup>Karsten, 1866; <sup>2</sup>Karsten, 1876); **Penza Oblast** (<sup>3</sup>Ivanov, 1983; <sup>1</sup>Ivanov, 1999); **Northern Caucasus** (<sup>1</sup>Morozova, Noordeloos, and Vila, 2014; <sup>1</sup>Morozova, Noordeloos, Popov, and Alexandrova, 2018).

FAR EAST: **Primorsky Krai** (<sup>3</sup>Vassiljeva, 1973; <sup>3</sup>Bunkina and Nazarova, 1978; <sup>1</sup>Azbukina et al., 2006; <sup>1</sup>Bau, Bulakh, and Govorova, 2011).

***Entoloma griseoluridum* (Kühner) M.M. Moser**

EASTERN EUROPE: **Murmansk Oblast** (Mikhailovskii, 1975a).

***Entoloma griseorubellum* (Lasch) Kalamees & Urbonas<sup>1</sup>**

≡ *Eccilia griseorubella* (Lasch) P. Kumm.<sup>2</sup> ≡ *Rhodophyllus griseorubellus* (Lasch) Quél.<sup>3</sup>

EASTERN EUROPE: **Chelyabinsk Oblast** (<sup>3</sup>Stepanova and Sirko, 1977); **Krasnodar Krai** (<sup>2</sup>Vassiljeva, 1939); **Saint Petersburg** (<sup>1</sup>Morozova, Kovalenko, Rebriev, and Malysheva, 2014).

SIBERIA: **Irkutsk Oblast** (<sup>1</sup>Petrov, 1991; <sup>1</sup>Petrov, 2008).

FAR EAST: **Khabarovsk Krai** (<sup>3</sup>Azbukina et al., 1986; <sup>1</sup>Bau, Bulakh, and Govorova, 2011); **Primorsky Krai** (<sup>3</sup>Vassiljeva, 1973; <sup>3</sup>Bunkina and Nazarova, 1978; <sup>1</sup>Bardunov et al., 2002; <sup>1</sup>Azbukina et al., 2006; <sup>1</sup>Bau, Bulakh, and Govorova, 2011).

***Entoloma griseorugulosum* Noordel. & Fern. Sas.**

EASTERN EUROPE: **Saint Petersburg** (Morozova, Kovalenko, Rebriev, and Malysheva, 2014).

***Entoloma hebes* (Romagn.) Trimbach<sup>1</sup>**

= *Rhodophyllus mammosus* var. *obsoletus* Romagn.<sup>2</sup>

EASTERN EUROPE: **Kaliningrad Oblast** (<sup>1</sup>Atayev and Volodina, 2020); **Samara Oblast** (<sup>1</sup>Malysheva and Malysheva, 2005b; <sup>1</sup>Malysheva and Malysheva, 2008); **Yamalo-Nenets Autonomous Okrug** (<sup>2</sup>Stepanova and Sirko, 1977).

SIBERIA: **Irkutsk Oblast** (<sup>1</sup>Gorbunova and Stepanova, 2015); **Khakassia** (<sup>1</sup>Zauzolkova and Gorbunova, 2013; <sup>1</sup>Zauzolkova, 2015); **Khanty-Mansi Autonomous Okrug** (<sup>1</sup>Filippova, Bulyonkova, and Lapshina, 2015); **Tomsk Oblast** (<sup>1</sup>Kudashova, Gashkov, and Kutafjeva, 2013).

***Entoloma hirtipes* (Schumach.) M.M. Moser<sup>1</sup>**

≡ *Agaricus hirtipes* Schumach.<sup>2</sup> ≡ *Nolanea hirtipes* (Schumach.) P. Kumm.<sup>3</sup> ≡ *Rhodophyllus hirtipes* (Schumach.) J.E. Lange<sup>4</sup>

EASTERN EUROPE: **Crimea** (<sup>1</sup>Sarkina, 2011); **Karelia** (<sup>1</sup>Krutov et al., 2014; <sup>1</sup>Predtechenskaya, 2015); **Krasnodar Krai** (<sup>3</sup>Vassiljeva, 1939); **Leningrad Oblast** (<sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Popov et al., 2007); **Moscow Oblast** (<sup>1</sup>Levitskaya, 1998; <sup>1</sup>Levitskaya, 2013); **Perm Krai** (<sup>1</sup>Perevedentseva, 2008; <sup>1</sup>Botalov, 2017); **Saint Petersburg** (<sup>2</sup>Weinmann, 1836); **Voronezh Oblast** (<sup>4</sup>Chastukhin, 1952).

SIBERIA: **Khakassia** (<sup>1</sup>Zauzolkova, 2015; <sup>1</sup>Zauzolkova and Gorbunova, 2016); **Novosibirsk Oblast** (<sup>4</sup>Perova, 1982; <sup>1</sup>Perova and Gorbunova, 2001; <sup>1</sup>Perova and Gorbunova, 2007).

FAR EAST: **Khabarovsk Krai** (<sup>1</sup>Bulakh, Vassiljeva, and Erofeeva, 2010); **Primorsky Krai** (<sup>4</sup>Vassiljeva, 1972; <sup>4</sup>Vassiljeva, 1973; <sup>4</sup>Bunkina and Nazarova, 1978; <sup>1</sup>Azbukina et al., 2006; <sup>1</sup>Bau, Bulakh, and Govorova, 2011); **Sakhalin Oblast** (<sup>4</sup>Vassiljeva and Nazarova, 1972).

***Entoloma hirtum* (Velen.) Noordel.**

EASTERN EUROPE: **Moscow Oblast** (Levitskaya, 1998; Levitskaya, 2013); **Samara Oblast** (Malysheva and Malysheva, 2007; Malysheva and Malysheva, 2008).

***Entoloma huijsmanii* Noordel.**

EASTERN EUROPE: **Adygea** (Sopina, 2004b).

***Entoloma incanum* (Fr.) Hesler<sup>1</sup>**

≡ *Leptonia incana* (Fr.) Gillet<sup>2</sup> ≡ *Rhodophyllus incanus* (Fr.) E. Horak<sup>3</sup>

EASTERN EUROPE: **Crimea** (<sup>1</sup>Sarkina, 2010b; <sup>1</sup>Sarkina, 2013); **Karachay-Cherkess Republic** (<sup>1</sup>Onipchenko et al., 2013); **Karelia** (<sup>1</sup>Krutov et al., 2014); **Komi Republic** (<sup>1</sup>Palamarchuk, 2012; <sup>1</sup>Palamarchuk, 2016a; <sup>1</sup>Palamarchuk, 2016b; <sup>1</sup>Dyogteva, 2019; <sup>1</sup>Palamarchuk et al., 2019); **Leningrad Oblast** (<sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Morozova, 1999; <sup>1</sup>Morozova and Kovalenko, 2000; <sup>1</sup>Tzvelev, 2000; <sup>1</sup>Popov et al., 2007; <sup>1</sup>Geltman et al., 2018; <sup>1</sup>Geltman, 2018b); **Murmansk Oblast** (<sup>2</sup>Pystina, Pavlova, and Shestakova, 1969); **Novgorod Oblast** (<sup>1</sup>Morozova, 2012; <sup>1</sup>Popov et al., 2013; <sup>1</sup>Morozova, Popov, and Fedosova, 2014; <sup>1</sup>Vetkin et al., 2015); **Perm Krai** (<sup>1</sup>Perevedentseva, 2008); **Pskov Oblast** (<sup>1</sup>Kolmakov and Popov, 2005; <sup>1</sup>Popov et al., 2013; <sup>1</sup>Aleksandrov et al., 2014; <sup>1</sup>Morozova et al., 2015); **Samara Oblast** (<sup>1</sup>Malysheva and Malysheva, 2005b; <sup>1</sup>Malysheva and Malysheva, 2008); **Tver Oblast** (<sup>1</sup>Morozova, Aleksandrova, Popov, and Malysheva, 2016); **Ulyanovsk Oblast** (<sup>1</sup>Ilyukhin, 2010a; <sup>1</sup>Ilyukhin, 2010b); **Vologda Oblast** (<sup>1</sup>Konechnaya and Suslova, 2004; <sup>1</sup>Kirillova, 2006; <sup>1</sup>Kirillova, 2007).

SIBERIA: **Khakassia** (<sup>1</sup>Zauzolkova, 2015; <sup>1</sup>Zauzolkova and Gorbunova, 2016); **Krasnoyarsk Krai** (<sup>3</sup>Beglyanova, 1972a); **Novosibirsk Oblast** (<sup>1</sup>Gorbunova, 2006; <sup>1</sup>Yudkin and Shaulo, 2008; <sup>1</sup>Glupov and Shaulo, 2018).

***Entoloma indutoides* (P.D. Orton) Noordel.<sup>1</sup>**

= *Entoloma griseorubidum* Kühner ex Noordel.<sup>2</sup>

EASTERN EUROPE: **Leningrad Oblast** (<sup>2</sup>Morozova and Kovalenko, 2000; <sup>2</sup>Popov et al., 2007; <sup>1</sup>Morozova, Noordeloos, and Vila, 2014; <sup>1</sup>Morozova, Noordeloos, Popov, and Alexandrova, 2018); **Perm Krai** (<sup>2</sup>Perevedentseva, 2008; <sup>2</sup>Botalov, 2017; <sup>2</sup>Botalov and Perevedentseva, 2020).



***Entoloma infula* (Fr.) Noordel.<sup>1</sup>**

≡ *Agaricus infula* Fr.<sup>2</sup> ≡ *Entoloma infula* var. *infula* (Fr.) Noordel.<sup>3</sup> ≡ *Nolanea infula* (Fr.) Gillet<sup>4</sup> ≡ *Rhodophyllus infula* (Fr.) Quél.<sup>5</sup>

EASTERN EUROPE: **Leningrad Oblast** (<sup>4</sup>Thesleff, 1920; <sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Popov et al., 2007); **Penza Oblast** (<sup>1</sup>Ivanov, 1999); **Perm Krai** (<sup>3</sup>Perevedentseva, 2008; <sup>1</sup>Belkovskaya et al., 2014; <sup>1</sup>Botalov, 2017; <sup>1</sup>Botalov and Perevedentseva, 2020); **Pskov Oblast** (<sup>1</sup>Kovalenko, Kolmakov, Morozova, and Popov, 2003; <sup>1</sup>Popov et al., 2013); **Sverdlovsk Oblast** (<sup>1</sup>Marina, 2006); **Tver Oblast** (<sup>1</sup>Morozova, Aleksandrova, Popov, and Malysheva, 2016).

SIBERIA: **Khanty-Mansi Autonomous Okrug** (<sup>1</sup>Filippova, Bulyonkova, and Lapshina, 2015); **Krasnoyarsk Krai** (<sup>2</sup>Thümen, 1878; <sup>5</sup>Beglyanova, 1972c).

FAR EAST: **Khabarovsk Krai** (<sup>1</sup>Erofeeva and Bulakh, 2015a); **Magadan Oblast** (<sup>1</sup>Sazanova, 2005; <sup>1</sup>Sazanova, 2009a); **Primorsky Krai** (<sup>5</sup>Nazarova, 1978).

***Entoloma inutile* (Britzelm.) Noordel.**

≡ *Rhodophyllus inutilis* (Britzelm.) Romagn.<sup>1</sup>

EASTERN EUROPE: **Tatarstan** (<sup>1</sup>Vassiljeva, 1977).

***Entoloma iodiolens* Arnolds & Noordel.**

EASTERN EUROPE: **Volgograd Oblast** (Svetasheva, 2015).

***Entoloma jubatum* (Fr.) P. Karst.<sup>1</sup>**

= *Entoloma resutum* (Fr.) Quél.<sup>2</sup>

EASTERN EUROPE: **Kabardino-Balkarian Republic** (<sup>1</sup>Krapivina et al., 2020); **Novgorod Oblast** (<sup>2</sup>Morozova, 2012; <sup>2</sup>Popov et al., 2013).

SIBERIA: **Tomsk Oblast** (<sup>1</sup>Kudashova, Gashkov, and Vaishlya, 2016a).

FAR EAST: **Jewish Autonomous Oblast** (<sup>1</sup>Bulakh, Govorova, Nazarova, and Vassiljeva, 2007; <sup>1</sup>Bau, Bulakh, and Govorova, 2011); **Khabarovsk Krai** (<sup>1</sup>Erofeeva and Bulakh, 2015a).

***Entoloma juncinum* (Kühner & Romagn.) Noordel.<sup>1</sup>**

≡ *Nolanea juncina* (Kühner & Romagn.) P.D. Orton<sup>2</sup> ≡ *Rhodophyllus juncinus* Kühner & Romagn.<sup>3</sup>

EASTERN EUROPE: **Crimea** (<sup>1</sup>Dudka et al., 2004; <sup>1</sup>Sarkina, 2011); **Kaliningrad Oblast** (<sup>1</sup>Dedkov, Volodina, and Gubareva, 2007; <sup>1</sup>Volodina, 2007); **Karelia** (<sup>1</sup>Krutov et al., 2014); **Komi Republic** (<sup>1</sup>Bobretsova, 2004; <sup>1</sup>Palamarchuk, 2012; <sup>1</sup>Palamarchuk, 2016a; <sup>1</sup>Palamarchuk, 2016b); **Leningrad Oblast** (<sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Morozova, 1999; <sup>1</sup>Morozova, 2007; <sup>1</sup>Popov et al., 2007); **Moscow Oblast** (<sup>1</sup>Levitskaya, 1998; <sup>1</sup>Levitskaya, 2013); **Murmansk Oblast** (<sup>2</sup>Pystina, Pavlova, and Shestakova, 1969; <sup>1</sup>Nezdojminogo, 1997b; <sup>1</sup>Karatygin, Nezdojminogo, Novozhilov, and Zhurbenko, 1999); **Novgorod Oblast** (<sup>1</sup>Kovalenko, Morozova, Nezdojminogo, and Popov, 2005; <sup>1</sup>Popov et al., 2013); **Perm Krai** (<sup>1</sup>Perevedentseva, 2008; <sup>1</sup>Belkovskaya et al., 2014; <sup>1</sup>Perevedentseva and Shishigin, 2014; <sup>1</sup>Botalov, 2017; <sup>1</sup>Botalov and Perevedentseva, 2020); **Pskov Oblast** (<sup>1</sup>Kovalenko, Kolmakov, Morozova, and Popov, 2003; <sup>1</sup>Popov et al., 2013); **Rostov Oblast** (<sup>1</sup>Morozova et al., 2008); **Saint Petersburg** (<sup>1</sup>Morozova and Smirnov, 2011; <sup>1</sup>Morozova et al., 2020); **Sverdlovsk Oblast** (<sup>1</sup>Marina, 2006); **Tver Oblast** (<sup>1</sup>Morozova, Aleksandrova, Popov, and Malysheva, 2016); **Ulyanovsk Oblast** (<sup>1</sup>Ilyukhin, 2009; <sup>1</sup>Ilyukhin, 2010a); **Yaroslavl Oblast** (<sup>1</sup>Lazareva, 1998a; <sup>1</sup>Lazareva, 1998b); **Arid territories** (<sup>1</sup>Rebriev, Rusanov, et al., 2012).

SIBERIA: **Irkutsk Oblast** (<sup>1</sup>Petrov, 1986; <sup>1</sup>Petrov, 1989; <sup>1</sup>Petrov, 1991); **Novosibirsk Oblast** (<sup>1</sup>Gorbunova, 2006; <sup>1</sup>Gorbunova, 2007).

FAR EAST: **Chukotka Autonomous Okrug** (<sup>1</sup>Karatygin, Nezdojminogo, Novozhilov, and Zhurbenko, 1999); **Jewish Autonomous Oblast** (<sup>1</sup>Bulakh, Govorova, Nazarova, and Vassiljeva, 2007; <sup>1</sup>Bau, Bulakh, and Govorova, 2011); **Khabarovsk Krai** (<sup>3</sup>Azbukina et al., 1986; <sup>1</sup>Bau, Bulakh, and Govorova, 2011); **Magadan Oblast** (<sup>1</sup>Sazanova, 2009a; <sup>1</sup>Sazanova, 2009b; <sup>1</sup>Sazanova, 2011; <sup>1</sup>Sazanova, 2012; <sup>1</sup>Sazanova and Golodnova, 2015); **Primorsky Krai** (<sup>1</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Bulakh et al., 2016).

***Entoloma kedrovense* Noordel. & O.V. Morozova**

FAR EAST: **Primorsky Krai** (Noordeloos and Morozova, 2010).

***Entoloma kervernii* (De Guern.) M.M. Moser**

EASTERN EUROPE: **Kaliningrad Oblast** (Dedkov, Volodina, and Gubareva, 2007).

***Entoloma korhonenii* Noordel.**

EASTERN EUROPE: **Volgograd Oblast** (Rebriev, Popov, Pridyuk, and Svetasheva, 2014; Svetasheva, Popov, Rebriev, and Pridyuk, 2014).

***Entoloma kruticianum* O.V. Morozova, M.Y. Dyakov, E.S. Popov & A.V. Alexandrova**

EASTERN EUROPE: **Tver Oblast** (Crous et al., 2016).

***Entoloma lactarioides* Noordel. & Liiv**

EASTERN EUROPE: **Leningrad Oblast** (Kovalenko and Morozova, 1999a; Tzvelev, 2000; Popov et al., 2007; Geltman et al., 2018).

***Entoloma lampropus* (Fr.) Hesler<sup>1</sup>**

≡ *Leptonia lampropus* (Fr.) Quél.<sup>2</sup> ≡ *Rhodophyllus lampropus* (Fr.) Quél.<sup>3</sup>

EASTERN EUROPE: **Bryansk Oblast** (<sup>1</sup>Morozova, Noordeloos, and Vila, 2014); **Kabardino-Balkarian Republic** (<sup>2</sup>Singer, 1931; <sup>1</sup>Shkhagapsoev and Krapivina, 2004); **Karachay-Cherkess Republic** (<sup>1</sup>Morozova, Noordeloos, and Vila, 2014); **Karelia** (<sup>1</sup>Krutov et al., 2014); **Komi Republic** (<sup>1</sup>Palamarchuk and Kirillov, 2018a; <sup>1</sup>Palamarchuk, 2020a); **Leningrad Oblast** (<sup>2</sup>Thesleff, 1920); **Murmansk Oblast** (<sup>2</sup>Pystina, Pavlova, and Shestakova, 1969; <sup>1</sup>Morozova, Noordeloos, and Vila, 2014); **Orenburg Oblast** (<sup>1</sup>Morozova, Noordeloos, and Vila, 2014); **Perm Krai** (<sup>1</sup>Perevedentseva, 2008); **Sverdlovsk Oblast** (<sup>1</sup>Marina, 2006; <sup>1</sup>Morozova, Noordeloos, and Vila, 2014; <sup>1</sup>Korytin, 2018); **Tatarstan** (<sup>1</sup>Potapov, Galeyev, and Zhukov, 2013; <sup>1</sup>Morozova, Noordeloos, and Vila, 2014; <sup>1</sup>Potapov, 2015b; <sup>1</sup>Potapov, 2016b); **Udmurt Republic** (<sup>1</sup>Kapitonov, 2013; <sup>1</sup>Morozova, Noordeloos, and Vila, 2014); **Vologda Oblast** (<sup>1</sup>Kirillova, 2006; <sup>1</sup>Kirillova, 2007; <sup>1</sup>Morozova, Noordeloos, and Vila, 2014); **Arid territories** (<sup>1</sup>Rebriev, Rusanov, et al., 2012).

SIBERIA: **Altai Krai** (<sup>1</sup>Gorbunova, 2018a); **Altai Republic** (<sup>1</sup>Gorbunova, 1997; <sup>1</sup>Gorbunova, 2001b; <sup>1</sup>Perova and Gorbunova, 2001); **Irkutsk Oblast** (<sup>1</sup>Petrov, 1986; <sup>1</sup>Petrov, 1991; <sup>1</sup>Petrov, 2008); **Khanty-Mansi Autonomous Okrug** (<sup>1</sup>Filippova and Bulyonkova, 2017a; <sup>1</sup>Filippova and Bulyonkova, 2017b); **Krasnoyarsk Krai** (<sup>1</sup>Malysheva, Malysheva, Kiyashko, et al., 2017); **Novosibirsk Oblast** (<sup>1</sup>Morozova, Noordeloos, and Vila, 2014); **Tomsk Oblast** (<sup>1</sup>Agaphonova, Kutafjeva, and Gashkov, 2009b; <sup>1</sup>Kudashova, Gashkov, and Kutafjeva, 2013; <sup>1</sup>Morozova, Noordeloos, and Vila, 2014; <sup>1</sup>Kudashova, Gashkov, and Vaishlya, 2016b).

FAR EAST: **Jewish Autonomous Oblast** (<sup>1</sup>Bulakh, Govorova, Nazarova, and Vassiljeva, 2007; <sup>1</sup>Bau, Bulakh, and Govorova, 2011); **Kamchatka Krai** (<sup>1</sup>Morozova, Noordeloos, and Vila, 2014); **Khabarovsk Krai** (<sup>3</sup>Azbukina et al., 1986; <sup>1</sup>Azbukina et al., 1989; <sup>1</sup>Bau, Bulakh, and Govorova, 2011); **Primorsky Krai** (<sup>3</sup>Vassiljeva, 1972; <sup>3</sup>Vassiljeva, 1973; <sup>3</sup>Bunkina and Nazarova, 1978; <sup>3</sup>Azbukina et al., 1984; <sup>1</sup>Azbukina et al., 1990; <sup>1</sup>Bardunov et al., 2002; <sup>1</sup>Azbukina et al., 2006; <sup>1</sup>Bau, Bulakh, and Govorova, 2011).

***Entoloma langei* Noordel. & T. Borgen**

EASTERN EUROPE: **Murmansk Oblast** (Nezdojminogo, 1997b; Karatygin, Nezdojminogo, Novozhilov, and Zhurbenko, 1999).

***Entoloma lanicum* (Romagn.) Noordel.**

SIBERIA: **Novosibirsk Oblast** (Perova and Gorbunova, 2001; Perova and Gorbunova, 2007).

***Entoloma lanuginosipes* Noordel.**

EASTERN EUROPE: **Karelia** (Krutov et al., 2014); **Komi Republic** (Bobretsova, 2004; Palamarchuk, 2012; Palamarchuk, 2016a; Palamarchuk, 2016b); **Leningrad Oblast** (Stolyarskaya, 1993; Kovalenko and Morozova, 1999a; Morozova, 2007; Popov et al., 2007; Zmitrovich et al., 2015); **Moscow Oblast** (Voronina et al., 2014); **Novgorod Oblast** (Kovalenko, Morozova, Nezdojminogo, and Popov, 2005; Popov et al., 2013); **Pskov Oblast** (Popov et al., 2013); **Saint Petersburg** (Morozova and Smirnov, 2011); **Sverdlovsk Oblast** (Marina, 2006).

SIBERIA: **Altai Republic** (Gorbunova, 2010); **Khanty-Mansi Autonomous Okrug** (Filippova, Bulyonkova, and Lapshina, 2015; Filippova and Bulyonkova, 2017a; Filippova and Bulyonkova, 2017b).

***Entoloma lepidissimum* (Svrček) Noordel.**

EASTERN EUROPE: **Komi Republic** (Palamarchuk, 2012); **Novgorod Oblast** (Morozova, 2012; Popov et al., 2013; Morozova, Noordeloos, and Vila, 2014; Vetkin et al., 2015); **Samara Oblast** (Malysheva and Malysheva, 2005b; Malysheva and Malysheva, 2008); **Ulyanovsk Oblast** (Ilyukhin, 2010a); **Vologda Oblast** (Kirillova, 2007).

FAR EAST: **Primorsky Krai** (Morozova, Noordeloos, and Vila, 2014; Bulakh et al., 2016).

***Entoloma linkii* (Fr.) Noordel.**≡ *Agaricus linkii* Fr.<sup>1</sup>EASTERN EUROPE: **Saint Petersburg** (<sup>1</sup>Weinmann, 1836).***Entoloma lividoalbum* (Kühner & Romagn.) Kubička<sup>1</sup>**≡ *Rhodophyllus lividoalbus* Kühner & Romagn.<sup>2</sup>EASTERN EUROPE: **Karelia** (<sup>1</sup>Krutov et al., 2014); **Moscow Oblast** (<sup>1</sup>Levitskaya, 1998; <sup>1</sup>Levitskaya, 2013); **Penza Oblast** (<sup>2</sup>Ivanov, 1983); **Rostov Oblast** (<sup>1</sup>Fedyeva, 2014; <sup>1</sup>Rusanov, Rebriev, and Bulgakov, 2018); **Saint Petersburg** (<sup>1</sup>Morozova, Kovalenko, Rebriev, and Malysheva, 2014); **Tula Oblast** (<sup>1</sup>Svetasheva et al., 2017); **Arid territories** (<sup>1</sup>Rebriev, Rusanov, et al., 2012).SIBERIA: **Altai Krai** (<sup>1</sup>Gorbunova, 2018a); **Irkutsk Oblast** (<sup>1</sup>Astapenko and Kutafjeva, 1990); **Krasnoyarsk Krai** (<sup>1</sup>Kryuchkova, 2009).FAR EAST: **Magadan Oblast** (<sup>1</sup>Sazanova, 2015).***Entoloma lividocyanulum* (Kühner) Noordel.**EASTERN EUROPE: **Leningrad Oblast** (Popov et al., 2007); **Penza Oblast** (Ivanov, 1999); **Pskov Oblast** (Popov et al., 2013); **Tatarstan** (Potapov, 2016b); **Tula Oblast** (Shcherbakov, 2010); **Tver Oblast** (Morozova, Aleksandrova, Popov, and Malysheva, 2016; Svetasheva, Sheremetyeva, and Lakomov, 2019).FAR EAST: **Primorsky Krai** (Bulakh et al., 2016).***Entoloma longistriatum* (Peck) Noordel.<sup>1</sup>**≡ *Entoloma longistriatum* var. *longistriatum* (Peck) Noordel.<sup>2</sup> = *Entoloma longistriatum* var. *sarcitulum* (P.D. Orton) Noordel.<sup>3</sup> = *Rhodophyllus sarcitulus* Kühner & Romagn.<sup>4</sup>EASTERN EUROPE: **Komi Republic** (<sup>1</sup>Palamarchuk, 2016a; <sup>1</sup>Palamarchuk, 2016b); **Murmansk Oblast** (<sup>2</sup>Nezdojminogo, 1997b; <sup>2</sup>Karatygin, Nezdojminogo, Novozhilov, and Zhurbenko, 1999); **Novgorod Oblast** (<sup>1</sup>Morozova, 2012; <sup>3</sup>Popov et al., 2013; <sup>1</sup>Morozova, Popov, and Fedosova, 2014); **Pskov Oblast** (<sup>3</sup>Popov et al., 2013; <sup>2,3</sup>Morozova et al., 2015); **Tver Oblast** (<sup>1</sup>Morozova, Aleksandrova, Popov, and Malysheva, 2016).FAR EAST: **Primorsky Krai** (<sup>4</sup>Vassiljeva, 1973; <sup>3</sup>Bulakh et al., 2016).***Entoloma lucidum* (P.D. Orton) M.M. Moser<sup>1</sup>**≡ *Nolanea lucida* P.D. Orton<sup>2</sup>EASTERN EUROPE: **Crimea** (<sup>1</sup>Dudka et al., 2004); **Murmansk Oblast** (<sup>2</sup>Mikhailovskii, 1975a).SIBERIA: **Irkutsk Oblast** (<sup>1</sup>Astapenko and Kutafjeva, 1990); **Tomsk Oblast** (<sup>1</sup>Kudashova, Gashkov, and Vaishlya, 2016a).***Entoloma madidum* Gillet<sup>1</sup>**≡ *Rhodophyllus madidus* (Gillet) Quél.<sup>2</sup>EASTERN EUROPE: **Leningrad Oblast** (<sup>1</sup>Thesleff, 1920).SIBERIA: **Krasnoyarsk Krai** (<sup>2</sup>Beglyanova, 1972a; <sup>2</sup>Beglyanova, 1972b).***Entoloma majaloides* P.D. Orton**EASTERN EUROPE: **Belgorod Oblast** (Bedenko, 1980); **Leningrad Oblast** (Zmitrovich et al., 2015); **Murmansk Oblast** (Mikhailovskii, 1975a; Mikhailovskii, 1975b); **Novgorod Oblast** (Popov et al., 2013); **Pskov Oblast** (Kolmakov and Popov, 2005; Popov et al., 2013); **Saint Petersburg** (Morozova and Smirnov, 2011); **Ulyanovsk Oblast** (Ilyukhin, 2010a; Ilyukhin, 2010b); **Vologda Oblast** (Kirillova, 2006; Kirillova, 2007).SIBERIA: **Krasnoyarsk Krai** (Krom and Kapitonov, 2019).FAR EAST: **Amur Oblast** (Kochunova, 2019).***Entoloma mammosum* (L.) Hesler<sup>1</sup>**≡ *Nolanea mammosa* (L.) Sacc.<sup>2</sup> ≡ *Rhodophyllus mammosus* (L.) Quél.<sup>3</sup>EASTERN EUROPE: **Chelyabinsk Oblast** (<sup>3</sup>Sirko and Stepanova, 1977; <sup>3</sup>Stepanova and Sirko, 1977); **Crimea** (<sup>1</sup>Sarkina, 2001; <sup>1</sup>Dudka et al., 2004; <sup>1</sup>Sarkina, 2010b; <sup>1</sup>Sarkina, 2013); **Krasnodar Krai** (<sup>2</sup>Vassiljeva, 1939); **Leningrad Oblast** (<sup>2</sup>Thesleff, 1920); **Lipetsk Oblast** (<sup>1</sup>Afanasyev, Rtishcheva, and Starodubtseva, 2007; <sup>1</sup>Sarycheva et al., 2009; <sup>1</sup>Sarycheva, Starodubtseva, and Sapelnikova, 2017); **Moscow Oblast** (<sup>1</sup>Levitskaya, 2013); **Murmansk Oblast** (<sup>2</sup>Mikhailovskii, 1975b); **Tatarstan** (<sup>3</sup>Vassiljeva, 1977); **Voronezh Oblast** (<sup>1</sup>Afanasyev, Rtishcheva, and

Starodubtseva, 2007; <sup>1</sup>Sarycheva, Starodubtseva, and Sapelnikova, 2017); **Yamalo-Nenets Autonomous Okrug** (<sup>3</sup>Stepanova and Sirko, 1977).

SIBERIA: **Altai Republic** (<sup>1</sup>Gorbunova, 2001b; <sup>1</sup>Perova and Gorbunova, 2001); **Khakassia** (<sup>3</sup>Beglyanova, 1972a); **Krasnoyarsk Krai** (<sup>3</sup>Beglyanova, 1972a; <sup>3</sup>Beglyanova, 1972c; <sup>1</sup>Zauzolkova, 2012; <sup>1</sup>Zauzolkova, 2015); **Tomsk Oblast** (<sup>1</sup>Perova and Gorbunova, 2001).

FAR EAST: **Primorsky Krai** (<sup>3</sup>Vassiljeva, 1973; <sup>3</sup>Bunkina and Nazarova, 1978; <sup>1</sup>Azbukina et al., 2006; <sup>1</sup>Bau, Bulakh, and Govorova, 2011).

***Entoloma melanochroum* Noordel.**

EASTERN EUROPE: **Tula Oblast** (Shcherbakov, 2010).

***Entoloma minimum* (Velen.) Noordel.**

FAR EAST: **Magadan Oblast** (Sazanova and Golodnova, 2015; Sazanova, 2015).

***Entoloma minutum* (P. Karst.) Noordel.<sup>1</sup>**

≡ *Nolanea minuta* P. Karst.<sup>2</sup> ≡ *Rhodophyllus minutus* (P. Karst.) J.E. Lange<sup>3</sup>

EASTERN EUROPE: **Kaliningrad Oblast** (<sup>1</sup>Dedkov, Volodina, and Gubareva, 2007; <sup>1</sup>Volodina, 2007; <sup>1</sup>Atayev and Volodina, 2020); **Kirov Oblast** (<sup>1</sup>Kirillov, 2011; <sup>1</sup>Kirillov, Perevedentseva, and Egoshina, 2011); **Komi Republic** (<sup>1</sup>Palamarchuk, 2011a; <sup>1</sup>Palamarchuk, 2012; <sup>1</sup>Palamarchuk, 2017); **Leningrad Oblast** (<sup>3</sup>Nezdojminogo, 1967; <sup>3</sup>Chastukhin and Nikolaevskaya, 1969; <sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Morozova and Kovalenko, 2000; <sup>1</sup>Morozova, 2007; <sup>1</sup>Popov et al., 2007); **Novgorod Oblast** (<sup>1</sup>Kovalenko, Morozova, Nezdojminogo, and Popov, 2005; <sup>1</sup>Popov et al., 2013); **Perm Krai** (<sup>1</sup>Shkaraba, Perevedentseva, and Moshkina, 1990; <sup>1</sup>Perevedentseva, 2008; <sup>1</sup>Belkovskaya et al., 2014; <sup>1</sup>Botalov, 2017; <sup>1</sup>Botalov and Perevedentseva, 2020); **Ryazan Oblast** (<sup>1</sup>Malysheva and Volosnova, 2008; <sup>1</sup>Volosnova, 2014); **Saint Petersburg** (<sup>1</sup>Kotkova, Morozova, and Popov, 2005; <sup>1</sup>Morozova and Smirnov, 2011); **Samara Oblast** (<sup>1</sup>Malysheva and Malysheva, 2004; <sup>1</sup>Malysheva and Malysheva, 2007; <sup>1</sup>Malysheva and Malysheva, 2008); **Sverdlovsk Oblast** (<sup>1</sup>Marina, 2006); **Tatarstan** (<sup>3</sup>Vassiljeva, 1977); **Tver Oblast** (<sup>1</sup>Kotkova, 2014).

SIBERIA: **Irkutsk Oblast** (<sup>1</sup>Petrov, 1986; <sup>1</sup>Petrov, 1991; <sup>1</sup>Petrov, 2008); **Krasnoyarsk Krai** (<sup>3</sup>Beglyanova, 1972a; <sup>3</sup>Beglyanova, 1972b); **Novosibirsk Oblast** (<sup>2</sup>Perova, 1977; <sup>1</sup>Perova and Gorbunova, 2001; <sup>1</sup>Perova and Gorbunova, 2007); **Tomsk Oblast** (<sup>1</sup>Perova and Gorbunova, 2001; <sup>1</sup>Kudashova, Gashkov, and Kutafjeva, 2013).

FAR EAST: **Primorsky Krai** (<sup>3</sup>Vassiljeva, 1973).

***Entoloma moguntinum* Noordel. & Prüfert**

EASTERN EUROPE: **Pskov Oblast** (Morozova, Aleksandrova, Popov, and Malysheva, 2016); **Tver Oblast** (Morozova, Aleksandrova, Popov, and Malysheva, 2016).

***Entoloma moserianum* Noordel.**

EASTERN EUROPE: **Samara Oblast** (Malysheva and Malysheva, 2008).

***Entoloma mougeotii* (Fr.) Hesler<sup>1</sup>**

≡ *Entoloma mougeotii* var. *mougeotii* (Fr.) Hesler<sup>2</sup>

EASTERN EUROPE: **Komi Republic** (<sup>2</sup>Palamarchuk, 2012); **Penza Oblast** (<sup>1</sup>Ivanov, 1999); **Northern Caucasus** (<sup>1</sup>Morozova, Noordeloos, and Vila, 2014).

***Entoloma murrayi* (Berk. & M.A. Curtis) Sacc. & P. Syd.**

≡ *Rhodophyllus murrayi* (Berk. & M.A. Curtis) Singer<sup>1</sup>

FAR EAST: **Primorsky Krai** (<sup>1</sup>Vassiljeva, 1972; <sup>1</sup>Vassiljeva, 1973).

***Entoloma myrmecophilum* (Romagn.) M.M. Moser**

EASTERN EUROPE: **Leningrad Oblast** (Popov et al., 2007); **Pskov Oblast** (Popov et al., 2013); **Samara Oblast** (Malysheva and Malysheva, 2005b; Malysheva and Malysheva, 2008); **Sverdlovsk Oblast** (Marina, 2006); **Yaroslavl Oblast** (Lazareva, 1998a; Lazareva, 1998b).

SIBERIA: **Khakassia** (Zauzolkova, 2015; Zauzolkova and Gorbunova, 2016); **Khanty-Mansi Autonomous Okrug** (Filippova and Bulyonkova, 2017a; Filippova and Bulyonkova, 2017b).

***Entoloma nausiosme* Noordel.**

EASTERN EUROPE: **Novgorod Oblast** (Morozova, Popov, and Fedosova, 2014).

***Entoloma neglectum* (Lasch) Arnolds<sup>1</sup>**

≡ *Rhodophyllus neglectus* (Lasch) J. Favre<sup>2</sup> = *Rhodophyllus cancrinus* (Quél.) Quél.<sup>3</sup>

EASTERN EUROPE: **Leningrad Oblast** (<sup>1</sup>Morozova, 2007; <sup>1</sup>Popov et al., 2007); **Novgorod Oblast** (<sup>1</sup>Popov et al., 2013); **Orenburg Oblast** (<sup>1</sup>Desyatova, 2008); **Pskov Oblast** (<sup>1</sup>Morozova et al., 2015); **Samara Oblast** (<sup>1</sup>Malysheva and Malysheva, 2007; <sup>1</sup>Malysheva and Malysheva, 2008); **Volgograd Oblast** (<sup>2</sup>Burova and Nezdoininogo, 1982); **Arid territories** (<sup>1</sup>Rebriev, Rusanov, et al., 2012).

SIBERIA: **Irkutsk Oblast** (<sup>1</sup>Gorbunova and Stepantsova, 2015).

FAR EAST: **Khabarovsk Krai** (<sup>3</sup>Azbukina et al., 1986; <sup>1</sup>Bau, Bulakh, and Govorova, 2011); **Primorsky Krai** (<sup>3</sup>Vassiljeva, 1973; <sup>1</sup>Bulakh et al., 2016); **Sakhalin Oblast** (<sup>3</sup>Vassiljeva and Nazarova, 1972).

***Entoloma nigellum* (Quél.) Noordel.**

EASTERN EUROPE: **Moscow Oblast** (Gorlenko, Sidorova, and Sidorova, 1989); **Perm Krai** (Perevedentseva, 2008).

***Entoloma nigrellum* (Pers.) Noordel.<sup>1</sup>**

≡ *Agaricus nigrellus* Pers.<sup>2</sup> ≡ *Eccilia nigrella* (Pers.) Sacc.<sup>3</sup> ≡ *Rhodophyllus nigrellus* (Pers.) Quél.<sup>4</sup>

EASTERN EUROPE: **Leningrad Oblast** (<sup>3</sup>Thesleff, 1920); **Saint Petersburg** (<sup>2</sup>Weinmann, 1828; <sup>2</sup>Weinmann, 1836; <sup>2</sup>Weinmann, 1837); **Tula Oblast** (<sup>1</sup>Svetasheva, 2001); **Voronezh Oblast** (<sup>4</sup>Chastukhin and Nikolaevskaya, 1953; <sup>3</sup>Chastukhin and Nikolaevskaya, 1969); **Yaroslavl Oblast** (<sup>1</sup>Lazareva, 1998a; <sup>1</sup>Lazareva, 1998b).

***Entoloma nitens* (Velen.) Noordel.**

EASTERN EUROPE: **Tula Oblast** (Svetasheva, 2004; Shcherbakov, 2010).

SIBERIA: **Khanty-Mansi Autonomous Okrug** (Filippova and Bulyonkova, 2017a; Filippova and Bulyonkova, 2017b).

FAR EAST: **Magadan Oblast** (Sazanova, 2009a).

***Entoloma noordeloosii* Hauskn.**

EASTERN EUROPE: **Moscow Oblast** (Voronina et al., 2014).

***Entoloma occultipigmentatum* Arnolds & Noordel.**

EASTERN EUROPE: **Ryazan Oblast** (Malysheva and Volosnova, 2008; Volosnova, 2014).

***Entoloma ochromicaceum* Noordel. & Liiv**

EASTERN EUROPE: **Pskov Oblast** (Morozova et al., 2015).

SIBERIA: **Altai Republic** (Svetasheva et al., 2019).

***Entoloma ortonii* Arnolds & Noordel.<sup>1</sup>**

= *Nolanea farinolens* P.D. Orton<sup>2</sup>

EASTERN EUROPE: **Leningrad Oblast** (<sup>1</sup>Popov et al., 2007); **Murmansk Oblast** (<sup>2</sup>Mikhailovskii, 1975a); **Perm Krai** (<sup>1</sup>Perevedentseva, 2008; <sup>1</sup>Botalov, 2017).

***Entoloma pallescens* (P. Karst.) Noordel.<sup>1</sup>**

≡ *Nolanea pallescens* (P. Karst.) P. Karst.<sup>2</sup>

EASTERN EUROPE: **Komi Republic** (<sup>1</sup>Bobretsova, 2004; <sup>1</sup>Palamarchuk, 2011b; <sup>1</sup>Palamarchuk, 2012; <sup>1</sup>Palamarchuk, 2016a; <sup>1</sup>Palamarchuk, 2016b; <sup>1</sup>Palamarchuk and Kirillov, 2017); **Leningrad Oblast** (<sup>2</sup>Thesleff, 1920; <sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Morozova, 2007; <sup>1</sup>Popov et al., 2007); **Saint Petersburg** (<sup>1</sup>Morozova et al., 2020); **Tver Oblast** (<sup>1</sup>Morozova, Aleksandrova, Popov, and Malysheva, 2016); **Vologda Oblast** (<sup>1</sup>Kirillova, 2006; <sup>1</sup>Kirillova, 2007).

SIBERIA: **Krasnoyarsk Krai** (<sup>1</sup>Malysheva, Malysheva, Kiyashko, et al., 2017).

***Entoloma pallidocarpum* Noordel. & O.V. Morozova**

SIBERIA: **Krasnoyarsk Krai** (Krom and Kapitonov, 2019).

FAR EAST: **Primorsky Krai** (Noordeloos and Morozova, 2010).

***Entoloma papillatum* (Bres.) Dennis<sup>1</sup>**

≡ *Rhodophyllus papillatus* (Bres.) J.E. Lange<sup>2</sup>

EASTERN EUROPE: **Komi Republic** (<sup>1</sup>Palamarchuk and Kirillov, 2017); **Novgorod Oblast** (<sup>1</sup>Morozova, 2012; <sup>1</sup>Popov et al., 2013; <sup>1</sup>Morozova, Popov, and Fedosova, 2014); **Perm Krai** (<sup>1</sup>Perevedentseva, 2008; <sup>1</sup>Belkovskaya et al., 2014); **Ryazan Oblast** (<sup>1</sup>Malysheva and Volosnova, 2008; <sup>1</sup>Volosnova, 2014); **Tver Oblast** (<sup>1</sup>Morozova, Aleksandrova, Popov, and Malysheva, 2016); **Yaroslavl Oblast** (<sup>1</sup>Lazareva, 1998a; <sup>1</sup>Lazareva, 1998b).

SIBERIA: **Irkutsk Oblast** (<sup>1</sup>Kutafjeva, 1983); **Krasnoyarsk Krai** (<sup>2</sup>Beglyanova, 1972a); **Novosibirsk Oblast** (<sup>1</sup>Perova and Gorbunova, 2001; <sup>1</sup>Perova and Gorbunova, 2007).

FAR EAST: **Khabarovsk Krai** (<sup>2</sup>Azbukina et al., 1986; <sup>1</sup>Azbukina et al., 1989; <sup>1</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Erofeeva and Bulakh, 2015a); **Primorsky Krai** (<sup>2</sup>Vassiljeva, 1973; <sup>2</sup>Bunkina and Nazarova, 1978; <sup>2</sup>Azbukina et al., 1984; <sup>1</sup>Azbukina et al., 2006; <sup>1</sup>Bau, Bulakh, and Govorova, 2011); **Sakhalin Oblast** (<sup>1</sup>Bulakh, Govorova, and Bogatov, 1999).

***Entoloma parasericellum* Corner & E. Horak**

FAR EAST: **Primorsky Krai** (Noordeloos and Morozova, 2010).

***Entoloma parasiticum* (Quél.) Kreisel<sup>1</sup>**

≡ *Rhodophyllus parasiticus* (Quél.) Quél.<sup>2</sup>

FAR EAST: **Primorsky Krai** (<sup>2</sup>Vassiljeva, 1973; <sup>2</sup>Bunkina and Nazarova, 1978; <sup>1</sup>Azbukina et al., 2006; <sup>1</sup>Bau, Bulakh, and Govorova, 2011).

***Entoloma parkensis* (Fr.) Noordel.<sup>1</sup>**

≡ *Eccilia parkensis* (Fr.) Quél.<sup>2</sup> ≡ *Rhodophyllus parkensis* (Fr.) Quél.<sup>3</sup>

EASTERN EUROPE: **Leningrad Oblast** (<sup>2</sup>Thesleff, 1920); **Tula Oblast** (<sup>1</sup>Svetasheva, 2004; <sup>1</sup>Shcherbakov, 2010; <sup>1</sup>Svetasheva, Sheremetyeva, and Lakomov, 2019).

FAR EAST: **Jewish Autonomous Oblast** (<sup>1</sup>Bulakh, Govorova, Nazarova, and Vassiljeva, 2007; <sup>1</sup>Bau, Bulakh, and Govorova, 2011); **Primorsky Krai** (<sup>3</sup>Vassiljeva, 1973; <sup>1</sup>Bulakh et al., 2016).

***Entoloma parvocarpum* Tkalčec & Mešić**

= *Nolanea parvula* Murrill<sup>1</sup>

EASTERN EUROPE: **Karelia** (<sup>1</sup>Freindling, 1949).

***Entoloma pascuum* (Pers.) Donk<sup>1</sup>**

≡ *Agaricus pascuus* Pers.<sup>2</sup> ≡ *Hyporrhodius pascuus* (Pers.) J. Schröt.<sup>3</sup> ≡ *Nolanea pascua* (Pers.) P. Kumm.<sup>4</sup>

EASTERN EUROPE: **Leningrad Oblast** (<sup>4</sup>Thesleff, 1920); **Moscow** (<sup>3</sup>Bucholtz, 1897b; <sup>3</sup>Bucholtz, 1897c; <sup>3</sup>Mosolov, 1906); **Saint Petersburg** (<sup>2</sup>Weinmann, 1828; <sup>2</sup>Weinmann, 1836; <sup>2</sup>Weinmann, 1837; <sup>1</sup>Morozova, Kovalenko, Rebriev, and Malysheva, 2014); **Smolensk Oblast** (<sup>4</sup>Jaczevski, 1896); **Lapland** (<sup>2</sup>Karsten, 1866).

SIBERIA: **Krasnoyarsk Krai** (<sup>2</sup>Thümen, 1878; <sup>4</sup>Kalchbrenner, 1878).

***Entoloma percandidum* Noordel.**

EASTERN EUROPE: **Komi Republic** (Palamarchuk, 2016a; Palamarchuk, 2016b); **Murmansk Oblast** (Nezdojminogo, 1997b; Karatygina, Nezdojminogo, Novozhilov, and Zhurbenko, 1999).

***Entoloma percoelestinum* O.V. Morozova, Noordel., Vila & Bulyonk.**

EASTERN EUROPE: **Penza Oblast** (Morozova, Noordeloos, and Vila, 2014).

SIBERIA: **Novosibirsk Oblast** (Morozova, Noordeloos, and Vila, 2014).

***Entoloma phaeocyathum* Noordel.**

EASTERN EUROPE: **Pskov Oblast** (Morozova et al., 2015); **Saint Petersburg** (Morozova et al., 2020); **Volgograd Oblast** (Rebriev, Popov, Pridyuk, and Svetasheva, 2014; Svetasheva, Popov, Rebriev, and Pridyuk, 2014).

***Entoloma philocistus* Hauskn. & Noordel.**

SIBERIA: **Khanty-Mansi Autonomous Okrug** (Zvyagina and Baykalova, 2017).

***Entoloma piceinum* O.V. Morozova, E.Yu. Voronina & S.N. Arslanov**

EASTERN EUROPE: **Moscow Oblast** (Morozova, Voronina, and Arslanov, 2014); **Novgorod Oblast** (Svetasheva et al., 2017); **Saint Petersburg** (Morozova, Voronina, and Arslanov, 2014; Morozova et al., 2020).

***Entoloma placidum* (Fr.) Noordel.<sup>1</sup>**

≡ *Entoloma placidum* (Fr.) Zerova<sup>2</sup> ≡ *Leptonia placida* (Fr.) P. Kumm.<sup>3</sup> ≡ *Rhodophyllus placidus* (Fr.) Quél.<sup>4</sup>

EASTERN EUROPE: **Karachay-Cherkess Republic** (<sup>1</sup>Morozova, Noordeloos, and Vila, 2014); **Karelia** (<sup>4</sup>Krutov et al., 2014); **Leningrad Oblast** (<sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Popov et al., 2007); **Murmansk Oblast** (<sup>3</sup>Pystina, Pavlova, and Shestakova, 1969); **Penza Oblast** (<sup>4</sup>Ivanov, 1982; <sup>4</sup>Ivanov, 1983); **Perm Krai** (<sup>2</sup>Perevedentseva, 2008); **Tatarstan** (<sup>4</sup>Vassiljeva, 1977).

SIBERIA: **Irkutsk Oblast** (<sup>1</sup>Astapenko and Kutafjeva, 1990; <sup>1</sup>Astapenko, 1990a); **Krasnoyarsk Krai** (<sup>4</sup>Beglyanova, 1972a; <sup>3</sup>Beglyanova, 1972b).

FAR EAST: **Khabarovsk Krai** (<sup>1</sup>Bau, Bulakh, and Govorova, 2011); **Primorsky Krai** (<sup>3</sup>Bulakh, 1977; <sup>4</sup>Azbukina et al., 1984; <sup>1</sup>Bau, Bulakh, and Govorova, 2011).

***Entoloma platyphylloides* (Romagn.) Largent**

EASTERN EUROPE: **Krasnodar Krai** (Kovalenko, 1980a; Kovalenko, 1980b).

***Entoloma plebeioides* (Schulzer) Noordel.**

EASTERN EUROPE: **Sverdlovsk Oblast** (Marina, 2006).

***Entoloma plebejum* (Kalchbr.) Noordel.<sup>1</sup>**

= *Agaricus erophilus* Fr.<sup>2</sup> = *Rhodophyllus erophilus* (Fr.) Quél.<sup>3</sup> = *Entoloma pyrenaicum* (Quél.) Sacc.<sup>4</sup> =

EASTERN EUROPE: **Chelyabinsk Oblast** (<sup>3</sup>Stepanova and Sirko, 1977); **Krasnodar Krai** (<sup>4</sup>Vassiljeva, 1939); **Leningrad Oblast** (<sup>1</sup>Thesleff, 1920; <sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Popov et al., 2007); **Sverdlovsk Oblast** (<sup>1</sup>Marina, 2006); **Arid territories** (<sup>1</sup>Rebriev, Rusanov, et al., 2012).

SIBERIA: **Krasnoyarsk Krai** (<sup>2</sup>Thümen, 1878; <sup>3</sup>Beglyanova, 1972a; <sup>1</sup>Zauzolkova, 2015).

FAR EAST: **Jewish Autonomous Oblast** (<sup>1</sup>Bulakh, Govorova, Nazarova, and Vassiljeva, 2007; <sup>1</sup>Bau, Bulakh, and Govorova, 2011).

***Entoloma pleopodium* (Bull.) Noordel.<sup>1</sup>**

= *Entoloma icterinum* (Fr.) M.M. Moser<sup>2</sup> = *Nolanea icterina* (Fr.) P. Kumm.<sup>3</sup> = *Rhodophyllus icterinus* (Fr.) Quél.<sup>4</sup>

EASTERN EUROPE: **Kaliningrad Oblast** (<sup>2</sup>Dedkov, Volodina, and Gubareva, 2007); **Krasnodar Krai** (<sup>1</sup>Kiyashko, 2009); **Leningrad Oblast** (<sup>1</sup>Popov et al., 2007); **Moscow Oblast** (<sup>1</sup>Levitskaya, 1998); **Murmansk Oblast** (<sup>3</sup>Mikhailovskii, 1975b); **Novgorod Oblast** (<sup>1</sup>Malysheva, Malysheva, and Zmitrovich, 2007); **Perm Krai** (<sup>1</sup>Perevedentseva, 2008); **Pskov Oblast** (<sup>1</sup>Popov et al., 2013); **Saint Petersburg** (<sup>1</sup>Morozova et al., 2020); **Samara Oblast** (<sup>1</sup>Malysheva and Malysheva, 2006; <sup>1</sup>Malysheva and Malysheva, 2007; <sup>1</sup>Malysheva and Malysheva, 2008).

FAR EAST: **Khabarovsk Krai** (<sup>4</sup>Azbukina et al., 1986; <sup>1</sup>Bulakh, Vassiljeva, and Erofeeva, 2010; <sup>1</sup>Bau, Bulakh, and Govorova, 2011); **Primorsky Krai** (<sup>4</sup>Vassiljeva, 1973); **Sakhalin Oblast** (<sup>4</sup>Vassiljeva and Nazarova, 1972).

***Entoloma poliopus* (Romagn.) Noordel.<sup>1</sup>**

≡ *Entoloma poliopus* var. *poliopus* (Romagn.) Noordel.<sup>2</sup> = *Entoloma poliopus* var. *discolor* Noordel.<sup>3</sup>

EASTERN EUROPE: **Adygea** (<sup>3</sup>Kiyashko, 2009); **Leningrad Oblast** (<sup>1</sup>Morozova, 2007; <sup>1</sup>Popov et al., 2007); **Murmansk Oblast** (<sup>1</sup>Nezdojminogo, 1997b; <sup>1</sup>Karatygin, Nezdojminogo, Novozhilov, and Zhurbenko, 1999); **Novgorod Oblast** (<sup>1</sup>Morozova, 2012); **Pskov Oblast** (<sup>1</sup>Popov et al., 2013); **Saint Petersburg** (<sup>1</sup>Morozova and Smirnov, 2011); **Sverdlovsk Oblast** (<sup>3</sup>Marina, 2006); **Tver Oblast** (<sup>2</sup>Morozova, Aleksandrova, Popov, and Malysheva, 2016).

SIBERIA: **Khanty-Mansi Autonomous Okrug** (<sup>1</sup>Zvyagina, 2012; <sup>1</sup>Vasin and Vasina, 2013).

***Entoloma politum* (Pers.) Noordel.<sup>1</sup>**

≡ *Agaricus politus* Pers.<sup>2</sup> ≡ *Entoloma politum* (Pers.) Donk<sup>3</sup>

EASTERN EUROPE: **Adygea** (<sup>3</sup>Sopina, 2001a); **Arkhangelsk Oblast** (<sup>3</sup>Karatygin, Nezdojminogo, Novozhilov, and Zhurbenko, 1999); **Kaliningrad Oblast** (<sup>3</sup>Atayev and Volodina, 2020); **Komi Republic** (<sup>3</sup>Palamarchuk, 2016a; <sup>3</sup>Palamarchuk, 2016b); **Leningrad Oblast** (<sup>3</sup>Kovalenko and Morozova, 1999a; <sup>3</sup>Morozova and Kovalenko, 2000; <sup>3</sup>Popov et al., 2007; <sup>3</sup>Kalinina, 2018); **Murmansk Oblast** (<sup>3</sup>Nezdojminogo, 1997b; <sup>3</sup>Karatygin, Nezdojminogo, Novozhilov, and Zhurbenko, 1999); **Saint Petersburg** (<sup>2</sup>Weinmann, 1828; <sup>2</sup>Weinmann, 1836; <sup>2</sup>Weinmann, 1837); **Samara Oblast** (<sup>3</sup>Malysheva and Malysheva, 2004; <sup>3</sup>Malysheva and Malysheva, 2008); **Sverdlovsk Oblast** (<sup>3</sup>Marina, 2006); **Tula Oblast** (<sup>3</sup>Svetasheva, 2004); **Ulyanovsk Oblast** (<sup>3</sup>Ilyukhin, 2010a); **Yamalo-Nenets Autonomous Okrug** (<sup>3</sup>Nezdojminogo, 2001).

SIBERIA: **Krasnoyarsk Krai** (<sup>3</sup>Karatygin, Nezdoininogo, Novozhilov, and Zhurbenko, 1999); **Tomsk Oblast** (<sup>1</sup>Kudashova, Gashkov, and Vaishlya, 2016a).

FAR EAST: **Chukotka Autonomous Okrug** (<sup>3</sup>Karatygin, Nezdoininogo, Novozhilov, and Zhurbenko, 1999).

***Entoloma porphyrophaeum* (Fr.) P. Karst.**

EASTERN EUROPE: **Belgorod Oblast** (Bedenko, 1980); **Kaliningrad Oblast** (Dedkov, Volodina, and Gubareva, 2007); **Murmansk Oblast** (Nezdoininogo, 1997b; Karatygin, Nezdoininogo, Novozhilov, and Zhurbenko, 1999); **Pskov Oblast** (Popov et al., 2013).

FAR EAST: **Primorsky Krai** (Bau, Bulakh, and Govorova, 2011).

***Entoloma proterum* Noordel. & Wölfel**

SIBERIA: **Tomsk Oblast** (Vaishlya et al., 2017).

***Entoloma prunuloides* (Fr.) Quél.<sup>1</sup>**

≡ *Rhodophyllus prunuloides* (Fr.) Quél.<sup>2</sup>

EASTERN EUROPE: **Adygea** (<sup>1</sup>Sopina, 2001a); **Lipetsk Oblast** (<sup>1</sup>Sarycheva, 1999; <sup>1</sup>Sarycheva, 2016); **Novgorod Oblast** (<sup>1</sup>Morozova, Popov, and Fedosova, 2014); **Pskov Oblast** (<sup>1</sup>Popov et al., 2013); **Samara Oblast** (<sup>1</sup>Malysheva and Malysheva, 2005b; <sup>1</sup>Malysheva and Malysheva, 2008); **Tatarstan** (<sup>2</sup>Vassiljeva, 1977); **Tver Oblast** (<sup>1</sup>Kurochkin, 1993); **Udmurt Republic** (<sup>1</sup>Tychinin and Kuzmina, 2003); **Arid territories** (<sup>1</sup>Rebriev, Rusanov, et al., 2012).

SIBERIA: **Altai Republic** (<sup>1</sup>Gorbunova, 2001b; <sup>1</sup>Perova and Gorbunova, 2001); **Khakassia** (<sup>1</sup>Gorbunova and Majnagasheva, 2013); **Krasnoyarsk Krai** (<sup>2</sup>Beglyanova, 1972a); **Tomsk Oblast** (<sup>1</sup>Agaphonova, Kutafjeva, and Gashkov, 2009b; <sup>1</sup>Kudashova, Gashkov, and Kutafjeva, 2013).

FAR EAST: **Jewish Autonomous Oblast** (<sup>1</sup>Bulakh, Govorova, Nazarova, and Vassiljeva, 2007); **Primorsky Krai** (<sup>2</sup>Vassiljeva, 1973).

***Entoloma pseudocoelestinum* Arnolds**

EASTERN EUROPE: **Krasnodar Krai** (Kiyashko, 2009); **Pskov Oblast** (Morozova et al., 2015).

***Entoloma pseudoparasiticum* Noordel.**

EASTERN EUROPE: **Tatarstan** (Potapov, 2015d; Nazirov, Gorshkov, Ivanov, and Rogova, 2016).

***Entoloma pseudoturci* Noordel.**

EASTERN EUROPE: **Adygea** (Sopina, 2004b).

SIBERIA: **Altai Krai** (Gorbunova, 2018a).

***Entoloma quadratum* (Berk. & M.A. Curtis) E. Horak**

FAR EAST: **Primorsky Krai** (Kozhevnikov, 2008; Noordeloos and Morozova, 2010; Bau, Bulakh, and Govorova, 2011; Morozova, Noordeloos, and Vila, 2014; Bogacheva et al., 2018; Morozova, Noordeloos, Popov, and Alexandrova, 2018).

***Entoloma querquedula* (Romagn.) Noordel.**

EASTERN EUROPE: **Leningrad Oblast** (Kovalenko and Morozova, 1999a; Morozova, 1999; Morozova and Kovalenko, 2000; Tzvelev, 2000; Popov et al., 2007; Geltman et al., 2018).

***Entoloma rhodocylix* (Lasch) M.M. Moser<sup>1</sup>**

≡ *Rhodophyllus rhodocylix* (Lasch) Quél.<sup>2</sup>

EASTERN EUROPE: **Karelia** (<sup>1</sup>Krutov et al., 2014); **Leningrad Oblast** (<sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Tzvelev, 2000; <sup>1</sup>Popov et al., 2007; <sup>1</sup>Zmitrovich et al., 2015; <sup>1</sup>Geltman et al., 2018; <sup>1</sup>Malysheva, Malysheva, Shchepin, and Novozhilov, 2018); **Moscow Oblast** (<sup>1</sup>Levitskaya, 2013); **Perm Krai** (<sup>1</sup>Perevedentseva, 2008); **Pskov Oblast** (<sup>1</sup>Kalinina, Bolshakov, and Bulyonkova, 2020); **Ryazan Oblast** (<sup>1</sup>Volosnova, 1997; <sup>1</sup>Volosnova, 2014); **Saint Petersburg** (<sup>1</sup>Morozova and Smirnov, 2011); **Tatarstan** (<sup>2</sup>Vassiljeva, 1977); **Yaroslavl Oblast** (<sup>1</sup>Lazareva, 1998a; <sup>1</sup>Lazareva, 1998b).

SIBERIA: **Krasnoyarsk Krai** (<sup>2</sup>Beglyanova, 1972a); **Tomsk Oblast** (<sup>1</sup>Perova and Gorbunova, 2001; <sup>1</sup>Kudashova, Gashkov, and Kutafjeva, 2013).



***Entoloma rhodopolium* (Fr.) P. Kumm.<sup>1</sup>**

≡ *Agaricus rhodopolius* Fr.<sup>2</sup> ≡ *Entoloma rhodopolium* f. *rhodopolium* (Fr.) P. Kumm.<sup>3</sup> ≡ *Entoloma rhodopolium* var. *rhodopolium* (Fr.) P. Kumm.<sup>4</sup> ≡ *Rhodophyllus rhodopolius* (Fr.) Quél.<sup>5</sup> = *Entoloma nidorosum* (Fr.) Quél.<sup>6</sup> = *Entoloma rhodopolium* f. *nidorosum* (Fr.) Noordel.<sup>7</sup> = *Entoloma rhodopolium* var. *nidorosum* (Fr.) Krieglst.<sup>8</sup> = *Entoloma rhodopolium* var. *pseudopolitum* Noordel.<sup>9</sup> = *Rhodophyllus nidorosus* (Fr.) Quél.<sup>10</sup>

EASTERN EUROPE: **Adygea** (<sup>3,7</sup>Sopina, 2001a); **Belgorod Oblast** (<sup>1</sup>Bedenko, 1980); **Chelyabinsk Oblast** (<sup>10</sup>Sirko and Stepanova, 1977; <sup>10</sup>Stepanova and Sirko, 1977); **Crimea** (<sup>1</sup>Zerova, 1962; <sup>1</sup>Sarkina, 2001; <sup>1</sup>Dudka et al., 2004; <sup>1</sup>Sarkina, 2011; <sup>1</sup>Sarkina and Prydiuk, 2012; <sup>6</sup>Sarkina, 2013; <sup>6</sup>Sarkina, 2014a); **Kabardino-Balkarian Republic** (<sup>3,7</sup>Shkhagapsoev and Krapivina, 2004); **Kaliningrad Oblast** (<sup>1</sup>Dedkov, Volodina, and Gubareva, 2007; <sup>1</sup>Volodina, 2007); **Karachay-Cherkess Republic** (<sup>1,6</sup>Kalamees and Botashev, 2000); **Karelia** (<sup>1,6</sup>Freindling, 1949; <sup>1,6</sup>Bondartseva et al., 2001; <sup>1</sup>Predtechenskaya and Ruokolainen, 2013; <sup>1</sup>Predtechenskaya, 2013; <sup>1</sup>Krutov et al., 2014; <sup>1</sup>Predtechenskaya and Ruokolainen, 2014; <sup>1</sup>Savelev and Kikeeva, 2018); **Kirov Oblast** (<sup>1</sup>Kirillov, 2011; <sup>1</sup>Kirillov, Perevedentseva, and Egoshina, 2011); **Krasnodar Krai** (<sup>1</sup>Vassiljeva, 1939; <sup>1,6</sup>Kovalenko, 1980a; <sup>1,6</sup>Kovalenko, 1980b; <sup>7</sup>Sopina, 2001a); **Leningrad Oblast** (<sup>1,6</sup>Thesleff, 1920; <sup>6</sup>Chastukhin and Nikolaevskaya, 1969; <sup>7</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Morozova, 2007; <sup>3,8</sup>Popov et al., 2007; <sup>1</sup>Zmitrovich et al., 2015); **Lipetsk Oblast** (<sup>1</sup>Sarycheva et al., 2009; <sup>1</sup>Sarycheva, 2011; <sup>1</sup>Sarycheva, 2014a; <sup>1</sup>Sarycheva, 2016); **Moscow Oblast** (<sup>4,8</sup>Levitskaya, 1998; <sup>4,8</sup>Levitskaya, 2013; <sup>1</sup>Voronina et al., 2014); **Murmansk Oblast** (<sup>6</sup>Pystina, Pavlova, and Shestakova, 1969); **Novgorod Oblast** (<sup>1</sup>Malysheva, Malysheva, and Zmitrovich, 2007); **Penza Oblast** (<sup>5</sup>Ivanov, 1982); **Perm Krai** (<sup>1,6</sup>Perevedentseva, 2008; <sup>1,6</sup>Perevedentseva and Shishigin, 2014; <sup>1</sup>Perevedentseva and Shishigin, 2015); **Pskov Oblast** (<sup>1</sup>Kovalenko and Morozova, 1999b; <sup>1</sup>Popov et al., 2013); **Ryazan Oblast** (<sup>1</sup>Volosnova, 1997; <sup>1</sup>Volosnova, 2014); **Saint Petersburg** (<sup>2</sup>Weinmann, 1836; <sup>2</sup>Weinmann, 1837; <sup>3</sup>Kovalenko and Morozova, 1999a; <sup>4,7</sup>Kotkova, Morozova, and Popov, 2005; <sup>1</sup>Morozova and Smirnov, 2011; <sup>1</sup>Morozova, Kovalenko, Rebriev, and Malysheva, 2014); **Samara Oblast** (<sup>3,7</sup>Malysheva and Malysheva, 2005b; <sup>3,7</sup>Malysheva and Malysheva, 2008); **Sevastopol** (<sup>1</sup>Sarkina, 2020c); **Sverdlovsk Oblast** (<sup>1</sup>Marina, 2006); **Tatarstan** (<sup>10</sup>Vassiljeva, 1977); **Tula Oblast** (<sup>3,7</sup>Svetasheva, 2004); **Tver Oblast** (<sup>1</sup>Chastukhin and Nikolaevskaya, 1969; <sup>1</sup>Kurochkin, 1993; <sup>1</sup>Mukhina, 2011a; <sup>1</sup>Mukhina, 2011b; <sup>1</sup>Kotkova, 2014; <sup>7</sup>Morozova, Aleksandrova, Popov, and Malysheva, 2016); **Udmurt Republic** (<sup>1,6</sup>Tychinin and Kuzmina, 2003); **Ulyanovsk Oblast** (<sup>3</sup>Ilyukhin, 2010a; <sup>3</sup>Ilyukhin, 2010b); **Volgograd Oblast** (<sup>5</sup>Burova and Nezdoinmogo, 1980); **Vologda Oblast** (<sup>1</sup>Kirillova, 2007); **Voronezh Oblast** (<sup>5</sup>Chastukhin and Nikolaevskaya, 1953; <sup>1</sup>Chastukhin and Nikolaevskaya, 1969); **Yaroslavl Oblast** (<sup>1</sup>Lazareva, 1998a; <sup>1</sup>Lazareva, 1998b); **Arid territories** (<sup>1</sup>Rebriev, Rusanov, et al., 2012).

SIBERIA: **Altai Krai** (<sup>1,6</sup>Gorbunova and Perova, 2006; <sup>1</sup>Gorbunova, 2018a); **Altai Republic** (<sup>1</sup>Gorbunova, 1997; <sup>1,6</sup>Gorbunova, 2001b; <sup>1,6</sup>Perova and Gorbunova, 2001); **Irkutsk Oblast** (<sup>1</sup>Kutafjeva, 1983; <sup>1,6</sup>Petrov, 1986; <sup>6</sup>Kutafjeva and Astapenko, 1987; <sup>1,6</sup>Petrov, 1989; <sup>1,6</sup>Petrov, 1991; <sup>1,6</sup>Petrov, 2008; <sup>1</sup>Gorbunova and Stepantsova, 2015); **Khakassia** (<sup>1</sup>Zauzolkova, 2015); **Khanty-Mansi Autonomous Okrug** (<sup>1</sup>Zvyagina, Baykalova, and Gorbunova, 2007; <sup>1</sup>Zvyagina, 2008; <sup>1</sup>Shepeleva et al., 2014; <sup>1</sup>Filippova, Bulyonkova, and Lapshina, 2015; <sup>9</sup>Filippova and Bulyonkova, 2017a; <sup>1</sup>Filippova and Bulyonkova, 2017b); **Krasnoyarsk Krai** (<sup>5,10</sup>Beglyanova, 1972a; <sup>5</sup>Beglyanova, 1972b; <sup>1</sup>Lapitskaya, 1993; <sup>1</sup>Kosheleva and Kutafjeva, 2008a; <sup>1</sup>Kryuchkova, 2009; <sup>1</sup>Zauzolkova, 2012; <sup>1</sup>Zauzolkova, 2015; <sup>1</sup>Malysheva, Malysheva, Kiyashko, et al., 2017; <sup>8</sup>Krom and Kapitonov, 2019); **Novosibirsk Oblast** (<sup>1</sup>Perova, 1977; <sup>1,6</sup>Perova and Gorbunova, 2001; <sup>1</sup>Perova and Gorbunova, 2007; <sup>1</sup>Koropachinskiy and Banaev, 2014); **Tomsk Oblast** (<sup>1</sup>Perova and Gorbunova, 2001; <sup>1</sup>Kudashova, Gashkov, and Kutafjeva, 2013; <sup>1</sup>Vaishlya et al., 2017).

FAR EAST: **Amur Oblast** (<sup>1</sup>Azbukina et al., 1998; <sup>1</sup>Taranina, 2005); **Jewish Autonomous Oblast** (<sup>1</sup>Bulakh, Govorova, Nazarova, and Vassiljeva, 2007; <sup>1</sup>Bau, Bulakh, and Govorova, 2011); **Khabarovsk Krai** (<sup>5</sup>Azbukina et al., 1986; <sup>1</sup>Azbukina et al., 1989; <sup>1</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Bogacheva, Bulakh, Bukharova, and Egorova, 2015; <sup>1</sup>Erofeeva and Bulakh, 2015a); **Primorsky Krai** (<sup>5</sup>Vassiljeva, 1972; <sup>5</sup>Vassiljeva, 1973; <sup>5</sup>Bunkina and Nazarova, 1978; <sup>5</sup>Azbukina et al., 1984; <sup>1</sup>Azbukina et al., 1990; <sup>1</sup>Bardunov et al., 2002; <sup>1</sup>Azbukina et al., 2006; <sup>1</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Bulakh et al., 2016; <sup>1</sup>Bogacheva, Bulakh, Bukharova, and Egorova, 2020).

***Entoloma rhombisporum* (Kühner & Boursier) E. Horak<sup>1</sup>**

≡ *Entoloma rhombisporum* var. *rhombisporum* (Kühner & Boursier) E. Horak<sup>2</sup> ≡ *Nolanea rhombispora* (Kühner & Boursier) P.D. Orton<sup>3</sup> = *Entoloma rhombisporum* var. *floccipes* Noordel.<sup>4</sup>

EASTERN EUROPE: **Leningrad Oblast** (<sup>2</sup>Popov et al., 2007); **Moscow Oblast** (<sup>1</sup>Levitskaya, 1998; <sup>1</sup>Levitskaya, 2013); **Murmansk Oblast** (<sup>3</sup>Mikhailovskii, 1975a); **Novgorod Oblast** (<sup>1</sup>Morozova, 2012; <sup>1</sup>Popov et al., 2013); **Pskov Oblast** (<sup>1</sup>Popov et al., 2013); **Tver Oblast** (<sup>4</sup>Morozova, Aleksandrova, Popov, and Malysheva, 2016); **Yaroslavl Oblast** (<sup>1</sup>Lazareva, 1998a; <sup>1</sup>Lazareva, 1998b).

SIBERIA: **Novosibirsk Oblast** (<sup>1</sup>Perova and Gorbunova, 2001; <sup>1</sup>Perova and Gorbunova, 2007).

***Entoloma roseoflavum* Noordel. & O.V. Morozova**

FAR EAST: **Primorsky Krai** (Noordeloos and Morozova, 2010).

***Entoloma roseum* (Longyear) Hesler**

≡ *Leptonia rosea* Longyear<sup>1</sup>

EASTERN EUROPE: **Murmansk Oblast** (<sup>1</sup>Mikhailovskii, 1975a).

***Entoloma rugosum* (Malençon) Bon**

EASTERN EUROPE: **Leningrad Oblast** (Morozova, 2007; Popov et al., 2007).

SIBERIA: **Altai Krai** (Gorbunova and Chubarova, 2008; Gorbunova, Vlasenko, and Tzhubarova, 2011).

***Entoloma rusticoides* (Gillet) Noordel.<sup>1</sup>**

≡ *Eccilia rusticoides* Gillet<sup>2</sup> ≡ *Rhodophyllus rusticoides* (Gillet) J.E. Lange<sup>3</sup>

EASTERN EUROPE: **Chelyabinsk Oblast** (<sup>3</sup>Stepanova and Sirko, 1977); **Kaliningrad Oblast** (<sup>1</sup>Dedkov, Volodina, and Gubareva, 2007; <sup>1</sup>Volodina, 2007); **Leningrad Oblast** (<sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Morozova, 2007; <sup>1</sup>Popov et al., 2007); **Murmansk Oblast** (<sup>2</sup>Mikhailovskii, 1975b); **Novgorod Oblast** (<sup>1</sup>Morozova, Popov, and Fedosova, 2014); **Penza Oblast** (<sup>3</sup>Ivanov, 1982); **Pskov Oblast** (<sup>1</sup>Popov, 2001a; <sup>1</sup>Popov et al., 2013); **Ryazan Oblast** (<sup>1</sup>Malysheva and Volosnova, 2008; <sup>1</sup>Volosnova, 2014); **Samara Oblast** (<sup>1</sup>Malysheva and Malysheva, 2006; <sup>1</sup>Malysheva and Malysheva, 2007; <sup>1</sup>Malysheva and Malysheva, 2008); **Sverdlovsk Oblast** (<sup>1</sup>Marina, 2006); **Tatarstan** (<sup>3</sup>Vassiljeva, 1977); **Volgograd Oblast** (<sup>3</sup>Burova and Nezdoinog, 1980); **Vologda Oblast** (<sup>1</sup>Kirillova, 2006; <sup>1</sup>Kirillova, 2007); **Arid territories** (<sup>1</sup>Rebriev, Rusanov, et al., 2012).

SIBERIA: **Altai Krai** (<sup>1</sup>Gorbunova and Perova, 2006; <sup>1</sup>Gorbunova, 2006; <sup>1</sup>Gorbunova, 2018a); **Altai Republic** (<sup>1</sup>Gorbunova, 2006); **Irkutsk Oblast** (<sup>1</sup>Gorbunova and Stepanova, 2015); **Khanty-Mansi Autonomous Okrug** (<sup>1</sup>Filippova and Bulyonkova, 2017a; <sup>1</sup>Filippova and Bulyonkova, 2017b); **Krasnoyarsk Krai** (<sup>3</sup>Beglyanova, 1972a; <sup>2</sup>Beglyanova, 1972b); **Novosibirsk Oblast** (<sup>1</sup>Gorbunova, 2006); **Tomsk Oblast** (<sup>1</sup>Perova and Gorbunova, 2001; <sup>1</sup>Kudashova, Gashkov, and Kutafjeva, 2013).

FAR EAST: **Jewish Autonomous Oblast** (<sup>1</sup>Bulakh, Govorova, Nazarova, and Vassiljeva, 2007; <sup>1</sup>Bau, Bulakh, and Govorova, 2011); **Magadan Oblast** (<sup>3</sup>Nazarova, 1976; <sup>3</sup>Sazanova, 2005; <sup>1</sup>Sazanova, 2009a); **Primorsky Krai** (<sup>3</sup>Nazarova, 1978).

***Entoloma salmoneum* (Peck) Sacc.**

≡ *Rhodophyllus salmoneus* (Peck) Singer<sup>1</sup>

FAR EAST: **Primorsky Krai** (<sup>1</sup>Vassiljeva, 1972; <sup>1</sup>Vassiljeva, 1973).

***Entoloma sarcitum* (Fr.) Noordel.**

≡ *Leptonia sarcita* (Fr.) P. Karst.<sup>1</sup>

EASTERN EUROPE: **Krasnodar Krai** (<sup>1</sup>Vassiljeva, 1939).

***Entoloma sarcopus* Nagas. & Hongo**

= *Entoloma crassipes* Imazeki & Toki<sup>1</sup> = *Rhodophyllus crassipes* Imazeki & Hongo<sup>2</sup>

FAR EAST: **Khabarovsk Krai** (<sup>2</sup>Bau, Bulakh, Zhuang, and Li, 2007; <sup>1</sup>Bau, Bulakh, and Govorova, 2011).

***Entoloma saundersii* (Fr.) Sacc.**

EASTERN EUROPE: **Crimea** (Sarkina and Stavishenko, 2019; Sarkina, 2020a); **Penza Oblast** (Ivanov, 1999).

SIBERIA: **Krasnoyarsk Krai** (Kryuchkova, 2009; Stepanov, 2012).

***Entoloma saussetiense* Eyssart. & Noordel.**

SIBERIA: **Krasnoyarsk Krai** (Krom and Kapitonov, 2019).

***Entoloma scabiosum* (Fr.) Quél.**

EASTERN EUROPE: **Ryazan Oblast** (Malysheva and Volosnova, 2008; Volosnova, 2014).

***Entoloma sepium* (Noulet & Dass.) Richon & Roze<sup>1</sup>**

≡ *Rhodophyllus sepius* (Noulet & Dass.) Romagn.<sup>2</sup>

EASTERN EUROPE: **Kursk Oblast** (<sup>1</sup>Baranov, 2002); **Penza Oblast** (<sup>2</sup>Ivanov, 1985; <sup>1</sup>Ivanov, 1999); **Pskov Oblast** (<sup>1</sup>Popov et al., 2013); **Rostov Oblast** (<sup>1</sup>Vyshchepan, 1992; <sup>1</sup>Rusanov, Rebriev, and Bulgakov, 2018); **Arid territories** (<sup>1</sup>Rebriev, Rusanov, et al., 2012).

***Entoloma sericatum* (Britzelm.) Sacc.**

EASTERN EUROPE: **Adygea** (Sopina, 2000; Sopina, 2001a; Sopina, 2004b); **Kaliningrad Oblast** (Dedkov, Volodina, and Gubareva, 2007; Volodina, 2007; Atayev and Volodina, 2020); **Komi Republic** (Palamarchuk, 2020b); **Leningrad Oblast** (Morozova, 2007; Popov et al., 2007); **Lipetsk Oblast** (Sarycheva et al., 2009; Sarycheva, 2016); **Moscow Oblast** (Levitskaya, 1998; Sopina, 2000; Voronina et al., 2012; Levitskaya, 2013; Voronina et al., 2014); **Novgorod Oblast** (Morozova, 2012; Popov et al., 2013); **Pskov Oblast** (Kolmakov and Popov, 2005; Popov et al., 2013); **Saint Petersburg** (Kotkova, Morozova, and Popov, 2005; Morozova and Smirnov, 2011; Morozova et al., 2020); **Samara Oblast** (Malysheva and Malysheva, 2005b; Malysheva and Malysheva, 2008); **Sverdlovsk Oblast** (Marina, 2006); **Tula Oblast** (Svetasheva, 2004); **Tver Oblast** (Morozova, Aleksandrova, Popov, and Malysheva, 2016); **Udmurt Republic** (Kapitonov, 2013); **Ulyanovsk Oblast** (Ilyukhin, 2009; Ilyukhin, 2010a); **Vologda Oblast** (Kirillova, 2007).

SIBERIA: **Altai Republic** (Gorbunova, 2001b; Perova and Gorbunova, 2001; Gorbunova, 2010); **Irkutsk Oblast** (Gorbunova and Stepantsova, 2015); **Khanty-Mansi Autonomous Okrug** (Zvyagina, 2008; Shepeleva et al., 2014; Filippova and Bulyonkova, 2017a; Filippova and Bulyonkova, 2017b).

FAR EAST: **Magadan Oblast** (Sazanova and Golodnova, 2015; Sazanova, 2015).

***Entoloma sericellum* (Fr.) P. Kumm.<sup>1</sup>**

≡ *Alboleptonia sericella* (Fr.) Largent & R.G. Benedict<sup>2</sup> ≡ *Eccilia sericella* (Fr.) Singer<sup>3</sup> ≡ *Hyporrhodius sericellus* (Fr.) Henn.<sup>4</sup> ≡ *Leptonia sericella* (Fr.) Barbier<sup>5</sup> ≡ *Rhodophyllus sericellus* (Fr.) Quél.<sup>6</sup> = *Entoloma sericellum* var. *lutescens* Henn.<sup>7</sup> = *Rhodophyllus carneoalbus* (With.) Quél.<sup>8</sup>

EASTERN EUROPE: **Komi Republic** (<sup>1</sup>Palamarchuk, 2020b); **Krasnodar Krai** (<sup>3</sup>Vassiljeva, 1939); **Leningrad Oblast** (<sup>1,7</sup>Thesleff, 1920; <sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Popov et al., 2007); **Moscow** (<sup>4</sup>Bucholtz, 1897a); **Moscow Oblast** (<sup>1</sup>Voronina et al., 2012; <sup>1</sup>Voronina et al., 2014); **Murmansk Oblast** (<sup>1</sup>Nezdojminogo, 1997b; <sup>1</sup>Karatygin, Nezdojminogo, Novozhilov, and Zhurbenko, 1999); **Pskov Oblast** (<sup>1</sup>Kalinina, Bolshakov, and Bulyonkova, 2020); **Sverdlovsk Oblast** (<sup>1</sup>Marina, 2006); **Tver Oblast** (<sup>1</sup>Morozova, Aleksandrova, Popov, and Malysheva, 2016); **Vologda Oblast** (<sup>1</sup>Kirillova, 2006; <sup>1</sup>Kirillova, 2007); **Northern Caucasus** (<sup>1</sup>Morozova, Noordeloos, and Vila, 2014).

SIBERIA: **Altai Krai** (<sup>2</sup>Gorbunova, 2018a); **Altai Republic** (<sup>1</sup>Gorbunova, 2001b; <sup>1</sup>Perova and Gorbunova, 2001); **Irkutsk Oblast** (<sup>1</sup>Kutafjeva, 1989); **Khanty-Mansi Autonomous Okrug** (<sup>1</sup>Filippova and Bulyonkova, 2017a; <sup>1</sup>Filippova and Bulyonkova, 2017b); **Novosibirsk Oblast** (<sup>5</sup>Perova, 1977).

FAR EAST: **Jewish Autonomous Oblast** (<sup>2</sup>Erofeeva, Bukharova, and Bulakh, 2019); **Primorsky Krai** (<sup>6</sup>Vassiljeva, 1973; <sup>8</sup>Nazarova, 1978; <sup>1</sup>Bulakh et al., 2016).

***Entoloma sericeoides* (J.E. Lange) Noordel.**

EASTERN EUROPE: **Tula Oblast** (Svetasheva, 2004; Shcherbakov, 2010).

SIBERIA: **Khakassia** (Zauzolkova, 2015; Zauzolkova and Gorbunova, 2016); **Khanty-Mansi Autonomous Okrug** (Zvyagina and Baykalova, 2017); **Tomsk Oblast** (Kudashova, Gashkov, and Vaishlya, 2016a).

***Entoloma sericeonitens* (P.D. Orton) Noordel.**

SIBERIA: **Buryatia** (Petrov, 1991).

***Entoloma sericeum* Quél.<sup>1</sup>**

≡ *Entoloma sericeum* var. *sericeum* Quél.<sup>2</sup> ≡ *Nolanea sericea* (Quél.) P.D. Orton<sup>3</sup> ≡ *Rhodophyllus sericeus* (Quél.) Quél.<sup>4</sup>

EASTERN EUROPE: **Chechen Republic** (<sup>4</sup>Taysumov, Krapivina, and Kushaliev, 2016); **Crimea** (<sup>1</sup>Sarkina, 2010b; <sup>1</sup>Sarkina and Mironova, 2015; <sup>1</sup>Sarkina and Stavishenko, 2019); **Kabardino-Balkarian Republic** (<sup>4</sup>Shkhagapsoev and Krapivina, 2004); **Kaliningrad Oblast** (<sup>1</sup>Volodina, 2007); **Kaluga Oblast** (<sup>1</sup>Sionova, 2003); **Karelia** (<sup>1</sup>Freindling, 1949; <sup>1</sup>Bondartseva et al., 2001; <sup>2</sup>Krutov et al., 2014); **Komi Republic** (<sup>2</sup>Palamarchuk, 2011a; <sup>2</sup>Palamarchuk, 2012; <sup>1</sup>Palamarchuk and Kirillov, 2017); **Leningrad Oblast** (<sup>1</sup>Thesleff, 1920; <sup>4</sup>Pavlova, 1969; <sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Morozova, 2007; <sup>1</sup>Popov et al., 2007); **Lipetsk Oblast** (<sup>4</sup>Alferova, 1977; <sup>1</sup>Sarycheva, 1999; <sup>1</sup>Sarycheva et al., 2009; <sup>1</sup>Sarycheva, 2011; <sup>1</sup>Sarycheva, 2014a; <sup>1</sup>Sarycheva, 2016); **Mordovia** (<sup>1</sup>Kuznetsov, 1960; <sup>1</sup>Ivoilov and Bolshakov, 2011a); **Moscow Oblast** (<sup>1</sup>Gorlenko, Sidorova, and Sidorova, 1989; <sup>1</sup>Levitskaya, 1995b; <sup>1</sup>Levitskaya, 2013; <sup>1</sup>Sidorova, Alexandrova, and Voronina, 2017); **Murmansk Oblast** (<sup>3</sup>Mikhailovskii, 1975b; <sup>2</sup>Nezdojminogo, 1997b; <sup>2</sup>Karatygin, Nezdojminogo, Novozhilov, and Zhurbenko, 1999); **Novgorod Oblast** (<sup>1</sup>Malysheva, Malysheva, and Zmitrovich, 2007; <sup>1</sup>Popov et al., 2013); **Penza Oblast** (<sup>4</sup>Ivanov, 1982; <sup>1</sup>Ivanov, 1999); **Perm Krai** (<sup>1</sup>Perevedentseva, 2008; <sup>1</sup>Botalov, 2017; <sup>1</sup>Botalov and Perevedentseva, 2020); **Pskov Oblast** (<sup>1</sup>Popov et al., 2013); **Rostov Oblast** (<sup>1</sup>Rebriev, 2018);

<sup>1</sup>Rusanov, Rebriev, and Bulgakov, 2018); **Ryazan Oblast** (<sup>2</sup>Malysheva and Volosnova, 2008; <sup>2</sup>Volosnova, 2014); **Saint Petersburg** (<sup>1</sup>Morozova, Kovalenko, Rebriev, and Malysheva, 2014); **Samara Oblast** (<sup>1</sup>Malysheva and Malysheva, 2007; <sup>1</sup>Malysheva and Malysheva, 2008); **Sevastopol** (<sup>1</sup>Sarkina, 2020c); **Sverdlovsk Oblast** (<sup>4</sup>Stepanova and Sirko, 1977); **Tatarstan** (<sup>4</sup>Vassiljeva, 1977; <sup>1</sup>Potapov, 2016b); **Tver Oblast** (<sup>1</sup>Kurochkin, 1993); **Udmurt Republic** (<sup>1</sup>Tychinin and Kuzmina, 2003); **Ulyanovsk Oblast** (<sup>1</sup>Ilyukhin, 2010a); **Vologda Oblast** (<sup>4</sup>Kutova, 1957; <sup>1</sup>Kirillova, 2006; <sup>1</sup>Kirillova, 2007); **Yaroslavl Oblast** (<sup>1</sup>Lazareva, 1998a; <sup>1</sup>Lazareva, 1998b); **Arid territories** (<sup>2</sup>Rebriev, Rusanov, et al., 2012).

SIBERIA: **Altai Krai** (<sup>1</sup>Gorbunova and Perova, 2006; <sup>1</sup>Gorbunova and Chubarova, 2008; <sup>2</sup>Gorbunova, Vlasenko, and Tzhubarova, 2011); **Altai Republic** (<sup>1</sup>Gorbunova, 1996; <sup>1</sup>Gorbunova, 1997; <sup>1</sup>Gorbunova, 2001a; <sup>1</sup>Perova and Gorbunova, 2001; <sup>1</sup>Gorbunova, 2008; <sup>1</sup>Gorbunova, 2010); **Buryatia** (<sup>1</sup>Nezdojminogo, 1973); **Irkutsk Oblast** (<sup>1</sup>Petrov, 1986; <sup>1</sup>Petrov, 2008; <sup>1</sup>Gorbunova and Stepantsova, 2015); **Khakassia** (<sup>1</sup>Zauzolkova, 2015); **Khanty-Mansi Autonomous Okrug** (<sup>1</sup>Filippova and Bulyonkova, 2017a; <sup>1</sup>Filippova and Bulyonkova, 2017b); **Krasnoyarsk Krai** (<sup>4</sup>Perova, 1970; <sup>4</sup>Beglyanova, 1972a; <sup>1</sup>Lapitskaya, 1993; <sup>1</sup>Zauzolkova, 2012; <sup>1</sup>Zauzolkova, 2015; <sup>1</sup>Gorbunova, 2016); **Novosibirsk Oblast** (<sup>1</sup>Perova, 1977; <sup>1</sup>Perova and Gorbunova, 2001; <sup>1</sup>Perova and Gorbunova, 2007); **Tomsk Oblast** (<sup>1</sup>Perova and Gorbunova, 2001; <sup>1</sup>Kudashova, Gashkov, and Kutafjeva, 2013); **Tyva Republic** (<sup>1</sup>Gorbunova, 2015).

FAR EAST: **Amur Oblast** (<sup>4</sup>Nazarova, 1986; <sup>1</sup>Taranina, 2005); **Jewish Autonomous Oblast** (<sup>1</sup>Bulakh, Govorova, Nazarova, and Vassiljeva, 2007; <sup>1</sup>Bau, Bulakh, and Govorova, 2011); **Khabarovsk Krai** (<sup>4</sup>Azbukina et al., 1986; <sup>1</sup>Azbukina et al., 1989; <sup>1</sup>Bulakh, Vassiljeva, and Erofeeva, 2010; <sup>1</sup>Bau, Bulakh, and Govorova, 2011); **Magadan Oblast** (<sup>1</sup>Sazanova, 2005; <sup>1</sup>Sazanova, 2009a); **Primorsky Krai** (<sup>4</sup>Vassiljeva, 1972; <sup>4</sup>Vassiljeva, 1973; <sup>4</sup>Bunkina and Nazarova, 1978; <sup>4</sup>Azbukina et al., 1984; <sup>1</sup>Azbukina et al., 1990; <sup>1</sup>Bardunov et al., 2002; <sup>1</sup>Azbukina et al., 2006; <sup>1</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Bulakh et al., 2016).

### ***Entoloma serpens* Kokkonen**

EASTERN EUROPE: **Leningrad Oblast** (Morozova and Kovalenko, 2000 [as *Entoloma caccabus* (Kühner) Noordel., redet. in Kalinina, 2018]; Kalinina, 2018).

### ***Entoloma serrulatum* (Fr.) Hesler<sup>1</sup>**

≡ *Agaricus serrulatus* Fr.<sup>2</sup> ≡ *Leptonia serrulata* (Fr.) P. Kumm.<sup>3</sup> ≡ *Rhodophyllus serrulatus* (Fr.) Quél.<sup>4</sup>

EASTERN EUROPE: **Adygea** (<sup>1</sup>Sopina, 2004b); **Komi Republic** (<sup>1</sup>Palamarchuk, 2016a; <sup>1</sup>Palamarchuk, 2016b); **Leningrad Oblast** (<sup>3</sup>Thesleff, 1920; <sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Morozova and Kovalenko, 2000; <sup>1</sup>Morozova, 2007; <sup>1</sup>Popov et al., 2007); **Lipetsk Oblast** (<sup>1</sup>Sarycheva et al., 2009; <sup>1</sup>Sarycheva, 2011; <sup>1</sup>Sarycheva, 2016); **Murmansk Oblast** (<sup>2</sup>Karsten, 1866); **Novgorod Oblast** (<sup>1</sup>Kovalenko, Morozova, Nezdojminogo, and Popov, 2005; <sup>1</sup>Popov et al., 2013); **Penza Oblast** (<sup>1</sup>Ivanov, 1999); **Pskov Oblast** (<sup>1</sup>Popov et al., 2013; <sup>1</sup>Morozova et al., 2015); **Saint Petersburg** (<sup>2</sup>Weinmann, 1836; <sup>2</sup>Weinmann, 1837); **Tver Oblast** (<sup>3</sup>Chastukhin, 1948b; <sup>3</sup>Chastukhin and Nikolaevskaya, 1969; <sup>1</sup>Mukhina, 2011a; <sup>1</sup>Kotkova, 2014); **Northern Caucasus** (<sup>1</sup>Morozova, Noordeloos, and Vila, 2014; <sup>1</sup>Morozova, Noordeloos, Popov, and Alexandrova, 2018).

SIBERIA: **Altai Krai** (<sup>1</sup>Gorbunova, 2018a); **Altai Republic** (<sup>1</sup>Gorbunova, 2003; <sup>1</sup>Gorbunova, 2006; <sup>1</sup>Gorbunova, 2010); **Novosibirsk Oblast** (<sup>1</sup>Koropachinskiy and Banaev, 2014).

FAR EAST: **Jewish Autonomous Oblast** (<sup>1</sup>Bulakh, Govorova, Nazarova, and Vassiljeva, 2007; <sup>1</sup>Bau, Bulakh, and Govorova, 2011); **Magadan Oblast** (<sup>1</sup>Sazanova, 2005; <sup>1</sup>Sazanova, 2009a); **Primorsky Krai** (<sup>4</sup>Vassiljeva, 1973; <sup>1</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Bulakh et al., 2016); **Sakhalin Oblast** (<sup>1</sup>Bulakh, Govorova, and Bogatov, 1999).

### ***Entoloma silvae-frondosae* Dima, O.V. Morozova, Noordel., Brandrud & Krisai**

EASTERN EUROPE: **Krasnodar Krai** (Crous, Luangsa-ard, et al., 2018).

### ***Entoloma sinuatum* (Bull.) P. Kumm.<sup>1</sup>**

≡ *Rhodophyllus sinuatus* (Bull.) Quél.<sup>2</sup> = *Entoloma eulividum* Noordel.<sup>3</sup> = *Entoloma lividum* Quél.<sup>4</sup> = *Rhodophyllus lividus* (Quél.) Quél.<sup>5</sup>

EASTERN EUROPE: **Adygea** (<sup>1</sup>Sopina, 2001a); **Belgorod Oblast** (<sup>1,4</sup>Bedenko, 1980); **Bryansk Oblast** (<sup>1</sup>Kruglikov, 2007); **Crimea** (<sup>1</sup>Sarkina, 2011; <sup>1</sup>Sarkina and Stavishenko, 2019; <sup>1</sup>Sarkina, 2020a); **Kaliningrad Oblast** (<sup>3</sup>Dedkov, Volodina, and Gubareva, 2007); **Karelia** (<sup>4</sup>Freindling, 1949; <sup>1</sup>Bondartseva et al., 2001; <sup>1</sup>Krutov et al., 2014); **Krasnodar Krai** (<sup>1</sup>Kovalenko, 1980a; <sup>1</sup>Kovalenko, 1980b); **Leningrad Oblast** (<sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Popov et al., 2007); **Lipetsk Oblast** (<sup>1</sup>Afanasyev, Rtishcheva, and Starodubtseva, 2007; <sup>1</sup>Sarycheva et al., 2009; <sup>1</sup>Sarycheva, 2011; <sup>1</sup>Sarycheva, 2014a; <sup>1</sup>Sarycheva, 2016; <sup>1</sup>Sarycheva, Starodubtseva, and Sapelnikova, 2017); **Sevastopol** (<sup>1</sup>Sarkina, 2016b; <sup>1</sup>Sarkina, 2020c); **Tula Oblast** (<sup>1</sup>Svetasheva, Aleksandrova, Zaytseva, and Solovjova, 2017); **Volgograd Oblast**

(<sup>1</sup>Dudka and Vedeneyev, 2014); **Voronezh Oblast** (<sup>1</sup>Afanasyev, Rtishcheva, and Starodubtseva, 2007; <sup>1</sup>Sarycheva, Starodubtseva, and Sapelnikova, 2017; <sup>1</sup>Kochergina and Furmenkova, 2019); **Arid territories** (<sup>1</sup>Rebriev, Rusanov, et al., 2012).

SIBERIA: **Krasnoyarsk Krai** (<sup>2</sup>Beglyanova, 1972a; <sup>2</sup>Beglyanova, 1972b); **Novosibirsk Oblast** (<sup>1</sup>Perova and Gorbunova, 2001; <sup>1</sup>Perova and Gorbunova, 2007); **Tomsk Oblast** (<sup>5</sup>Milovidova, 1980; <sup>1</sup>Kudashova, Gashkov, and Kutafjeva, 2013).

***Entoloma sodale* Kühner & Romagn. ex Noordel.**

EASTERN EUROPE: **Novgorod Oblast** (Morozova, 2012; Popov et al., 2013).

***Entoloma solstitiale* (Fr.) Noordel.**

EASTERN EUROPE: **Kaliningrad Oblast** (Dedkov, Volodina, and Gubareva, 2007); **Novgorod Oblast** (Morozova, 2012; Popov et al., 2013).

SIBERIA: **Khanty-Mansi Autonomous Okrug** (Filippova and Bulyonkova, 2017a; Filippova and Bulyonkova, 2017b).

***Entoloma sordidulum* (Kühner & Romagn.) P.D. Orton**

EASTERN EUROPE: **Adygea** (Sopina, 2001a); **Crimea** (Dudka et al., 2004; Sarkina, 2011); **Kabardino-Balkarian Republic** (Krapivina et al., 2020); **Kaliningrad Oblast** (Atayev and Volodina, 2020); **Leningrad Oblast** (Popov et al., 2007); **Lipetsk Oblast** (Sarycheva, 2016); **Pskov Oblast** (Popov et al., 2013); **Rostov Oblast** (Morozova et al., 2008); **Saint Petersburg** (Kovalenko and Morozova, 1999a; Kotkova, Morozova, and Popov, 2007; Morozova, Kovalenko, Rebriev, and Malysheva, 2014); **Samara Oblast** (Malysheva and Malysheva, 2005b; Malysheva and Malysheva, 2008); **Tula Oblast** (Svetasheva, 2004); **Ulyanovsk Oblast** (Ilyukhin, 2010a; Ilyukhin, 2010b); **Vologda Oblast** (Kirillova, 2007); **Arid territories** (Rebriev, Rusanov, et al., 2012).

FAR EAST: **Khabarovsk Krai** (Bulakh, 2013; Bogacheva, Bulakh, Bukharova, and Egorova, 2015).

***Entoloma speculum* (Fr.) Quél.<sup>1</sup>**

≡ *Rhodophyllus speculum* (Fr.) Quél.<sup>2</sup>

EASTERN EUROPE: **Lipetsk Oblast** (<sup>2</sup>Sarycheva, 1999; <sup>1</sup>Sarycheva et al., 2009; <sup>1</sup>Sarycheva, 2011; <sup>1</sup>Sarycheva, 2016).

FAR EAST: **Amur Oblast** (<sup>1</sup>Azbukina et al., 1998); **Jewish Autonomous Oblast** (<sup>1</sup>Bulakh, Govorova, Nazarova, and Vassiljeva, 2007; <sup>1</sup>Bau, Bulakh, and Govorova, 2011); **Primorsky Krai** (<sup>2</sup>Vassiljeva, 1972; <sup>2</sup>Vassiljeva, 1973; <sup>2</sup>Bunkina and Nazarova, 1978; <sup>2</sup>Azbukina et al., 1984; <sup>1</sup>Azbukina et al., 2006; <sup>1</sup>Bau, Bulakh, and Govorova, 2011).

***Entoloma sphagneti* Naveau**

EASTERN EUROPE: **Leningrad Oblast** (Popov et al., 2007); **Novgorod Oblast** (Arslanov, 2012); **Sverdlovsk Oblast** (Marina, 2006); **Tula Oblast** (Svetasheva, 2004; Svetasheva, 2005b; Shcherbakov, 2010).

***Entoloma sphagnum* (Romagn. & J. Favre) Bon & Courtec.<sup>1</sup>**

≡ *Rhodophyllus sphagnum* Romagn. & J. Favre<sup>2</sup>

EASTERN EUROPE: **Kaluga Oblast** (<sup>1</sup>Sionova, 2012); **Tula Oblast** (<sup>1</sup>Svetasheva, 2004; <sup>1</sup>Shcherbakov, 2010).

SIBERIA: **Krasnoyarsk Krai** (<sup>2</sup>Beglyanova, 1972a; <sup>2</sup>Beglyanova, 1972c); **Tomsk Oblast** (<sup>1</sup>Perova and Gorbunova, 2001; <sup>1</sup>Kudashova, Gashkov, and Kutafjeva, 2013).

FAR EAST: **Magadan Oblast** (<sup>2</sup>Sazanova, 2005; <sup>1</sup>Sazanova, 2009a; <sup>1</sup>Sazanova, 2016).

***Entoloma squamatum* Hesler**

= *Leptonia grisea* Peck<sup>1</sup>

EASTERN EUROPE: **Karelia** (<sup>1</sup>Freindling, 1949; <sup>1</sup>Bondartseva et al., 2001; <sup>1</sup>Krutov et al., 2014).

***Entoloma strigosissimum* (Rea) Noordel.**

EASTERN EUROPE: **Karachay-Cherkess Republic** (Malysheva and Svetasheva, 2011; Onipchenko et al., 2013); **Leningrad Oblast** (Popov et al., 2007; Geltman et al., 2018; Geltman, 2018b); **Moscow Oblast** (Levitskaya, 1998; Levitskaya, 2013); **Novgorod Oblast** (Kalinina, 2019); **Samara Oblast** (Malysheva and Malysheva, 2006; Malysheva and Malysheva, 2007; Malysheva and Malysheva, 2008).

FAR EAST: **Primorsky Krai** (Bulakh et al., 2016).

***Entoloma stylophorum* (Berk. & Broome) Sacc.**

FAR EAST: **Primorsky Krai** (Bulakh et al., 2016).

***Entoloma subarcticum* Noordel.**

SIBERIA: **Krasnoyarsk Krai** (Nezdojminogo, 1997a; Karatygin, Nezdojminogo, Novozhilov, and Zhurbenko, 1999).

FAR EAST: **Chukotka Autonomous Okrug** (Karatygin, Nezdojminogo, Novozhilov, and Zhurbenko, 1999).

***Entoloma subcaelestinum* (Singer) Singer**

≡ *Nolanea subcaelestina* Singer<sup>1</sup>

EASTERN EUROPE: **Karelia** (<sup>1</sup>Freindling, 1949; <sup>1</sup>Bondartseva et al., 2001; <sup>1</sup>Krutov et al., 2014).

***Entoloma subcaesiellum* Noordel. & O.V. Morozova**

FAR EAST: **Primorsky Krai** (Noordeloos and Morozova, 2010).

***Entoloma subradiatum* (Kühner & Romagn.) M.M. Moser**

EASTERN EUROPE: **Tula Oblast** (Svetasheva, 2004).

***Entoloma tenellum* (J. Favre) Noordel.<sup>1</sup>**

≡ *Nolanea tenella* (J. Favre) P.D. Orton<sup>2</sup>

EASTERN EUROPE: **Murmansk Oblast** (<sup>2</sup>Mikhailovskii, 1975a); **Samara Oblast** (<sup>1</sup>Malysheva and Malysheva, 2008); **Tula Oblast** (<sup>1</sup>Svetasheva, 2004; <sup>1</sup>Shcherbakov, 2010).

FAR EAST: **Magadan Oblast** (<sup>1</sup>Sazanova, 2005; <sup>1</sup>Sazanova, 2009a).

***Entoloma tibiicystidiatum* Arnolds & Noordel.**

EASTERN EUROPE: **Leningrad Oblast** (Morozova, 2007; Popov et al., 2007); **Pskov Oblast** (Popov et al., 2013).

***Entoloma tiliae* Brandrud, O.V. Morozova, Dima, Bendiksen & Noordel.**

EASTERN EUROPE: **Saint Petersburg** (Morozova, Kovalenko, Rebriev, and Malysheva, 2014 [as *Entoloma gerriae* Noordel., redet. in Crous, Luangsa-ard, et al., 2018]; Zhukova, Morozova, Volobuev, and Bryantseva, 2017 [as *Entoloma griseoluridum* (Kühner) M.M. Moser, redet. in Crous, Luangsa-ard, et al., 2018]; Crous, Luangsa-ard, et al., 2018).

***Entoloma tjallingiorum* Noordel.<sup>1</sup>**

≡ *Entoloma tjallingiorum* var. *tjallingiorum* Noordel.<sup>2</sup> = *Entoloma tjallingiorum* var. *laricinum* O.V. Morozova, Noordel., Vila & E.S. Popov<sup>3</sup>

EASTERN EUROPE: **Leningrad Oblast** (<sup>2</sup>Morozova, Noordeloos, and Vila, 2014; <sup>1</sup>Geltman et al., 2018; <sup>1</sup>Geltman, 2018b); **Moscow Oblast** (<sup>2</sup>Morozova, Noordeloos, and Vila, 2014); **Novgorod Oblast** (<sup>1</sup>Morozova, 2012; <sup>1</sup>Popov et al., 2013; <sup>2</sup>Morozova, Noordeloos, and Vila, 2014; <sup>1</sup>Vetkin et al., 2015); **Orenburg Oblast** (<sup>1</sup>Desyatova, 2008); **Samara Oblast** (<sup>1</sup>Malysheva and Malysheva, 2005b [as *Entoloma placidum* (Fr.) Noordel., redet. in Morozova, Noordeloos, and Vila, 2014]; <sup>1</sup>Malysheva and Malysheva, 2006; <sup>1</sup>Malysheva and Malysheva, 2008; <sup>1</sup>Malysheva and Malysheva, 2008 [as *Entoloma placidum* (Fr.) Noordel., redet. in Morozova, Noordeloos, and Vila, 2014]; <sup>2</sup>Morozova, Noordeloos, and Vila, 2014); **Tatarstan** (<sup>2</sup>Morozova, Noordeloos, and Vila, 2014; <sup>1</sup>Nazirov, Gorshkov, Ivanov, and Rogova, 2016; <sup>1</sup>Potapov, 2016b); **Ulyanovsk Oblast** (<sup>1</sup>Ilyukhin, 2010a; <sup>2</sup>Morozova, Noordeloos, and Vila, 2014).

SIBERIA: **Krasnoyarsk Krai** (<sup>1</sup>Malysheva, Malysheva, Kiyashko, et al., 2017).

FAR EAST: **Kamchatka Krai** (<sup>3</sup>Morozova, Noordeloos, and Vila, 2014).

***Entoloma transvenosum* Noordel.**

EASTERN EUROPE: **Tula Oblast** (Svetasheva, 2004; Svetasheva, 2005b; Shcherbakov, 2010).

***Entoloma triste* (Velen.) Noordel.**

EASTERN EUROPE: **Moscow Oblast** (Levitskaya, 1998; Levitskaya, 2013); **Pskov Oblast** (Popov et al., 2013).

***Entoloma turci* (Bres.) M.M. Moser<sup>1</sup>**

≡ *Leptonia turci* Bres.<sup>2</sup>

EASTERN EUROPE: **Karachay-Cherkess Republic** (<sup>1</sup>Onipchenko and Kaverina, 1989; <sup>1</sup>Kalamees and Botashev, 2000); **Krasnodar Krai** (<sup>2</sup>Vassiljeva, 1939); **Novgorod Oblast** (<sup>1</sup>Morozova, 2012; <sup>1</sup>Popov et al., 2013; <sup>1</sup>Morozova, Popov, and Fedosova, 2014); **Pskov Oblast** (<sup>1</sup>Morozova et al., 2015).

***Entoloma undatum* (Gillet) M.M. Moser<sup>1</sup>**

≡ *Clitopilus undatus* Gillet<sup>2</sup> ≡ *Eccilia undata* (Gillet) Quél.<sup>3</sup> ≡ *Rhodophyllus undatus* (Gillet) Quél.<sup>4</sup> = *Eccilia sericeonitida* P.D. Orton<sup>5</sup>

EASTERN EUROPE: **Kaluga Oblast** (<sup>1</sup>Sionova, 2012); **Kirov Oblast** (<sup>1</sup>Kirillov, 2011; <sup>1</sup>Kirillov, Perevedentseva, and Egoshina, 2011); **Komi Republic** (<sup>1</sup>Palamarchuk, 2016a; <sup>1</sup>Palamarchuk, 2016b); **Krasnodar Krai** (<sup>3</sup>Vassiljeva, 1939); **Leningrad Oblast** (<sup>2</sup>Thesleff, 1920; <sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Morozova and Kovalenko, 2000; <sup>1</sup>Morozova, 2007; <sup>1</sup>Popov et al., 2007); **Lipetsk Oblast** (<sup>1</sup>Sarycheva, 2014a; <sup>1</sup>Sarycheva, 2016); **Moscow Oblast** (<sup>1</sup>Levitskaya, 1998; <sup>1</sup>Voronina et al., 2012; <sup>1</sup>Levitskaya, 2013; <sup>1</sup>Voronina et al., 2014); **Novgorod Oblast** (<sup>1</sup>Kovalenko, Morozova, Nezdoinog, and Popov, 2005; <sup>1</sup>Popov et al., 2013; <sup>1</sup>Morozova, Popov, and Fedosova, 2014; <sup>1</sup>Morozova, Noordeloos, Popov, and Alexandrova, 2018); **Orenburg Oblast** (<sup>1</sup>Desyatova, 2007; <sup>1</sup>Desyatova, 2008); **Perm Krai** (<sup>1</sup>Perevedentseva, 2008; <sup>1</sup>Botalov, 2015; <sup>1</sup>Botalov, 2017); **Pskov Oblast** (<sup>1</sup>Kovalenko, Kolmakov, Morozova, and Popov, 2003; <sup>1</sup>Popov et al., 2013); **Rostov Oblast** (<sup>1</sup>Rebriev, 2018); **Ryazan Oblast** (<sup>1</sup>Volosnova, 2005; <sup>1</sup>Volosnova, 2014); **Saint Petersburg** (<sup>1</sup>Morozova, Kovalenko, Rebriev, and Malysheva, 2014; <sup>1</sup>Morozova et al., 2020); **Samara Oblast** (<sup>1</sup>Malysheva and Malysheva, 2005b; <sup>1</sup>Malysheva and Malysheva, 2007; <sup>1</sup>Malysheva and Malysheva, 2008); **Sverdlovsk Oblast** (<sup>1</sup>Marina, 2006); **Tatarstan** (<sup>4</sup>Vassiljeva, 1977); **Tula Oblast** (<sup>1</sup>Svetasheva, 2004); **Tver Oblast** (<sup>1</sup>Morozova, Aleksandrova, Popov, and Malysheva, 2016); **Ulyanovsk Oblast** (<sup>1</sup>Ilyukhin, 2010a; <sup>1</sup>Ilyukhin, 2010b); **Voronezh Oblast** (<sup>1</sup>Sarycheva, Starodubtseva, and Sapelnikova, 2017); **Arid territories** (<sup>1</sup>Rebriev, Rusanov, et al., 2012).

SIBERIA: **Altai Krai** (<sup>1</sup>Gorbunova, 2006); **Altai Republic** (<sup>1</sup>Gorbunova, 2006); **Buryatia** (<sup>5</sup>Nezdoinog, 1973); **Irkutsk Oblast** (<sup>1</sup>Gorbunova and Stepantsova, 2015); **Novosibirsk Oblast** (<sup>3</sup>Perova, 1977; <sup>1</sup>Gorbunova, 2006; <sup>1</sup>Koropachinskiy and Banaev, 2014).

FAR EAST: **Khabarovsk Krai** (<sup>4</sup>Azbukina et al., 1986; <sup>1</sup>Bau, Bulakh, and Govorova, 2011); **Primorsky Krai** (<sup>4</sup>Vassiljeva, 1972; <sup>4</sup>Vassiljeva, 1973; <sup>4</sup>Bunkina and Nazarova, 1978; <sup>1</sup>Azbukina et al., 2006; <sup>1</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Bulakh et al., 2016); **Sakhalin Oblast** (<sup>4</sup>Vassiljeva and Nazarova, 1972).

***Entoloma velenovskiyi* Noordel.**

EASTERN EUROPE: **Ryazan Oblast** (Malysheva and Volosnova, 2008; Volosnova, 2014).

***Entoloma venosum* Gillet**

EASTERN EUROPE: **Perm Krai** (Perevedentseva, 2008).

***Entoloma ventricosum* Arnolds & Noordel.**

EASTERN EUROPE: **Leningrad Oblast** (Morozova, 2007; Popov et al., 2007).

***Entoloma venustum* Wölfel & F. Hampe**

≡ *Entoloma callichroum* var. *venustum* (Wölfel & F. Hampe) O.V. Morozova, Noordel. & Vila<sup>1</sup>

EASTERN EUROPE: **Samara Oblast** (<sup>1</sup>Morozova, Noordeloos, and Vila, 2014).

SIBERIA: **Altai Republic** (<sup>1</sup>Morozova, Noordeloos, and Vila, 2014); **Novosibirsk Oblast** (<sup>1</sup>Morozova, Noordeloos, and Vila, 2014).

FAR EAST: **Primorsky Krai** (<sup>1</sup>Morozova, Noordeloos, and Vila, 2014).

***Entoloma vernum* S. Lundell<sup>1</sup>**

≡ *Rhodophyllus vernus* (S. Lundell) Romagn.<sup>2</sup> = *Entoloma cucullatum* (J. Favre) M.M. Moser<sup>3</sup> = *Nolanea cucullata* (J. Favre) P.D. Orton<sup>4</sup> = *Rhodophyllus cucullatus* J. Favre<sup>5</sup>

EASTERN EUROPE: **Bryansk Oblast** (<sup>1</sup>Kruglikov, 2007); **Kaluga Oblast** (<sup>1</sup>Sionova, 2012); **Karachay-Cherkess Republic** (<sup>3</sup>Onipchenko and Kaverina, 1989; <sup>1</sup>Kalamees and Botashev, 2000); **Karelia** (<sup>1</sup>Savelev and Kikeeva, 2018); **Kirov Oblast** (<sup>1</sup>Kirillov, 2011; <sup>1</sup>Kirillov, Perevedentseva, and Egoshina, 2011; <sup>1</sup>Stavishenko, Luginina, Kirillov, and Egoshina, 2019); **Komi Republic** (<sup>1</sup>Palamarchuk, 2016a; <sup>1</sup>Palamarchuk and Kirillov, 2017; <sup>1</sup>Palamarchuk, 2020a); **Leningrad Oblast** (<sup>1</sup>Zmitrovich et al., 2015); **Lipetsk Oblast** (<sup>1</sup>Sarycheva, 1999; <sup>1</sup>Sarycheva et al., 2009; <sup>1</sup>Sarycheva, 2011; <sup>1</sup>Sarycheva, 2014a; <sup>1</sup>Sarycheva, 2016; <sup>1</sup>Sarycheva, Starodubtseva, and Sapelnikova, 2017); **Moscow Oblast** (<sup>1</sup>Levitskaya, 1998; <sup>1</sup>Levitskaya, 2013); **Murmansk Oblast** (<sup>4</sup>Mikhailovskii, 1975b; <sup>1</sup>Karatygin, Nezdoinog, Novozhilov, and Zhurbenko, 1999); **North Ossetia** (<sup>1</sup>Nikolayev, 2001); **Novgorod Oblast** (<sup>1</sup>Morozova, Noordeloos, Popov, and Alexandrova, 2018); **Penza Oblast** (<sup>2</sup>Ivanov, 1985); **Perm Krai** (<sup>1</sup>Perevedentseva, 2008; <sup>1</sup>Botalov, 2017; <sup>1</sup>Botalov and Perevedentseva, 2020); **Pskov Oblast** (<sup>1</sup>Popov et al., 2013); **Ryazan Oblast** (<sup>1</sup>Volosnova, 1997; <sup>1</sup>Volosnova, 2014); **Saint Petersburg** (<sup>1</sup>Morozova and Smirnov, 2011); **Sverdlovsk Oblast** (<sup>2</sup>Stepanova and Sirko,

1977; <sup>1</sup>Marina, 2006); **Tula Oblast** (<sup>1</sup>Svetasheva, 2004); **Udmurt Republic** (<sup>1</sup>Kapitonov, 2008); **Yaroslavl Oblast** (<sup>1</sup>Lazareva, 1998a; <sup>1</sup>Lazareva, 1998b); **Arid territories** (<sup>1</sup>Rebriev, Rusanov, et al., 2012).

SIBERIA: **Krasnoyarsk Krai** (<sup>5</sup>Beglyanova, 1972a; <sup>1</sup>Zauzolkova, 2015; <sup>1</sup>Krom and Kapitonov, 2019); **Novosibirsk Oblast** (<sup>2</sup>Perova, 1982; <sup>1,3</sup>Perova and Gorbunova, 2001; <sup>1</sup>Perova and Gorbunova, 2007; <sup>1</sup>Koropachinskiy and Banaev, 2014); **Tomsk Oblast** (<sup>2</sup>Milovidova, 1980; <sup>1</sup>Kudashova, Gashkov, and Kutafjeva, 2013).

***Entoloma versatile* (Gillet) M.M. Moser**

EASTERN EUROPE: **Leningrad Oblast** (Kovalenko and Morozova, 1999a; Popov et al., 2007); **Penza Oblast** (Ivanov, 1992); **Saint Petersburg** (Morozova et al., 2020); **Tula Oblast** (Svetasheva et al., 2017).

FAR EAST: **Primorsky Krai** (Azbukina et al., 1990; Bardunov et al., 2002).

***Entoloma vindobonense* Noordel. & Hauskn.**

EASTERN EUROPE: **Rostov Oblast** (Rebriev, 2018).

***Entoloma xanthocaulon* Arnolds & Noordel.**

EASTERN EUROPE: **Moscow Oblast** (Levitskaya, 1998; Levitskaya, 2013); **Pskov Oblast** (Popov et al., 2013).

***Entoloma xanthochroum* (P.D. Orton) Noordel.**

EASTERN EUROPE: **Adygea** (Sopina, 2004b).

***Faerberia carbonaria* (Alb. & Schwein.) Pouzar<sup>1</sup>**

≡ *Cantharellus carbonarius* (Alb. & Schwein.) Fr.<sup>2</sup> ≡ *Geopetalum carbonarium* (Alb. & Schwein.) Pat.<sup>3</sup>

EASTERN EUROPE: **Moscow Oblast** (<sup>1</sup>Voronina et al., 2012; <sup>1</sup>Voronina et al., 2014); **Sverdlovsk Oblast** (<sup>1</sup>Marina, 2006); **Volgograd Oblast** (<sup>1</sup>Dudka and Vedeneyev, 2014); **Voronezh Oblast** (<sup>2,3</sup>Bedenko, 1985).

SIBERIA: **Novosibirsk Oblast** (<sup>3</sup>Perova and Gorbunova, 2001).

***Favolaschia pegleri* Parmasto**

FAR EAST: **Primorsky Krai** (Parmasto, 1999).

***Favolaschia sachalinensis* Parmasto ex Singer**

FAR EAST: **Sakhalin Oblast** (Parmasto, 1974).

***Fayodia anthracobia* (J. Favre) Knudsen**

EASTERN EUROPE: **Moscow Oblast** (Gorlenko, Sidorova, and Sidorova, 1989; Vishnevsky, 1998).

SIBERIA: **Altai Krai** (Gorbunova and Perova, 2006); **Novosibirsk Oblast** (Gorbunova, 2007).

FAR EAST: **Magadan Oblast** (Sazanova, 2012).

***Fayodia bisphaerigera* (J.E. Lange) Singer**

EASTERN EUROPE: **Sverdlovsk Oblast** (Marina, 2006).

***Fayodia bisphaerigerella* (M. Lange) M. Lange & Sivertsen**

SIBERIA: **Tomsk Oblast** (Kudashova, Gashkov, and Vaishlya, 2016a).

***Fayodia gracilipes* (Britzelm.) Bresinsky & Stangl**

EASTERN EUROPE: **Karelia** (Predtechenskaya and Ruokolainen, 2013); **Leningrad Oblast** (Malysheva, Malysheva, Shchepin, and Novozhilov, 2018).

SIBERIA: **Novosibirsk Oblast** (Perova and Gorbunova, 2001; Perova and Gorbunova, 2007).

***Flammula alnicola* (Fr.) P. Kumm.<sup>1</sup>**

≡ *Agaricus alnicola* Fr.<sup>2</sup> ≡ *Pholiota alnicola* (Fr.) Singer<sup>3</sup> ≡ *Pholiota alnicola* var. *alnicola* (Fr.) Singer<sup>4</sup> = *Flammula apicrea* (Fr.) Gillet<sup>5</sup> = *Naucoria amara* (Turconi) J. Schröt.<sup>6</sup> = *Pholiota alnicola* var. *salicicola* (Fr.) Holec<sup>7</sup> = *Pholiota apicrea* (Fr.) M.M. Moser<sup>8</sup> = *Pholiota aromatica* P.D. Orton<sup>9</sup>

EASTERN EUROPE: **Adygea** (<sup>3</sup>Sopina, 2001a); **Arkhangelsk Oblast** (<sup>1</sup>Lebedeva, 1933); **Belgorod Oblast** (<sup>3</sup>Bedenko, 1979a); **Bryansk Oblast** (<sup>3</sup>Kruglikov, 2007); **Crimea** (<sup>3</sup>Moser, 1993; <sup>3</sup>Sarkina, 2001; <sup>3</sup>Dudka et al., 2004; <sup>3</sup>Sarkina and Prydiuk, 2012); **Kabardino-Balkarian Republic** (<sup>3</sup>Shkhagapsoev and Krapivina, 2004); **Kaliningrad**



**Oblast** (<sup>3</sup>Dedkov, Volodina, and Gubareva, 2007; <sup>3</sup>Volodina, 2007); **Karachay-Cherkess Republic** (<sup>3</sup>Kalamees and Botashev, 2000); **Karelia** (<sup>3</sup>Bondartseva et al., 2001; <sup>4</sup>Krutov et al., 2014); **Kirov Oblast** (<sup>3</sup>Stavishenko, Luginina, Kirillov, and Egoshina, 2019); **Krasnodar Krai** (<sup>5</sup>Vassiljeva, 1939; <sup>3</sup>Kovalenko, 1980a; <sup>3</sup>Kovalenko, 1980b); **Leningrad Oblast** (<sup>1</sup>Thesleff, 1920; <sup>3</sup>Kalamees and Kovalenko, 1984; <sup>3</sup>Kovalenko and Morozova, 1999a; <sup>3</sup>Morozova, 2007; <sup>3</sup>Popov et al., 2007; <sup>3</sup>Psurtseva, Kiyashko, Gachkova, and Belova, 2007; <sup>3</sup>Zmitrovich et al., 2015); **Lipetsk Oblast** (<sup>3</sup>Sarycheva et al., 2009; <sup>3</sup>Sarycheva, 2011; <sup>3</sup>Sarycheva, 2014a; <sup>3</sup>Sarycheva, 2016); **Mordovia** (<sup>1</sup>Kuznetsov, 1960; <sup>1</sup>Chastukhin, 2011; <sup>3</sup>Ivoilov and Bolshakov, 2011a); **Moscow** (<sup>6</sup>Bucholtz, 1897b; <sup>6</sup>Bucholtz, 1897c; <sup>6</sup>Mosolov, 1906); **Moscow Oblast** (<sup>3</sup>Levitskaya, 1995c; <sup>3</sup>Levitskaya, 2013); **North Ossetia** (<sup>3</sup>Nikolayev, 2001); **Orenburg Oblast** (<sup>3</sup>Safonov, 2002; <sup>3</sup>Desyatova, 2008; <sup>3</sup>Safonov, 2015); **Oryol Oblast** (<sup>1</sup>Bolshakov et al., 2020; <sup>1</sup>Volobuev, Bolshakov, and Shakhova, 2020); **Penza Oblast** (<sup>3</sup>Ivanov, 1981b; <sup>3</sup>Ivanov, 1982; <sup>3</sup>Ivanov, 2019); **Perm Krai** (<sup>3</sup>Psurtseva, Kiyashko, Gachkova, and Belova, 2007; <sup>4</sup>Perevedentseva, 2008; <sup>3</sup>Belkovskaya et al., 2014); **Pskov Oblast** (<sup>3</sup>Popov et al., 2013); **Rostov Oblast** (<sup>3</sup>Rusanov et al., 2004; <sup>3</sup>Morozova et al., 2008; <sup>3</sup>Zmitrovich et al., 2008); **Ryazan Oblast** (<sup>3</sup>Volosnova, 2014); **Saint Petersburg** (<sup>2</sup>Weinmann, 1837; <sup>3</sup>Kotkova, Morozova, and Popov, 2005; <sup>3</sup>Kotkova, Morozova, and Popov, 2007; <sup>3</sup>Psurtseva, Kiyashko, Gachkova, and Belova, 2007; <sup>3</sup>Morozova and Smirnov, 2011; <sup>3</sup>Morozova, Kovalenko, Rebriev, and Malysheva, 2014; <sup>3</sup>Morozova et al., 2020); **Smolensk Oblast** (<sup>1</sup>Jaczevski, 1896; <sup>5</sup>Jaczevski, 1898); **Sverdlovsk Oblast** (<sup>3</sup>Stepanova and Sirko, 1977; <sup>3</sup>Marina, 2006); **Tatarstan** (<sup>3</sup>Potapov, 2016b); **Tula Oblast** (<sup>3</sup>Svetasheva, 2004); **Tver Oblast** (<sup>1</sup>Chastukhin, 1948b; <sup>3</sup>Chastukhin and Nikolaevskaya, 1969; <sup>3</sup>Mukhina, 2011a; <sup>3</sup>Kotkova, 2014); **Udmurt Republic** (<sup>3</sup>Tychinin and Kuzmina, 2003); **Ulyanovsk Oblast** (<sup>3</sup>Ilyukhin, 2009; <sup>3</sup>Ilyukhin, 2010a); **Vologda Oblast** (<sup>1</sup>Kutova, 1957; <sup>3</sup>Kirillova, 2006; <sup>3</sup>Kirillova, 2007); **Voronezh Oblast** (<sup>3</sup>Sarycheva, Starodubtseva, and Sapelnikova, 2017); **Yaroslavl Oblast** (<sup>3</sup>Lazareva, 1998a; <sup>3</sup>Lazareva, 2002); **Arid territories** (<sup>3</sup>Rebriev, Rusanov, et al., 2012); **Eastern Europe** (<sup>3</sup>Psurtseva, Kiyashko, Gachkova, and Belova, 2007).

SIBERIA: **Altai Krai** (<sup>4</sup>Gorbunova and Chubarova, 2008; <sup>4</sup>Gorbunova, Vlasenko, and Tzhubarova, 2011); **Altai Republic** (<sup>3</sup>Gorbunova, 1997; <sup>3</sup>Gorbunova, 2001b); **Buryatia** (<sup>3</sup>Nezdojminogo, 1970a; <sup>3</sup>Petrov, 1991); **Irkutsk Oblast** (<sup>3</sup>Petrov, 1986; <sup>3</sup>Kutafjeva and Astapenko, 1987; <sup>3</sup>Astapenko, 1990a; <sup>3</sup>Petrov, 1991; <sup>3</sup>Petrov, 2008); **Khanty-Mansi Autonomous Okrug** (<sup>4</sup>Zvyagina, Baykalova, and Gorbunova, 2007; <sup>3</sup>Filippova, Bulyonkova, and Lapshina, 2015); **Krasnoyarsk Krai** (<sup>3,8,9</sup>Beglyanova, 1972a; <sup>1</sup>Krom and Kapitonov, 2019); **Kurgan Oblast** (<sup>3</sup>Mukhin, 1993); **Novosibirsk Oblast** (<sup>8</sup>Perova, 1977; <sup>8</sup>Perova and Gorbunova, 2001; <sup>4</sup>Gorbunova, 2007; <sup>4</sup>Perova and Gorbunova, 2007; <sup>4</sup>Koropachinskiy and Banaev, 2014); **Sverdlovsk Oblast** (<sup>3</sup>Stepanova and Sirko, 1977); **Tomsk Oblast** (<sup>3,8</sup>Perova, 1972; <sup>8</sup>Perova and Gorbunova, 2001; <sup>4</sup>Kudashova, Gashkov, and Kutafjeva, 2013; <sup>7</sup>Kudashova, Gashkov, and Kutafjeva, 2013); **Yamalo-Nenets Autonomous Okrug** (<sup>3</sup>Mukhin, 1993).

FAR EAST: **Amur Oblast** (<sup>3</sup>Gordienko, Petrova, and Tarasov, 1981; <sup>3</sup>Kochunova, 2016); **Khabarovsk Krai** (<sup>3</sup>Azbukina et al., 1986; <sup>3</sup>Azbukina et al., 1989; <sup>3</sup>Bau, Bulakh, and Govorova, 2011; <sup>3</sup>Erofeeva and Bulakh, 2015a); **Magadan Oblast** (<sup>3</sup>Sazanova, 2005; <sup>3</sup>Sazanova, 2009a); **Primorsky Krai** (<sup>3</sup>Vassiljeva, 1972; <sup>3</sup>Vassiljeva, 1973; <sup>3</sup>Bulakh, 1977; <sup>3</sup>Bunkina and Nazarova, 1978; <sup>3</sup>Azbukina et al., 1984; <sup>3</sup>Azbukina et al., 1990; <sup>3</sup>Bardunov et al., 2002; <sup>3</sup>Azbukina et al., 2006; <sup>3</sup>Psurtseva, Kiyashko, Gachkova, and Belova, 2007; <sup>3</sup>Bau, Bulakh, and Govorova, 2011).

### ***Flammula pinicola* (Jacobsson) Noordel.**

According to Noordeloos (2011) *Pholiota pinicola* Jacobsson was transferred to *Flammula*.

EASTERN EUROPE: **Tver Oblast** (Morozova, Aleksandrova, Popov, and Malysheva, 2016).

### ***Flammulaster carpophilus* (Fr.) Earle ex Vellinga<sup>1</sup>**

≡ *Flammulaster carpophiloides* (Kühner) Watling<sup>2</sup> ≡ *Flammulaster carpophilus* var. *carpophilus* (Fr.) Earle ex Vellinga<sup>3</sup> ≡ *Naucoria carpophila* (Fr.) Quél.<sup>4</sup> ≡ *Phaeomarasmius carpophilus* (Fr.) Singer<sup>5</sup> = *Cystoderma rhombosporum* (G.F. Atk.) A.H. Sm. & Singer<sup>6</sup> = *Flammulaster carpophilus* var. *rhombosporus* (G.F. Atk.) Vellinga<sup>7</sup> = *Flammulaster carpophilus* var. *subincarnatus* (Joss. & Kühner) Vellinga<sup>8</sup> = *Flammulaster rhombosporus* (G.F. Atk.) Watling<sup>9</sup> = *Flammulaster subincarnatus* (Joss. & Kühner) Watling<sup>10</sup>

EASTERN EUROPE: **Crimea** (<sup>3</sup>Sarkina, 2010b); **Kirov Oblast** (<sup>9</sup>Kirillov, 2011; <sup>9</sup>Kirillov, Perevedentseva, and Egoshina, 2011); **Komi Republic** (<sup>9</sup>Bobretsova, 2004; <sup>10</sup>Palamarchuk (Bobretsova), 2009; <sup>7,8</sup>Palamarchuk, 2012; <sup>7</sup>Palamarchuk, 2017); **Pskov Oblast** (<sup>9</sup>Popov, 2001a; <sup>2,9</sup>Popov et al., 2013; <sup>1</sup>Morozova et al., 2015); **Saint Petersburg** (<sup>9</sup>Morozova and Smirnov, 2011); **Sverdlovsk Oblast** (<sup>9</sup>Marina, 2006); **Udmurt Republic** (<sup>3</sup>Kapitonov, 2013); **Yaroslavl Oblast** (<sup>9</sup>Lazareva, 1998a; <sup>9</sup>Lazareva, 2002).

SIBERIA: **Altai Krai** (<sup>1</sup>Gorbunova, 2018a); **Altai Republic** (<sup>4</sup>Singer, 1950a); **Buryatia** (<sup>5</sup>Nezdojminogo, 1973; <sup>1</sup>Petrov, 1991); **Irkutsk Oblast** (<sup>1,2,9</sup>Petrov, 1986; <sup>9</sup>Astapenko and Kutafjeva, 1990; <sup>1,2,9</sup>Petrov, 1991; <sup>1,2,9</sup>Petrov, 2008); **Kemerovo Oblast** (<sup>9</sup>Perova and Gorbunova, 2001); **Khanty-Mansi Autonomous Okrug** (<sup>1,9</sup>Filippova, Bulyonkova,

and Lapshina, 2015; <sup>9,10</sup>Filippova and Bulyonkova, 2017a; <sup>9,10</sup>Filippova and Bulyonkova, 2017b; <sup>7</sup>Zvyagina and Baykalova, 2017); **Krasnoyarsk Krai** (<sup>9</sup>Nezdojminogo, 1982a; <sup>1</sup>Gorbunova, 2016; <sup>10</sup>Krom and Kapitonov, 2019).

FAR EAST: **Primorsky Krai** (<sup>6</sup>Azbukina et al., 1984; <sup>9</sup>Bulakh et al., 2016).

***Flammulaster delicatulooides* (Kühner) Watling**

EASTERN EUROPE: **Samara Oblast** (Malysheva and Malysheva, 2008).

***Flammulaster erinaceellus* (Peck) Watling<sup>1</sup>**

≡ *Phaeomarasmius erinaceellus* (Peck) Singer<sup>2</sup>

EASTERN EUROPE: **Crimea** (<sup>1</sup>Prydiuk, 2002; <sup>1</sup>Dudka et al., 2004; <sup>1</sup>Sarkina, 2011); **Lipetsk Oblast** (<sup>1</sup>Sarycheva et al., 2009; <sup>1</sup>Sarycheva, 2014a; <sup>1</sup>Sarycheva, 2016).

SIBERIA: **Kemerovo Oblast** (<sup>1</sup>Perova and Gorbunova, 2001); **Tomsk Oblast** (<sup>1</sup>Perova and Gorbunova, 2001).

FAR EAST: **Jewish Autonomous Oblast** (<sup>1</sup>Erofeeva, Bukharova, and Bulakh, 2019); **Khabarovsk Krai** (<sup>2</sup>Bau, Bulakh, Zhuang, and Li, 2007; <sup>1</sup>Bau, Bulakh, and Govorova, 2011); **Primorsky Krai** (<sup>2</sup>Bau, Bulakh, Zhuang, and Li, 2007; <sup>1</sup>Bogacheva, Bulakh, Bukharova, and Egorova, 2020).

***Flammulaster gracilis* (Quél.) Watling**

EASTERN EUROPE: **Crimea** (Sarkina, 2010b; Sarkina, 2020a).

SIBERIA: **Irkutsk Oblast** (Petrov, 1991; Petrov, 2008); **Kemerovo Oblast** (Perova and Gorbunova, 2001); **Krasnoyarsk Krai** (Nezdojminogo, 1982a).

FAR EAST: **Primorsky Krai** (Kovalenko and Nezdojminogo, 1989).

***Flammulaster granulosus* (J.E. Lange) Watling**

EASTERN EUROPE: **Komi Republic** (Palamarchuk, 2016a); **Moscow Oblast** (Levitskaya, 2006; Levitskaya, 2013).

SIBERIA: **Krasnoyarsk Krai** (Gorbunova, 2016).

***Flammulaster limulatus* (Fr.) Watling<sup>1</sup>**

≡ *Agaricus limulatus* Fr.<sup>2</sup> ≡ *Flammula limulata* (Fr.) Weinm.<sup>3</sup> ≡ *Flammulaster limulatoides* P.D. Orton<sup>4</sup> ≡ *Phaeomarasmius limulatus* (Fr.) Singer<sup>5</sup>

EASTERN EUROPE: **Crimea** (<sup>1</sup>Prydiuk, 2002; <sup>1</sup>Dudka et al., 2004; <sup>1</sup>Sarkina, 2011); **Komi Republic** (<sup>1</sup>Palamarchuk (Bobretsova), 2009; <sup>1,4</sup>Palamarchuk, 2012); **Leningrad Oblast** (<sup>2</sup>Weinmann, 1836; <sup>3</sup>Thesleff, 1920); **Moscow Oblast** (<sup>1</sup>Levitskaya, 2006; <sup>1</sup>Levitskaya, 2013); **Novgorod Oblast** (<sup>4</sup>Psurtsseva, Kiyashko, Gachkova, and Belova, 2007; <sup>1</sup>Baklan, 2015); **Orenburg Oblast** (<sup>1</sup>Desyatova, 2008); **Pskov Oblast** (<sup>4</sup>Kovalenko, Kolmakov, Morozova, and Popov, 2003; <sup>4</sup>Popov et al., 2013); **Rostov Oblast** (<sup>4</sup>Morozova et al., 2008); **Saint Petersburg** (<sup>1</sup>Morozova et al., 2020); **Samara Oblast** (<sup>1</sup>Malysheva and Malysheva, 2005b; <sup>1</sup>Malysheva and Malysheva, 2008); **Sverdlovsk Oblast** (<sup>4</sup>Marina, 2006); **Tatarstan** (<sup>1</sup>Potapov, 2016b); **Tula Oblast** (<sup>4</sup>Svetasheva, 2004; <sup>1</sup>Svetasheva et al., 2017); **Vologda Oblast** (<sup>4</sup>Kirillova, 2007); **Arid territories** (<sup>4</sup>Rebriev, Rusanov, et al., 2012).

SIBERIA: **Khanty-Mansi Autonomous Okrug** (<sup>5</sup>Zvyagina, Baykalova, and Gorbunova, 2007); **Krasnoyarsk Krai** (<sup>5</sup>Beglyanova, 1972a; <sup>1</sup>Krom and Kapitonov, 2019); **Tomsk Oblast** (<sup>1</sup>Kudashova, Gashkov, and Vaishlya, 2016a).

FAR EAST: **Khabarovsk Krai** (<sup>1</sup>Azbukina et al., 1989); **Primorsky Krai** (<sup>5</sup>Azbukina et al., 1984; <sup>1</sup>Azbukina et al., 2006; <sup>1</sup>Bau, Bulakh, and Govorova, 2011).

***Flammulaster muricatus* (Fr.) Watling<sup>1</sup>**

≡ *Agaricus muricatus* Fr.<sup>2</sup> ≡ *Flocculina muricata* (Fr.) P.D. Orton<sup>3</sup> ≡ *Phaeomarasmius muricatus* (Fr.) Singer<sup>4</sup> ≡ *Pholiota muricata* (Fr.) P. Kumm.<sup>5</sup>

EASTERN EUROPE: **Kaliningrad Oblast** (<sup>1</sup>Dedkov, Volodina, and Gubareva, 2007); **Karelia** (<sup>5</sup>Freindling, 1949; <sup>1</sup>Bondartseva et al., 2001; <sup>1</sup>Krutov et al., 2014); **Krasnodar Krai** (<sup>5</sup>Vassiljeva, 1939); **Leningrad Oblast** (<sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Morozova, 2007; <sup>1</sup>Popov et al., 2007; <sup>1</sup>Kalinina, 2018); **Lipetsk Oblast** (<sup>1</sup>Sarycheva, 2016); **Moscow Oblast** (<sup>1</sup>Levitskaya, 1995c; <sup>1</sup>Voronina et al., 2012; <sup>1</sup>Levitskaya, 2013; <sup>1</sup>Voronina et al., 2014); **Penza Oblast** (<sup>1</sup>Ivanov, 1988a); **Perm Krai** (<sup>1</sup>Perevedentseva, Nezdojminogo, and Kovalenko, 1990; <sup>1</sup>Perevedentseva, 2008); **Pskov Oblast** (<sup>1</sup>Kolmakov and Popov, 2005; <sup>1</sup>Popov et al., 2013); **Rostov Oblast** (<sup>1</sup>Morozova et al., 2008); **Saint Petersburg** (<sup>2</sup>Weinmann, 1828; <sup>2</sup>Weinmann, 1836; <sup>2</sup>Weinmann, 1837; <sup>5</sup>Morozova et al., 2020); **Samara Oblast** (<sup>1</sup>Malysheva and Malysheva, 2005b; <sup>1</sup>Malysheva and Malysheva, 2008); **Tatarstan** (<sup>4</sup>Vassiljeva, 1977); **Tula Oblast** (<sup>1</sup>Svetasheva, 2004; <sup>1</sup>Svetasheva, 2013); **Udmurt Republic** (<sup>1</sup>Kapitonov, 2008); **Ulyanovsk Oblast** (<sup>1</sup>Ilyukhin, 2010a; <sup>1</sup>Ilyukhin, 2010b); **Vologda Oblast** (<sup>1</sup>Kirillova, 2007); **Arid territories** (<sup>1</sup>Rebriev, Rusanov, et al., 2012).

SIBERIA: **Irkutsk Oblast** (<sup>1</sup>Petrov, 1986; <sup>1</sup>Petrov, 1991; <sup>1</sup>Petrov, 2008); **Khakassia** (<sup>1</sup>Zauzolkova, 2015); **Khanty-Mansi Autonomous Okrug** (<sup>1</sup>Zvyagina, 2008; <sup>1</sup>Shepeleva et al., 2014; <sup>1</sup>Filippova, Bulyonkova, and Lapshina, 2015); **Krasnoyarsk Krai** (<sup>1</sup>Kosheleva and Kutafjeva, 2008a; <sup>1</sup>Zauzolkova, 2012; <sup>1</sup>Zauzolkova, 2015; <sup>1</sup>Krom and Kapitonov, 2019); **Novosibirsk Oblast** (<sup>1</sup>Perova and Gorbunova, 2001; <sup>1</sup>Perova and Gorbunova, 2007; <sup>1</sup>Koropachinskiy and Banaev, 2014); **Tomsk Oblast** (<sup>3</sup>Perova, 1972; <sup>1</sup>Perova and Gorbunova, 2001; <sup>1</sup>Kudashova, Gashkov, and Kutafjeva, 2013).

FAR EAST: **Jewish Autonomous Oblast** (<sup>1</sup>Bulakh, Govorova, Nazarova, and Vassiljeva, 2007; <sup>1</sup>Bau, Bulakh, and Govorova, 2011).

***Flammulaster siparius* (Fr.) Watling<sup>1</sup>**

≡ *Agaricus siparius* Fr.<sup>2</sup> ≡ *Flocculina siparia* (Fr.) P.D. Orton<sup>3</sup> ≡ *Naucoria siparia* (Fr.) Gillet<sup>4</sup> ≡ *Phaeomarasmius siparius* (Fr.) Singer<sup>5</sup>

EASTERN EUROPE: **Lipetsk Oblast** (<sup>5</sup>Alferova, 1977; <sup>5</sup>Sarycheva, 1999; <sup>1</sup>Sarycheva et al., 2009; <sup>1</sup>Sarycheva, 2011; <sup>1</sup>Sarycheva, 2014a; <sup>1</sup>Sarycheva, 2016); **Saint Petersburg** (<sup>2</sup>Weinmann, 1828; <sup>2</sup>Weinmann, 1836; <sup>2</sup>Weinmann, 1837); **Tatarstan** (<sup>4</sup>Singer, 1945; <sup>5</sup>Vassiljeva, 1977).

SIBERIA: **Altai Republic** (<sup>1</sup>Gorbunova, 1997); **Krasnoyarsk Krai** (<sup>1</sup>Zauzolkova, 2012; <sup>1</sup>Zauzolkova, 2015); **Novosibirsk Oblast** (<sup>1</sup>Perova and Gorbunova, 2007); **Tomsk Oblast** (<sup>3</sup>Perova, 1972; <sup>1</sup>Kudashova, Gashkov, and Kutafjeva, 2013); **Yamalo-Nenets Autonomous Okrug** (<sup>1</sup>Mukhin, 1993).

FAR EAST: **Amur Oblast** (<sup>5</sup>Nazarova, 1986); **Khabarovsk Krai** (<sup>5</sup>Azbukina et al., 1986; <sup>1</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Erofeeva and Bulakh, 2015a); **Primorsky Krai** (<sup>5</sup>Vassiljeva, 1973; <sup>5</sup>Bunkina and Nazarova, 1978; <sup>5</sup>Azbukina et al., 1984; <sup>1</sup>Bardunov et al., 2002; <sup>1</sup>Azbukina et al., 2006; <sup>1</sup>Bau, Bulakh, and Govorova, 2011).

***Flammulaster wieslandri* (Fr.) M.M. Moser<sup>1</sup>**

≡ *Naucoria wieslandri* (Fr.) Sacc.<sup>2</sup> ≡ *Phaeomarasmius wieslandri* (Fr.) Singer<sup>3</sup>

EASTERN EUROPE: **Karelia** (<sup>2</sup>Singer, 1937; <sup>2</sup>Singer, 1950a); **Novgorod Oblast** (<sup>1</sup>Kovalenko, Morozova, Nezdojminogo, and Popov, 2005; <sup>1</sup>Popov et al., 2013); **Tatarstan** (<sup>3</sup>Vassiljeva, 1977).

SIBERIA: **Krasnoyarsk Krai** (<sup>1</sup>Zauzolkova, 2012; <sup>1</sup>Zauzolkova, 2015); **Novosibirsk Oblast** (<sup>1</sup>Perova and Gorbunova, 2001; <sup>1</sup>Perova and Gorbunova, 2007); **Tomsk Oblast** (<sup>1</sup>Kudashova, Gashkov, and Kutafjeva, 2013).

FAR EAST: **Khabarovsk Krai** (<sup>3</sup>Azbukina et al., 1986; <sup>1</sup>Bau, Bulakh, and Govorova, 2011); **Primorsky Krai** (<sup>3</sup>Vassiljeva, 1973; <sup>3</sup>Bunkina and Nazarova, 1978; <sup>2</sup>Azbukina et al., 1990; <sup>1</sup>Bardunov et al., 2002; <sup>1</sup>Azbukina et al., 2006; <sup>1</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Bulakh et al., 2016).

***Flammulina elastica* (Sacc.) Redhead & R.H. Petersen**

SIBERIA: **Khanty-Mansi Autonomous Okrug** (Filippova and Bulyonkova, 2017a; Filippova and Bulyonkova, 2017b).

***Flammulina fennae* Bas**

EASTERN EUROPE: **Leningrad Oblast** (Psurtseva, Kiyashko, Gachkova, and Belova, 2007); **Rostov Oblast** (Morozova et al., 2008); **Saint Petersburg** (Psurtseva, Kiyashko, Gachkova, and Belova, 2007); **Samara Oblast** (Malysheva and Malysheva, 2008); **Arid territories** (Rebriev, Rusanov, et al., 2012).

SIBERIA: **Krasnoyarsk Krai** (Krom and Kapitonov, 2019).

***Flammulina ononidis* Arnolds**

EASTERN EUROPE: **Kabardino-Balkarian Republic** (Krapivina et al., 2020).

***Flammulina populicola* Redhead & R.H. Petersen**

SIBERIA: **Krasnoyarsk Krai** (Krom and Kapitonov, 2019).

***Flammulina rossica* Redhead & R.H. Petersen**

EASTERN EUROPE: **Leningrad Oblast** (Psurtseva, Kiyashko, Gachkova, and Belova, 2007); **Novgorod Oblast** (Adamčík and Ripková, 2008); **Saint Petersburg** (Psurtseva, Kiyashko, Gachkova, and Belova, 2007; Adamčík and Ripková, 2008).

SIBERIA: **Krasnoyarsk Krai** (Krom and Kapitonov, 2019).

FAR EAST: **Kamchatka Krai** (Psurtseva, Kiyashko, Gachkova, and Belova, 2007); **Primorsky Krai** (Redhead and Petersen, 1999; Psurtseva, Kiyashko, Gachkova, and Belova, 2007; Adamčík and Ripková, 2008; Bulakh et al., 2016).

***Flammulina velutipes* (Curtis) Singer<sup>1</sup>**

≡ *Agaricus velutipes* Curtis<sup>2</sup> ≡ *Collybia velutipes* (Curtis) P. Kumm.<sup>3</sup> ≡ *Flammulina velutipes* var. *velutipes* (Curtis) Singer<sup>4</sup> = *Agaricus velutipes* var. *sphinx* (Batsch) Pers.<sup>5</sup> = *Flammulina velutipes* var. *lactea* (Quél.) Bas<sup>6</sup>

EASTERN EUROPE: **Adygea** (<sup>1</sup>Vaasma, Kalamees, and Raitviir, 1986); **Belgorod Oblast** (<sup>1</sup>Bedenko, 1979a); **Bryansk Oblast** (<sup>1</sup>Kruglikov, 2007); **Chechen Republic** (<sup>1</sup>Taysumov, Krapivina, and Kushalieva, 2016); **Chelyabinsk Oblast** (<sup>1</sup>Krasutsky, 2013); **Crimea** (<sup>3</sup>Zerova, 1962; <sup>1</sup>Sarkina, 2001; <sup>1</sup>Isikov, 2003; <sup>1</sup>Dudka et al., 2004; <sup>1</sup>Sarkina, 2010b; <sup>1</sup>Sarkina, 2011; <sup>1</sup>Sarkina and Prydiuk, 2012; <sup>1</sup>Sarkina, 2013; <sup>1</sup>Sarkina, 2014b; <sup>1</sup>Sarkina and Mironova, 2015); **Kabardino-Balkarian Republic** (<sup>1</sup>Shkhagapsoev and Krapivina, 2003; <sup>1</sup>Shkhagapsoev and Krapivina, 2004); **Kaliningrad Oblast** (<sup>1</sup>Dedkov, Volodina, and Gubareva, 2007; <sup>1</sup>Volodina, 2007; <sup>1</sup>Atayev and Volodina, 2020); **Kaluga Oblast** (<sup>1</sup>Sionova, 2003); **Karelia** (<sup>1</sup>Czerepanova, Perfiljeva, and Tobias, 1982; <sup>1</sup>Bondartseva et al., 2001; <sup>1</sup>Krutov et al., 2014; <sup>1</sup>Savelev and Kikeeva, 2018); **Kirov Oblast** (<sup>1</sup>Kirillov and Luginina, 2011; <sup>1</sup>Kirillov, 2011; <sup>1</sup>Kirillov, Perevedentseva, and Egoshina, 2011; <sup>1</sup>Stavishenko, Luginina, Kirillov, and Egoshina, 2019); **Komi Republic** (<sup>1,6</sup>Palamarchuk, 2016a; <sup>4</sup>Palamarchuk, 2016b; <sup>1</sup>Palamarchuk and Kirillov, 2017); **Krasnodar Krai** (<sup>1</sup>Kovalenko, 1980a; <sup>1</sup>Kovalenko, 1980b); **Kursk Oblast** (<sup>1</sup>Ryabova and Ignatenko, 1981; <sup>1</sup>Baranov, 2002; <sup>1</sup>Soshnina, 2005; <sup>1</sup>Soshnina, 2014); **Leningrad Oblast** (<sup>3</sup>Thesleff, 1920; <sup>1</sup>Stolyarskaya, 1993; <sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Morozova, 2007; <sup>1</sup>Popov et al., 2007; <sup>1</sup>Zmitrovich et al., 2015); **Lipetsk Oblast** (<sup>1</sup>Alferova, 1977; <sup>1</sup>Rtishcheva, 1999; <sup>1</sup>Sarycheva, 1999; <sup>1</sup>Afanasyev, Rtishcheva, and Starodubtseva, 2007; <sup>1</sup>Sarycheva et al., 2009; <sup>1</sup>Sarycheva, 2011; <sup>1</sup>Sarycheva, 2014a; <sup>1</sup>Sarycheva, 2016; <sup>1</sup>Sarycheva, Starodubtseva, and Sapelnikova, 2017); **Mordovia** (<sup>3</sup>Chastukhin, 1948a; <sup>1</sup>Chastukhin and Nikolaevskaya, 1969; <sup>1</sup>Ivoilov and Bolshakov, 2011a; <sup>3</sup>Chastukhin, 2011); **Moscow** (<sup>2</sup>Bucholtz, 1897a; <sup>2</sup>Bucholtz, 1897b; <sup>2</sup>Bucholtz, 1897c; <sup>2</sup>Mosolov, 1906); **Moscow Oblast** (<sup>1</sup>Gorlenko, Sidorova, and Sidorova, 1989; <sup>1</sup>Levitskaya, 1995b; <sup>1</sup>Vishnevsky, 1998; <sup>1</sup>Levitskaya, 2013); **North Ossetia** (<sup>1</sup>Nikolayev, 2001); **Novgorod Oblast** (<sup>1</sup>Malysheva, Malysheva, and Zmitrovich, 2007; <sup>1</sup>Baklan, 2015); **Orenburg Oblast** (<sup>1</sup>Safonov, 2002; <sup>1</sup>Korshikova, 2005; <sup>1</sup>Korshikova, 2006; <sup>1</sup>Desyatova, 2008; <sup>1</sup>Safonov, Malenkova, Rusakov, and Leneva, 2013; <sup>1</sup>Safonov, 2015); **Penza Oblast** (<sup>3</sup>Vet, 1943; <sup>1</sup>Ivanov, 1981a; <sup>1</sup>Ivanov, 1981b; <sup>1</sup>Ivanov, 1999; <sup>1</sup>Ivanov, 2019); **Perm Krai** (<sup>1</sup>Perevedentseva, 2008); **Pskov Oblast** (<sup>1</sup>Kovalenko, Kolmakov, Morozova, and Popov, 2003; <sup>1</sup>Popov et al., 2013); **Rostov Oblast** (<sup>1</sup>Rusanov et al., 2004; <sup>1</sup>Zmitrovich et al., 2008; <sup>1</sup>Rebriev and Svetasheva, 2010; <sup>1</sup>Rusanov, Rebriev, and Bulgakov, 2018); **Ryazan Oblast** (<sup>1</sup>Volosnova, 1997; <sup>1</sup>Volosnova, 2014); **Saint Petersburg** (<sup>2,5</sup>Weinmann, 1828; <sup>2,5</sup>Weinmann, 1836; <sup>2,5</sup>Weinmann, 1837; <sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Morozova and Kovalenko, 2000; <sup>1</sup>Kotkova, Morozova, and Popov, 2006; <sup>1</sup>Kotkova, Morozova, and Popov, 2007; <sup>1</sup>Psurtseva, Kiyashko, Gachkova, and Belova, 2007; <sup>1</sup>Morozova and Smirnov, 2011; <sup>1</sup>Morozova, Kovalenko, Rebriev, and Malysheva, 2014; <sup>1</sup>Zhukova, Morozova, Volobuev, and Bryantseva, 2017; <sup>1</sup>Morozova et al., 2020); **Samara Oblast** (<sup>1</sup>Malysheva and Malysheva, 2005b; <sup>1</sup>Malysheva and Malysheva, 2008); **Sevastopol** (<sup>1</sup>Sarkina and Belyaeva, 2013; <sup>1</sup>Sarkina, 2016b; <sup>1</sup>Sarkina, 2020c); **Smolensk Oblast** (<sup>3</sup>Jaczevski, 1896); **Stavropol Krai** (<sup>1</sup>Psurtseva, Kiyashko, Gachkova, and Belova, 2007); **Sverdlovsk Oblast** (<sup>1</sup>Stepanova and Sirko, 1977; <sup>1</sup>Marina, 2006); **Tatarstan** (<sup>2</sup>Sorokin, 1872; <sup>1</sup>Vassiljeva, 1977; <sup>1</sup>Potapov, 2016a); **Tula Oblast** (<sup>1</sup>Svetasheva, 2004; <sup>1</sup>Svetasheva, 2013); **Tver Oblast** (<sup>3</sup>Chastukhin, 1948b; <sup>1</sup>Chastukhin and Nikolaevskaya, 1969; <sup>1</sup>Kurochkin, 1993; <sup>1</sup>Mukhina, 2011a; <sup>1</sup>Mukhina, 2011b; <sup>1</sup>Kotkova, 2014; <sup>1</sup>Kurochkin and Medvedev, 2015; <sup>1</sup>Kurochkin, 2016); **Udmurt Republic** (<sup>1</sup>Tychinin, 1990; <sup>1</sup>Tychinin and Kuzmina, 2003); **Ulyanovsk Oblast** (<sup>1</sup>Ilyukhin, 2009; <sup>1</sup>Ilyukhin, 2010a); **Voronezh Oblast** (<sup>3</sup>Chastukhin and Nikolaevskaya, 1953; <sup>1</sup>Chastukhin and Nikolaevskaya, 1969; <sup>1</sup>Rtishcheva, 1999; <sup>1</sup>Afanasyev, Rtishcheva, and Starodubtseva, 2007; <sup>1</sup>Sarycheva, Starodubtseva, and Sapelnikova, 2017); **Yaroslavl Oblast** (<sup>1</sup>Lazareva, 1998a); **Arid territories** (<sup>1</sup>Rebriev, Rusanov, et al., 2012); **Lapland** (<sup>2</sup>Karsten, 1866); **Northern Caucasus** (<sup>1</sup>Kovalenko, 1980b).

SIBERIA: **Altai Krai** (<sup>1</sup>Gorbunova and Perova, 2006); **Altai Republic** (<sup>1</sup>Gorbunova, 1997; <sup>1</sup>Gorbunova, 2001b); **Buryatia** (<sup>1</sup>Nezdojminogo, 1970a; <sup>1</sup>Penzina and Petrov, 1994); **Irkutsk Oblast** (<sup>1</sup>Kutafjeva, 1983; <sup>1</sup>Petrov, 1984; <sup>1</sup>Petrov, 1989; <sup>1</sup>Astapenko, 1990a; <sup>1</sup>Bardunov et al., 2005; <sup>1</sup>Petrov, 2008; <sup>1</sup>Muzyka, 2009; <sup>1</sup>Gorbunova and Stepantsova, 2015; <sup>1</sup>Muzyka and Penzina, 2017); **Kemerovo Oblast** (<sup>1</sup>Nozdrenko, 1970); **Khakassia** (<sup>1</sup>Beglyanova, 1972a; <sup>1</sup>Zauzolkova, 2015); **Khanty-Mansi Autonomous Okrug** (<sup>1</sup>Mukhin, 1993; <sup>1</sup>Zvyagina, Baykalova, and Gorbunova, 2007; <sup>1</sup>Filippova, Bulyonkova, and Lapshina, 2015; <sup>1</sup>Zvyagina and Vasina, 2015); **Krasnoyarsk Krai** (<sup>2</sup>Thümen, 1880a; <sup>1</sup>Beglyanova, 1972a; <sup>1</sup>Nezdojminogo, 1982a; <sup>1</sup>Lapitskaya, 1993; <sup>1</sup>Mukhin and Kotiranta, 2001; <sup>1</sup>Pavlov et al., 2007; <sup>1</sup>Zauzolkova, 2012; <sup>1</sup>Kryuchkova, 2015; <sup>1</sup>Zauzolkova, 2015); **Novosibirsk Oblast** (<sup>1</sup>Nozdrenko, 1970; <sup>1</sup>Zaytseva, 1971; <sup>1</sup>Perova, 1977; <sup>1</sup>Zhukov, 1980; <sup>1</sup>Gorbunova, 2007; <sup>1</sup>Perova and Gorbunova, 2007); **Sakha Republic** (<sup>1</sup>Karatygin, Nezdojminogo, Novozhilov, and Zhurbenko, 1999; <sup>1</sup>Kotiranta and Mukhin, 2000; <sup>1</sup>Nezdojminogo, 2003); **Tomsk Oblast** (<sup>1</sup>Milovidova, 1980; <sup>1</sup>Kosheleva and Kutafjeva, 2004; <sup>1</sup>Agaphonova, Kutafjeva, and Gashkov, 2007; <sup>1,6</sup>Kudashova, Gashkov, and Kutafjeva, 2013); **Tyumen Oblast** (<sup>1</sup>Mukhin, 1993); **Yamalo-Nenets Autonomous Okrug** (<sup>1</sup>Mukhin, 1993); **Sayans** (<sup>3</sup>Saccardo, 1896).

FAR EAST: **Amur Oblast** (<sup>1</sup>Gordienko, Petrova, and Tarasov, 1981; <sup>1</sup>Azbukina et al., 1998; <sup>1</sup>Taranina, 2005; <sup>1</sup>Kochunova, 2016; <sup>1</sup>Kochunova and Timchenko, 2019; <sup>1</sup>Kochunova, 2019); **Chukotka Autonomous Okrug**

(<sup>1</sup>Sazanova, 1993); **Jewish Autonomous Oblast** (<sup>1</sup>Bulakh, Govorova, Nazarova, and Vassiljeva, 2007; <sup>1</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Erofeeva, Bukharova, and Bulakh, 2019); **Kamchatka Krai** (<sup>1</sup>Karatygin, Nezdjminogo, Novozhilov, and Zhurbenko, 1999); **Khabarovsk Krai** (<sup>1</sup>Azbukina et al., 1986; <sup>1</sup>Azbukina et al., 1989; <sup>1</sup>Bulakh, Vassiljeva, and Erofeeva, 2010; <sup>1</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Erofeeva and Bulakh, 2015a); **Magadan Oblast** (<sup>1</sup>Nazarova, 1976; <sup>1</sup>Sazanova, 1996; <sup>1</sup>Sazanova, 2005; <sup>1</sup>Sazanova, 2009a; <sup>4</sup>Sazanova, 2009b; <sup>4</sup>Sazanova, 2011; <sup>1</sup>Sazanova and Golodnova, 2015); **Primorsky Krai** (<sup>1</sup>Vassiljeva, 1972; <sup>1</sup>Vassiljeva, 1973; <sup>1</sup>Shalapugina, 1976; <sup>1</sup>Bunkina and Nazarova, 1978; <sup>1</sup>Azbukina et al., 1984; <sup>1</sup>Azbukina et al., 1990; <sup>1</sup>Bardunov et al., 2002; <sup>1</sup>Azbukina et al., 2006; <sup>1</sup>Bau, Bulakh, Zhuang, and Li, 2007; <sup>1</sup>Psurtseva, Kiyashko, Gachkova, and Belova, 2007; <sup>1</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Bulakh et al., 2016); **Sakhalin Oblast** (<sup>1</sup>Bulakh, Govorova, and Bogatov, 1999).

***Floccularia luteovirens* (Alb. & Schwein.) Pouzar<sup>1</sup>**

≡ *Armillaria luteovirens* (Alb. & Schwein.) Sacc.<sup>2</sup> = *Floccularia straminea* (P. Kumm.) Pouzar<sup>3</sup>

EASTERN EUROPE: **Crimea** (<sup>2</sup>Dudka et al., 2004; <sup>2</sup>Sarkina, 2011; <sup>1</sup>Sarkina and Prydiuk, 2012; <sup>1</sup>Sarkina and Mironova, 2015; <sup>1</sup>Yena and Fateryga, 2015); **Penza Oblast** (<sup>1</sup>Ivanov, 2013a); **Rostov Oblast** (<sup>1</sup>Fedyayeva, 2014); **Sevastopol** (<sup>1</sup>Sarkina, 2020c); **Volgograd Oblast** (<sup>3</sup>Dudka and Vedeneyev, 2014); **Arid territories** (<sup>1</sup>Rebriev, Rusanov, et al., 2012).

SIBERIA: **Altai Republic** (<sup>1</sup>Gorbunova, 2017b; <sup>1</sup>Maneev, Achimova, Sedelnikova, and Gorbunova, 2017).

FAR EAST: **Primorsky Krai** (<sup>1</sup>Bulakh, 1977; <sup>2</sup>Azbukina et al., 1984; <sup>2</sup>Azbukina et al., 1990; <sup>2</sup>Bardunov et al., 2002; <sup>2</sup>Azbukina et al., 2006; <sup>1</sup>Kozhevnikov, 2008; <sup>1</sup>Bau, Bulakh, and Govorova, 2011).

***Galerella conocephala* (Bull.) Bon<sup>1</sup>**

≡ *Agaricus conocephalus* Bull.<sup>2</sup>

EASTERN EUROPE: **Chelyabinsk Oblast** (<sup>1</sup>Sirko and Stepanova, 1977; <sup>1</sup>Stepanova and Sirko, 1977); **Saint Petersburg** (<sup>2</sup>Weinmann, 1836; <sup>2</sup>Weinmann, 1837).

***Galerina allospora* A.H. Sm. & Singer**

EASTERN EUROPE: **Crimea** (Dudka et al., 2004; Sarkina, 2011); **Komi Republic** (Palamarchuk (Bobretsova), 2009; Palamarchuk, 2012); **Leningrad Oblast** (Nezdjminogo, 1985; Nezdjminogo, 1996; Kovalenko and Morozova, 1999a; Popov et al., 2007; Geltman et al., 2018; Malysheva, Malysheva, Shchepin, and Novozhilov, 2018); **Lipetsk Oblast** (Sarycheva et al., 2009); **Perm Krai** (Botalov, 2017); **Pskov Oblast** (Kolmakov and Popov, 2005; Popov et al., 2013); **Saint Petersburg** (Kovalenko and Morozova, 1999a; Noskov, 2004); **Vologda Oblast** (Kirillova, 2007).

SIBERIA: **Buryatia** (Nezdjminogo, 1985; Petrov, 1991; Nezdjminogo, 1996); **Khanty-Mansi Autonomous Okrug** (Filippova, 2009; Filippova and Thormann, 2014; Filippova, 2014; Filippova, Mourgues, and Philippe, 2014; Filippova and Bulyonkova, 2017a; Filippova and Bulyonkova, 2017b).

***Galerina ampullaceocystis* P.D. Orton**

EASTERN EUROPE: **Novgorod Oblast** (Kovalenko, Morozova, Nezdjminogo, and Popov, 2005; Popov et al., 2013).

***Galerina aquatilis* (Fr.) S. Lundell**

≡ *Galera aquatilis* (Fr.) Gillet<sup>1</sup>

EASTERN EUROPE: **Smolensk Oblast** (<sup>1</sup>Jaczewski, 1898).

***Galerina arctica* (Singer) Nezdjmin.<sup>1</sup>**

≡ *Cortinarius arcticus* Singer<sup>2</sup>

EASTERN EUROPE: **Arkhangelsk Oblast** (<sup>2</sup>Singer, 1938b; <sup>2</sup>Vassilkov, 1967; <sup>1</sup>Nezdjminogo, 1982b; <sup>1</sup>Karatygin, Nezdjminogo, Novozhilov, and Zhurbenko, 1999; <sup>1</sup>Nezdjminogo, 2002; <sup>1</sup>Ezhov, Gavrilov, and Zmitrovich, 2014; <sup>1</sup>Zmitrovich and Ezhov, 2015; <sup>1</sup>Ezhov, Zmitrovich, and Ershov, 2016; <sup>1</sup>Shiryaev, Zmitrovich, and Ezhov, 2018); **Komi Republic** (<sup>1</sup>Palamarchuk, 2016a; <sup>1</sup>Palamarchuk, 2016b).

SIBERIA: **Altai Republic** (<sup>1</sup>Gorbunova, 2010); **Krasnoyarsk Krai** (<sup>2</sup>Vassilkov, 1967; <sup>1</sup>Nezdjminogo, 1982b; <sup>1</sup>Nezdjminogo, 1997a; <sup>1</sup>Karatygin, Nezdjminogo, Novozhilov, and Zhurbenko, 1999; <sup>1</sup>Nezdjminogo, 2002; <sup>1</sup>Kosheleva and Kutafjeva, 2008a; <sup>1</sup>Zmitrovich and Ezhov, 2015; <sup>1</sup>Shiryaev, Zmitrovich, and Ezhov, 2018); **Sakha Republic** (<sup>2</sup>Vassilkov, 1967; <sup>1</sup>Nezdjminogo, 1982b; <sup>1</sup>Karatygin, Nezdjminogo, Novozhilov, and Zhurbenko, 1999).

FAR EAST: **Chukotka Autonomous Okrug** (<sup>2</sup>Vassilkov, 1967).

***Galerina atkinsoniana* A.H. Sm.<sup>1</sup>**

≡ *Galerina atkinsoniana* f. *atkinsoniana* A.H. Sm.<sup>2</sup>

EASTERN EUROPE: **Karachay-Cherkess Republic** (<sup>1</sup>Kalamees and Botashev, 2000); **Karelia** (<sup>2</sup>Bondartseva et al., 2001; <sup>1</sup>Krutov et al., 2014); **Komi Republic** (<sup>1</sup>Palamarchuk, 2012); **Krasnodar Krai** (<sup>1</sup>Vaasma, Kalamees, and Raitviir, 1986; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdoininogo, 1990; <sup>1</sup>Nezdoininogo, 1996); **Leningrad Oblast** (<sup>1</sup>Kalamees and Kovalenko, 1984; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdoininogo, 1990; <sup>1</sup>Nezdoininogo, 1996; <sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Popov et al., 2007; <sup>1</sup>Zmitrovich et al., 2015); **Murmansk Oblast** (<sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdoininogo, 1990; <sup>1</sup>Nezdoininogo, 1996); **Penza Oblast** (<sup>1</sup>Ivanov, 1985; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdoininogo, 1990; <sup>1</sup>Nezdoininogo, 1996); **Perm Krai** (<sup>1</sup>Perevedentseva, 2008; <sup>1</sup>Belkovskaya et al., 2014; <sup>1</sup>Botalov, 2017); **Pskov Oblast** (<sup>2</sup>Kovalenko and Morozova, 1999b; <sup>1</sup>Popov et al., 2013); **Saint Petersburg** (<sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Morozova and Smirnov, 2011); **Sverdlovsk Oblast** (<sup>1</sup>Marina, 2006); **Tver Oblast** (<sup>1</sup>Kotkova, 2014); **Vologda Oblast** (<sup>1</sup>Kirillova, 2007).

SIBERIA: **Altai Krai** (<sup>1</sup>Gorbunova, 2018a); **Altai Republic** (<sup>1</sup>Kovalenko, 1992; <sup>1</sup>Nezdoininogo, 1996; <sup>1</sup>Gorbunova, 2001a; <sup>1</sup>Perova and Gorbunova, 2001; <sup>1</sup>Gorbunova, 2010); **Buryatia** (<sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdoininogo, 1990; <sup>1</sup>Nezdoininogo, 1996); **Irkutsk Oblast** (<sup>1</sup>Kutafjeva, 1989; <sup>1</sup>Gorbunova and Stepantsova, 2015); **Khanty-Mansi Autonomous Okrug** (<sup>1</sup>Filippova, Bulyonkova, and Lapshina, 2015; <sup>1</sup>Filippova and Bulyonkova, 2017a; <sup>1</sup>Filippova and Bulyonkova, 2017b); **Krasnoyarsk Krai** (<sup>1</sup>Nezdoininogo, 1982a; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdoininogo, 1990; <sup>1</sup>Nezdoininogo, 1996; <sup>1</sup>Gorbunova, 2016); **Tomsk Oblast** (<sup>1</sup>Kosheleva and Kutafjeva, 2004; <sup>1</sup>Kudashova, Gashkov, and Kutafjeva, 2013).

FAR EAST: **Jewish Autonomous Oblast** (<sup>1</sup>Bau, Bulakh, and Govorova, 2011); **Khabarovsk Krai** (<sup>1</sup>Azbukina et al., 1986; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdoininogo, 1990; <sup>1</sup>Nezdoininogo, 1996; <sup>1</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Bulakh, 2013; <sup>1</sup>Bogacheva, Bulakh, Bukharova, and Egorova, 2015); **Magadan Oblast** (<sup>1</sup>Sazanova, 2005; <sup>1</sup>Sazanova, 2009a; <sup>1</sup>Sazanova and Golodnova, 2015); **Sakhalin Oblast** (<sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdoininogo, 1990; <sup>1</sup>Nezdoininogo, 1996).

***Galerina badipes* (Pers.) Kühner<sup>1</sup>**

≡ *Agaricus campanella* β *badipus* (Pers.) Fr.<sup>2</sup> ≡ *Naucoria badipes* (Pers.) Quél.<sup>3</sup> = *Galerina cedretorum* (Maire) Singer<sup>4</sup> = *Galerina cedretorum* var. *bispورا* A.H. Sm. & Singer<sup>5</sup> = *Galerina cedretorum* var. *microspora* A.H. Sm.<sup>6</sup>

EASTERN EUROPE: **Crimea** (<sup>4</sup>Prydiuk, 2002; <sup>4</sup>Dudka et al., 2004; <sup>4</sup>Sarkina, 2010b; <sup>4</sup>Sarkina, 2011; <sup>4</sup>Sarkina, 2013; <sup>1</sup>Sarkina and Mironova, 2015); **Kaliningrad Oblast** (<sup>1</sup>Dedkov, Volodina, and Gubareva, 2007); **Karachay-Cherkess Republic** (<sup>4</sup>Vassiljeva, 1939); **Karelia** (<sup>1</sup>Krutov et al., 2014); **Komi Republic** (<sup>1</sup>Palamarchuk, 2020b); **Krasnodar Krai** (<sup>4</sup>Bulakh, Wasser, Nazarova, and Nezdoininogo, 1990; <sup>4</sup>Nezdoininogo, 1996); **Leningrad Oblast** (<sup>3</sup>Thesleff, 1920; <sup>4</sup>Bulakh, Wasser, Nazarova, and Nezdoininogo, 1990; <sup>4</sup>Nezdoininogo, 1996; <sup>4</sup>Kovalenko and Morozova, 1999a; <sup>4</sup>Morozova, 2007; <sup>4</sup>Popov et al., 2007); **Moscow Oblast** (<sup>4</sup>Levitskaya, 2013); **Murmansk Oblast** (<sup>4</sup>Bulakh, Wasser, Nazarova, and Nezdoininogo, 1990; <sup>4</sup>Nezdoininogo, 1996); **Novgorod Oblast** (<sup>4</sup>Malysheva, Malysheva, and Zmitrovich, 2007); **Perm Krai** (<sup>1</sup>Perevedentseva, 2008; <sup>4</sup>Botalov, 2017); **Saint Petersburg** (<sup>2</sup>Weinmann, 1836; <sup>2</sup>Weinmann, 1837); **Sverdlovsk Oblast** (<sup>4</sup>Bulakh, Wasser, Nazarova, and Nezdoininogo, 1990; <sup>4</sup>Nezdoininogo, 1996); **Tatarstan** (<sup>5</sup>Singer, 1950a; <sup>4</sup>Bulakh, Wasser, Nazarova, and Nezdoininogo, 1990; <sup>4</sup>Nezdoininogo, 1996); **Northern Caucasus** (<sup>5</sup>Singer, 1950a).

SIBERIA: **Altai Krai** (<sup>1</sup>Gorbunova, 2018a); **Altai Republic** (<sup>4</sup>Gorbunova, 2003; <sup>1</sup>Gorbunova, 2019); **Irkutsk Oblast** (<sup>1</sup>Astapenko, 1990a; <sup>4</sup>Bulakh, Wasser, Nazarova, and Nezdoininogo, 1990; <sup>6</sup>Petrov, 1991; <sup>4</sup>Nezdoininogo, 1996); **Krasnoyarsk Krai** (<sup>1</sup>Beglyanova, 1972a; <sup>4</sup>Bulakh, Wasser, Nazarova, and Nezdoininogo, 1990; <sup>4</sup>Nezdoininogo, 1996).

FAR EAST: **Chukotka Autonomous Okrug** (<sup>1</sup>Nezdoininogo, 1984; <sup>4</sup>Bulakh, Wasser, Nazarova, and Nezdoininogo, 1990; <sup>4</sup>Nezdoininogo, 1996; <sup>1</sup>Karatygin, Nezdoininogo, Novozhilov, and Zhurbenko, 1999); **Primorsky Krai** (<sup>1</sup>Vassiljeva, 1973; <sup>1</sup>Bunkina and Nazarova, 1978; <sup>4</sup>Bulakh, Wasser, Nazarova, and Nezdoininogo, 1990; <sup>4</sup>Nezdoininogo, 1996; <sup>4</sup>Azbukina et al., 2006; <sup>1</sup>Bau, Bulakh, and Govorova, 2011).

***Galerina borealis* A.H. Sm. & Singer**

EASTERN EUROPE: **Komi Republic** (Palamarchuk, 2011a; Palamarchuk, 2012).

FAR EAST: **Chukotka Autonomous Okrug** (Nezdoininogo, 1996).

***Galerina calyptrata* P.D. Orton**

EASTERN EUROPE: **Belgorod Oblast** (Bedenko, 1979a); **Karelia** (Bulakh, Wasser, Nazarova, and Nezdoininogo, 1990); **Leningrad Oblast** (Bulakh, Wasser, Nazarova, and Nezdoininogo, 1990; Kovalenko and Morozova, 1999a);

Popov et al., 2007; Malysheva, Malysheva, Shchepin, and Novozhilov, 2018); **Murmansk Oblast** (Bulakh, Wasser, Nazarova, and Nezdoyminogo, 1990; Kalamees and Raitviir, 2006); **Penza Oblast** (Ivanov, 1985); **Saint Petersburg** (Kovalenko and Morozova, 1999a); **Tver Oblast** (Mukhina, 2011a; Mukhina, 2011b; Kotkova, 2014).

SIBERIA: **Altai Republic** (Bulakh, Wasser, Nazarova, and Nezdoyminogo, 1990; Kovalenko, 1992; Perova and Gorbunova, 2001); **Irkutsk Oblast** (Petrov, Nezdoyminogo, and Bulakh, 1987; Petrov, 1989; Petrov, 1991); **Krasnoyarsk Krai** (Nezdoyminogo, 1982a; Bulakh, Wasser, Nazarova, and Nezdoyminogo, 1990).

FAR EAST: **Chukotka Autonomous Okrug** (Nezdoyminogo, 1984; Bulakh, Wasser, Nazarova, and Nezdoyminogo, 1990; Karatygin, Nezdoyminogo, Novozhilov, and Zhurbenko, 1999); **Magadan Oblast** (Bulakh, Wasser, Nazarova, and Nezdoyminogo, 1990; Sazanova, 2009a; Sazanova, 2016); **Primorsky Krai** (Bulakh, Wasser, Nazarova, and Nezdoyminogo, 1990); **Sakhalin Oblast** (Bulakh, Wasser, Nazarova, and Nezdoyminogo, 1990; Bulakh, Govorova, and Bogatov, 1999).

### *Galerina camerina* (Fr.) Kühner

EASTERN EUROPE: **Belgorod Oblast** (Bedenko, 1980); **Kaliningrad Oblast** (Dedkov, Volodina, and Gubareva, 2007; Volodina, 2007); **Leningrad Oblast** (Nezdoyminogo, 1996; Popov et al., 2007); **Perm Krai** (Shkaraba, Perevedentseva, and Moshkina, 1990; Perevedentseva, 2008; Belkovskaya et al., 2014; Botalov, 2017); **Ryazan Oblast** (Volosnova, 2014); **Saint Petersburg** (Singer, 1950a; Kovalenko and Morozova, 1999a); **Samara Oblast** (Malysheva and Malysheva, 2005b; Malysheva and Malysheva, 2008); **Sverdlovsk Oblast** (Marina, 2006); **Ulyanovsk Oblast** (Ilyukhin, 2010a; Ilyukhin, 2010b).

SIBERIA: **Altai Republic** (Gorbunova, 2001b; Perova and Gorbunova, 2001); **Irkutsk Oblast** (Astapenko and Kutafjeva, 1990); **Khanty-Mansi Autonomous Okrug** (Filippova and Bulyonkova, 2017a; Filippova and Bulyonkova, 2017b); **Krasnoyarsk Krai** (Nezdoyminogo, 1982a; Kosheleva and Kutafjeva, 2008a).

FAR EAST: **Jewish Autonomous Oblast** (Bulakh, Govorova, Nazarova, and Vassiljeva, 2007; Bau, Bulakh, and Govorova, 2011); **Khaborovsk Krai** (Azbukina et al., 1986; Bulakh, Wasser, Nazarova, and Nezdoyminogo, 1990; Nezdoyminogo, 1996; Bau, Bulakh, and Govorova, 2011); **Primorsky Krai** (Bau, Bulakh, and Govorova, 2011).

### *Galerina caulocystidiata* Arnolds

EASTERN EUROPE: **Pskov Oblast** (Kalinina, Bolshakov, and Bulyonkova, 2020).

### *Galerina cephalotricha* Kühner

SIBERIA: **Khanty-Mansi Autonomous Okrug** (Zvyagina and Baykalova, 2012; Filippova and Bulyonkova, 2017a; Filippova and Bulyonkova, 2017b).

### *Galerina cerina* A.H. Sm. & Singer<sup>1</sup>

≡ *Galerina cerina* var. *cerina* A.H. Sm. & Singer<sup>2</sup>

EASTERN EUROPE: **Komi Republic** (<sup>1</sup>Palamarchuk, 2011b; <sup>1</sup>Palamarchuk, 2016a; <sup>1</sup>Palamarchuk, 2016b; <sup>1</sup>Palamarchuk and Kirillov, 2017; <sup>1</sup>Palamarchuk, 2020a); **Leningrad Oblast** (<sup>1</sup>Nezdoyminogo, 1996; <sup>1</sup>Morozova, 2007; <sup>1</sup>Popov et al., 2007); **Novgorod Oblast** (<sup>1</sup>Malysheva, Malysheva, and Zmitrovich, 2007); **Perm Krai** (<sup>1</sup>Perevedentseva and Shishigin, 2014); **Saint Petersburg** (<sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdoyminogo, 1990; <sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Morozova and Smirnov, 2011); **Tula Oblast** (<sup>1</sup>Svetasheva, 2004; <sup>1</sup>Svetasheva, 2005a).

SIBERIA: **Altai Republic** (<sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdoyminogo, 1990; <sup>1</sup>Kovalenko, 1992; <sup>1</sup>Nezdoyminogo, 1996; <sup>1</sup>Gorbunova, 2001b; <sup>1</sup>Perova and Gorbunova, 2001); **Irkutsk Oblast** (<sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdoyminogo, 1990; <sup>2</sup>Petrov, 1991; <sup>1</sup>Nezdoyminogo, 1996; <sup>1</sup>Petrov, 2008); **Khanty-Mansi Autonomous Okrug** (<sup>1</sup>Filippova, 2009; <sup>1</sup>Zvyagina and Baykalova, 2012; <sup>1</sup>Filippova and Thormann, 2014; <sup>1</sup>Filippova, 2014; <sup>1</sup>Filippova, Mourgues, and Philippe, 2014; <sup>1</sup>Filippova and Bulyonkova, 2017a; <sup>1</sup>Filippova and Bulyonkova, 2017b).

FAR EAST: **Amur Oblast** (<sup>1</sup>Nazarova, 1986; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdoyminogo, 1990); **Khaborovsk Krai** (<sup>1</sup>Azbukina et al., 1986; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdoyminogo, 1990; <sup>1</sup>Nezdoyminogo, 1996; <sup>1</sup>Bau, Bulakh, and Govorova, 2011); **Magadan Oblast** (<sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdoyminogo, 1990; <sup>1</sup>Sazanova, 2005; <sup>1</sup>Sazanova, 2009a; <sup>1</sup>Sazanova, 2009b; <sup>1</sup>Sazanova, 2011); **Primorsky Krai** (<sup>1</sup>Bulakh, 1977; <sup>1</sup>Azbukina et al., 1984; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdoyminogo, 1990; <sup>1</sup>Nezdoyminogo, 1996; <sup>1</sup>Bau, Bulakh, and Govorova, 2011).

### *Galerina cinctula* P.D. Orton

EASTERN EUROPE: **Karachay-Cherkess Republic** (Malysheva and Svetasheva, 2011); **Sverdlovsk Oblast** (Marina, 2006).

***Galerina clavata* (Velen.) Kühner**

EASTERN EUROPE: **Adygea** (Kummer, 2007); **Arkhangelsk Oblast** (Karatygin, Nezdjominogo, Novozhilov, and Zhurbenko, 1999); **Karelia** (Krutov et al., 2014); **Komi Republic** (Palamarchuk, 2016a; Palamarchuk, 2016b; Palamarchuk and Kirillov, 2017; Palamarchuk, 2020a); **Lipetsk Oblast** (Sarycheva, 1999; Sarycheva et al., 2009; Sarycheva, 2011; Sarycheva, 2014a; Sarycheva, 2016); **Murmansk Oblast** (Nezdjominogo, 1997b; Karatygin, Nezdjominogo, Novozhilov, and Zhurbenko, 1999); **Novgorod Oblast** (Kovalenko, Morozova, Nezdjominogo, and Popov, 2005; Popov et al., 2013); **Perm Krai** (Perevedentseva, 2008; Belkovskaya et al., 2014); **Saint Petersburg** (Morozova and Smirnov, 2011); **Yaroslavl Oblast** (Lazareva, 1998a; Lazareva, 2002).

SIBERIA: **Altai Krai** (Gorbunova, 2018a); **Altai Republic** (Singer, 1950a; Gorbunova, 2001a); **Buryatia** (Petrov, 1991); **Irkutsk Oblast** (Petrov, 1991; Bardunov et al., 2005; Petrov, 2008); **Khanty-Mansi Autonomous Okrug** (Zvyagina and Baykalova, 2012); **Krasnoyarsk Krai** (Beglyanova, 1972a; Nezdjominogo, 1997a; Karatygin, Nezdjominogo, Novozhilov, and Zhurbenko, 1999; Gorbunova, 2016); **Sakha Republic** (Karatygin, Nezdjominogo, Novozhilov, and Zhurbenko, 1999).

FAR EAST: **Amur Oblast** (Bulakh, Wasser, Nazarova, and Nezdjominogo, 1990); **Chukotka Autonomous Okrug** (Karatygin, Nezdjominogo, Novozhilov, and Zhurbenko, 1999); **Khabarovsk Krai** (Bulakh, Wasser, Nazarova, and Nezdjominogo, 1990; Bau, Bulakh, and Govorova, 2011; Bulakh, 2013; Bogacheva, Bulakh, Bukharova, and Egorova, 2015); **Primorsky Krai** (Bulakh, Wasser, Nazarova, and Nezdjominogo, 1990; Bau, Bulakh, and Govorova, 2011).

***Galerina decipiens* A.H. Sm. & Singer**

EASTERN EUROPE: **Penza Oblast** (Nezdjominogo, 1996); **Perm Krai** (Perevedentseva, 2008); **Samara Oblast** (Malysheva and Malysheva, 2006; Malysheva and Malysheva, 2008); **Ulyanovsk Oblast** (Ilyukhin, 2010a; Ilyukhin, 2010b).

***Galerina dimorphocystis* A.H. Sm. & Singer**

EASTERN EUROPE: **Komi Republic** (Bobretsova, 2004; Palamarchuk, 2012; Palamarchuk, 2016a); **Leningrad Oblast** (Nezdjominogo, 1985; Bulakh, Wasser, Nazarova, and Nezdjominogo, 1990; Nezdjominogo, 1996; Kovalenko and Morozova, 1999a; Popov et al., 2007); **Tula Oblast** (Svetasheva, 2003).

SIBERIA: **Altai Republic** (Bulakh, Wasser, Nazarova, and Nezdjominogo, 1990; Kovalenko, 1992; Nezdjominogo, 1996; Perova and Gorbunova, 2001; Gorbunova, 2003); **Khanty-Mansi Autonomous Okrug** (Filippova, 2009); **Krasnoyarsk Krai** (Nezdjominogo, 1985; Bulakh, Wasser, Nazarova, and Nezdjominogo, 1990; Nezdjominogo, 1996).

FAR EAST: **Khabarovsk Krai** (Azbukina et al., 1989); **Magadan Oblast** (Sazanova, 2009a; Sazanova, 2009b; Sazanova, 2011); **Sakhalin Oblast** (Bulakh, Wasser, Nazarova, and Nezdjominogo, 1990; Nezdjominogo, 1996).

***Galerina embolus* (Fr.) P.D. Orton**

EASTERN EUROPE: **Saint Petersburg** (Morozova, Kovalenko, Rebriev, and Malysheva, 2014).

SIBERIA: **Krasnoyarsk Krai** (Nezdjominogo, 2002; Zmitrovich and Ezhov, 2015; Shiryaev, Zmitrovich, and Ezhov, 2018).

***Galerina emmetensis* A.H. Sm. & Singer**

EASTERN EUROPE: **Tatarstan** (Nezdjominogo, 1985; Nezdjominogo, 1996).

***Galerina evelata* (Singer) A.H. Sm. & Singer<sup>1</sup>**

≡ *Galerina evelata* var. *evelata* (Singer) A.H. Sm. & Singer<sup>2</sup> ≡ *Galerina hypnorum* var. *evelata* Singer<sup>3</sup>

EASTERN EUROPE: **Karelia** (<sup>1</sup>Nezdjominogo, 1996); **Komi Republic** (<sup>1</sup>Palamarchuk, 2011a; <sup>1</sup>Palamarchuk, 2012; <sup>1</sup>Palamarchuk, 2016a); **Leningrad Oblast** (<sup>1</sup>Nezdjominogo, 1996; <sup>1</sup>Popov et al., 2007); **Murmansk Oblast** (<sup>1</sup>Nezdjominogo, 1996); **Perm Krai** (<sup>1</sup>Perevedentseva, 2008; <sup>1</sup>Belkovskaya et al., 2014; <sup>1</sup>Botalov, 2017); **Pskov Oblast** (<sup>1</sup>Kolmakov and Popov, 2005; <sup>1</sup>Popov et al., 2013); **Saint Petersburg** (<sup>1</sup>Nezdjominogo, 1985; <sup>1</sup>Kovalenko and Morozova, 1999a); **Sverdlovsk Oblast** (<sup>1</sup>Marina, 2006); **Tula Oblast** (<sup>1</sup>Shcherbakov, 2010).

SIBERIA: **Altai Republic** (<sup>3</sup>Singer, 1948b; <sup>2</sup>Smith and Singer, 1964; <sup>1</sup>Nezdjominogo, 1996); **Krasnoyarsk Krai** (<sup>1</sup>Nezdjominogo, 1996).

FAR EAST: **Chukotka Autonomous Okrug** (<sup>1</sup>Nezdjominogo, 1996); **Khabarovsk Krai** (<sup>1</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Erofeeva and Bulakh, 2015a); **Magadan Oblast** (<sup>1</sup>Nezdjominogo, 1996; <sup>1</sup>Sazanova, 2005; <sup>1</sup>Sazanova, 2009a); **Primorsky Krai** (<sup>1</sup>Nezdjominogo, 1996; <sup>1</sup>Bau, Bulakh, and Govorova, 2011); **Sakhalin Oblast** (<sup>1</sup>Nezdjominogo, 1996).



***Galerina fallax* A.H. Sm. & Singer**

EASTERN EUROPE: **Leningrad Oblast** (Malysheva, Malysheva, Shchepin, and Novozhilov, 2018); **Perm Krai** (Perevedentseva, 2008).

***Galerina gibbosa* J. Favre**

EASTERN EUROPE: **Komi Republic** (Palamarchuk, 2012; Palamarchuk and Kirillov, 2017); **Leningrad Oblast** (Nezdojminogo, 1996; Kovalenko and Morozova, 1999a; Popov et al., 2007; Zmitrovich et al., 2015); **Moscow Oblast** (Levitskaya, 1995c; Levitskaya, 2013); **Murmansk Oblast** (Nezdojminogo, 1996); **Novgorod Oblast** (Malysheva, Malysheva, and Zmitrovich, 2007); **Perm Krai** (Botalov, 2017); **Saint Petersburg** (Kotkova, Morozova, and Popov, 2005); **Tatarstan** (Vassiljeva, 1977; Nezdojminogo, 1996); **Tula Oblast** (Svetasheva, 2003; Svetasheva, 2004; Shcherbakov, 2010); **Vologda Oblast** (Kirillova, 2007).

SIBERIA: **Tomsk Oblast** (Kudashova, Gashkov, and Kutafjeva, 2013).

***Galerina glacialis* Singer**

SIBERIA: **Altai Republic** (Singer, 1945; Singer, 1950a; Smith and Singer, 1964; Nezdojminogo, 1996).

***Galerina graminea* (Velen.) Kühner<sup>1</sup>**

= *Galerina laevis* Singer<sup>2</sup>

EASTERN EUROPE: **Crimea** (<sup>2</sup>Dudka et al., 2004); **Moscow** (<sup>1</sup>Burova, 1968); **Penza Oblast** (<sup>2</sup>Ivanov, 1985; <sup>2</sup>Nezdojminogo, 1996; <sup>2</sup>Ivanov, 1999); **Pskov Oblast** (<sup>2</sup>Popov et al., 2013); **Arid territories** (<sup>1</sup>Rebriev, Rusanov, et al., 2012).

SIBERIA: **Krasnoyarsk Krai** (<sup>1</sup>Gorbunova, 2016); **Novosibirsk Oblast** (<sup>2</sup>Perova, 1977; <sup>2</sup>Perova and Gorbunova, 2001; <sup>2</sup>Perova and Gorbunova, 2007).

***Galerina harrisonii* (Dennis) Bas & Vellinga**

= *Galerina antheliae* Gulden<sup>1</sup>

EASTERN EUROPE: **Murmansk Oblast** (<sup>1</sup>Nezdojminogo, 1996; <sup>1</sup>Nezdojminogo, 1997b; <sup>1</sup>Karatygin, Nezdojminogo, Novozhilov, and Zhurbenko, 1999); **Yamalo-Nenets Autonomous Okrug** (<sup>1</sup>Nezdojminogo, 1984; <sup>1</sup>Karatygin, Nezdojminogo, Novozhilov, and Zhurbenko, 1999; <sup>1</sup>Nezdojminogo, 2001).

SIBERIA: **Altai Republic** (<sup>1</sup>Gorbunova, 2003; <sup>1</sup>Gorbunova, 2010); **Yamalo-Nenets Autonomous Okrug** (<sup>1</sup>Nezdojminogo, 1996).

FAR EAST: **Chukotka Autonomous Okrug** (<sup>1</sup>Nezdojminogo, 1984; <sup>1</sup>Nezdojminogo, 1996; <sup>1</sup>Karatygin, Nezdojminogo, Novozhilov, and Zhurbenko, 1999).

***Galerina helvoliceps* (Berk. & M.A. Curtis) Singer**

EASTERN EUROPE: **Saint Petersburg** (Smith and Singer, 1964).

***Galerina heterocystis* (G.F. Atk.) A.H. Sm. & Singer**

EASTERN EUROPE: **Karelia** (Kovalenko, Morozova, Fomina, and Särkisilta, 1998); **Penza Oblast** (Ivanov, 1985).

SIBERIA: **Altai Republic** (Smith and Singer, 1964); **Buryatia** (Nezdojminogo, 1970a); **Irkutsk Oblast** (Petrov, Nezdojminogo, and Bulakh, 1987; Kutafjeva, 1989); **Krasnoyarsk Krai** (Vassilkov, 1971b; Stepanova and Tomilin, 1973; Nezdojminogo, 1982a; Nezdojminogo, 1982b; Nezdojminogo, 1984).

FAR EAST: **Khabarovsk Krai** (Azbukina et al., 1986); **Primorsky Krai** (Vassiljeva, 1973).

***Galerina hybrida* Kühner**

EASTERN EUROPE: **Komi Republic** (Shiryayeva and Palamarchuk, 2019; Palamarchuk, 2020a); **Pskov Oblast** (Kalinina, Bolshakov, and Bulyonkova, 2020).

SIBERIA: **Krasnoyarsk Krai** (Zauzolkova, 2012).

***Galerina hypnorum* (Schrank) Kühner<sup>1</sup>**

≡ *Agaricus hypnorum* Schrank<sup>2</sup> ≡ *Galera hypnorum* (Schrank) P. Kumm.<sup>3</sup> = *Agaricus bryorum* (Fr.) Fr.<sup>4</sup> = *Agaricus hypnorum* var. *bryorum* Fr.<sup>5</sup> = *Agaricus hypnorum* β *bryophilus* Pers.<sup>6</sup> = *Galera hypnorum* var. *bryorum* (Fr.) P. Kumm.<sup>7</sup>

EASTERN EUROPE: **Belgorod Oblast** (<sup>1</sup>Bedenko, 1980); **Bryansk Oblast** (<sup>1</sup>Kruglikov, 2007); **Crimea** (<sup>1</sup>Sarkina, 2001; <sup>1</sup>Dudka et al., 2004; <sup>1</sup>Sarkina, 2011; <sup>1</sup>Sarkina and Prydiuk, 2012); **Kabardino-Balkarian Republic** (<sup>3</sup>Singer,

1931; <sup>1</sup>Singer, 1950a; <sup>1</sup>Shkhagapsoev and Krapivina, 2004); **Kaliningrad Oblast** (<sup>1</sup>Dedkov, Volodina, and Gubareva, 2007; <sup>1</sup>Volodina, 2007); **Kaluga Oblast** (<sup>1</sup>Sionova, 2006); **Karelia** (<sup>3</sup>Lebedeva, 1933; <sup>1</sup>Freindling, 1949; <sup>1</sup>Bondartseva et al., 2001; <sup>1</sup>Krutov et al., 2014); **Kirov Oblast** (<sup>1</sup>Kirillov, 2011; <sup>1</sup>Kirillov, Perevedentseva, and Egoshina, 2011; <sup>1</sup>Stavishenko, Luginina, Kirillov, and Egoshina, 2019); **Komi Republic** (<sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdjminogo, 1990; <sup>1</sup>Nezdjminogo, 1996; <sup>1</sup>Karatygin, Nezdjminogo, Novozhilov, and Zhurbenko, 1999; <sup>1</sup>Bobretsova, 2004; <sup>1</sup>Palamarchuk, 2011b; <sup>1</sup>Palamarchuk, 2012; <sup>1</sup>Palamarchuk, 2016a; <sup>1</sup>Palamarchuk, 2016b; <sup>1</sup>Palamarchuk and Kirillov, 2017; <sup>1</sup>Palamarchuk, 2017); **Krasnodar Krai** (<sup>1</sup>Vassiljeva, 1939; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdjminogo, 1990; <sup>1</sup>Nezdjminogo, 1996); **Kursk Oblast** (<sup>1</sup>Soshnina, 2013; <sup>1</sup>Soshnina, 2017); **Leningrad Oblast** (<sup>3,7</sup>Thesleff, 1920; <sup>1</sup>Nezdjminogo, 1967; <sup>1</sup>Chastukhin and Nikolaevskaya, 1969; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdjminogo, 1990; <sup>1</sup>Nezdjminogo, 1996; <sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Morozova and Kovalenko, 2000; <sup>1</sup>Morozova, 2007; <sup>1</sup>Popov et al., 2007; <sup>1</sup>Zmitrovich et al., 2015); **Mordovia** (<sup>3</sup>Chastukhin, 1948a; <sup>1</sup>Chastukhin and Nikolaevskaya, 1969; <sup>1</sup>Ivoilov and Bolshakov, 2011a; <sup>3</sup>Chastukhin, 2011); **Moscow** (<sup>1</sup>Samoilov and Morozova, 2011); **Moscow Oblast** (<sup>1</sup>Gorlenko, Sidorova, and Sidorova, 1989; <sup>1</sup>Levitskaya, 2013); **Murmansk Oblast** (<sup>1</sup>Pystina, Pavlova, and Shestakova, 1969; <sup>1</sup>Mikhailovskii, 1975b; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdjminogo, 1990; <sup>1</sup>Nezdjminogo, 1996); **Novgorod Oblast** (<sup>1</sup>Kovalenko, Morozova, Nezdjminogo, and Popov, 2005); **Orenburg Oblast** (<sup>1</sup>Desyatova, 2008); **Penza Oblast** (<sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdjminogo, 1990; <sup>1</sup>Nezdjminogo, 1996); **Perm Krai** (<sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdjminogo, 1990; <sup>1</sup>Nezdjminogo, 1996; <sup>1</sup>Perevedentseva, 2008; <sup>1</sup>Belkovskaya et al., 2014; <sup>1</sup>Perevedentseva and Shishigin, 2014; <sup>1</sup>Botalov, 2015; <sup>1</sup>Botalov, 2017); **Pskov Oblast** (<sup>1</sup>Popov et al., 2013); **Rostov Oblast** (<sup>1</sup>Vyshchepan, 1992); **Ryazan Oblast** (<sup>1</sup>Volosnova, 2014); **Saint Petersburg** (<sup>2,6</sup>Weinmann, 1828; <sup>2,4</sup>Weinmann, 1836; <sup>2,5</sup>Weinmann, 1837; <sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Morozova et al., 2020); **Samara Oblast** (<sup>1</sup>Malysheva and Malysheva, 2008); **Sverdlovsk Oblast** (<sup>1</sup>Marina, 2006); **Tatarstan** (<sup>1</sup>Vassiljeva, 1977; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdjminogo, 1990; <sup>1</sup>Nezdjminogo, 1996); **Tula Oblast** (<sup>1</sup>Svetasheva, 2003; <sup>1</sup>Svetasheva, 2004; <sup>1</sup>Svetasheva, 2013); **Tver Oblast** (<sup>1</sup>Chastukhin and Nikolaevskaya, 1969; <sup>1</sup>Kurochkin, 1993; <sup>1</sup>Mukhina and Garibova, 2010; <sup>1</sup>Mukhina, 2011a; <sup>1</sup>Mukhina, 2011b; <sup>1</sup>Kotkova, 2014); **Udmurt Republic** (<sup>1</sup>Tychinin, 1990; <sup>1</sup>Tychinin and Kuzmina, 2003); **Ulyanovsk Oblast** (<sup>1</sup>Ilyukhin, 2010a; <sup>1</sup>Ilyukhin, 2010b); **Yaroslavl Oblast** (<sup>1</sup>Lazareva, 1998a; <sup>1</sup>Lazareva, 2002); **Arid territories** (<sup>1</sup>Rebriev, Rusanov, et al., 2012); **Lapland** (<sup>2</sup>Karsten, 1866).

**SIBERIA: Altai Krai** (<sup>1</sup>Gorbunova and Chubarova, 2008; <sup>1</sup>Gorbunova, Vlasenko, and Tzhubarova, 2011); **Altai Republic** (<sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdjminogo, 1990; <sup>1</sup>Kovalenko, 1992; <sup>1</sup>Nezdjminogo, 1996; <sup>1</sup>Gorbunova, 2001a; <sup>1</sup>Gorbunova, 2001b; <sup>1</sup>Perova and Gorbunova, 2001; <sup>1</sup>Gorbunova, 2003; <sup>1</sup>Gorbunova, 2008; <sup>1</sup>Gorbunova, 2010); **Buryatia** (<sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdjminogo, 1990; <sup>1</sup>Petrov, 1991; <sup>1</sup>Nezdjminogo, 1996); **Irkutsk Oblast** (<sup>1</sup>Petrov, Nezdjminogo, and Bulakh, 1987; <sup>1</sup>Astapenko, 1990a; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdjminogo, 1990; <sup>1</sup>Petrov, 1991; <sup>1</sup>Nezdjminogo, 1996; <sup>1</sup>Bardunov et al., 2005; <sup>1</sup>Petrov, 2008); **Khakassia** (<sup>1</sup>Zauzolkova and Gorbunova, 2013; <sup>1</sup>Zauzolkova, 2015); **Khanty-Mansi Autonomous Okrug** (<sup>1</sup>Filippova, 2009; <sup>1</sup>Filippova, Bulyonkova, and Lapshina, 2015; <sup>1</sup>Filippova and Bulyonkova, 2017a; <sup>1</sup>Filippova and Bulyonkova, 2017b); **Krasnoyarsk Krai** (<sup>1</sup>Beglyanova, 1972a; <sup>1</sup>Beglyanova, 1972c; <sup>1</sup>Nezdjminogo, 1976a; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdjminogo, 1990; <sup>1</sup>Lapitskaya, 1993; <sup>1</sup>Nezdjminogo, 1996; <sup>1</sup>Kosheleva and Kutafjeva, 2008a; <sup>1</sup>Kryuchkova, 2009; <sup>1</sup>Gorbunova, 2016); **Novosibirsk Oblast** (<sup>1</sup>Perova and Gorbunova, 2001; <sup>1</sup>Perova and Gorbunova, 2007); **Tomsk Oblast** (<sup>1</sup>Perova, 1972; <sup>1</sup>Perova and Gorbunova, 2001; <sup>1</sup>Kudashova, Gashkov, and Kutafjeva, 2013); **Yamalo-Nenets Autonomous Okrug** (<sup>1</sup>Tarchevskaya, 1990).

**FAR EAST: Amur Oblast** (<sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdjminogo, 1990; <sup>1</sup>Azbukina et al., 1998); **Chukotka Autonomous Okrug** (<sup>1</sup>Nezdjminogo, 1984; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdjminogo, 1990; <sup>1</sup>Nezdjminogo, 1996); **Jewish Autonomous Oblast** (<sup>1</sup>Bulakh, Govorova, Nazarova, and Vassiljeva, 2007; <sup>1</sup>Bau, Bulakh, and Govorova, 2011); **Khabarovsk Krai** (<sup>1</sup>Azbukina et al., 1989; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdjminogo, 1990; <sup>1</sup>Nezdjminogo, 1996; <sup>1</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Bulakh, 2013; <sup>1</sup>Bogacheva, Bulakh, Bukharova, and Egorova, 2015); **Magadan Oblast** (<sup>1</sup>Nazarova, 1976; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdjminogo, 1990; <sup>1</sup>Nezdjminogo, 1996; <sup>1</sup>Sazanova, 1996; <sup>1</sup>Sazanova, 2005; <sup>1</sup>Sazanova, 2009a; <sup>1</sup>Sazanova, 2011; <sup>1</sup>Sazanova, 2012); **Primorsky Krai** (<sup>1</sup>Vassiljeva, 1972; <sup>1</sup>Vassiljeva, 1973; <sup>1</sup>Bunkina and Nazarova, 1978; <sup>1</sup>Azbukina et al., 1984; <sup>1</sup>Azbukina et al., 1990; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdjminogo, 1990; <sup>1</sup>Nezdjminogo, 1996; <sup>1</sup>Bardunov et al., 2002; <sup>1</sup>Azbukina et al., 2006; <sup>1</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Bulakh et al., 2016); **Sakhalin Oblast** (<sup>1</sup>Vassiljeva and Nazarova, 1972; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdjminogo, 1990; <sup>1</sup>Nezdjminogo, 1996).

### *Galerina jaapii* A.H. Sm. & Singer<sup>1</sup>

= *Galerina jaapii* f. *mamillata* A.H. Sm. & Singer<sup>2</sup>

**EASTERN EUROPE: Karelia** (<sup>2</sup>Smith and Singer, 1964; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdjminogo, 1990; <sup>1</sup>Nezdjminogo, 1996; <sup>1</sup>Bondartseva et al., 2001); **Komi Republic** (<sup>1</sup>Palamarchuk (Bobretsova), 2009; <sup>1</sup>Palamarchuk,

2012); **Moscow Oblast** (<sup>1</sup>Levitskaya, 1995c; <sup>1</sup>Levitskaya, 2013); **Murmansk Oblast** (<sup>1</sup>Karatygin, Nezdoininogo, Novozhilov, and Zhurbenko, 1999); **Novgorod Oblast** (<sup>1</sup>Kalinina, 2019); **Penza Oblast** (<sup>1</sup>Ivanov, 1985; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdoininogo, 1990; <sup>1</sup>Nezdoininogo, 1996); **Perm Krai** (<sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdoininogo, 1990; <sup>1</sup>Nezdoininogo, 1996; <sup>1</sup>Perevedentseva, 2008; <sup>1</sup>Botalov, 2015; <sup>1</sup>Botalov, 2017); **Saint Petersburg** (<sup>1</sup>Morozova and Smirnov, 2011); **Tatarstan** (<sup>2</sup>Smith and Singer, 1964; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdoininogo, 1990; <sup>1</sup>Nezdoininogo, 1996); **Yamalo-Nenets Autonomous Okrug** (<sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdoininogo, 1990).

SIBERIA: **Buryatia** (<sup>1</sup>Nezdoininogo, 1970a; <sup>1</sup>Petrov, 1991); **Irkutsk Oblast** (<sup>1</sup>Petrov, Nezdoininogo, and Bulakh, 1987; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdoininogo, 1990; <sup>1</sup>Petrov, 1991; <sup>1</sup>Nezdoininogo, 1996; <sup>1</sup>Gorbunova and Stepanyeva, 2015); **Khanty-Mansi Autonomous Okrug** (<sup>1</sup>Zvyagina and Baykalova, 2012); **Krasnoyarsk Krai** (<sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdoininogo, 1990; <sup>1</sup>Nezdoininogo, 1996); **Yamalo-Nenets Autonomous Okrug** (<sup>1</sup>Nezdoininogo, 1984; <sup>1</sup>Nezdoininogo, 1996; <sup>1</sup>Karatygin, Nezdoininogo, Novozhilov, and Zhurbenko, 1999).

### ***Galerina karstenii* A.H. Sm. & Singer**

EASTERN EUROPE: **Komi Republic** (Palamarchuk, 2016a; Palamarchuk, 2016b).

### ***Galerina larigna* Singer**

SIBERIA: **Altai Republic** (Singer, 1945; Singer, 1950a; Smith and Singer, 1964; Nezdoininogo, 1996).

### ***Galerina macrospora* (Velen.) Singer**

EASTERN EUROPE: **Leningrad Oblast** (Smith and Singer, 1964); **Penza Oblast** (Ivanov, 1985); **Perm Krai** (Perevedentseva, 2008).

### ***Galerina marginata* (Batsch) Kühner<sup>1</sup>**

≡ *Agaricus marginatus* Batsch<sup>2</sup> ≡ *Pholiota marginata* (Batsch) Quél.<sup>3</sup> = *Galerina autumnalis* (Peck) A.H. Sm. & Singer<sup>4</sup> = *Galerina unicolor* (Vahl) Singer<sup>5</sup> = *Pholiota unicolor* (Vahl) Gillet<sup>6</sup>

EASTERN EUROPE: **Adygea** (<sup>1</sup>Kovalenko, 1980b; <sup>1,5</sup>Vaasma, Kalamees, and Raitviir, 1986; <sup>1</sup>Sopina, 2001a; <sup>1</sup>Kummer, 2007); **Belgorod Oblast** (<sup>5</sup>Bedenko, 1979a; <sup>4</sup>Bedenko, 1980); **Crimea** (<sup>1</sup>Prydiuk, 2002; <sup>1</sup>Dudka et al., 2004; <sup>1</sup>Sarkina, 2010b; <sup>1</sup>Sarkina, 2011; <sup>1</sup>Sarkina and Prydiuk, 2012; <sup>1</sup>Sarkina and Mironova, 2015); **Kaliningrad Oblast** (<sup>1</sup>Dedkov, Volodina, and Gubareva, 2007; <sup>1</sup>Volodina, 2007); **Karachay-Cherkess Republic** (<sup>1,5</sup>Kalamees and Botashev, 2000); **Karelia** (<sup>2</sup>Karsten, 1866; <sup>1</sup>Freindling, 1949; <sup>1</sup>Kovalenko, Morozova, Fomina, and Särkisilta, 1998; <sup>1,5</sup>Bondartseva et al., 2001; <sup>1</sup>Predtechenskaya and Ruokolainen, 2008; <sup>1</sup>Predtechenskaya and Ruokolainen, 2013; <sup>1</sup>Predtechenskaya, 2013; <sup>1</sup>Krutov et al., 2014; <sup>1</sup>Predtechenskaya and Ruokolainen, 2014; <sup>1</sup>Predtechenskaya, 2015; <sup>1</sup>Savelev and Kikeeva, 2018); **Kirov Oblast** (<sup>1</sup>Kirillov, 2011; <sup>1</sup>Kirillov, Perevedentseva, and Egoshina, 2011; <sup>1</sup>Stavishenko, Luginina, Kirillov, and Egoshina, 2019); **Komi Republic** (<sup>1</sup>Bobretsova, 2004; <sup>5</sup>Palamarchuk, 2012; <sup>5</sup>Palamarchuk, 2016a; <sup>5</sup>Palamarchuk, 2016b); **Krasnodar Krai** (<sup>1</sup>Vassiljeva, 1939; <sup>1</sup>Singer, 1950a; <sup>1,5</sup>Kovalenko, 1980a; <sup>1,5</sup>Kovalenko, 1980b; <sup>1,5</sup>Vaasma, Kalamees, and Raitviir, 1986; <sup>1</sup>Sopina, 2001a); **Leningrad Oblast** (<sup>3,6</sup>Thesleff, 1920; <sup>1</sup>Singer, 1950a; <sup>5</sup>Smith and Singer, 1964; <sup>1,5</sup>Kalamees and Kovalenko, 1984; <sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Morozova and Kovalenko, 2000; <sup>1</sup>Morozova, 2007; <sup>1</sup>Popov et al., 2007; <sup>1</sup>Zmitrovich et al., 2015; <sup>1</sup>Kalinina, 2018); **Lipetsk Oblast** (<sup>1</sup>Sarycheva, 1999; <sup>1</sup>Sarycheva et al., 2009; <sup>1</sup>Sarycheva, 2011; <sup>1</sup>Sarycheva, 2014a; <sup>1</sup>Sarycheva, 2016); **Mordovia** (<sup>6</sup>Chastukhin, 1948a; <sup>5</sup>Chastukhin and Nikolaevskaya, 1969; <sup>1</sup>Ivoilov and Bolshakov, 2011a; <sup>6</sup>Chastukhin, 2011); **Moscow** (<sup>6</sup>Hennings, 1905; <sup>6</sup>Mosolov, 1906); **Moscow Oblast** (<sup>1</sup>Levitskaya, 1995c; <sup>1</sup>Levitskaya, 2013); **Murmansk Oblast** (<sup>2</sup>Karsten, 1866; <sup>5</sup>Pystina, Pavlova, and Shestakova, 1969; <sup>5</sup>Nezdoininogo, 1997b; <sup>5</sup>Karatygin, Nezdoininogo, Novozhilov, and Zhurbenko, 1999); **Novgorod Oblast** (<sup>1</sup>Morozova, 2012; <sup>1</sup>Popov et al., 2013); **Orenburg Oblast** (<sup>1</sup>Desyatova, 2008); **Penza Oblast** (<sup>1</sup>Ivanov, 1981b; <sup>1</sup>Ivanov, 1982; <sup>5</sup>Ivanov, 1985; <sup>1</sup>Ivanov, 2019); **Perm Krai** (<sup>1</sup>Perevedentseva, 2008; <sup>1</sup>Perevedentseva and Shishigin, 2014; <sup>5</sup>Belkovskaya et al., 2014; <sup>1</sup>Botalov, 2017); **Pskov Oblast** (<sup>1</sup>Popov et al., 2013); **Ryazan Oblast** (<sup>1</sup>Volosnova, 2014); **Saint Petersburg** (<sup>5</sup>Singer, 1950a; <sup>1</sup>Kotkova, Morozova, and Popov, 2005; <sup>1</sup>Morozova et al., 2020); **Samara Oblast** (<sup>1</sup>Malysheva and Malysheva, 2005b; <sup>1</sup>Malysheva and Malysheva, 2008); **Saratov Oblast** (<sup>1</sup>Singer, 1950a); **Sevastopol** (<sup>1</sup>Sarkina, 2020c); **Sverdlovsk Oblast** (<sup>1,5</sup>Stepanova and Sirko, 1977; <sup>1</sup>Marina, 2006); **Tatarstan** (<sup>1,5</sup>Vassiljeva, 1977); **Tula Oblast** (<sup>1</sup>Svetasheva, 2001; <sup>1</sup>Svetasheva, 2003; <sup>1</sup>Svetasheva, 2004; <sup>1</sup>Svetasheva, 2013); **Tver Oblast** (<sup>3,6</sup>Chastukhin, 1948b; <sup>5</sup>Chastukhin and Nikolaevskaya, 1969; <sup>1</sup>Kurochkin, 1993; <sup>1</sup>Mukhina, 2011a; <sup>1</sup>Kotkova, 2014); **Udmurt Republic** (<sup>1</sup>Tychinin, 1990; <sup>1</sup>Tychinin and Kuzmina, 2003); **Ulyanovsk Oblast** (<sup>1</sup>Ilyukhin, 2009; <sup>1</sup>Ilyukhin, 2010a); **Volgograd Oblast** (<sup>1</sup>Dudka and Vedeneyev, 2014); **Vologda Oblast** (<sup>1</sup>Kirillova, 2007); **Voronezh Oblast** (<sup>1</sup>Sarycheva, Starodubtseva, and Sapelnikova, 2017); **Yaroslavl Oblast** (<sup>1</sup>Lazareva, 1998a; <sup>1</sup>Lazareva, 2002); **Arid territories** (<sup>1</sup>Rebriev, Rusanov, et al., 2012).

SIBERIA: **Altai Krai** (<sup>1</sup>Gorbunova and Perova, 2006; <sup>1</sup>Gorbunova and Chubarova, 2008; <sup>1</sup>Gorbunova, Vlasenko, and Tzhubarova, 2011); **Altai Republic** (<sup>1</sup>Singer, 1950a; <sup>1</sup>Kovalenko, 1992; <sup>1</sup>Gorbunova, 1996; <sup>1</sup>Nezdojminogo, 1996; <sup>1</sup>Gorbunova, 1997; <sup>1</sup>Gorbunova, 2001a; <sup>1</sup>Gorbunova, 2001b; <sup>1</sup>Perova and Gorbunova, 2001); **Buryatia** (<sup>1</sup>Nezdojminogo, 1996); **Irkutsk Oblast** (<sup>5</sup>Kutafjeva, 1984; <sup>1,5</sup>Petrov, Nezdojminogo, and Bulakh, 1987; <sup>1</sup>Kutafjeva, 1989; <sup>5</sup>Petrov, 1989; <sup>1,5</sup>Astapenko, 1990a; <sup>1</sup>Nezdojminogo, 1996; <sup>1</sup>Bardunov et al., 2005; <sup>1</sup>Petrov, 2008); **Khakassia** (<sup>1</sup>Zauzolkova and Gorbunova, 2013; <sup>1</sup>Zauzolkova, 2015); **Khanty-Mansi Autonomous Okrug** (<sup>1</sup>Filippova, Bulyonkova, and Lapshina, 2015; <sup>1</sup>Filippova and Bulyonkova, 2017a; <sup>1</sup>Filippova and Bulyonkova, 2017b); **Krasnoyarsk Krai** (<sup>2</sup>Thümen, 1880a; <sup>1,5</sup>Beglyanova, 1972a; <sup>1</sup>Nezdojminogo, 1996; <sup>1</sup>Malysheva, Malysheva, Kiyashko, et al., 2017); **Novosibirsk Oblast** (<sup>1</sup>Perova and Gorbunova, 2001; <sup>1</sup>Perova and Gorbunova, 2007; <sup>1</sup>Koropachinskiy and Banaev, 2014); **Tomsk Oblast** (<sup>5</sup>Perova, 1972; <sup>1</sup>Perova and Gorbunova, 2001; <sup>1</sup>Kudashova, Gashkov, and Kutafjeva, 2013); **Yamalo-Nenets Autonomous Okrug** (<sup>5</sup>Nezdojminogo, 1984; <sup>1</sup>Tarchevskaya, 1990; <sup>1</sup>Nezdojminogo, 1996; <sup>5</sup>Karatygin, Nezdojminogo, Novozhilov, and Zhurbenko, 1999); **Zabaykalsky Krai** (<sup>3</sup>Karsten, 1911).

FAR EAST: **Amur Oblast** (<sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1</sup>Nezdojminogo, 1996); **Chukotka Autonomous Okrug** (<sup>5</sup>Nezdojminogo, 1984; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1</sup>Nezdojminogo, 1996; <sup>5</sup>Karatygin, Nezdojminogo, Novozhilov, and Zhurbenko, 1999); **Jewish Autonomous Oblast** (<sup>1</sup>Erofeeva, Bukharova, and Bulakh, 2019); **Khabarovsk Krai** (<sup>1</sup>Azbukina et al., 1986; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1</sup>Bau, Bulakh, and Govorova, 2011); **Magadan Oblast** (<sup>1,5</sup>Nazarova, 1976; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1</sup>Nezdojminogo, 1996; <sup>1</sup>Sazanova, 2005; <sup>1</sup>Sazanova, 2009a; <sup>1</sup>Sazanova, 2009b; <sup>1</sup>Sazanova, 2011); **Primorsky Krai** (<sup>1</sup>Vassiljeva, 1972; <sup>1</sup>Vassiljeva, 1973; <sup>1</sup>Bunkina and Nazarova, 1978; <sup>1</sup>Azbukina et al., 1984; <sup>1</sup>Azbukina et al., 1990; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1</sup>Nezdojminogo, 1996; <sup>1</sup>Bardunov et al., 2002; <sup>1</sup>Azbukina et al., 2006; <sup>1</sup>Bau, Bulakh, and Govorova, 2011).

### ***Galerina mniophila* (Lasch) Kühner<sup>1</sup>**

≡ *Agaricus mniophilus* Lasch<sup>2</sup>

EASTERN EUROPE: **Belgorod Oblast** (<sup>1</sup>Bedenko, 1980); **Kaliningrad Oblast** (<sup>1</sup>Dedkov, Volodina, and Gubareva, 2007; <sup>1</sup>Volodina, 2007); **Karelia** (<sup>1</sup>Bondartseva et al., 2001; <sup>1</sup>Krutov et al., 2014); **Kirov Oblast** (<sup>1</sup>Kirillov and Luginina, 2011; <sup>1</sup>Kirillov, 2011; <sup>1</sup>Kirillov, Perevedentseva, and Egoshina, 2011; <sup>1</sup>Stavishenko, Luginina, Kirillov, and Egoshina, 2019); **Komi Republic** (<sup>1</sup>Palamarchuk, 2011a; <sup>1</sup>Palamarchuk, 2012; <sup>1</sup>Palamarchuk and Kirillov, 2017; <sup>1</sup>Palamarchuk and Kirillov, 2018a); **Leningrad Oblast** (<sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1</sup>Stolyarskaya, 1993; <sup>1</sup>Nezdojminogo, 1996; <sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Morozova, 2007; <sup>1</sup>Popov et al., 2007; <sup>1</sup>Zmitrovich et al., 2015); **Murmansk Oblast** (<sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1</sup>Nezdojminogo, 1996; <sup>1</sup>Karatygin, Nezdojminogo, Novozhilov, and Zhurbenko, 1999); **Penza Oblast** (<sup>1</sup>Ivanov, 1982); **Perm Krai** (<sup>1</sup>Perevedentseva, 2008; <sup>1</sup>Belkovskaya et al., 2014; <sup>1</sup>Botalov, 2015; <sup>1</sup>Botalov, 2017); **Pskov Oblast** (<sup>1</sup>Kovalenko, Kolmakov, Morozova, and Popov, 2003; <sup>1</sup>Popov et al., 2013); **Ryazan Oblast** (<sup>1</sup>Volosnova, 1997); **Saint Petersburg** (<sup>2</sup>Weinmann, 1836); **Sverdlovsk Oblast** (<sup>1</sup>Stepanova and Sirko, 1977; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1</sup>Nezdojminogo, 1996; <sup>1</sup>Marina, 2006); **Tula Oblast** (<sup>1</sup>Svetasheva, 2003; <sup>1</sup>Svetasheva, 2004); **Tver Oblast** (<sup>1</sup>Kurochkin, 1993); **Udmurt Republic** (<sup>1</sup>Tychinin and Kuzmina, 2003); **Vologda Oblast** (<sup>1</sup>Kirillova, 2007).

SIBERIA: **Altai Republic** (<sup>1</sup>Singer, 1950a; <sup>1</sup>Smith and Singer, 1964; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1</sup>Kovalenko, 1992; <sup>1</sup>Nezdojminogo, 1996; <sup>1</sup>Perova and Gorbunova, 2001; <sup>1</sup>Gorbunova, 2010); **Irkutsk Oblast** (<sup>1</sup>Petrov, Nezdojminogo, and Bulakh, 1987; <sup>1</sup>Petrov, 1991; <sup>1</sup>Petrov, 2008; <sup>1</sup>Gorbunova and Stepanova, 2015); **Khakassia** (<sup>1</sup>Zauzolkova, 2015; <sup>1</sup>Zauzolkova and Gorbunova, 2016); **Khanty-Mansi Autonomous Okrug** (<sup>1</sup>Filippova, Bulyonkova, and Lapshina, 2015; <sup>1</sup>Filippova and Bulyonkova, 2017a; <sup>1</sup>Filippova and Bulyonkova, 2017b); **Krasnoyarsk Krai** (<sup>1</sup>Nezdojminogo, 1982a; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1</sup>Nezdojminogo and Kuvaev, 1993; <sup>1</sup>Nezdojminogo, 1996; <sup>1</sup>Nezdojminogo, 2002; <sup>1</sup>Kryuchkova, 2009; <sup>1</sup>Zmitrovich and Ezhov, 2015; <sup>1</sup>Shiryayev, Zmitrovich, and Ezhov, 2018); **Novosibirsk Oblast** (<sup>1</sup>Gorbunova, 2007; <sup>1</sup>Koropachinskiy and Banaev, 2014); **Tomsk Oblast** (<sup>1</sup>Perova and Gorbunova, 2001; <sup>1</sup>Kudashova, Gashkov, and Kutafjeva, 2013); **Yamalo-Nenets Autonomous Okrug** (<sup>1</sup>Tarchevskaya, 1990).

FAR EAST: **Amur Oblast** (<sup>1</sup>Taranina, 2005); **Chukotka Autonomous Okrug** (<sup>1</sup>Karatygin, Nezdojminogo, Novozhilov, and Zhurbenko, 1999); **Khabarovsk Krai** (<sup>1</sup>Bulakh, 2013; <sup>1</sup>Bogacheva, Bulakh, Bukharova, and Egorova, 2015); **Sakhalin Oblast** (<sup>1</sup>Bulakh, Govorova, and Bogatov, 1999).

### ***Galerina mycenoides* (Fr.) Kühner<sup>1</sup>**

≡ *Agaricus mycenoides* Fr.<sup>2</sup> = *Galerina mycenoides* f. *mamillata* Singer<sup>3</sup>

EASTERN EUROPE: **Arkhangelsk Oblast** (<sup>1</sup>Vassilkov, 1967); **Chelyabinsk Oblast** (<sup>1</sup>Sirko and Stepanova, 1977; <sup>1</sup>Stepanova and Sirko, 1977); **Karelia** (<sup>1</sup>Freindling, 1949; <sup>3</sup>Singer, 1950a; <sup>1</sup>Krutov et al., 2014); **Leningrad Oblast**

(<sup>2</sup>Weinmann, 1836; <sup>1</sup>Morozova and Kovalenko, 2000); **Murmansk Oblast** (<sup>1</sup>Mikhailovskii, 1975b); **Perm Krai** (<sup>1</sup>Perevedentseva and Shishigin, 2014); **Saint Petersburg** (<sup>2</sup>Weinmann, 1837); **Tatarstan** (<sup>3</sup>Singer, 1950a; <sup>1</sup>Vassiljeva, 1977); **Tver Oblast** (<sup>1</sup>Kurochkin, 1993).

SIBERIA: **Krasnoyarsk Krai** (<sup>1</sup>Vassilkov, 1967; <sup>1</sup>Beglyanova, 1972a); **Sakha Republic** (<sup>1</sup>Vassilkov, 1967); **Sverdlovsk Oblast** (<sup>1</sup>Stepanova and Sirko, 1977); **Yamalo-Nenets Autonomous Okrug** (<sup>1</sup>Tarchevskaya, 1990).

### ***Galerina nana* (Petri) Kühner<sup>1</sup>**

= *Galerina nana* f. *bohemica* Singer<sup>2</sup> = *Galerina nana* f. *leningradensis* Singer<sup>3</sup>

EASTERN EUROPE: **Leningrad Oblast** (<sup>1</sup>Nezdojminogo, 1996; <sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Popov et al., 2007); **Saint Petersburg** (<sup>2,3</sup>Singer, 1950a; <sup>1</sup>Smith and Singer, 1964; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990).

SIBERIA: **Altai Republic** (<sup>1</sup>Gorbunova, 2001b; <sup>1</sup>Perova and Gorbunova, 2001); **Krasnoyarsk Krai** (<sup>1</sup>Beglyanova, 1972a; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1</sup>Nezdojminogo, 1996).

FAR EAST: **Amur Oblast** (<sup>1</sup>Kochunova, 2019); **Primorsky Krai** (<sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1</sup>Nezdojminogo, 1996).

### ***Galerina norvegica* A.H. Sm.**

EASTERN EUROPE: **Moscow Oblast** (Levitskaya, 1995c); **Murmansk Oblast** (Nezdojminogo, 1997b; Karatygin, Nezdojminogo, Novozhilov, and Zhurbenko, 1999).

### ***Galerina pallida* (Pilát) E. Horak & M.M. Moser**

EASTERN EUROPE: **Adygea** (Vaasma, Kalamees, and Raitviir, 1986); **Karachay-Cherkess Republic** (Kalamees and Botashev, 2000); **Krasnodar Krai** (Nezdojminogo, 1996).

SIBERIA: **Khanty-Mansi Autonomous Okrug** (Zvyagina and Baykalova, 2012).

### ***Galerina paludosa* (Fr.) Kühner**

EASTERN EUROPE: **Bryansk Oblast** (Kruglikov, 2007); **Kaliningrad Oblast** (Dedkov, Volodina, and Gubareva, 2007; Volodina, 2007); **Karelia** (Freindling, 1949; Singer, 1950a; Kovalenko, Morozova, Fomina, and Särkisilta, 1998; Bondartseva et al., 2001; Predtechenskaya and Ruokolainen, 2013; Krutov et al., 2014; Predtechenskaya and Ruokolainen, 2014); **Kirov Oblast** (Kirillov, 2011; Kirillov, Perevedentseva, and Egoshina, 2011; Stavishenko, Luginina, Kirillov, and Egoshina, 2019); **Komi Republic** (Nezdojminogo, 1984; Karatygin, Nezdojminogo, Novozhilov, and Zhurbenko, 1999; Bobretsova, 2004; Palamarchuk, 2011b; Palamarchuk, 2012; Palamarchuk, 2016a; Palamarchuk, 2016b; Palamarchuk and Kirillov, 2017; Palamarchuk, 2017); **Leningrad Oblast** (Singer, 1950a; Stolyarskaya, 1989; Kovalenko and Morozova, 1999a; Morozova, 2007; Popov et al., 2007; Zmitrovich et al., 2015); **Moscow** (Samoilov and Morozova, 2011); **Moscow Oblast** (Gorlenko, Sidorova, and Sidorova, 1989; Levitskaya, 1995c; Voronina et al., 2012; Levitskaya, 2013; Voronina et al., 2014); **Murmansk Oblast** (Singer, 1950a; Nezdojminogo, 1997b; Karatygin, Nezdojminogo, Novozhilov, and Zhurbenko, 1999); **Novgorod Oblast** (Kovalenko, Morozova, Nezdojminogo, and Popov, 2005; Popov et al., 2013); **Penza Oblast** (Ivanov, 1985); **Perm Krai** (Perevedentseva, 2008; Belkovskaya et al., 2014; Botalov, 2017); **Pskov Oblast** (Kovalenko and Morozova, 1999b; Popov, 2001a; Popov et al., 2013); **Ryazan Oblast** (Volosnova, 2014); **Saint Petersburg** (Kovalenko and Morozova, 1999a; Kotkova, Morozova, and Popov, 2005; Morozova and Smirnov, 2011; Morozova et al., 2020); **Sverdlovsk Oblast** (Marina, 2006); **Tatarstan** (Vassiljeva, 1977); **Tula Oblast** (Svetasheva, 2004; Svetasheva, 2005a); **Vologda Oblast** (Kirillova, 2007); **Yamalo-Nenets Autonomous Okrug** (Karatygin, Nezdojminogo, Novozhilov, and Zhurbenko, 1999); **Yaroslavl Oblast** (Lazareva, 1998a; Lazareva, 2002).

SIBERIA: **Altai Republic** (Gorbunova, 2003; Gorbunova, 2010); **Buryatia** (Nezdojminogo, 1970a; Petrov, 1991); **Irkutsk Oblast** (Petrov, Nezdojminogo, and Bulakh, 1987; Petrov, 1989; Petrov, 1991; Bardunov et al., 2005; Petrov, 2008; Muzyka and Penzina, 2017); **Khanty-Mansi Autonomous Okrug** (Filippova, 2009; Filippova and Thormann, 2014; Filippova, 2014; Filippova, Mourgues, and Philippe, 2014; Filippova, Bulyonkova, and Lapshina, 2015; Filippova and Bulyonkova, 2017a; Filippova and Bulyonkova, 2017b); **Krasnoyarsk Krai** (Beglyanova, 1972a; Nezdojminogo, 1976a; Gorbunova, 2016); **Sakha Republic** (Nezdojminogo, 1997a; Karatygin, Nezdojminogo, Novozhilov, and Zhurbenko, 1999); **Tomsk Oblast** (Perova and Gorbunova, 2001; Kudashova, Gashkov, and Kutafjeva, 2013); **Yamalo-Nenets Autonomous Okrug** (Tarchevskaya, 1990; Karatygin, Nezdojminogo, Novozhilov, and Zhurbenko, 1999; Kapitonov, 2015).

FAR EAST: **Chukotka Autonomous Okrug** (Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; Sazanova, 1993; Karatygin, Nezdojminogo, Novozhilov, and Zhurbenko, 1999); **Khabarovsk Krai** (Azbukina et al., 1989);

Bulakh, Vassiljeva, and Erofeeva, 2010; Bulakh, 2013; Bogacheva, Bulakh, Bukharova, and Egorova, 2015); **Magadan Oblast** (Bulakh, Wasser, Nazarova, and Nezdjominogo, 1990; Sazanova, 1996; Sazanova, 2005; Sazanova, 2009a; Sazanova, 2011; Sazanova, 2016); **Primorsky Krai** (Vassiljeva, 1973; Bulakh, Wasser, Nazarova, and Nezdjominogo, 1990; Bulakh et al., 2016); **Sakhalin Oblast** (Vassiljeva and Nazarova, 1972; Bulakh, Wasser, Nazarova, and Nezdjominogo, 1990).

***Galerina permixta* (P.D. Orton) Pegler<sup>1</sup>**

≡ *Naucoria permixta* P.D. Orton<sup>2</sup>

EASTERN EUROPE: **Penza Oblast** (<sup>2</sup>Ivanov, 1985; <sup>1</sup>Nezdjominogo, 1996); **Sverdlovsk Oblast** (<sup>1</sup>Marina, 2006).

SIBERIA: **Krasnoyarsk Krai** (<sup>1</sup>Kosheleva and Kutafjeva, 2008a).

***Galerina praticola* (F.H. Møller) P.D. Orton**

SIBERIA: **Krasnoyarsk Krai** (Beglyanova, 1972a).

***Galerina pruinatipes* A.H. Sm.**

EASTERN EUROPE: **Krasnodar Krai** (Kiyashko, 2011).

***Galerina pseudocerina* A.H. Sm. & Singer**

EASTERN EUROPE: **Arkhangelsk Oblast** (Nezdjominogo, 1982b; Bulakh, Wasser, Nazarova, and Nezdjominogo, 1990; Karatygin, Nezdjominogo, Novozhilov, and Zhurbenko, 1999; Nezdjominogo, 2002; Ezhov, Gavrilov, and Zmitrovich, 2014; Zmitrovich and Ezhov, 2015; Ezhov, Zmitrovich, and Ershov, 2016; Shiryaev, Zmitrovich, and Ezhov, 2018); **Murmansk Oblast** (Bulakh, Wasser, Nazarova, and Nezdjominogo, 1990; Nezdjominogo, 1997b; Karatygin, Nezdjominogo, Novozhilov, and Zhurbenko, 1999).

SIBERIA: **Altai Republic** (Gorbunova, 2019); **Buryatia** (Bulakh, Wasser, Nazarova, and Nezdjominogo, 1990); **Krasnoyarsk Krai** (Nezdjominogo, 1982b; Bulakh, Wasser, Nazarova, and Nezdjominogo, 1990; Nezdjominogo and Zhurbenko, 1996; Nezdjominogo, 1996; Nezdjominogo, 1997a; Karatygin, Nezdjominogo, Novozhilov, and Zhurbenko, 1999; Nezdjominogo, 2002; Zmitrovich and Ezhov, 2015; Gorbunova, 2016; Shiryaev, Zmitrovich, and Ezhov, 2018); **Sakha Republic** (Nezdjominogo, 1982b; Nezdjominogo, 1984; Bulakh, Wasser, Nazarova, and Nezdjominogo, 1990; Karatygin, Nezdjominogo, Novozhilov, and Zhurbenko, 1999).

FAR EAST: **Chukotka Autonomous Okrug** (Nezdjominogo, 1982b; Bulakh, Wasser, Nazarova, and Nezdjominogo, 1990; Nezdjominogo, 1997a; Karatygin, Nezdjominogo, Novozhilov, and Zhurbenko, 1999).

***Galerina pseudomniophila* Kühner**

SIBERIA: **Krasnoyarsk Krai** (Nezdjominogo, 1997a; Karatygin, Nezdjominogo, Novozhilov, and Zhurbenko, 1999).

FAR EAST: **Chukotka Autonomous Okrug** (Karatygin, Nezdjominogo, Novozhilov, and Zhurbenko, 1999).

***Galerina pseudomycenopsis* Pilát<sup>1</sup>**

≡ *Galerina pseudopumila* P.D. Orton<sup>2</sup> = *Galerina moelleri* Bas<sup>3</sup>

EASTERN EUROPE: **Arkhangelsk Oblast** (<sup>3</sup>Nezdjominogo, 1982b; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdjominogo, 1990; <sup>1</sup>Karatygin, Nezdjominogo, Novozhilov, and Zhurbenko, 1999; <sup>1</sup>Nezdjominogo, 2002; <sup>1</sup>Ezhov, Gavrilov, and Zmitrovich, 2014; <sup>1</sup>Zmitrovich and Ezhov, 2015; <sup>1</sup>Ezhov, Zmitrovich, and Ershov, 2016; <sup>1</sup>Shiryaev, Zmitrovich, and Ezhov, 2018); **Karelia** (<sup>1</sup>Krutov et al., 2014); **Komi Republic** (<sup>1</sup>Palamarchuk (Bobretsova), 2009; <sup>1</sup>Palamarchuk, 2011b; <sup>1</sup>Palamarchuk, 2012; <sup>1</sup>Palamarchuk, 2016a; <sup>1</sup>Palamarchuk, 2016b); **Murmansk Oblast** (<sup>2</sup>Pystina, Pavlova, and Shestakova, 1969; <sup>3</sup>Nezdjominogo, 1982b; <sup>1</sup>Nezdjominogo, 1996; <sup>1</sup>Nezdjominogo, 1997b; <sup>1</sup>Karatygin, Nezdjominogo, Novozhilov, and Zhurbenko, 1999); **Perm Krai** (<sup>1</sup>Perevedentseva, 2008).

SIBERIA: **Altai Republic** (<sup>1</sup>Gorbunova, 2003; <sup>1</sup>Gorbunova, 2010); **Irkutsk Oblast** (<sup>1</sup>Gorbunova and Stepantsova, 2015); **Khanty-Mansi Autonomous Okrug** (<sup>1</sup>Zvyagina and Baykalova, 2012); **Krasnoyarsk Krai** (<sup>3</sup>Nezdjominogo, 1982b; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdjominogo, 1990; <sup>1</sup>Nezdjominogo and Kuvaev, 1993; <sup>1</sup>Nezdjominogo and Zhurbenko, 1996; <sup>1</sup>Nezdjominogo, 1996; <sup>1</sup>Nezdjominogo, 1997a; <sup>1</sup>Karatygin, Nezdjominogo, Novozhilov, and Zhurbenko, 1999; <sup>1</sup>Nezdjominogo, 2002; <sup>1</sup>Zmitrovich and Ezhov, 2015; <sup>1</sup>Shiryaev, Zmitrovich, and Ezhov, 2018); **Sakha Republic** (<sup>3</sup>Nezdjominogo, 1982b; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdjominogo, 1990; <sup>1</sup>Nezdjominogo, 1996; <sup>1</sup>Karatygin, Nezdjominogo, Novozhilov, and Zhurbenko, 1999; <sup>1</sup>Nezdjominogo, 2003); **Tyva Republic** (<sup>1</sup>Gorbunova, 2015).

FAR EAST: **Chukotka Autonomous Okrug** (<sup>3</sup>Nezdojminogo, 1982b; <sup>3</sup>Nezdojminogo, 1984; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1</sup>Nezdojminogo, 1996; <sup>1</sup>Nezdojminogo, 1997a; <sup>1</sup>Karatygin, Nezdojminogo, Novozhilov, and Zhurbenko, 1999); **Magadan Oblast** (<sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1</sup>Nezdojminogo, 1996; <sup>1</sup>Sazanova, 2009a); **Primorsky Krai** (<sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990).

***Galerina pseudotundrae* Kühner**

SIBERIA: **Buryatia** (Nezdojminogo, 1996).

***Galerina pumila* (Pers.) Singer<sup>1</sup>**

≡ *Agaricus pumilus* Pers.<sup>2</sup> ≡ *Galerina pumila* var. *pumila* (Pers.) M. Lange<sup>3</sup> = *Agaricus mycenopsis* Fr.<sup>4</sup> = *Galerina mycenopsis* (Fr.) Kühner<sup>5</sup> = *Galerina pumila* var. *subalpina* A.H. Sm.<sup>6</sup>

EASTERN EUROPE: **Adygea** (<sup>1</sup>Kiyashko, 2009); **Arkhangelsk Oblast** (<sup>1</sup>Shiryayev, Zmitrovich, and Ezhov, 2018); **Karelia** (<sup>4</sup>Karsten, 1866; <sup>4</sup>Karsten, 1876; <sup>3</sup>Smith and Singer, 1964; <sup>3</sup>Nezdojminogo, 1996; <sup>1</sup>Bondartseva et al., 2001; <sup>1</sup>Predtechenskaya and Ruokolainen, 2013; <sup>1</sup>Krutov et al., 2014); **Komi Republic** (<sup>6</sup>Palamarchuk, 2011b; <sup>1,5</sup>Palamarchuk, 2016a; <sup>1,6</sup>Palamarchuk, 2016b; <sup>1</sup>Palamarchuk and Kirillov, 2017; <sup>1</sup>Palamarchuk, 2017); **Leningrad Oblast** (<sup>5</sup>Singer, 1950a; <sup>6</sup>Smith and Singer, 1964; <sup>1</sup>Kalamees and Kovalenko, 1984; <sup>1</sup>Stolyarskaya, 1993; <sup>3</sup>Nezdojminogo, 1996; <sup>3</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Morozova, 2007; <sup>3</sup>Popov et al., 2007; <sup>1</sup>Zmitrovich et al., 2015); **Lipetsk Oblast** (<sup>1</sup>Sarycheva, 1999; <sup>1</sup>Sarycheva et al., 2009; <sup>1</sup>Sarycheva, 2016); **Mordovia** (<sup>5</sup>Singer, 1950a; <sup>5</sup>Kuznetsov, 1960; <sup>6</sup>Smith and Singer, 1964; <sup>3</sup>Nezdojminogo, 1996; <sup>1</sup>Ivoilov and Bolshakov, 2011a; <sup>5</sup>Chastukhin, 2011); **Moscow Oblast** (<sup>1</sup>Gorlenko, Sidorova, and Sidorova, 1989); **Murmansk Oblast** (<sup>1</sup>Nezdojminogo, 1997b; <sup>1</sup>Karatygin, Nezdojminogo, Novozhilov, and Zhurbenko, 1999); **Penza Oblast** (<sup>5</sup>Ivanov, 1982; <sup>3</sup>Nezdojminogo, 1996); **Perm Krai** (<sup>3</sup>Nezdojminogo, 1996; <sup>1</sup>Perevedentseva, 2008; <sup>1</sup>Belkovskaya et al., 2014; <sup>1</sup>Botalov, 2015; <sup>1</sup>Botalov, 2017); **Ryazan Oblast** (<sup>1</sup>Volosnova, 2014); **Saint Petersburg** (<sup>2</sup>Weinmann, 1836; <sup>3</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Morozova and Kovalenko, 2000; <sup>1</sup>Kotkova, Morozova, and Popov, 2006; <sup>1</sup>Morozova and Smirnov, 2011); **Tver Oblast** (<sup>3</sup>Nezdojminogo, 1996); **Udmurt Republic** (<sup>5</sup>Tychinin and Kuzmina, 2003); **Vologda Oblast** (<sup>3</sup>Kirillova, 2007).

SIBERIA: **Altai Krai** (<sup>1</sup>Gorbunova, 2018a); **Altai Republic** (<sup>5</sup>Singer, 1950a; <sup>3,6</sup>Smith and Singer, 1964; <sup>1</sup>Gorbunova, 1996; <sup>6</sup>Nezdojminogo, 1996; <sup>1</sup>Gorbunova, 1997; <sup>1</sup>Perova and Gorbunova, 2001; <sup>1</sup>Gorbunova, 2010); **Buryatia** (<sup>3</sup>Nezdojminogo, 1996); **Irkutsk Oblast** (<sup>1</sup>Kutafjeva and Astapenko, 1987; <sup>1</sup>Petrov, 1991; <sup>3</sup>Nezdojminogo, 1996; <sup>1</sup>Gorbunova and Stepanova, 2015); **Khanty-Mansi Autonomous Okrug** (<sup>1</sup>Filippova and Bulyonkova, 2017a; <sup>1</sup>Filippova and Bulyonkova, 2017b); **Krasnoyarsk Krai** (<sup>5</sup>Beglyanova, 1972a; <sup>1</sup>Nezdojminogo, 1982b; <sup>1</sup>Nezdojminogo and Kuvaev, 1993; <sup>6</sup>Nezdojminogo, 1996; <sup>1</sup>Karatygin, Nezdojminogo, Novozhilov, and Zhurbenko, 1999; <sup>1</sup>Nezdojminogo, 2002; <sup>1</sup>Kryuchkova, 2009; <sup>1</sup>Zauzolkova, 2015; <sup>1</sup>Zmitrovich and Ezhov, 2015; <sup>1</sup>Gorbunova, 2016; <sup>1</sup>Shiryayev, Zmitrovich, and Ezhov, 2018); **Tomsk Oblast** (<sup>5</sup>Milovidova, 1980; <sup>1</sup>Perova and Gorbunova, 2001; <sup>1</sup>Kudashova, Gashkov, and Kutafjeva, 2013).

FAR EAST: **Chukotka Autonomous Okrug** (<sup>1</sup>Nezdojminogo, 1982b; <sup>1</sup>Nezdojminogo, 1984; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>6</sup>Nezdojminogo, 1996; <sup>1</sup>Karatygin, Nezdojminogo, Novozhilov, and Zhurbenko, 1999); **Magadan Oblast** (<sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>3</sup>Nezdojminogo, 1996; <sup>1</sup>Sazanova, 2005; <sup>1</sup>Sazanova, 2009a; <sup>1</sup>Sazanova, 2009b; <sup>1</sup>Sazanova, 2011; <sup>1</sup>Sazanova and Golodnova, 2015).

***Galerina sahleri* (Quél.) Kühner**

EASTERN EUROPE: **Moscow Oblast** (Levitskaya, 2013).

SIBERIA: **Krasnoyarsk Krai** (Beglyanova, 1972a).

***Galerina salicicola* P.D. Orton**

SIBERIA: **Khanty-Mansi Autonomous Okrug** (Filippova and Bulyonkova, 2017a; Filippova and Bulyonkova, 2017b).

FAR EAST: **Primorsky Krai** (Bau, Bulakh, and Govorova, 2011).

***Galerina semilanceata* (Peck) A.H. Sm. & Singer**

EASTERN EUROPE: **Kabardino-Balkarian Republic** (Singer, 1931; Shkhagapsoev and Krapivina, 2004).

***Galerina sideroides* (Bull.) Kühner<sup>1</sup>**

≡ *Agaricus sideroides* Bull.<sup>2</sup> ≡ *Naucoria sideroides* (Bull.) Quél.<sup>3</sup>

EASTERN EUROPE: **Bryansk Oblast** (<sup>1</sup>Kruglikov, 2007); **Chelyabinsk Oblast** (<sup>1</sup>Sirko and Stepanova, 1977; <sup>1</sup>Stepanova and Sirko, 1977; <sup>1</sup>Nezdojminogo, 1996); **Karelia** (<sup>1</sup>Krutov et al., 2014); **Komi Republic** (<sup>1</sup>Palamarchuk

and Kirillov, 2017; <sup>1</sup>Palamarchuk, 2020a); **Leningrad Oblast** (<sup>3</sup>Thesleff, 1920; <sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Popov et al., 2007); **Moscow** (<sup>1</sup>Muchnik et al., 2020); **Moscow Oblast** (<sup>1</sup>Gorlenko, Sidorova, and Sidorova, 1989; <sup>1</sup>Voronina et al., 2014); **Murmansk Oblast** (<sup>1</sup>Pystina, Pavlova, and Shestakova, 1969); **Perm Krai** (<sup>1</sup>Nezdojminogo, 1996; <sup>1</sup>Perevedentseva, 2008; <sup>1</sup>Perevedentseva and Shishigin, 2014; <sup>1</sup>Botalov, 2017); **Ryazan Oblast** (<sup>1</sup>Volosnova, 2014); **Samara Oblast** (<sup>1</sup>Malysheva and Malysheva, 2008); **Sverdlovsk Oblast** (<sup>1</sup>Nezdojminogo, 1996; <sup>1</sup>Marina, 2006); **Tula Oblast** (<sup>1</sup>Svetasheva, 2003; <sup>1</sup>Svetasheva, 2004); **Ulyanovsk Oblast** (<sup>1</sup>Ilyukhin, 2009; <sup>1</sup>Ilyukhin, 2010a); **Yaroslavl Oblast** (<sup>1</sup>Lazareva, 1998a; <sup>1</sup>Lazareva, 2002).

SIBERIA: **Irkutsk Oblast** (<sup>1</sup>Kutafjeva, 1989; <sup>1</sup>Astapenko, 1990a; <sup>1</sup>Nezdojminogo, 1996); **Krasnoyarsk Krai** (<sup>1</sup>Beglyanova, 1972a; <sup>1</sup>Nezdojminogo, 1996); **Novosibirsk Oblast** (<sup>1</sup>Perova and Gorbunova, 2007); **Yamalo-Nenets Autonomous Okrug** (<sup>1</sup>Tarchevskaya, 1990).

FAR EAST: **Chukotka Autonomous Okrug** (<sup>2</sup>Berkeley and Curtis, 1978); **Khabarovsk Krai** (<sup>1</sup>Azbukina et al., 1986); **Primorsky Krai** (<sup>1</sup>Vassiljeva, 1973; <sup>1</sup>Bunkina and Nazarova, 1978; <sup>1</sup>Azbukina et al., 1984).

### *Galerina similis* Kühner

SIBERIA: **Krasnoyarsk Krai** (Zauzolkova, 2015; Zauzolkova and Gorbunova, 2016).

### *Galerina sphagnicola* (G.F. Atk.) A.H. Sm. & Singer

EASTERN EUROPE: **Komi Republic** (Palamarchuk and Kirillov, 2017); **Leningrad Oblast** (Nezdojminogo, 1985; Nezdojminogo, 1996; Kovalenko and Morozova, 1999a; Tzvelev, 2000; Popov et al., 2007; Geltman et al., 2018); **Moscow Oblast** (Voronina et al., 2012; Voronina et al., 2014); **Pskov Oblast** (Kalinina, Bolshakov, and Bulyonkova, 2020); **Saint Petersburg** (Kovalenko and Morozova, 1999a; Morozova and Smirnov, 2011).

SIBERIA: **Khanty-Mansi Autonomous Okrug** (Filippova and Thormann, 2014; Filippova, 2014; Filippova, Mourgues, and Philippe, 2014); **Krasnoyarsk Krai** (Gorbunova, 2016); **Tomsk Oblast** (Kudashova, Gashkov, and Vaishlya, 2016a).

### *Galerina sphagnorum* (Pers.) Kühner<sup>1</sup>

≡ *Agaricus hypnorum* γ *sphagnorum* Pers.<sup>2</sup> ≡ *Agaricus sphagnorum* (Pers.) Lasch<sup>3</sup> ≡ *Galera sphagnorum* (Pers.) Sacc.<sup>4</sup>

EASTERN EUROPE: **Karelia** (<sup>1</sup>Freindling, 1949; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1</sup>Nezdojminogo, 1996; <sup>1</sup>Kovalenko, Morozova, Fomina, and Särkisilta, 1998; <sup>1</sup>Bondartseva et al., 2001; <sup>1</sup>Krutov et al., 2014); **Komi Republic** (<sup>1</sup>Palamarchuk, 2011b; <sup>1</sup>Palamarchuk, 2016a; <sup>1</sup>Palamarchuk, 2016b); **Leningrad Oblast** (<sup>4</sup>Thesleff, 1920; <sup>1</sup>Nezdojminogo, 1967; <sup>1</sup>Chastukhin and Nikolaevskaya, 1969; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1</sup>Nezdojminogo, 1996; <sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Popov et al., 2007); **Moscow Oblast** (<sup>1</sup>Levitskaya, 1995c; <sup>1</sup>Levitskaya, 2013); **Murmansk Oblast** (<sup>3</sup>Karsten, 1866; <sup>1</sup>Pystina, Pavlova, and Shestakova, 1969); **Novgorod Oblast** (<sup>1</sup>Malysheva, Malysheva, and Zmitrovich, 2007); **Penza Oblast** (<sup>1</sup>Ivanov, 1982); **Perm Krai** (<sup>1</sup>Perevedentseva, 2008; <sup>1</sup>Botalov, 2017); **Pskov Oblast** (<sup>1</sup>Kovalenko, Kolmakov, Morozova, and Popov, 2003; <sup>1</sup>Kolmakov and Popov, 2005; <sup>1</sup>Popov et al., 2013); **Ryazan Oblast** (<sup>1</sup>Volosnova, 1997; <sup>1</sup>Volosnova, 2014); **Saint Petersburg** (<sup>2</sup>Weinmann, 1828; <sup>3</sup>Weinmann, 1836; <sup>2</sup>Weinmann, 1837); **Sverdlovsk Oblast** (<sup>1</sup>Nezdojminogo, 1996; <sup>1</sup>Marina, 2006); **Tatarstan** (<sup>1</sup>Vassiljeva, 1977); **Tver Oblast** (<sup>1</sup>Kurochkin, 1993); **Udmurt Republic** (<sup>1</sup>Tychinin and Kuzmina, 2003); **Vologda Oblast** (<sup>1</sup>Kirillova, 2007).

SIBERIA: **Altai Republic** (<sup>1</sup>Gorbunova, 2001a; <sup>1</sup>Gorbunova, 2001b; <sup>1</sup>Perova and Gorbunova, 2001; <sup>1</sup>Gorbunova, 2003; <sup>1</sup>Gorbunova, 2010); **Buryatia** (<sup>1</sup>Nezdojminogo, 1970a; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1</sup>Petrov, 1991; <sup>1</sup>Nezdojminogo, 1996); **Irkutsk Oblast** (<sup>1</sup>Gorbunova and Stepanyants, 2015); **Khanty-Mansi Autonomous Okrug** (<sup>1</sup>Zvyagina, 2008; <sup>1</sup>Filippova, 2009; <sup>1</sup>Zvyagina and Baykalova, 2012; <sup>1</sup>Filippova and Thormann, 2014; <sup>1</sup>Filippova, 2014; <sup>1</sup>Filippova, Mourgues, and Philippe, 2014; <sup>1</sup>Shepeleva et al., 2014; <sup>1</sup>Filippova, Bulyonkova, and Lapshina, 2015); **Krasnoyarsk Krai** (<sup>1</sup>Beglyanova, 1972a; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990); **Sverdlovsk Oblast** (<sup>1</sup>Stepanova and Sirko, 1977); **Tomsk Oblast** (<sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1</sup>Nezdojminogo, 1996; <sup>1</sup>Perova and Gorbunova, 2001; <sup>1</sup>Kosheleva and Kutafjeva, 2004; <sup>1</sup>Kudashova, Gashkov, and Kutafjeva, 2013); **Yamalo-Nenets Autonomous Okrug** (<sup>1</sup>Tarchevskaya, 1990; <sup>1</sup>Karatygin, Nezdojminogo, Novozhilov, and Zhurbenko, 1999).

FAR EAST: **Chukotka Autonomous Okrug** (<sup>3</sup>Berkeley and Curtis, 1978; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1</sup>Nezdojminogo, 1996; <sup>1</sup>Karatygin, Nezdojminogo, Novozhilov, and Zhurbenko, 1999); **Magadan Oblast** (<sup>1</sup>Sazanava, 2012); **Primorsky Krai** (<sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1</sup>Bulakh et al., 2016).



***Galerina stagnina* (Fr.) Kühner<sup>1</sup>**

≡ *Galerina stagnina* var. *stagnina* (Fr.) Kühner<sup>2</sup> ≡ *Naucoria stagnina* (Fr.) Henn.<sup>3</sup> ≡ *Phaeogalera stagnina* (Fr.) Kühner<sup>4</sup> ≡ *Phaeogalera stagnina* (Fr.) Pegler & T.W.K. Young<sup>5</sup> ≡ *Tubararia stagnina* (Fr.) Gillet<sup>6</sup>

EASTERN EUROPE: **Kabardino-Balkarian Republic** (<sup>6</sup>Shkhagapsoev and Krapivina, 2004); **Kaluga Oblast** (<sup>1,6</sup>Sionova, 2006); **Karelia** (<sup>1</sup>Kovalenko, Morozova, Fomina, and Särkisilta, 1998; <sup>5</sup>Krutov et al., 2014); **Kirov Oblast** (<sup>5</sup>Kirillov, 2011; <sup>5</sup>Kirillov, Perevedentseva, and Egoshina, 2011); **Komi Republic** (<sup>1</sup>Palamarchuk, 2011b; <sup>5</sup>Palamarchuk, 2016a; <sup>5</sup>Palamarchuk, 2016b; <sup>1</sup>Palamarchuk, 2020a); **Leningrad Oblast** (<sup>6</sup>Thesleff, 1920; <sup>2</sup>Smith and Singer, 1964; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdoininogo, 1990; <sup>1</sup>Nezdoininogo, 1996; <sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Popov et al., 2007); **Moscow Oblast** (<sup>3</sup>Petroff, 1911; <sup>4</sup>Gorlenko, Sidorova, and Sidorova, 1989); **Perm Krai** (<sup>5</sup>Perevedentseva, 2008); **Pskov Oblast** (<sup>5</sup>Kalinina, Bolshakov, and Bulyonkova, 2020); **Saint Petersburg** (<sup>1</sup>Singer, 1950a; <sup>1</sup>Kovalenko and Morozova, 1999a); **Sverdlovsk Oblast** (<sup>1</sup>Marina, 2006); **Tula Oblast** (<sup>1</sup>Svetasheva, 2003; <sup>1</sup>Svetasheva, 2004; <sup>5</sup>Shcherbakov, 2010).

SIBERIA: **Khanty-Mansi Autonomous Okrug** (<sup>1</sup>Filippova, 2009; <sup>5</sup>Zvyagina and Baykalova, 2012; <sup>5</sup>Filippova, Bulyonkova, and Lapshina, 2015); **Yamalo-Nenets Autonomous Okrug** (<sup>4</sup>Tarchevskaya, 1990).

FAR EAST: **Magadan Oblast** (<sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdoininogo, 1990; <sup>1</sup>Nezdoininogo, 1996; <sup>5</sup>Sazanova, 2009a; <sup>5</sup>Sazanova, 2009b; <sup>5</sup>Sazanova, 2011).

***Galerina stordalii* A.H. Sm.**

EASTERN EUROPE: **Komi Republic** (Palamarchuk, 2016a; Palamarchuk, 2020a); **Tula Oblast** (Svetasheva, 2004; Svetasheva, 2005b; Shcherbakov, 2010).

FAR EAST: **Khбаровsk Krai** (Bulakh, 2013; Bogacheva, Bulakh, Bukharova, and Egorova, 2015).

***Galerina stylifera* (G.F. Atk.) A.H. Sm. & Singer**

EASTERN EUROPE: **Adygea** (Sopina, 2001a); **Karelia** (Krutov et al., 2014; Savelev and Kikeeva, 2020); **Kirov Oblast** (Kirillov, 2011; Kirillov, Perevedentseva, and Egoshina, 2011); **Leningrad Oblast** (Stolyarskaya, 1989; Bulakh, Wasser, Nazarova, and Nezdoininogo, 1990; Nezdoininogo, 1996; Kovalenko and Morozova, 1999a; Popov et al., 2007; Zmitrovich et al., 2015); **Perm Krai** (Perevedentseva, 2008; Perevedentseva and Shishigin, 2014; Botalov, 2017); **Sverdlovsk Oblast** (Marina, 2006); **Tula Oblast** (Svetasheva, 2004; Svetasheva, 2005a).

SIBERIA: **Buryatia** (Bulakh, Wasser, Nazarova, and Nezdoininogo, 1990; Petrov, 1991; Nezdoininogo, 1996); **Irkutsk Oblast** (Petrov, Nezdoininogo, and Bulakh, 1987; Bulakh, Wasser, Nazarova, and Nezdoininogo, 1990; Petrov, 1991; Nezdoininogo, 1996; Petrov, 2008; Gorbunova and Stepanitsova, 2015); **Novosibirsk Oblast** (Perova and Gorbunova, 2001).

FAR EAST: **Khбаровsk Krai** (Bulakh, Wasser, Nazarova, and Nezdoininogo, 1990; Nezdoininogo, 1996; Bau, Bulakh, and Govorova, 2011); **Primorsky Krai** (Bulakh, Wasser, Nazarova, and Nezdoininogo, 1990; Nezdoininogo, 1996; Azbukina et al., 2006; Bau, Bulakh, and Govorova, 2011).

***Galerina subbadipes* Huijsman**

EASTERN EUROPE: **Murmansk Oblast** (Mikhailovskii, 1975a).

***Galerina subclavata* Kühner**

EASTERN EUROPE: **Arkhangelsk Oblast** (Shiryayev, Zmitrovich, and Ezhov, 2018).

***Galerina tenuissima* (Gillet) Singer**

≡ *Agaricus tenuissimus* Weinm.<sup>1</sup>

EASTERN EUROPE: **Saint Petersburg** (<sup>1</sup>Weinmann, 1836).

***Galerina terrestris* V.L. Wells & Kempton**

EASTERN EUROPE: **Komi Republic** (Palamarchuk, 2012); **Murmansk Oblast** (Nezdoininogo, 1996).

SIBERIA: **Altai Republic** (Gorbunova, 2008).

***Galerina tibiicystis* (G.F. Atk.) Kühner**

EASTERN EUROPE: **Arkhangelsk Oblast** (Ezhov, Gavrilov, and Zmitrovich, 2014; Zmitrovich and Ezhov, 2015; Ezhov, Zmitrovich, and Ershov, 2016; Shiryayev, Zmitrovich, and Ezhov, 2018); **Karelia** (Freindling, 1949; Singer, 1950a; Bulakh, Wasser, Nazarova, and Nezdoininogo, 1990; Nezdoininogo, 1996; Bondartseva et al., 2001; Krutov et al., 2014); **Komi Republic** (Bulakh, Wasser, Nazarova, and Nezdoininogo, 1990; Nezdoininogo, 1996; Karatygin,

Nezdojminogo, Novozhilov, and Zhurbenko, 1999; Palamarchuk, 2012); **Leningrad Oblast** (Singer, 1950a; Morozova, 2007; Zmitrovich et al., 2015); **Lipetsk Oblast** (Sarycheva et al., 2009); **Moscow Oblast** (Voronina et al., 2012; Voronina et al., 2014); **Murmansk Oblast** (Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; Nezdojminogo, 1996); **Novgorod Oblast** (Kovalenko, Morozova, Nezdojminogo, and Popov, 2005; Popov et al., 2013); **Perm Krai** (Perevedentseva, 2008; Belkovskaya et al., 2014; Botalov, 2017); **Pskov Oblast** (Kovalenko, Kolmakov, Morozova, and Popov, 2003; Popov et al., 2013); **Sverdlovsk Oblast** (Marina, 2006); **Tatarstan** (Vassiljeva, 1977; Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; Nezdojminogo, 1996); **Tula Oblast** (Svetasheva, 2003; Svetasheva, 2004); **Vologda Oblast** (Kirillova, 2007); **Yamalo-Nenets Autonomous Okrug** (Karatygin, Nezdojminogo, Novozhilov, and Zhurbenko, 1999); **Yaroslavl Oblast** (Lazareva, 1998a; Lazareva, 2002).

SIBERIA: **Altai Republic** (Gorbunova, 2008; Gorbunova, 2017b); **Irkutsk Oblast** (Petrov, Nezdojminogo, and Bulakh, 1987; Petrov, 1989; Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; Nezdojminogo, 1996; Bardunov et al., 2005; Petrov, 2008); **Khanty-Mansi Autonomous Okrug** (Zvyagina, 2008; Filippova, 2009; Filippova and Thormann, 2014; Filippova, 2014; Filippova, Mourgues, and Philippe, 2014; Shepeleva et al., 2014; Zvyagina and Baykalova, 2017); **Yamalo-Nenets Autonomous Okrug** (Tarchevskaya, 1990; Karatygin, Nezdojminogo, Novozhilov, and Zhurbenko, 1999).

FAR EAST: **Khabarovsk Krai** (Bulakh, Vassiljeva, and Erofeeva, 2010; Bulakh, 2013; Bogacheva, Bulakh, Bukharova, and Egorova, 2015); **Magadan Oblast** (Nazarova, 1976; Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; Nezdojminogo, 1996; Sazanova, 2009a); **Primorsky Krai** (Vassiljeva, 1973; Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; Nezdojminogo, 1996; Bulakh et al., 2016).

### *Galerina triscopa* (Fr.) Kühner<sup>1</sup>

≡ *Galerina triscopa* var. *triscopa* (Fr.) Kühner<sup>2</sup>

EASTERN EUROPE: **Karelia** (<sup>2</sup>Kovalenko, Morozova, Fomina, and Särkisilta, 1998; <sup>2</sup>Krutov et al., 2014); **Komi Republic** (<sup>1</sup>Bobretsova, 2004; <sup>1</sup>Palamarchuk, 2012; <sup>1</sup>Palamarchuk and Kirillov, 2018a); **Krasnodar Krai** (<sup>1</sup>Sopina, 2001a); **Leningrad Oblast** (<sup>1</sup>Kalamees and Kovalenko, 1984; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1</sup>Nezdojminogo, 1996; <sup>2</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Morozova and Kovalenko, 2000; <sup>2</sup>Popov et al., 2007; <sup>1</sup>Kalinina, 2018); **Moscow Oblast** (<sup>1</sup>Gorlenko, Sidorova, and Sidorova, 1989; <sup>1</sup>Levitskaya, 1995c; <sup>1</sup>Voronina et al., 2012; <sup>1</sup>Levitskaya, 2013; <sup>1</sup>Voronina et al., 2014); **Novgorod Oblast** (<sup>1</sup>Kovalenko, Morozova, Nezdojminogo, and Popov, 2005; <sup>1</sup>Popov et al., 2013); **Penza Oblast** (<sup>1</sup>Ivanov, 1985; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1</sup>Nezdojminogo, 1996); **Perm Krai** (<sup>1</sup>Perevedentseva, 2008; <sup>1</sup>Belkovskaya et al., 2014; <sup>1</sup>Perevedentseva and Shishigin, 2014); **Pskov Oblast** (<sup>1</sup>Kolmakov and Popov, 2005; <sup>1</sup>Popov et al., 2013); **Ryazan Oblast** (<sup>1</sup>Volosnova, 2014); **Saint Petersburg** (<sup>1</sup>Morozova et al., 2020); **Samara Oblast** (<sup>1</sup>Malysheva and Malysheva, 2005b; <sup>1</sup>Malysheva and Malysheva, 2008); **Sverdlovsk Oblast** (<sup>1</sup>Marina, 2006); **Tatarstan** (<sup>1</sup>Singer, 1950a; <sup>1</sup>Vassiljeva, 1977; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1</sup>Nezdojminogo, 1996); **Tula Oblast** (<sup>1</sup>Svetasheva, 2003; <sup>1</sup>Svetasheva, 2004); **Vologda Oblast** (<sup>1</sup>Kirillova, 2007); **Yaroslavl Oblast** (<sup>1</sup>Lazareva, 1998a; <sup>1</sup>Lazareva, 2002).

SIBERIA: **Altai Krai** (<sup>1</sup>Gorbunova and Chubarova, 2008; <sup>1</sup>Gorbunova, Vlasenko, and Tzhubarova, 2011); **Altai Republic** (<sup>1</sup>Singer, 1950a; <sup>2</sup>Smith and Singer, 1964; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1</sup>Kovalenko, 1992; <sup>1</sup>Nezdojminogo, 1996; <sup>1</sup>Gorbunova, 2001b; <sup>1</sup>Perova and Gorbunova, 2001; <sup>1</sup>Gorbunova, 2003; <sup>1</sup>Gorbunova, 2010); **Buryatia** (<sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1</sup>Nezdojminogo, 1996); **Irkutsk Oblast** (<sup>1</sup>Astapenko and Kutafjeva, 1990; <sup>1</sup>Astapenko, 1990a; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1</sup>Nezdojminogo, 1996); **Krasnoyarsk Krai** (<sup>1</sup>Beglyanova, 1972a; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1</sup>Nezdojminogo, 1996; <sup>1</sup>Pavlov et al., 2007); **Novosibirsk Oblast** (<sup>1</sup>Perova and Gorbunova, 2001; <sup>1</sup>Perova and Gorbunova, 2007); **Tomsk Oblast** (<sup>1</sup>Perova, 1972; <sup>1</sup>Perova and Gorbunova, 2001; <sup>1</sup>Kudashova, Gashkov, and Kutafjeva, 2013).

FAR EAST: **Jewish Autonomous Oblast** (<sup>1</sup>Bulakh, Govorova, Nazarova, and Vassiljeva, 2007; <sup>1</sup>Bau, Bulakh, and Govorova, 2011); **Khabarovsk Krai** (<sup>1</sup>Azbukina et al., 1986; <sup>1</sup>Nezdojminogo, 1996; <sup>1</sup>Bau, Bulakh, and Govorova, 2011); **Primorsky Krai** (<sup>1</sup>Vassiljeva, 1973; <sup>1</sup>Bunkina and Nazarova, 1978; <sup>1</sup>Azbukina et al., 1984; <sup>1</sup>Kovalenko and Nezdojminogo, 1989; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1</sup>Nezdojminogo, 1996; <sup>1</sup>Azbukina et al., 2006; <sup>1</sup>Bau, Bulakh, and Govorova, 2011).

### *Galerina uncialis* (Britzelm.) Kühner

SIBERIA: **Khanty-Mansi Autonomous Okrug** (Zvyagina, 2008).

### *Galerina vexans* A.H. Sm. & Singer

EASTERN EUROPE: **Perm Krai** (Perevedentseva, 2008).

***Galerina vittiformis* (Fr.) Singer<sup>1</sup>**

≡ *Galerina vittiformis* f. *vittiformis* (Fr.) Singer<sup>2</sup> ≡ *Galerina vittiformis* var. *vittiformis* (Fr.) Singer<sup>3</sup> = *Agaricus hypni* Batsch<sup>4</sup> = *Derminus hypni* (Batsch) J. Schröt.<sup>5</sup> = *Galera hypnorum* (Batsch) Quél.<sup>6</sup> = *Galera rubiginosa* (Pers.) Fr.<sup>7</sup> = *Galerina rubiginosa* (Pers.) Kühner<sup>8</sup> = *Galerina vittiformis* f. *bispora* A.H. Sm. & Singer<sup>9</sup> = *Galerina vittiformis* f. *bispora* Arnolds<sup>10</sup> = *Galerina vittiformis* f. *tetraspora* Arnolds<sup>11</sup> = *Galerina vittiformis* var. *albescens* A.H. Sm. & Singer<sup>12</sup> = *Galerina vittiformis* var. *pachyspora* A.H. Sm. & Singer<sup>13</sup>

EASTERN EUROPE: **Adygea** (<sup>3</sup>Sopina, 2001a; <sup>1</sup>Kummer, 2007; <sup>1</sup>Psurtseva, Kiyashko, Gachkova, and Belova, 2007); **Arkhangelsk Oblast** (<sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdoininogo, 1990; <sup>1</sup>Nezdoininogo, 1996; <sup>1</sup>Karatygin, Nezdoininogo, Novozhilov, and Zhurbenko, 1999; <sup>1</sup>Ezhov, Gavrilov, and Zmitrovich, 2014; <sup>1</sup>Zmitrovich and Ezhov, 2015; <sup>1</sup>Ezhov, Zmitrovich, and Ershov, 2016; <sup>1</sup>Shiryayev, Zmitrovich, and Ezhov, 2018); **Kaliningrad Oblast** (<sup>7</sup>Hennings, 1895; <sup>6</sup>Neuhoff, 1922; <sup>1</sup>Dedkov, Volodina, and Gubareva, 2007; <sup>1</sup>Volodina, 2007; <sup>1</sup>Atayev and Volodina, 2020); **Karachay-Cherkess Republic** (<sup>1</sup>Kalamees and Botashev, 2000); **Karelia** (<sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdoininogo, 1990; <sup>1</sup>Nezdoininogo, 1996; <sup>1</sup>Krutov et al., 2014); **Kirov Oblast** (<sup>1</sup>Kirillov, 2011; <sup>1</sup>Kirillov, Perevedentseva, and Egoshina, 2011); **Komi Republic** (<sup>1</sup>Palamarchuk, 2011b; <sup>1</sup>Palamarchuk, 2012; <sup>1,9</sup>Palamarchuk, 2016a; <sup>1,9</sup>Palamarchuk, 2016b; <sup>1</sup>Palamarchuk and Kirillov, 2017; <sup>1</sup>Palamarchuk, 2017); **Krasnodar Krai** (<sup>1</sup>Vaasma, Kalamees, and Raitviir, 1986; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdoininogo, 1990; <sup>1</sup>Nezdoininogo, 1996); **Leningrad Oblast** (<sup>1</sup>Singer, 1950a; <sup>12</sup>Smith and Singer, 1964; <sup>1</sup>Kalamees and Kovalenko, 1984; <sup>1</sup>Stolyarskaya, 1989; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdoininogo, 1990; <sup>1</sup>Nezdoininogo, 1996; <sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Zmitrovich et al., 2015); **Lipetsk Oblast** (<sup>1</sup>Sarycheva et al., 2009); **Moscow** (<sup>5</sup>Bucholtz, 1897a; <sup>8</sup>Burova, 1968); **Murmansk Oblast** (<sup>1</sup>Pystina, Pavlova, and Shestakova, 1969; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdoininogo, 1990; <sup>1</sup>Nezdoininogo, 1996; <sup>1</sup>Nezdoininogo, 1997b; <sup>1</sup>Karatygin, Nezdoininogo, Novozhilov, and Zhurbenko, 1999); **Novgorod Oblast** (<sup>3,9,13</sup>Kovalenko, Morozova, Nezdoininogo, and Popov, 2005; <sup>2,9,13</sup>Popov et al., 2013); **Penza Oblast** (<sup>1</sup>Ivanov, 1985; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdoininogo, 1990; <sup>1</sup>Nezdoininogo, 1996); **Perm Krai** (<sup>1</sup>Perevedentseva, 2008; <sup>1</sup>Belkovskaya et al., 2014; <sup>1</sup>Perevedentseva and Shishigin, 2014; <sup>1</sup>Botalov, 2017); **Pskov Oblast** (<sup>2</sup>Popov et al., 2013); **Saint Petersburg** (<sup>1</sup>Kovalenko and Morozova, 1999a); **Sverdlovsk Oblast** (<sup>1</sup>Marina, 2006); **Tatarstan** (<sup>1</sup>Singer, 1950a; <sup>8</sup>Vassiljeva, 1977; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdoininogo, 1990; <sup>1</sup>Nezdoininogo, 1996); **Tula Oblast** (<sup>1</sup>Svetasheva, 2004; <sup>1</sup>Svetasheva, 2005a); **Tver Oblast** (<sup>6</sup>Chastukhin, 1948b); **Vologda Oblast** (<sup>1</sup>Kirillova, 2007); **Yamalo-Nenets Autonomous Okrug** (<sup>1</sup>Karatygin, Nezdoininogo, Novozhilov, and Zhurbenko, 1999); **Yaroslavl Oblast** (<sup>1</sup>Lazareva, 1998a; <sup>1</sup>Lazareva, 2002).

SIBERIA: **Altai Krai** (<sup>1</sup>Gorbunova and Chubarova, 2008; <sup>1</sup>Gorbunova, Vlasenko, and Tzhubarova, 2011); **Altai Republic** (<sup>1</sup>Singer, 1950a; <sup>3</sup>Smith and Singer, 1964; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdoininogo, 1990; <sup>1</sup>Kovalenko, 1992; <sup>1</sup>Nezdoininogo, 1996; <sup>1</sup>Gorbunova, 2001a; <sup>1</sup>Perova and Gorbunova, 2001; <sup>1</sup>Gorbunova, 2010); **Buryatia** (<sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdoininogo, 1990; <sup>11</sup>Petrov, 1991; <sup>1</sup>Nezdoininogo, 1996); **Irkutsk Oblast** (<sup>9</sup>Petrov, Nezdoininogo, and Bulakh, 1987; <sup>1</sup>Kutafjeva, 1989; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdoininogo, 1990; <sup>10,11</sup>Petrov, 1991; <sup>1</sup>Nezdoininogo, 1996; <sup>11</sup>Petrov, 2008; <sup>1</sup>Gorbunova and Stepantsova, 2015); **Khakassia** (<sup>1</sup>Zauzolkova and Gorbunova, 2013; <sup>1</sup>Zauzolkova, 2015); **Khanty-Mansi Autonomous Okrug** (<sup>1</sup>Filippova, Bulyonkova, and Lapshina, 2015; <sup>1</sup>Filippova and Bulyonkova, 2017a; <sup>1</sup>Filippova and Bulyonkova, 2017b; <sup>9</sup>Zvyagina and Baykalova, 2017); **Krasnoyarsk Krai** (<sup>4</sup>Thümen, 1878; <sup>1</sup>Nezdoininogo, 1982a; <sup>1</sup>Nezdoininogo, 1984; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdoininogo, 1990; <sup>1</sup>Nezdoininogo and Zhurbenko, 1996; <sup>1</sup>Nezdoininogo, 1996; <sup>1</sup>Nezdoininogo, 1997a; <sup>1</sup>Gorbunova, 2016); **Tomsk Oblast** (<sup>1</sup>Agaphonova, Kutafjeva, and Gashkov, 2009a; <sup>1</sup>Kudashova, Gashkov, and Kutafjeva, 2013); **Tyva Republic** (<sup>1</sup>Gorbunova, 2015).

FAR EAST: **Chukotka Autonomous Okrug** (<sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdoininogo, 1990; <sup>9</sup>Sazanova, 1993; <sup>1</sup>Karatygin, Nezdoininogo, Novozhilov, and Zhurbenko, 1999); **Jewish Autonomous Oblast** (<sup>1</sup>Bulakh, Govorova, Nazarova, and Vassiljeva, 2007; <sup>1</sup>Bau, Bulakh, and Govorova, 2011); **Khabarovsk Krai** (<sup>1</sup>Azbukina et al., 1986; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdoininogo, 1990; <sup>1</sup>Nezdoininogo, 1996; <sup>1</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Bulakh, 2013; <sup>1</sup>Bogacheva, Bulakh, Bukharova, and Egorova, 2015); **Magadan Oblast** (<sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdoininogo, 1990; <sup>11</sup>Sazanova, 2005; <sup>1</sup>Sazanova, 2009a); **Primorsky Krai** (<sup>1</sup>Vassiljeva, 1973; <sup>1</sup>Azbukina et al., 1984; <sup>1</sup>Azbukina et al., 1990; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdoininogo, 1990; <sup>1</sup>Nezdoininogo, 1996; <sup>1</sup>Bardunov et al., 2002; <sup>1</sup>Azbukina et al., 2006; <sup>1</sup>Bau, Bulakh, Zhuang, and Li, 2007; <sup>1</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Bulakh et al., 2016; <sup>1</sup>Bogacheva, Bulakh, Bukharova, and Egorova, 2020); **Sakhalin Oblast** (<sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdoininogo, 1990).

***Galerina wellsiae* A.H. Sm.**

EASTERN EUROPE: **Adygea** (Sopina, 2000; Sopina, 2001a).

***Gamundia hygrocyboides* (Lonati) Bon**

SIBERIA: **Khanty-Mansi Autonomous Okrug** (Filippova and Bulyonkova, 2017a; Filippova and Bulyonkova, 2017b).

***Gamundia leucophylla* (Gillet) H.E. Bigelow**

≡ *Fayodia leucophylla* (Gillet) M. Lange & Sivertsen<sup>1</sup> ≡ *Omphalia leucophylla* Gillet<sup>2</sup>

EASTERN EUROPE: **Leningrad Oblast** (<sup>2</sup>Thesleff, 1920); **Moscow Oblast** (<sup>1</sup>Vishnevsky, 1998).

***Gamundia striatula* (Kühner) Raithelh.<sup>1</sup>**

= *Fayodia pseudoclusilis* (Joss. & Konrad) Singer<sup>2</sup>

EASTERN EUROPE: **Kaliningrad Oblast** (<sup>2</sup>Dedkov, Volodina, and Gubareva, 2007; <sup>2</sup>Volodina, 2007); **Moscow Oblast** (<sup>2</sup>Vishnevsky, 1998); **Novgorod Oblast** (<sup>1</sup>Kalinina, 2019); **Pskov Oblast** (<sup>1</sup>Kalinina, Bolshakov, and Bulyonkova, 2020); **Rostov Oblast** (<sup>1</sup>Morozova et al., 2008); **Arid territories** (<sup>1</sup>Rebriev, Rusanov, et al., 2012).

SIBERIA: **Khanty-Mansi Autonomous Okrug** (<sup>1</sup>Filippova and Bulyonkova, 2017a; <sup>1</sup>Filippova and Bulyonkova, 2017b).

***Geophila hyperella* (Fr.) Kühner & Romagn.**

≡ *Agaricus hyperellus* Fr.<sup>1</sup>

EASTERN EUROPE: **Saint Petersburg** (<sup>1</sup>Weinmann, 1836; <sup>1</sup>Weinmann, 1837).

SIBERIA: **Krasnoyarsk Krai** (<sup>1</sup>Borszczow and Borszczow, 1856).

***Gerhardtia borealis* (Fr.) Contu & A. Ortega**

EASTERN EUROPE: **Moscow Oblast** (Malysheva, Malysheva, Voronina, and Kovalenko, 2018).

***Gerronema albidum* (Fr.) Singer<sup>1</sup>**

≡ *Cantharellus albidus* Fr.<sup>2</sup>

EASTERN EUROPE: **Leningrad Oblast** (<sup>2</sup>Thesleff, 1920).

FAR EAST: **Primorsky Krai** (<sup>1</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Bulakh et al., 2016).

***Gerronema corticiphilum* Lj.N. Vassiljeva**

FAR EAST: **Khabarovsk Krai** (Azbukina et al., 1989); **Primorsky Krai** (Vassiljeva, 1972; Vassiljeva, 1973; Bunkina and Nazarova, 1978; Azbukina et al., 1984).

***Gerronema josserandii* Singer**

EASTERN EUROPE: **Tatarstan** (Vassiljeva, 1977).

SIBERIA: **Novosibirsk Oblast** (Perova, 1977; Perova and Gorbunova, 2001; Gorbunova, 2006; Perova and Gorbunova, 2007).

FAR EAST: **Primorsky Krai** (Vassiljeva, 1972; Vassiljeva, 1973).

***Gerronema nitriolens* (J. Favre) Cléménçon**

≡ *Clitocybe nitriolens* J. Favre<sup>1</sup>

EASTERN EUROPE: **Karachay-Cherkess Republic** (<sup>1</sup>Malysheva and Svetasheva, 2011).

***Gerronema reclinis* (Fr.) Cléménçon**

≡ *Omphalina reclinis* (Fr.) Quél.<sup>1</sup>

FAR EAST: **Khabarovsk Krai** (<sup>1</sup>Azbukina et al., 1986; <sup>1</sup>Azbukina et al., 1989; <sup>1</sup>Bau, Bulakh, and Govorova, 2011); **Primorsky Krai** (<sup>1</sup>Vassiljeva, 1973; <sup>1</sup>Bunkina and Nazarova, 1978; <sup>1</sup>Azbukina et al., 2006; <sup>1</sup>Bau, Bulakh, and Govorova, 2011).

***Gerronema strombodes* (Berk. & Mont.) Singer<sup>1</sup>**

≡ *Chrysomphalina strombodes* (Berk. & Mont.) Cléménçon<sup>2</sup>

EASTERN EUROPE: **Belgorod Oblast** (<sup>1</sup>Bedenko, 1979a); **Kirov Oblast** (<sup>1</sup>Kirillov, 2011; <sup>1</sup>Kirillov, Perevedentseva, and Egoshina, 2011); **Perm Krai** (<sup>1</sup>Perevedentseva, 2008); **Sverdlovsk Oblast** (<sup>1</sup>Marina, 2006); **Tver Oblast** (<sup>1</sup>Mukhina, 2011a; <sup>1</sup>Mukhina, 2011b; <sup>1</sup>Kotkova, 2014); **Vologda Oblast** (<sup>2</sup>Kirillova, 2009).

SIBERIA: **Irkutsk Oblast** (<sup>1</sup>Kutafjeva, 1989; <sup>1</sup>Astapenko, 1990a); **Krasnoyarsk Krai** (<sup>1</sup>Krom and Kapitonov, 2019); **Novosibirsk Oblast** (<sup>1</sup>Perova and Gorbunova, 2001; <sup>1</sup>Perova and Gorbunova, 2007; <sup>1</sup>Koropachinskiy and Banaev, 2014); **Tomsk Oblast** (<sup>1</sup>Kudashova, Gashkov, and Kutafjeva, 2013).

FAR EAST: **Sakhalin Oblast** (<sup>1</sup>Bulakh, 2008).

***Gerronema xanthophyllum* (Bres.) Norvell, Redhead & Ammirati**

= *Omphalia hypoxantha* Bres.<sup>1</sup>

EASTERN EUROPE: **Vologda Oblast** (<sup>1</sup>Kirillova, 2007).

***Gliophorus irrigatus* (Pers.) A.M. Ainsw. & P.M. Kirk<sup>1</sup>**

≡ *Hygrocybe irrigata* (Pers.) Bon<sup>2</sup> = *Agaricus unguinosus* Fr.<sup>3</sup> = *Gliophorus unguinosus* (Fr.) Kovalenko<sup>4</sup> = *Hygrocybe unguinosa* (Fr.) P. Karst.<sup>5</sup>

EASTERN EUROPE: **Kaliningrad Oblast** (<sup>4</sup>Kovalenko, 1989; <sup>4</sup>Kovalenko, 1995; <sup>4</sup>Dedkov, Volodina, and Gubareva, 2007); **Karelia** (<sup>4</sup>Kovalenko, 1989; <sup>4</sup>Kovalenko, 1995; <sup>2</sup>Krutov et al., 2014); **Komi Republic** (<sup>1</sup>Palamarchuk, 2020b); **Krasnodar Krai** (<sup>4</sup>Kovalenko, 1999); **Kursk Oblast** (<sup>5</sup>Bedenko, 1985); **Leningrad Oblast** (<sup>3</sup>Weinmann, 1836; <sup>5</sup>Thesleff, 1920; <sup>4</sup>Kovalenko and Morozova, 1999a; <sup>4</sup>Morozova and Kovalenko, 2000; <sup>5</sup>Popov et al., 2007); **Murmansk Oblast** (<sup>4</sup>Kovalenko, 1989; <sup>4</sup>Kovalenko, 1995); **Pskov Oblast** (<sup>4</sup>Popov et al., 2013); **Saint Petersburg** (<sup>3</sup>Weinmann, 1837); **Sverdlovsk Oblast** (<sup>4</sup>Marina, 2006); **Tatarstan** (<sup>1</sup>Nazirov, Gorshkov, Ivanov, and Rogova, 2016; <sup>1</sup>Potapov, 2016a); **Tula Oblast** (<sup>4</sup>Svetasheva, 2004; <sup>4</sup>Svetasheva, 2005b; <sup>4</sup>Morozova and Popov, 2008; <sup>4</sup>Shcherbakov, 2010; <sup>5</sup>Svetasheva, 2018).

FAR EAST: **Primorsky Krai** (<sup>5</sup>Vassiljeva, 1973; <sup>4</sup>Kovalenko, 1989; <sup>4</sup>Kovalenko, 1995; <sup>5</sup>Bulakh et al., 2016).

***Gliophorus laetus* (Pers.) Herink<sup>1</sup>**

≡ *Hygrocybe laeta* (Pers.) P. Kumm.<sup>2</sup> ≡ *Hygrophorus laetus* (Pers.) Fr.<sup>3</sup>

EASTERN EUROPE: **Adygea** (<sup>1</sup>Sopina, 2004b); **Belgorod Oblast** (<sup>2</sup>Bedenko, 1980; <sup>1</sup>Kovalenko, 1989; <sup>1</sup>Kovalenko, 1995); **Kaliningrad Oblast** (<sup>1</sup>Dedkov and Grishanov, 2010); **Karachay-Cherkess Republic** (<sup>2</sup>Onipchenko and Kaverina, 1989; <sup>1</sup>Kalamees and Botashev, 2000); **Leningrad Oblast** (<sup>1</sup>Kovalenko, 1989; <sup>1</sup>Kovalenko, 1995; <sup>1</sup>Kovalenko and Morozova, 1999a; <sup>2</sup>Popov et al., 2007); **Moscow Oblast** (<sup>1</sup>Levitskaya, 1995b; <sup>1</sup>Levitskaya, 2013); **Perm Krai** (<sup>2</sup>Perevedentseva, 2008; <sup>1</sup>Botalov, 2017; <sup>1</sup>Botalov and Perevedentseva, 2020); **Sverdlovsk Oblast** (<sup>1</sup>Marina, 2006); **Vologda Oblast** (<sup>1</sup>Kirillova, 2007).

SIBERIA: **Altai Krai** (<sup>1</sup>Gorbunova, 2018a); **Buryatia** (<sup>2</sup>Nezdojminogo, 1973; <sup>1</sup>Kovalenko, 1989; <sup>1</sup>Petrov, 1991; <sup>1</sup>Kovalenko, 1995); **Khanty-Mansi Autonomous Okrug** (<sup>2</sup>Filippova and Bulyonkova, 2017a; <sup>2</sup>Filippova and Bulyonkova, 2017b); **Krasnoyarsk Krai** (<sup>2</sup>Beglyanova, 1972a; <sup>3</sup>Beglyanova, 1972b; <sup>1</sup>Kovalenko, 1989; <sup>1</sup>Kovalenko, 1995); **Baikalia** (<sup>1</sup>Kovalenko, 1999).

FAR EAST: **Amur Oblast** (<sup>1</sup>Kovalenko, 1989; <sup>1</sup>Kovalenko, 1995; <sup>1</sup>Azbukina et al., 1998); **Chukotka Autonomous Okrug** (<sup>3</sup>Berkeley and Curtis, 1978); **Jewish Autonomous Oblast** (<sup>2</sup>Bulakh, Govorova, Nazarova, and Vassiljeva, 2007; <sup>2</sup>Bau, Bulakh, and Govorova, 2011); **Kamchatka Krai** (<sup>1</sup>Kovalenko, 1989; <sup>1</sup>Kovalenko, 1995); **Khabarovsk Krai** (<sup>1</sup>Kovalenko, 1989; <sup>1</sup>Kovalenko, 1995); **Magadan Oblast** (<sup>1</sup>Kovalenko, 1989; <sup>1</sup>Kovalenko, 1995; <sup>1</sup>Sazanova, 2005; <sup>2</sup>Sazanova, 2009a); **Primorsky Krai** (<sup>2</sup>Vassiljeva, 1972; <sup>2</sup>Vassiljeva, 1973; <sup>2</sup>Bunkina and Nazarova, 1978; <sup>1</sup>Kovalenko, 1989; <sup>1</sup>Azbukina et al., 1990; <sup>1</sup>Kovalenko, 1995; <sup>1</sup>Bardunov et al., 2002; <sup>1</sup>Azbukina et al., 2006; <sup>2</sup>Bau, Bulakh, and Govorova, 2011; <sup>2</sup>Bulakh et al., 2016); **Sakhalin Oblast** (<sup>2</sup>Vassiljeva and Nazarova, 1972; <sup>1</sup>Kovalenko, 1989; <sup>1</sup>Kovalenko, 1995).

***Gliophorus psittacinus* (Schaeff.) Herink<sup>1</sup>**

≡ *Agaricus psittacinus* Schaeff.<sup>2</sup> ≡ *Hygrocybe psittacina* (Schaeff.) P. Kumm.<sup>3</sup> ≡ *Hygrocybe psittacina* var. *psittacina* (Schaeff.) P. Kumm.<sup>4</sup> ≡ *Hygrophorus psittacinus* (Schaeff.) Fr.<sup>5</sup> = *Gliophorus perplexus* (A.H. Sm. & Hesler) Kovalenko<sup>6</sup>

EASTERN EUROPE: **Adygea** (<sup>1</sup>Sopina, 2004b); **Crimea** (<sup>5</sup>Sarkina, 2001; <sup>3</sup>Dudka et al., 2004; <sup>3</sup>Sarkina and Mironova, 2015); **Kaliningrad Oblast** (<sup>1</sup>Dedkov and Grishanov, 2010); **Karachay-Cherkess Republic** (<sup>3</sup>Onipchenko and Kaverina, 1989; <sup>1</sup>Kalamees and Botashev, 2000); **Karelia** (<sup>1</sup>Kovalenko, 1995); **Komi Republic** (<sup>1</sup>Palamarchuk, 2020b); **Krasnodar Krai** (<sup>1</sup>Kovalenko, 1989; <sup>1</sup>Kovalenko, 1995); **Kursk Oblast** (<sup>3</sup>Bedenko, 1985; <sup>1</sup>Kovalenko, 1989; <sup>1</sup>Kovalenko, 1995); **Leningrad Oblast** (<sup>3</sup>Thesleff, 1920; <sup>1</sup>Kovalenko, 1989; <sup>1</sup>Kovalenko and Morozova, 1999a; <sup>3</sup>Popov et al., 2007); **Lipetsk Oblast** (<sup>1</sup>Sarycheva, 1999; <sup>1</sup>Sarycheva et al., 2009; <sup>1</sup>Sarycheva, 2011; <sup>1</sup>Sarycheva, 2014a; <sup>1</sup>Sarycheva, 2016); **Mordovia** (<sup>1</sup>Bolshakov, 2015); **Moscow** (<sup>5</sup>Bucholtz, 1897b; <sup>5</sup>Bucholtz, 1897c; <sup>5</sup>Mosolov, 1906); **Moscow Oblast** (<sup>1,6</sup>Levitskaya, 1995b; <sup>1,6</sup>Levitskaya, 2013); **Novgorod Oblast** (<sup>1</sup>Morozova, Popov, and Fedosova, 2014); **Penza Oblast** (<sup>3</sup>Ivanov, 1982; <sup>1</sup>Kovalenko, 1989; <sup>1</sup>Kovalenko, 1995; <sup>1,6</sup>Ivanov, 1999); **Perm Krai** (<sup>1</sup>Shepel', 2008);

<sup>3</sup>Perevedentseva, 2008; <sup>1</sup>Baklanov, 2018); **Pskov Oblast** (<sup>1</sup>Popov et al., 2013; <sup>3</sup>Morozova et al., 2015); **Saint Petersburg** (<sup>2</sup>Weinmann, 1828; <sup>2</sup>Weinmann, 1836; <sup>2</sup>Weinmann, 1837); **Samara Oblast** (<sup>3</sup>Malysheva and Malysheva, 2005b; <sup>3</sup>Malysheva and Malysheva, 2008); **Sverdlovsk Oblast** (<sup>1</sup>Marina, 2006); **Tatarstan** (<sup>5</sup>Shchepovskih, Bojko, Gorshkov, and Rogova, 2006; <sup>1</sup>Nazirov, Gorshkov, Ivanov, and Rogova, 2016; <sup>3</sup>Potapov, 2016a); **Tula Oblast** (<sup>1</sup>Svetasheva, 2004); **Tver Oblast** (<sup>3</sup>Morozova, Aleksandrova, Popov, and Malysheva, 2016); **Udmurt Republic** (<sup>1</sup>Kapitonov, 2013); **Voronezh Oblast** (<sup>1</sup>Agafonov, 2011).

SIBERIA: **Altai Krai** (<sup>1</sup>Gorbunova, 2018a); **Irkutsk Oblast** (<sup>3</sup>Petrov, 1984; <sup>1</sup>Kovalenko, 1989; <sup>3</sup>Petrov, 1989; <sup>6</sup>Kovalenko, 1989; <sup>1</sup>Petrov, 1991; <sup>6</sup>Petrov, 1991; <sup>1</sup>Kovalenko, 1995; <sup>6</sup>Kovalenko, 1995; <sup>1</sup>Petrov, 2008; <sup>6</sup>Petrov, 2008); **Khanty-Mansi Autonomous Okrug** (<sup>1</sup>Zvyagina and Baykalova, 2017); **Krasnoyarsk Krai** (<sup>3</sup>Beglyanova, 1972a; <sup>1</sup>Kovalenko, 1989; <sup>1</sup>Kovalenko, 1995; <sup>1</sup>Malysheva, Malysheva, Kiyashko, et al., 2017); **Novosibirsk Oblast** (<sup>3</sup>Perova, 1977; <sup>1</sup>Kovalenko, 1989; <sup>1</sup>Kovalenko, 1995; <sup>3</sup>Perova and Gorbunova, 2001; <sup>4</sup>Gorbunova, 2006; <sup>4</sup>Gorbunova, 2007; <sup>4</sup>Perova and Gorbunova, 2007); **Tomsk Oblast** (<sup>3</sup>Perova and Gorbunova, 2001; <sup>3</sup>Kudashova, Gashkov, and Kutafjeva, 2013).

FAR EAST: **Amur Oblast** (<sup>1</sup>Kovalenko, 1989; <sup>1</sup>Kovalenko, 1995); **Kamchatka Krai** (<sup>3</sup>Kalamees and Vaasma, 1981; <sup>1</sup>Kovalenko, 1989; <sup>1</sup>Kovalenko, 1995); **Khabarovsk Krai** (<sup>3</sup>Azbukina et al., 1986; <sup>1</sup>Kovalenko, 1989; <sup>1</sup>Kovalenko, 1995; <sup>3</sup>Bau, Bulakh, and Govorova, 2011); **Primorsky Krai** (<sup>3</sup>Vassiljeva, 1972; <sup>3</sup>Vassiljeva, 1973; <sup>3</sup>Bulakh, 1977; <sup>3</sup>Bunkina and Nazarova, 1978; <sup>3</sup>Azbukina et al., 1984; <sup>1</sup>Kovalenko, 1989; <sup>1</sup>Azbukina et al., 1990; <sup>1</sup>Kovalenko, 1995; <sup>1</sup>Bardunov et al., 2002; <sup>1</sup>Azbukina et al., 2006; <sup>3</sup>Bau, Bulakh, and Govorova, 2011; <sup>3</sup>Bulakh et al., 2016); **Sakhalin Oblast** (<sup>3</sup>Vassiljeva and Nazarova, 1972; <sup>1</sup>Kovalenko, 1989; <sup>1</sup>Kovalenko, 1995).

#### ***Gloiocephala caricis* (P. Karst.) Bas**

FAR EAST: **Primorsky Krai** (Bulakh and Govorova, 2000).

#### ***Gloiocephala caucasica* (Singer) Singer**

≡ *Marasmius causicus* Singer<sup>1</sup>

According to Singer (1986) *Marasmius causicus* Singer is transferred to genus *Gloiocephala*.

EASTERN EUROPE: **Krasnodar Krai** (<sup>1</sup>Singer, 1937; <sup>1</sup>Vassiljeva, 1939; <sup>1</sup>Singer, 1943).

#### ***Gloiocephala menieri* (Boud.) Singer**

FAR EAST: **Khabarovsk Krai** (Azbukina et al., 1986; Bau, Bulakh, and Govorova, 2011).

#### ***Gloioxanthomyces nitidus* (Berk. & M.A. Curtis) Lodge, Vizzini, Ercole & Boertm.**

≡ *Gliophorus nitidus* (Berk. & M.A. Curtis) Kovalenko<sup>1</sup> ≡ *Hygrocybe nitida* (Berk. & M.A. Curtis) Murrill<sup>2</sup>

FAR EAST: **Amur Oblast** (<sup>1</sup>Kovalenko, 1989; <sup>1</sup>Kovalenko, 1995); **Jewish Autonomous Oblast** (<sup>2</sup>Bulakh, Govorova, Nazarova, and Vassiljeva, 2007); **Primorsky Krai** (<sup>1</sup>Kovalenko and Nezdoyminogo, 1989; <sup>1</sup>Kovalenko, 1989; <sup>1</sup>Azbukina et al., 1990; <sup>1</sup>Kovalenko, 1995; <sup>1</sup>Bardunov et al., 2002); **Sakhalin Oblast** (<sup>2</sup>Vassiljeva and Nazarova, 1972; <sup>1</sup>Kovalenko, 1989; <sup>1</sup>Kovalenko, 1995).

#### ***Gloioxanthomyces vitellinus* (Fr.) Lodge, Vizzini, Ercole & Boertm.**

≡ *Gliophorus vitellinus* (Fr.) Kovalenko<sup>2</sup> ≡ *Hygrocybe vitellina* (Fr.) P. Karst.<sup>3</sup>

EASTERN EUROPE: **Murmansk Oblast** (<sup>3</sup>Mikhailovskii, 1975a; <sup>2</sup>Kovalenko, 1989; <sup>2</sup>Kovalenko, 1995).

SIBERIA: **Altai Krai** (<sup>1</sup>Gorbunova, 2018a); **Altai Republic** (<sup>3</sup>Gorbunova, 1997; <sup>2</sup>Perova and Gorbunova, 2001); **Irkutsk Oblast** (<sup>3</sup>Petrov, 1984; <sup>2</sup>Kovalenko, 1989; <sup>2</sup>Kovalenko, 1995); **Khanty-Mansi Autonomous Okrug** (<sup>1</sup>Zvyagina and Baykalova, 2017); **Novosibirsk Oblast** (<sup>2</sup>Perova and Gorbunova, 2001); **Tomsk Oblast** (<sup>2</sup>Perova and Gorbunova, 2001; <sup>3</sup>Kudashova, Gashkov, and Kutafjeva, 2013).

FAR EAST: **Amur Oblast** (<sup>2</sup>Kovalenko, 1989; <sup>2</sup>Kovalenko, 1995; <sup>2</sup>Azbukina et al., 1998); **Jewish Autonomous Oblast** (<sup>3</sup>Bulakh, Govorova, Nazarova, and Vassiljeva, 2007; <sup>3</sup>Bau, Bulakh, and Govorova, 2011).

#### ***Gomphidius borealis* O.K. Mill., Aime & Peintner**

SIBERIA: **Sakha Republic** (Miller Jr., Aime, Camacho, and Peintner, 2002).

#### ***Gomphidius flavipes* Peck<sup>1</sup>**

≡ *Chroogomphus flavipes* (Peck) O.K. Mill.<sup>2</sup>

SIBERIA: **Khanty-Mansi Autonomous Okrug** (<sup>2</sup>Vasin and Vasina, 2013; <sup>1</sup>Filippova and Bulyonkova, 2017a; <sup>1</sup>Filippova and Bulyonkova, 2017b); **Krasnoyarsk Krai** (<sup>1</sup>Nezdoyminogo, 1976a; <sup>1</sup>Stepanov, 2012); **Novosibirsk Oblast** (<sup>2</sup>Koropachinskiy and Banaev, 2014).

FAR EAST: **Magadan Oblast** (<sup>1</sup>Nazarova, 1976; <sup>2</sup>Sazanova, 2009a); **Primorsky Krai** (<sup>1</sup>Vassiljeva, 1973; <sup>2</sup>Bulakh et al., 2016).

***Gomphidius glutinosus* (Schaeff.) Fr.<sup>1</sup>**

≡ *Agaricus glutinosus* Schaeff.<sup>2</sup> ≡ *Gomphus glutinosus* (Schaeff.) Weinm.<sup>3</sup> ≡ *Leucogomphidius glutinosus* (Schaeff.) Kotl. & Pouzar<sup>4</sup> = *Gomphidius glutinosus* var. *purpureus* O.K. Mill.<sup>5</sup>

EASTERN EUROPE: **Arkhangelsk Oblast** (<sup>1</sup>Lebedeva, 1933; <sup>1</sup>Ezhov, 2014); **Bryansk Oblast** (<sup>1</sup>Kruglikov, 2007); **Chelyabinsk Oblast** (<sup>1</sup>Sirko and Stepanova, 1977; <sup>1</sup>Stepanova and Sirko, 1977); **Kabardino-Balkarian Republic** (<sup>1</sup>Shkhagapsoev and Krapivina, 2004); **Kaliningrad Oblast** (<sup>1</sup>Dedkov, Volodina, and Gubareva, 2007); **Kaluga Oblast** (<sup>1</sup>Sionova, 2003); **Karachay-Cherkess Republic** (<sup>1</sup>Vassiljeva, 1939; <sup>1</sup>Kalamees and Botashev, 2000); **Karelia** (<sup>1</sup>Freindling, 1949; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdoininogo, 1990; <sup>1</sup>Kovalenko, Morozova, Fomina, and Särkisilta, 1998; <sup>1</sup>Bondartseva et al., 2001; <sup>1</sup>Predtechenskaya and Ruokolainen, 2013; <sup>1</sup>Predtechenskaya, 2013; <sup>1</sup>Krutov et al., 2014; <sup>1</sup>Predtechenskaya and Ruokolainen, 2014; <sup>1</sup>Predtechenskaya, 2015; <sup>1</sup>Savelev and Kikeeva, 2018); **Kirov Oblast** (<sup>1</sup>Kirillov and Luginina, 2011; <sup>1</sup>Kirillov, 2011; <sup>1</sup>Kirillov, Perevedentseva, and Egoshina, 2011; <sup>1</sup>Stavishenko, Luginina, Kirillov, and Egoshina, 2019); **Komi Republic** (<sup>1</sup>Bobretsova, 2004; <sup>1</sup>Palamarchuk, 2012; <sup>1</sup>Palamarchuk and Kirillov, 2017; <sup>1</sup>Palamarchuk, 2017); **Kostroma Oblast** (<sup>1</sup>Veremyeva, 1986); **Krasnodar Krai** (<sup>1</sup>Vassiljeva, 1939; <sup>1</sup>Kovalenko, 1980a; <sup>1</sup>Kovalenko, 1980b); **Leningrad Oblast** (<sup>1</sup>Thesleff, 1920; <sup>1</sup>Stolyarskaya, 1989; <sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Fomina, 2000; <sup>1</sup>Morozova and Kovalenko, 2000; <sup>1</sup>Fomina, 2001; <sup>1</sup>Morozova, 2007; <sup>1</sup>Popov et al., 2007; <sup>1</sup>Zmitrovich et al., 2015); **Lipetsk Oblast** (<sup>1</sup>Rtishcheva, 1999; <sup>1</sup>Afanasyev, Rtishcheva, and Starodubtseva, 2007; <sup>1</sup>Sarycheva et al., 2009; <sup>1</sup>Sarycheva, 2011; <sup>1</sup>Sarycheva, Starodubtseva, and Sapelnikova, 2017); **Mordovia** (<sup>1</sup>Chastukhin, 1948a; <sup>1</sup>Kuznetsov, 1960; <sup>1</sup>Chastukhin and Nikolaevskaya, 1969; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdoininogo, 1990; <sup>1</sup>Chastukhin, 2011; <sup>1</sup>Ivoilov and Bolshakov, 2011b); **Moscow** (<sup>1</sup>Bucholtz, 1897b; <sup>1</sup>Bucholtz, 1897c; <sup>1</sup>Mosolov, 1906); **Moscow Oblast** (<sup>1</sup>Gorlenko, Sidorova, and Sidorova, 1989; <sup>1</sup>Levitskaya, 1995c; <sup>1</sup>Voronina et al., 2012; <sup>1</sup>Levitskaya, 2013; <sup>1</sup>Voronina et al., 2014; <sup>1</sup>Sidorova, Alexandrova, and Voronina, 2017); **Murmansk Oblast** (<sup>1</sup>Pystina, Pavlova, and Shestakova, 1969); **North Ossetia** (<sup>1</sup>Nikolayev, 2001); **Novgorod Oblast** (<sup>1</sup>Kovalenko, Morozova, Nezdoininogo, and Popov, 2005; <sup>1</sup>Popov et al., 2013); **Oryol Oblast** (<sup>1</sup>Radygina, Derzhavina, and Tsutsupa, 2014); **Penza Oblast** (<sup>1</sup>Ivanov, 1986); **Perm Krai** (<sup>1</sup>Perevedentseva, 2008; <sup>1</sup>Belkovskaya et al., 2014); **Pskov Oblast** (<sup>1</sup>Popov, 2001a; <sup>1</sup>Popov et al., 2013); **Rostov Oblast** (<sup>1</sup>Zmitrovich et al., 2008); **Saint Petersburg** (<sup>3</sup>Weinmann, 1828; <sup>2</sup>Weinmann, 1836; <sup>2</sup>Weinmann, 1837; <sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Morozova and Smirnov, 2011; <sup>1</sup>Morozova, Kovalenko, Rebriev, and Malysheva, 2014; <sup>1</sup>Morozova et al., 2020); **Samara Oblast** (<sup>1</sup>Malysheva and Malysheva, 2005b); **Smolensk Oblast** (<sup>1</sup>Jaczewski, 1893; <sup>1</sup>Jaczewski, 1895); **Sverdlovsk Oblast** (<sup>1</sup>Tomilin, 1965; <sup>1</sup>Stepanova and Sirko, 1977; <sup>1</sup>Marina, 2006); **Tatarstan** (<sup>1</sup>Vassiljeva, 1977; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdoininogo, 1990; <sup>1</sup>Potapov, Galeyev, and Zhukov, 2013; <sup>1</sup>Potapov, 2015b); **Tula Oblast** (<sup>1</sup>Svetasheva, 2004); **Tver Oblast** (<sup>1</sup>Kurochkin, 1993); **Udmurt Republic** (<sup>1</sup>Tychinin and Kuzmina, 2003); **Vologda Oblast** (<sup>1</sup>Kirillova, 2007); **Voronezh Oblast** (<sup>1</sup>Bedenko, 1985; <sup>1</sup>Rtishcheva, 1999; <sup>1</sup>Afanasyev, Rtishcheva, and Starodubtseva, 2007; <sup>1</sup>Sarycheva, Starodubtseva, and Sapelnikova, 2017); **Yaroslavl Oblast** (<sup>1</sup>Lazareva, 1997; <sup>1</sup>Lazareva, 1998a); **Arid territories** (<sup>1</sup>Rebriev, Rusanov, et al., 2012).

SIBERIA: **Altai Republic** (<sup>1</sup>Kovalenko, 1992; <sup>1</sup>Gorbunova, 1996; <sup>1</sup>Gorbunova, 1997; <sup>1</sup>Gorbunova, 2001b; <sup>1</sup>Perova and Gorbunova, 2001; <sup>1</sup>Gorbunova, 2008; <sup>1</sup>Gorbunova, 2017b); **Buryatia** (<sup>1</sup>Nezdoininogo, 1973); **Irkutsk Oblast** (<sup>1</sup>Petrov, 1984; <sup>1</sup>Petrov, 1989; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdoininogo, 1990; <sup>1</sup>Petrov, 2008; <sup>1</sup>Muzyka, 2009; <sup>1</sup>Petrov, 2013; <sup>1</sup>Muzyka and Penzina, 2017); **Khakassia** (<sup>1</sup>Zauzolkova, 2015); **Khanty-Mansi Autonomous Okrug** (<sup>1</sup>Filippova, Bulyonkova, and Lapshina, 2015; <sup>1</sup>Zvyagina and Baykalova, 2017); **Krasnoyarsk Krai** (<sup>1</sup>Beglyanova, 1972a; <sup>1</sup>Lapitskaya, 1990; <sup>1</sup>Kryuchkova, 2009; <sup>1</sup>Malysheva, Malysheva, Kiyashko, et al., 2017; <sup>1,5</sup>Krom and Kapitonov, 2019); **Novosibirsk Oblast** (<sup>1</sup>Perova and Gorbunova, 2001; <sup>1</sup>Koropachinskiy and Banaev, 2014); **Tomsk Oblast** (<sup>1</sup>Milovidova, 1980; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdoininogo, 1990; <sup>1</sup>Kudashova, Gashkov, and Kutafjeva, 2013); **Yamalo-Nenets Autonomous Okrug** (<sup>1</sup>Tarchevskaya, 1990).

FAR EAST: **Amur Oblast** (<sup>4</sup>Gordienko, Petrova, and Tarasov, 1981); **Kamchatka Krai** (<sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdoininogo, 1990); **Khabarovsk Krai** (<sup>1</sup>Bulakh, 2013; <sup>1</sup>Bogacheva, Bulakh, Bukharova, and Egorova, 2015); **Sakhalin Oblast** (<sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdoininogo, 1990).

***Gomphidius maculatus* (Scop.) Fr.<sup>1</sup>**

= *Gomphidius gracilis* Berk.<sup>2</sup>

EASTERN EUROPE: **Bryansk Oblast** (<sup>1</sup>Kruglikov, 2007); **Chelyabinsk Oblast** (<sup>1</sup>Stepanova and Sirko, 1977); **Komi Republic** (<sup>1</sup>Palamarchuk, 2011b; <sup>1</sup>Palamarchuk, 2016a; <sup>1</sup>Palamarchuk, 2016b); **Leningrad Oblast** (<sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Popov et al., 2007); **Perm Krai** (<sup>1</sup>Perevedentseva, 2008); **Sverdlovsk Oblast** (<sup>1</sup>Marina, 2006); **Tver Oblast** (<sup>1</sup>Kurochkin, 1993); **Udmurt Republic** (<sup>1</sup>Tychinin and Kuzmina, 2003).

SIBERIA: **Altai Republic** (<sup>1</sup>Singer, 1938e; <sup>1</sup>Gorbunova, 2001a; <sup>1</sup>Perova and Gorbunova, 2001); **Buryatia** (<sup>1</sup>Nezdoininogo, 1970a; <sup>2</sup>Nezdoininogo, 1973; <sup>2</sup>Petrov, 1991; <sup>1</sup>Penzina and Petrov, 1994); **Irkutsk Oblast** (<sup>1</sup>Kutafjeva,

1982; <sup>1</sup>Petrov, 1984; <sup>2</sup>Kutafjeva and Astapenko, 1988; <sup>1</sup>Petrov, 1989; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdjominogo, 1990; <sup>2</sup>Astapenko, 1990b; <sup>1</sup>Bardunov et al., 2005; <sup>1</sup>Petrov, 2008; <sup>1</sup>Gorbunova and Stepantsova, 2015); **Khakassia** (<sup>1</sup>Zauzolkova and Gorbunova, 2013; <sup>1</sup>Zauzolkova, 2015); **Khanty-Mansi Autonomous Okrug** (<sup>1</sup>Zvyagina and Baykalova, 2017); **Krasnoyarsk Krai** (<sup>2</sup>Perova, 1970; <sup>1,2</sup>Beglyanova, 1972a; <sup>1</sup>Beglyanova, 1972b; <sup>1</sup>Nezdjominogo, 1976a; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdjominogo, 1990; <sup>2</sup>Lapitskaya, 1990; <sup>1</sup>Kosheleva and Kutafjeva, 2008a); **Novosibirsk Oblast** (<sup>1</sup>Zaytseva, 1971; <sup>1</sup>Perova and Gorbunova, 2001; <sup>1</sup>Perova and Gorbunova, 2007); **Tomsk Oblast** (<sup>1</sup>Perova and Gorbunova, 2001; <sup>1</sup>Kudashova, Gashkov, and Kutafjeva, 2013; <sup>2</sup>Kudashova, Gashkov, and Kutafjeva, 2013); **Tyva Republic** (<sup>1</sup>Gorbunova, 2015).

FAR EAST: **Amur Oblast** (<sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdjominogo, 1990); **Chukotka Autonomous Okrug** (<sup>1</sup>Sazanova, 1993); **Jewish Autonomous Oblast** (<sup>1</sup>Bulakh, Govorova, Nazarova, and Vassiljeva, 2007; <sup>1</sup>Bau, Bulakh, and Govorova, 2011); **Kamchatka Krai** (<sup>2</sup>Kalamees and Vaasma, 1981); **Khabarovsk Krai** (<sup>1</sup>Vassiljeva, 1956; <sup>1</sup>Azbukina et al., 1986; <sup>1</sup>Azbukina et al., 1989; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdjominogo, 1990; <sup>1</sup>Bulakh, Vassiljeva, and Erofeeva, 2010; <sup>1</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Bulakh, 2013; <sup>1</sup>Bogacheva, Bulakh, Bukharova, and Egorova, 2015); **Magadan Oblast** (<sup>1</sup>Nazarova, 1976; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdjominogo, 1990; <sup>1</sup>Sazanova, 1996; <sup>1</sup>Sazanova, 2005; <sup>1</sup>Sazanova, 2009a; <sup>1</sup>Sazanova, 2009b; <sup>1</sup>Sazanova, 2011); **Primorsky Krai** (<sup>1</sup>Vassiljeva, 1973; <sup>1</sup>Azbukina et al., 1990; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdjominogo, 1990; <sup>1</sup>Bardunov et al., 2002; <sup>1</sup>Bulakh et al., 2016); **Sakhalin Oblast** (<sup>1</sup>Vassiljeva and Nazarova, 1972; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdjominogo, 1990).

### *Gomphidius nigricans* Peck

SIBERIA: **Krasnoyarsk Krai** (Beglyanova, 1972a); **Sakha Republic** (Bulakh, Wasser, Nazarova, and Nezdjominogo, 1990).

### *Gomphidius roseus* (Fr.) Oudem.<sup>1</sup>

≡ *Agaricus glutinosus* β *roseus* Fr.<sup>2</sup>

EASTERN EUROPE: **Belgorod Oblast** (<sup>1</sup>Bedenko, 1980); **Bryansk Oblast** (<sup>1</sup>Kruglikov, 2007); **Kabardino-Balkarian Republic** (<sup>1</sup>Shkhagapsoev and Krapivina, 2004); **Kaliningrad Oblast** (<sup>1</sup>Dedkov, Volodina, and Gubareva, 2007; <sup>1</sup>Volodina, 2007); **Kaluga Oblast** (<sup>1</sup>Sionova, 2003; <sup>1</sup>Antokhina et al., 2015); **Karachay-Cherkess Republic** (<sup>1</sup>Kalamees and Botashev, 2000); **Karelia** (<sup>1</sup>Singer, 1938e; <sup>1</sup>Freindling, 1949; <sup>1</sup>Kovalenko, Morozova, Fomina, and Särkisilta, 1998; <sup>1</sup>Bondartseva et al., 2001; <sup>1</sup>Predtechenskaya, 2013; <sup>1</sup>Krutov et al., 2014; <sup>1</sup>Predtechenskaya and Ruokolainen, 2014; <sup>1</sup>Savelev and Kikeeva, 2018); **Komi Republic** (<sup>1</sup>Bobretsova, 2004; <sup>1</sup>Palamarchuk, 2012; <sup>1</sup>Palamarchuk and Kirillov, 2017; <sup>1</sup>Palamarchuk, 2017); **Kostroma Oblast** (<sup>1</sup>Burova, 1982); **Leningrad Oblast** (<sup>1</sup>Thesleff, 1920; <sup>1</sup>Stolyarskaya, 1993; <sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Morozova, 2007; <sup>1</sup>Popov et al., 2007; <sup>1</sup>Zmitrovich et al., 2015; <sup>1</sup>Malysheva, Malysheva, Shchepin, and Novozhilov, 2018); **Lipetsk Oblast** (<sup>1</sup>Rtishcheva, 1999; <sup>1</sup>Afanasyev, Rtishcheva, and Starodubtseva, 2007; <sup>1</sup>Sarycheva et al., 2009); **Moscow Oblast** (<sup>1</sup>Gorlenko, Sidorova, and Sidorova, 1989; <sup>1</sup>Levitskaya, 1995c; <sup>1</sup>Levitskaya, 2013; <sup>1</sup>Voronina et al., 2014); **North Ossetia** (<sup>1</sup>Nikolayev, 2001); **Novgorod Oblast** (<sup>1</sup>Kovalenko, Morozova, Nezdjominogo, and Popov, 2005; <sup>1</sup>Popov et al., 2013); **Penza Oblast** (<sup>1</sup>Ivanov, 1981a); **Perm Krai** (<sup>1</sup>Perevedentseva, 2008); **Pskov Oblast** (<sup>1</sup>Popov et al., 2013); **Ryazan Oblast** (<sup>1</sup>Volosnova, 2014); **Saint Petersburg** (<sup>2</sup>Weinmann, 1836; <sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Kotkova, Morozova, and Popov, 2005; <sup>1</sup>Morozova and Smirnov, 2011); **Tatarstan** (<sup>1</sup>Vassiljeva, 1977); **Tver Oblast** (<sup>1</sup>Kurochkin, 1993); **Udmurt Republic** (<sup>1</sup>Tychinin and Kuzmina, 2003); **Vologda Oblast** (<sup>1</sup>Kutova, 1957; <sup>1</sup>Kirillova, 2007); **Voronezh Oblast** (<sup>1</sup>Rtishcheva, 1999; <sup>1</sup>Afanasyev, Rtishcheva, and Starodubtseva, 2007); **Yaroslavl Oblast** (<sup>1</sup>Lazareva, 1998a; <sup>1</sup>Lazareva, 1998b); **Arid territories** (<sup>1</sup>Rebriev, Rusanov, et al., 2012).

SIBERIA: **Irkutsk Oblast** (<sup>1</sup>Petrov, 1991; <sup>1</sup>Petrov, 2008; <sup>1</sup>Muzyka, 2009); **Khakassia** (<sup>1</sup>Ankipovich, 2012); **Khanty-Mansi Autonomous Okrug** (<sup>1</sup>Zvyagina, Baykalova, and Gorbunova, 2007; <sup>1</sup>Baykalova and Zvyagina, 2008; <sup>1</sup>Makarova, Makarov, Zvyagina, and Bobrikov, 2015); **Krasnoyarsk Krai** (<sup>1</sup>Beglyanova, 1972a; <sup>1</sup>Lapitskaya, 1990; <sup>1</sup>Malysheva, Malysheva, Kiyashko, et al., 2017); **Novosibirsk Oblast** (<sup>1</sup>Zaytseva, 1971; <sup>1</sup>Perova and Gorbunova, 2001; <sup>1</sup>Perova and Gorbunova, 2007; <sup>1</sup>Yudkin and Shaulo, 2008; <sup>1</sup>Glupov and Shaulo, 2018); **Sakha Republic** (<sup>1</sup>Birkenhof, 1936); **Tomsk Oblast** (<sup>1</sup>Milovidova, 1980; <sup>1</sup>Perova and Gorbunova, 2001; <sup>1</sup>Kosheleva and Kutafjeva, 2004; <sup>1</sup>Kudashova, Gashkov, and Kutafjeva, 2013; <sup>1</sup>Vaishlya et al., 2017).

FAR EAST: **Magadan Oblast** (<sup>1</sup>Sazanova, 2009a).

### *Gymnopilus aeruginosus* (Peck) Singer<sup>1</sup>

≡ *Pholiota aeruginosa* Peck<sup>2</sup>

FAR EAST: **Primorsky Krai** (<sup>2</sup>Vassiljeva, 1973; <sup>2</sup>Bunkina and Nazarova, 1978; <sup>1</sup>Bau, Bulakh, Zhuang, and Li, 2007; <sup>1</sup>Bau, Bulakh, and Govorova, 2011).



***Gymnopilus alpinus* (Singer) Singer<sup>1</sup>**≡ *Fulvidula alpina* Singer<sup>2</sup>

EASTERN EUROPE: **Kabardino-Balkarian Republic** (<sup>2</sup>Singer, 1937; <sup>1</sup>Nezdojminogo, 1996; <sup>1</sup>Shkhagapsoev and Krapivina, 2004); **Krasnodar Krai** (<sup>2</sup>Singer, 1937; <sup>2</sup>Vassiljeva, 1939; <sup>1</sup>Nezdojminogo, 1996).

***Gymnopilus bellulus* (Peck) Murrill**

EASTERN EUROPE: **Adygea** (Sopina, 2001a); **Karachay-Cherkess Republic** (Kalamees and Botashev, 2000); **Krasnodar Krai** (Sopina, 2001a; Psurtseva, Kiyashko, Gachkova, and Belova, 2007); **Pskov Oblast** (Popov et al., 2013).

SIBERIA: **Altai Krai** (Gorbunova, 2018a); **Altai Republic** (Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; Kovalenko, 1992; Nezdojminogo, 1996; Gorbunova, 2001a; Gorbunova, 2001b; Perova and Gorbunova, 2001); **Irkutsk Oblast** (Petrov, 1981; Petrov, Nezdojminogo, and Bulakh, 1987; Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; Petrov, 1991; Nezdojminogo, 1996; Petrov, 2008; Trofimova, Popov, and Merkacheva, 2020); **Krasnoyarsk Krai** (Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; Nezdojminogo, 1996).

FAR EAST: **Jewish Autonomous Oblast** (Bulakh, Govorova, Nazarova, and Vassiljeva, 2007; Bau, Bulakh, and Govorova, 2011); **Khabarovsk Krai** (Azbukina et al., 1989; Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; Nezdojminogo, 1996; Bau, Bulakh, and Govorova, 2011; Erofeeva and Bulakh, 2015a); **Primorsky Krai** (Kovalenko and Nezdojminogo, 1989; Azbukina et al., 1990; Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; Nezdojminogo, 1996; Bardunov et al., 2002; Azbukina et al., 2006; Bau, Bulakh, and Govorova, 2011; Bulakh et al., 2016); **Sakhalin Oblast** (Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; Nezdojminogo, 1996).

***Gymnopilus braendlei* (Peck) Hesler**

EASTERN EUROPE: **Krasnodar Krai** (Nezdojminogo, 1996); **Sverdlovsk Oblast** (Marina, 2006).

***Gymnopilus decipiens* (Sacc.) P.D. Orton**

EASTERN EUROPE: **Saint Petersburg** (Morozova and Smirnov, 2011); **Vologda Oblast** (Bolshakov et al., 2018).

SIBERIA: **Krasnoyarsk Krai** (Zauzolkova, 2015; Zauzolkova and Gorbunova, 2016; Krom and Kapitonov, 2019); **Tomsk Oblast** (Kudashova, Gashkov, and Vaishlya, 2016a).

FAR EAST: **Magadan Oblast** (Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; Nezdojminogo, 1996; Sazanova, 2005; Sazanova, 2009a).

***Gymnopilus flavus* (Bres.) Singer**

EASTERN EUROPE: **Leningrad Oblast** (Nezdojminogo, 1996; Popov et al., 2007); **Rostov Oblast** (Shiryayev, Rebriev, and Knudsen, 2017; Rebriev, 2018); **Saint Petersburg** (Kovalenko and Morozova, 1999a; Morozova, Kovalenko, Rebriev, and Malysheva, 2014).

SIBERIA: **Altai Republic** (Gorbunova, 2006); **Irkutsk Oblast** (Petrov, 1991; Nezdojminogo, 1996; Petrov, 2008).

***Gymnopilus fulgens* (J. Favre & Maire) Singer**

EASTERN EUROPE: **Leningrad Oblast** (Nezdojminogo, 1967; Chastukhin and Nikolaevskaya, 1969; Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; Nezdojminogo, 1996; Kovalenko and Morozova, 1999a; Tzvelev, 2000; Popov et al., 2007; Geltman et al., 2018; Geltman, 2018b); **Mari El Republic** (Nezdojminogo, 1996); **Saint Petersburg** (Kovalenko and Morozova, 1999a; Noskov, 2004); **Tatarstan** (Vassiljeva, 1977).

SIBERIA: **Altai Krai** (Gorbunova, 2018a); **Altai Republic** (Gorbunova, 1996; Gorbunova, 1997; Gorbunova, 2001b; Perova and Gorbunova, 2001); **Khanty-Mansi Autonomous Okrug** (Filippova and Thormann, 2014; Filippova, 2014; Filippova, Mourgues, and Philippe, 2014).

FAR EAST: **Chukotka Autonomous Okrug** (Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; Nezdojminogo, 1996); **Magadan Oblast** (Sazanova, 2009a; Sazanova and Golodnova, 2015); **Primorsky Krai** (Vassiljeva, 1973; Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; Nezdojminogo, 1996).

***Gymnopilus hybridus* (Gillet) Maire<sup>1</sup>**≡ *Flammula hybrida* Gillet<sup>2</sup> ≡ *Fulvidula hybrida* (Gillet) Singer<sup>3</sup>

EASTERN EUROPE: **Adygea** (<sup>1</sup>Psurtseva, Kiyashko, Gachkova, and Belova, 2007); **Bashkortostan** (<sup>1</sup>Stepanova and Sirko, 1977; <sup>1</sup>Nezdojminogo, 1996); **Belgorod Oblast** (<sup>1</sup>Bedenko, 1979a; <sup>1</sup>Nezdojminogo, 1996); **Crimea** (<sup>1</sup>Prydiuk, 2002; <sup>1</sup>Dudka et al., 2004; <sup>1</sup>Sarkina and Prydiuk, 2012); **Kaliningrad Oblast** (<sup>1</sup>Dedkov, Volodina, and Gubareva, 2007; <sup>1</sup>Volodina, 2007); **Karelia** (<sup>1</sup>Kovalenko, Morozova, Fomina, and Särkisilta, 1998); **Krasnodar Krai** (<sup>3</sup>Vassiljeva,

1939; <sup>1</sup>Nezdojminogo, 1996); **Leningrad Oblast** (<sup>2</sup>Thesleff, 1920; <sup>1</sup>Nezdojminogo, 1996; <sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Morozova, 2007; <sup>1</sup>Popov et al., 2007; <sup>1</sup>Psurtseva, Kiyashko, Gachkova, and Belova, 2007); **Moscow Oblast** (<sup>1</sup>Levitskaya, 1995c; <sup>1</sup>Levitskaya, 2013); **Murmansk Oblast** (<sup>1</sup>Nezdojminogo, 1996); **Orenburg Oblast** (<sup>1</sup>Desyatova, 2008); **Penza Oblast** (<sup>1</sup>Ivanov, 1981b; <sup>1</sup>Ivanov, 1982; <sup>1</sup>Nezdojminogo, 1996); **Perm Krai** (<sup>1</sup>Shkaraba, Perevedentseva, and Moshkina, 1990; <sup>1</sup>Nezdojminogo, 1996; <sup>1</sup>Botalov, 2017); **Pskov Oblast** (<sup>1</sup>Kovalenko and Morozova, 1999b; <sup>1</sup>Psurtseva, Kiyashko, Gachkova, and Belova, 2007); **Ryazan Oblast** (<sup>1</sup>Volosnova, 1997; <sup>1</sup>Volosnova, 2014); **Saint Petersburg** (<sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Morozova, Kovalenko, Rebriev, and Malysheva, 2014); **Tula Oblast** (<sup>1</sup>Svetasheva, 2003; <sup>1</sup>Svetasheva, 2004); **Tver Oblast** (<sup>2</sup>Chastukhin, 1948b; <sup>1</sup>Chastukhin and Nikolaevskaya, 1969; <sup>1</sup>Kurochkin, 1993; <sup>1</sup>Kotkova, 2014); **Udmurt Republic** (<sup>1</sup>Tychinin and Kuzmina, 2003); **Ulyanovsk Oblast** (<sup>1</sup>Ilyukhin, 2010a); **Vologda Oblast** (<sup>2</sup>Kutova, 1957); **Yaroslavl Oblast** (<sup>1</sup>Lazareva, 1998a; <sup>1</sup>Lazareva, 2002).

SIBERIA: **Altai Republic** (<sup>1</sup>Gorbunova, 1997; <sup>1</sup>Gorbunova, 2001b; <sup>1</sup>Perova and Gorbunova, 2001); **Buryatia** (<sup>1</sup>Nezdojminogo, 1970a; <sup>1</sup>Petrov, 2013); **Irkutsk Oblast** (<sup>1</sup>Petrov, Nezdojminogo, and Bulakh, 1987; <sup>1</sup>Kutafjeva, 1989; <sup>1</sup>Astapenko, 1990a; <sup>1</sup>Nezdojminogo, 1996; <sup>1</sup>Bardunov et al., 2005; <sup>1</sup>Petrov, 2008); **Krasnoyarsk Krai** (<sup>1</sup>Beglyanova, 1972a; <sup>1</sup>Nezdojminogo, 1976a; <sup>1</sup>Pavlov et al., 2007; <sup>1</sup>Zauzolkova, 2015; <sup>1</sup>Zauzolkova and Gorbunova, 2016); **Novosibirsk Oblast** (<sup>1</sup>Perova and Gorbunova, 2001; <sup>1</sup>Perova and Gorbunova, 2007); **Tomsk Oblast** (<sup>1</sup>Perova, 1972; <sup>1</sup>Perova and Gorbunova, 2001).

FAR EAST: **Amur Oblast** (<sup>1</sup>Nezdojminogo, 1996); **Khabarovsk Krai** (<sup>1</sup>Bulakh, 2013; <sup>1</sup>Bogacheva, Bulakh, Bukharova, and Egorova, 2015); **Magadan Oblast** (<sup>1</sup>Nazarova, 1976; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1</sup>Nezdojminogo, 1996; <sup>1</sup>Sazanova, 2005); **Primorsky Krai** (<sup>1</sup>Vassiljeva, 1972; <sup>1</sup>Vassiljeva, 1973; <sup>1</sup>Bunkina and Nazarova, 1978; <sup>1</sup>Azbukina et al., 1990; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1</sup>Nezdojminogo, 1996; <sup>1</sup>Bardunov et al., 2002; <sup>1</sup>Azbukina et al., 2006; <sup>1</sup>Bau, Bulakh, and Govorova, 2011).

#### ***Gymnopilus intermedius* (Singer) Singer<sup>1</sup>**

≡ *Fulvidula intermedia* (Singer) Singer<sup>2</sup>

EASTERN EUROPE: **Adygea** (<sup>2</sup>Vassiljeva, 1939); **Krasnodar Krai** (<sup>1</sup>Nezdojminogo, 1996).

SIBERIA: **Krasnoyarsk Krai** (<sup>1</sup>Malysheva, Malysheva, Kiyashko, et al., 2017).

FAR EAST: **Primorsky Krai** (<sup>1</sup>Azbukina et al., 1984).

#### ***Gymnopilus janthinosarx* (Singer) Singer**

≡ *Fulvidula janthinosarx* Singer<sup>1</sup>

SIBERIA: **Altai Republic** (<sup>1</sup>Singer, 1945; <sup>1</sup>Vassilkov, 1956a).

#### ***Gymnopilus junonius* (Fr.) P.D. Orton<sup>1</sup>**

≡ *Agaricus junonius* Fr.<sup>2</sup> = *Gymnopilus spectabilis* (Weinm.) A.H. Sm.<sup>3</sup>

Weinmann established the name *Agaricus spectabilis* as terricolous fungus (Weinmann, 1824) with note “Proximus Agarico Vahlil Fries Syst. mycol. 1 p. 240.” (= *Phaeolepiota aurea* in modern interpretation). Fries (1828) cited *Agaricus spectabilis* with note “In pratis circa Petropoli [terricolous], aut. Weinmann (v.s.)”. Also, he mentioned “variety b” that is lignicolous: “ad radices Quercus”. Apparently, Smith (1949) made a new combination *Gymnopilus spectabilis* (Fr.) A.H. Sm., based on *Agaricus spectabilis* Fr. (Fries, 1828). There are two opinions on identity of the species sensu Smith — Holec (2005) consider it as an independent species, Thorn et al. (2020) following Knudsen and Vesterholt (2012), consider *Gymnopilus spectabilis* (Fr.) A.H. Sm. as a synonym of *Gymnopilus junonius* (Fr.) P.D. Orton.

EASTERN EUROPE: **Crimea** (<sup>3</sup>Sarkina, 2001; <sup>1</sup>Dudka et al., 2004; <sup>1</sup>Sarkina and Prydiuk, 2012; <sup>3</sup>Sarkina, 2014b); **Kaliningrad Oblast** (<sup>1</sup>Dedkov, Volodina, and Gubareva, 2007; <sup>1</sup>Volodina, 2007); **Krasnodar Krai** (<sup>3</sup>Kovalenko, 1980a; <sup>3</sup>Kovalenko, 1980b); **Leningrad Oblast** (<sup>1</sup>Popov et al., 2007); **Mordovia** (<sup>1</sup>Ivoilov and Bolshakov, 2011a); **Penza Oblast** (<sup>3</sup>Ivanov, 1981b; <sup>3</sup>Ivanov, 1982); **Perm Krai** (<sup>1</sup>Perevedentseva, 2008); **Rostov Oblast** (<sup>1</sup>Psurtseva, Kiyashko, Gachkova, and Belova, 2007; <sup>1</sup>Morozova et al., 2008); **Saint Petersburg** (<sup>2</sup>Weinmann, 1836; <sup>2</sup>Weinmann, 1837; <sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Psurtseva, Kiyashko, Gachkova, and Belova, 2007; <sup>1</sup>Morozova et al., 2020); **Sevastopol** (<sup>1</sup>Sarkina, 2020c); **Sverdlovsk Oblast** (<sup>3</sup>Stepanova and Sirko, 1977); **Volgograd Oblast** (<sup>1</sup>Dudka and Vedeneyev, 2014); **Arid territories** (<sup>1</sup>Rebriev, Rusanov, et al., 2012).

SIBERIA: **Altai Krai** (<sup>1</sup>Gorbunova and Perova, 2006; <sup>1</sup>Gorbunova, 2018a); **Altai Republic** (<sup>1</sup>Kovalenko, 1992; <sup>1</sup>Perova and Gorbunova, 2001); **Irkutsk Oblast** (<sup>3</sup>Astapenko and Kutafjeva, 1990; <sup>3</sup>Astapenko, 1990a); **Khakassia** (<sup>1</sup>Zauzolkova, 2015); **Khanty-Mansi Autonomous Okrug** (<sup>1</sup>Zvyagina and Baykalova, 2017); **Krasnoyarsk Krai** (<sup>1,3</sup>Beglyanova, 1972a; <sup>3</sup>Pavlov et al., 2007); **Novosibirsk Oblast** (<sup>3</sup>Perova and Gorbunova, 2001; <sup>3</sup>Perova and Gorbunova, 2007; <sup>1</sup>Koropachinskiy and Banaev, 2014); **Tomsk Oblast** (<sup>3</sup>Perova and Gorbunova, 2001; <sup>1</sup>Kudashova, Gashkov, and Kutafjeva, 2013).

FAR EAST: **Amur Oblast** (<sup>3</sup>Bulakh, Wasser, Nazarova, and Nezdoininogo, 1990; <sup>3</sup>Azbukina et al., 1998; <sup>1</sup>Taranina, 2005; <sup>1</sup>Kochunova, 2016; <sup>1</sup>Kochunova and Timchenko, 2019); **Jewish Autonomous Oblast** (<sup>1</sup>Bulakh, Govorova, Nazarova, and Vassiljeva, 2007; <sup>1</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Erofeeva, Bukharova, and Bulakh, 2019); **Khabarovsk Krai** (<sup>3</sup>Azbukina et al., 1986; <sup>3</sup>Bulakh, Wasser, Nazarova, and Nezdoininogo, 1990; <sup>1</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Erofeeva and Bulakh, 2015a); **Primorsky Krai** (<sup>3</sup>Vassiljeva, 1972; <sup>3</sup>Vassiljeva, 1973; <sup>3</sup>Bunkina and Nazarova, 1978; <sup>3</sup>Azbukina et al., 1990; <sup>3</sup>Bulakh, Wasser, Nazarova, and Nezdoininogo, 1990; <sup>1</sup>Bardunov et al., 2002; <sup>1</sup>Azbukina et al., 2006; <sup>3</sup>Bau, Bulakh, Zhuang, and Li, 2007; <sup>1</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Bulakh et al., 2016).

### ***Gymnopilus liquiritiae* (Pers.) P. Karst.<sup>1</sup>**

≡ *Agaricus liquiritiae* Pers.<sup>2</sup> ≡ *Flammula liquiritiae* (Pers.) P. Kumm.<sup>3</sup> ≡ *Fulvidula liquiritiae* (Pers.) Romagn.<sup>4</sup>

EASTERN EUROPE: **Adygea** (<sup>4</sup>Vassiljeva, 1939); **Crimea** (<sup>1</sup>Dudka et al., 2004); **Kaliningrad Oblast** (<sup>1</sup>Dedkov, Volodina, and Gubareva, 2007; <sup>1</sup>Volodina, 2007); **Karachay-Cherkess Republic** (<sup>4</sup>Vassiljeva, 1939); **Kirov Oblast** (<sup>1</sup>Kirillov, 2011; <sup>1</sup>Kirillov, Perevedentseva, and Egoshina, 2011); **Krasnodar Krai** (<sup>1</sup>Nezdoininogo, 1996); **Leningrad Oblast** (<sup>3</sup>Thesleff, 1920; <sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Popov et al., 2007); **Mari El Republic** (<sup>1</sup>Nezdoininogo, 1996); **Mordovia** (<sup>3</sup>Kuznetsov, 1960; <sup>1</sup>Nezdoininogo, 1996; <sup>1</sup>Ivoilov and Bolshakov, 2011a); **Moscow Oblast** (<sup>1</sup>Levitskaya, 1995c; <sup>1</sup>Levitskaya, 2013); **Smolensk Oblast** (<sup>3</sup>Jaczewski, 1896); **Sverdlovsk Oblast** (<sup>1</sup>Marina, 2006); **Tatarstan** (<sup>1</sup>Vassiljeva, 1977); **Udmurt Republic** (<sup>1</sup>Tychinin and Kuzmina, 2003).

SIBERIA: **Irkutsk Oblast** (<sup>1</sup>Kutafjeva, 1984; <sup>1</sup>Petrov, Nezdoininogo, and Bulakh, 1987); **Khanty-Mansi Autonomous Okrug** (<sup>1</sup>Zvyagina and Baykalova, 2017); **Krasnoyarsk Krai** (<sup>2</sup>Thümen, 1878; <sup>3</sup>Kalchbrenner, 1878; <sup>1</sup>Beglyanova, 1972a; <sup>1</sup>Nezdoininogo, 1976a; <sup>1</sup>Nezdoininogo, 1996; <sup>1</sup>Zauzolkova, 2015); **Novosibirsk Oblast** (<sup>1</sup>Perova and Gorbunova, 2001; <sup>1</sup>Perova and Gorbunova, 2007); **Tomsk Oblast** (<sup>1</sup>Perova and Gorbunova, 2001; <sup>1</sup>Kudashova, Gashkov, and Kutafjeva, 2013).

FAR EAST: **Jewish Autonomous Oblast** (<sup>1</sup>Bau, Bulakh, Zhuang, and Li, 2007; <sup>1</sup>Bulakh, Govorova, Nazarova, and Vassiljeva, 2007; <sup>1</sup>Bau, Bulakh, and Govorova, 2011); **Khabarovsk Krai** (<sup>1</sup>Bulakh, 2013; <sup>1</sup>Bogacheva, Bulakh, Bukharova, and Egorova, 2015); **Primorsky Krai** (<sup>1</sup>Bunkina and Nazarova, 1978; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdoininogo, 1990; <sup>1</sup>Nezdoininogo, 1996; <sup>1</sup>Azbukina et al., 2006; <sup>1</sup>Bau, Bulakh, Zhuang, and Li, 2007; <sup>1</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Bulakh et al., 2016).

### ***Gymnopilus luteofolius* (Peck) Singer<sup>1</sup>**

≡ *Pholiota luteofolia* (Peck) Sacc.<sup>2</sup>

SIBERIA: **Altai Republic** (<sup>2</sup>Vassilkov, 1956a; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdoininogo, 1990; <sup>1</sup>Nezdoininogo, 1996; <sup>2</sup>Perova and Gorbunova, 2001; <sup>1</sup>Gorbunova, 2008; <sup>1</sup>Gorbunova, 2010; <sup>1</sup>Gorbunova, 2017b); **Irkutsk Oblast** (<sup>2</sup>Vassilkov, 1956a; <sup>2</sup>Kutafjeva, 1983; <sup>1</sup>Petrov, Nezdoininogo, and Bulakh, 1987; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdoininogo, 1990; <sup>1</sup>Petrov, 1991; <sup>1</sup>Nezdoininogo, 1996; <sup>1</sup>Petrov, 2008); **Krasnoyarsk Krai** (<sup>2</sup>Beglyanova, 1972a; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdoininogo, 1990; <sup>1</sup>Nezdoininogo, 1996; <sup>1</sup>Krom and Kapitonov, 2019); **Novosibirsk Oblast** (<sup>2</sup>Zaytseva, 1971; <sup>2</sup>Perova and Gorbunova, 2001); **Sakha Republic** (<sup>2</sup>Vassilkov, 1956a; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdoininogo, 1990; <sup>1</sup>Nezdoininogo, 1996); **Tomsk Oblast** (<sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdoininogo, 1990; <sup>1</sup>Nezdoininogo, 1996; <sup>2</sup>Perova and Gorbunova, 2001; <sup>1,2</sup>Kudashova, Gashkov, and Kutafjeva, 2013).

FAR EAST: **Amur Oblast** (<sup>2</sup>Tomilin, 1962); **Khabarovsk Krai** (<sup>2</sup>Azbukina et al., 1986; <sup>2</sup>Azbukina et al., 1989; <sup>1</sup>Erofeeva and Bulakh, 2015a); **Primorsky Krai** (<sup>2</sup>Vassiljeva, 1973; <sup>2</sup>Azbukina et al., 1984; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdoininogo, 1990; <sup>1</sup>Nezdoininogo, 1996; <sup>1</sup>Bau, Bulakh, and Govorova, 2011); **Sakhalin Oblast** (<sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdoininogo, 1990; <sup>1</sup>Nezdoininogo, 1996).

### ***Gymnopilus luteoviridis* Thiers**

EASTERN EUROPE: **Krasnodar Krai** (Shumkova, Krivorotov, and Gayday, 2018).

### ***Gymnopilus microsporus* (Singer) Singer<sup>1</sup>**

≡ *Fulvidula microspora* Singer<sup>2</sup>

EASTERN EUROPE: **Karachay-Cherkess Republic** (<sup>2</sup>Vassiljeva, 1939; <sup>1</sup>Kalamees and Botashev, 2000); **Krasnodar Krai** (<sup>2</sup>Vassiljeva, 1939); **Perm Krai** (<sup>1</sup>Botalov, 2015; <sup>1</sup>Botalov, 2017).

SIBERIA: **Krasnoyarsk Krai** (<sup>1</sup>Beglyanova, 1972a; <sup>1</sup>Nezdoininogo, 1996).

FAR EAST: **Khabarovsk Krai** (<sup>1</sup>Azbukina et al., 1986); **Primorsky Krai** (<sup>1</sup>Vassiljeva, 1972; <sup>1</sup>Vassiljeva, 1973; <sup>1</sup>Bunkina and Nazarova, 1978; <sup>1</sup>Azbukina et al., 1984); **Sakhalin Oblast** (<sup>1</sup>Vassiljeva and Nazarova, 1972).

***Gymnopilus odini* (Fr.) Bon & P. Roux<sup>1</sup>**

≡ *Gymnopilus odini* (Fr.) Kühner & Romagn.<sup>2</sup>

EASTERN EUROPE: **Komi Republic** (<sup>1</sup>Palamarchuk, 2016a); **Leningrad Oblast** (<sup>2</sup>Morozova, 2007; <sup>2</sup>Popov et al., 2007); **Perm Krai** (<sup>2</sup>Perevedentseva, 2008; <sup>1</sup>Belkovskaya et al., 2014); **Pskov Oblast** (<sup>2</sup>Kolmakov and Popov, 2005; <sup>2</sup>Popov et al., 2013).

SIBERIA: **Khakassia** (<sup>1</sup>Zauzolkova, 2015); **Tyumen Oblast** (<sup>2</sup>Nezdojminogo, 1996).

***Gymnopilus penetrans* (Fr.) Murrill<sup>1</sup>**

≡ *Agaricus penetrans* Fr.<sup>2</sup> ≡ *Flammula penetrans* (Fr.) Quél.<sup>3</sup>

EASTERN EUROPE: **Adygea** (<sup>1</sup>Vaasma, Kalamees, and Raitviir, 1986; <sup>1</sup>Kummer, 2007); **Chelyabinsk Oblast** (<sup>1</sup>Sirko and Stepanova, 1977; <sup>1</sup>Stepanova and Sirko, 1977); **Crimea** (<sup>1</sup>Prydiuk, 2002; <sup>1</sup>Dudka et al., 2004; <sup>1</sup>Sarkina and Prydiuk, 2012; <sup>1</sup>Sarkina and Stavishenko, 2019); **Kaliningrad Oblast** (<sup>3</sup>Hennings, 1895; <sup>1</sup>Dedkov, Volodina, and Gubareva, 2007; <sup>1</sup>Volodina, 2007); **Karachay-Cherkess Republic** (<sup>1</sup>Kalamees and Botashev, 2000); **Karelia** (<sup>1</sup>Kovalenko, Morozova, Fomina, and Särkisilta, 1998; <sup>1</sup>Bondartseva et al., 2001; <sup>1</sup>Predtechenskaya and Ruokolainen, 2013; <sup>1</sup>Krutov et al., 2014); **Kirov Oblast** (<sup>1</sup>Kirillov, 2011; <sup>1</sup>Kirillov, Perevedentseva, and Egoshina, 2011); **Komi Republic** (<sup>1</sup>Bobretsova, 2004; <sup>1</sup>Palamarchuk, 2012; <sup>1</sup>Palamarchuk, 2016a; <sup>1</sup>Palamarchuk, 2016b; <sup>1</sup>Palamarchuk and Kirillov, 2017; <sup>1</sup>Palamarchuk, 2017); **Krasnodar Krai** (<sup>1</sup>Vaasma, Kalamees, and Raitviir, 1986); **Leningrad Oblast** (<sup>3</sup>Thesleff, 1920; <sup>1</sup>Stolyarskaya, 1989; <sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Morozova, 2007; <sup>1</sup>Popov et al., 2007; <sup>1</sup>Zmitrovich et al., 2015; <sup>1</sup>Malysheva, Malysheva, Shchepin, and Novozhilov, 2018); **Lipetsk Oblast** (<sup>1</sup>Sarycheva et al., 2009; <sup>1</sup>Sarycheva, 2011; <sup>1</sup>Sarycheva, 2014a; <sup>1</sup>Sarycheva, 2016); **Mordovia** (<sup>3</sup>Kuznetsov, 1960; <sup>1</sup>Ivoilov and Bolshakov, 2011a); **Moscow Oblast** (<sup>1</sup>Gorlenko, Sidorova, and Sidorova, 1989; <sup>1</sup>Levitskaya, 1995c; <sup>1</sup>Levitskaya, 2013); **Novgorod Oblast** (<sup>1</sup>Baklan, 2015); **Penza Oblast** (<sup>1</sup>Ivanov, 1981b; <sup>1</sup>Ivanov, 1982); **Perm Krai** (<sup>1</sup>Perevedentseva, 2008; <sup>1</sup>Belkovskaya et al., 2014); **Pskov Oblast** (<sup>1</sup>Kovalenko and Morozova, 1999b; <sup>1</sup>Popov et al., 2013); **Ryazan Oblast** (<sup>1</sup>Volosnova, 1997; <sup>1</sup>Volosnova, 2014); **Saint Petersburg** (<sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Morozova and Smirnov, 2011; <sup>1</sup>Morozova et al., 2020); **Sevastopol** (<sup>1</sup>Sarkina, 2016b; <sup>1</sup>Sarkina, 2020b); **Sverdlovsk Oblast** (<sup>1</sup>Tomilin, 1965; <sup>1</sup>Stepanova and Sirko, 1977); **Tatarstan** (<sup>1</sup>Vassiljeva, 1977); **Tula Oblast** (<sup>1</sup>Svetasheva, 2003; <sup>1</sup>Svetasheva, 2004); **Tver Oblast** (<sup>1</sup>Kurochkin, 1993); **Vologda Oblast** (<sup>1</sup>Kirillova, 2007); **Yaroslavl Oblast** (<sup>1</sup>Lazareva, 1998a; <sup>1</sup>Lazareva, 2002).

SIBERIA: **Altai Krai** (<sup>1</sup>Gorbunova and Perova, 2006; <sup>1</sup>Gorbunova, 2018b); **Altai Republic** (<sup>1</sup>Gorbunova, 1996; <sup>1</sup>Gorbunova, 1997; <sup>1</sup>Gorbunova, 2001a; <sup>1</sup>Gorbunova, 2001b; <sup>1</sup>Perova and Gorbunova, 2001; <sup>1</sup>Gorbunova, 2008); **Irkutsk Oblast** (<sup>1</sup>Petrov, Nezdojminogo, and Bulakh, 1987; <sup>1</sup>Astapenko, 1990a; <sup>1</sup>Petrov, 1991; <sup>1</sup>Petrov, 2008); **Khakassia** (<sup>1</sup>Zauzolkova, 2015); **Khanty-Mansi Autonomous Okrug** (<sup>1</sup>Zvyagina, 2008; <sup>1</sup>Filippova and Thormann, 2014; <sup>1</sup>Filippova, 2014; <sup>1</sup>Filippova, Mourgues, and Philippe, 2014; <sup>1</sup>Shepeleva et al., 2014; <sup>1</sup>Filippova, Bulyonkova, and Lapshina, 2015; <sup>1</sup>Filippova and Bulyonkova, 2017a; <sup>1</sup>Filippova and Bulyonkova, 2017b; <sup>1</sup>Zvyagina and Baykalova, 2017); **Krasnoyarsk Krai** (<sup>2</sup>Thümen, 1877; <sup>3</sup>Kalchbrenner, 1878; <sup>1</sup>Beglyanova, 1972a; <sup>1</sup>Lapitskaya, 1993; <sup>1</sup>Pavlov et al., 2007; <sup>1</sup>Kosheleva and Kutafjeva, 2008a; <sup>1</sup>Krom and Kapitonov, 2019); **Novosibirsk Oblast** (<sup>1</sup>Perova and Gorbunova, 2001; <sup>1</sup>Gorbunova, 2007; <sup>1</sup>Perova and Gorbunova, 2007; <sup>1</sup>Koropachinskiy and Banaev, 2014); **Tomsk Oblast** (<sup>1</sup>Perova and Gorbunova, 2001; <sup>1</sup>Kudashova, Gashkov, and Kutafjeva, 2013).

FAR EAST: **Amur Oblast** (<sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1</sup>Taranina, 2005; <sup>1</sup>Kochunova and Erofeeva, 2017); **Jewish Autonomous Oblast** (<sup>1</sup>Bulakh, Govorova, Nazarova, and Vassiljeva, 2007; <sup>1</sup>Bau, Bulakh, and Govorova, 2011); **Khбаровsk Krai** (<sup>1</sup>Azbukina et al., 1989; <sup>1</sup>Erofeeva and Bulakh, 2015a); **Magadan Oblast** (<sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1</sup>Sazanova, 2005; <sup>1</sup>Sazanova, 2009a; <sup>1</sup>Sazanova and Golodnova, 2015); **Primorsky Krai** (<sup>1</sup>Vassiljeva, 1972; <sup>1</sup>Vassiljeva, 1973; <sup>1</sup>Bunkina and Nazarova, 1978; <sup>1</sup>Azbukina et al., 1984; <sup>1</sup>Azbukina et al., 1990; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1</sup>Bardunov et al., 2002; <sup>1</sup>Azbukina et al., 2006; <sup>1</sup>Bau, Bulakh, and Govorova, 2011); **Sakhalin Oblast** (<sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990).

***Gymnopilus picreus* (Pers.) P. Karst.<sup>1</sup>**

≡ *Agaricus picreus* Pers.<sup>2</sup> ≡ *Flammula picrea* (Pers.) Quél.<sup>3</sup> ≡ *Fulvidula picrea* (Pers.) Singer<sup>4</sup>

EASTERN EUROPE: **Karachay-Cherkess Republic** (<sup>4</sup>Vassiljeva, 1939); **Karelia** (<sup>3</sup>Freindling, 1949; <sup>1</sup>Nezdojminogo, 1996; <sup>1</sup>Kovalenko, Morozova, Fomina, and Särkisilta, 1998; <sup>1</sup>Bondartseva et al., 2001; <sup>1</sup>Krutov et al., 2014); **Kirov Oblast** (<sup>1</sup>Kirillov, 2011; <sup>1</sup>Kirillov, Perevedentseva, and Egoshina, 2011; <sup>1</sup>Stavishenko, Luginina, Kirillov, and Egoshina, 2019); **Komi Republic** (<sup>1</sup>Palamarchuk, 2012; <sup>1</sup>Palamarchuk, 2017); **Krasnodar Krai** (<sup>4</sup>Vassiljeva, 1939; <sup>1</sup>Nezdojminogo, 1996); **Leningrad Oblast** (<sup>3</sup>Thesleff, 1920; <sup>1</sup>Stolyarskaya, 1993; <sup>1</sup>Nezdojminogo, 1996; <sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Morozova and Kovalenko, 2000; <sup>1</sup>Popov et al., 2007; <sup>1</sup>Bondartseva et al., 2015; <sup>1</sup>Zmitrovich et al., 2015; <sup>1</sup>Kalinina, 2018); **Lipetsk Oblast** (<sup>1</sup>Sarycheva et al., 2009; <sup>1</sup>Sarycheva, 2011; <sup>1</sup>Sarycheva, 2016); **Mari**

**El Republic** (<sup>1</sup>Nezdojminogo, 1996); **Moscow Oblast** (<sup>1</sup>Levitskaya, 1995c; <sup>1</sup>Voronina et al., 2012; <sup>1</sup>Levitskaya, 2013; <sup>1</sup>Voronina et al., 2014); **Murmansk Oblast** (<sup>1</sup>Nezdojminogo, 1996); **Novgorod Oblast** (<sup>1</sup>Svetasheva et al., 2017); **Perm Krai** (<sup>1</sup>Shkaraba, Perevedentseva, and Moshkina, 1990; <sup>1</sup>Nezdojminogo, 1996; <sup>1</sup>Perevedentseva, 2008; <sup>1</sup>Belkovskaya et al., 2014; <sup>1</sup>Botalov, 2015; <sup>1</sup>Botalov, Perevedentseva, and Denisov, 2015; <sup>1</sup>Botalov, 2017); **Pskov Oblast** (<sup>1</sup>Kolmakov and Popov, 2005; <sup>1</sup>Popov et al., 2013); **Ryazan Oblast** (<sup>1</sup>Volosnova, 1997; <sup>1</sup>Volosnova, 2014); **Saint Petersburg** (<sup>2</sup>Weinmann, 1828; <sup>2</sup>Weinmann, 1836; <sup>2</sup>Weinmann, 1837; <sup>1</sup>Morozova and Smirnov, 2011; <sup>1</sup>Morozova et al., 2020); **Sverdlovsk Oblast** (<sup>1</sup>Marina, 2006); **Tatarstan** (<sup>1</sup>Vassiljeva, 1977; <sup>1</sup>Nezdojminogo, 1996); **Vologda Oblast** (<sup>1</sup>Kirillova, 2007); **Yaroslavl Oblast** (<sup>1</sup>Lazareva, 1998a; <sup>1</sup>Lazareva, 2002).

**SIBERIA: Altai Krai** (<sup>1</sup>Gorbunova, 2018a); **Altai Republic** (<sup>1</sup>Kovalenko, 1992; <sup>1</sup>Nezdojminogo, 1996; <sup>1</sup>Perova and Gorbunova, 2001); **Irkutsk Oblast** (<sup>1</sup>Petrov, Nezdojminogo, and Bulakh, 1987; <sup>1</sup>Petrov, 1991; <sup>1</sup>Nezdojminogo, 1996; <sup>1</sup>Petrov, 2008; <sup>1</sup>Gorbunova and Stepantsova, 2015); **Krasnoyarsk Krai** (<sup>1</sup>Beglyanova, 1972a; <sup>1</sup>Nezdojminogo, 1996; <sup>1</sup>Kosheleva and Kutafjeva, 2008a; <sup>1</sup>Malysheva, Malysheva, Kiyashko, et al., 2017; <sup>1</sup>Krom and Kapitonov, 2019); **Tomsk Oblast** (<sup>1</sup>Perova and Gorbunova, 2001; <sup>1</sup>Kudashova, Gashkov, and Kutafjeva, 2013).

**FAR EAST: Amur Oblast** (<sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1</sup>Nezdojminogo, 1996; <sup>1</sup>Taranina, 2005; <sup>1</sup>Kochunova and Erofeeva, 2017); **Jewish Autonomous Oblast** (<sup>1</sup>Bulakh, Govorova, Nazarova, and Vassiljeva, 2007; <sup>1</sup>Bau, Bulakh, and Govorova, 2011); **Khabarovsk Krai** (<sup>1</sup>Azbukina et al., 1986; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1</sup>Nezdojminogo, 1996; <sup>1</sup>Bau, Bulakh, and Govorova, 2011); **Magadan Oblast** (<sup>1</sup>Sazanova, 2009a; <sup>1</sup>Sazanova, 2009b; <sup>1</sup>Sazanova, 2011); **Primorsky Krai** (<sup>1</sup>Vassiljeva, 1972; <sup>1</sup>Vassiljeva, 1973; <sup>1</sup>Bunkina and Nazarova, 1978; <sup>1</sup>Azbukina et al., 1984; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1</sup>Nezdojminogo, 1996; <sup>1</sup>Azbukina et al., 2006; <sup>1</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Bulakh et al., 2016).

### ***Gymnopilus pulchrifolius* (Peck) Murrill**

**FAR EAST: Primorsky Krai** (Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; Bau, Bulakh, and Govorova, 2011).

### ***Gymnopilus sapineus* (Fr.) Murrill<sup>1</sup>**

≡ *Agaricus sapineus* Fr.<sup>2</sup> ≡ *Flammula sapinea* (Fr.) P. Kumm.<sup>3</sup> ≡ *Fulvidula sapinea* (Fr.) Romagn.<sup>4</sup> = *Agaricus sapineus* var. *hybridus* (Sowerby) Fr.<sup>5</sup> = *Agaricus sapineus* β *hybridus* (Sowerby) Fr.<sup>6</sup>

**EASTERN EUROPE: Adygea** (<sup>4</sup>Vassiljeva, 1939; <sup>1</sup>Vaasma, Kalamees, and Raitviir, 1986); **Belgorod Oblast** (<sup>1</sup>Bedenko, 1979a; <sup>1</sup>Nezdojminogo, 1996); **Crimea** (<sup>1</sup>Sarkina, 2010b; <sup>1</sup>Sarkina and Prydiuk, 2012; <sup>1</sup>Sarkina, 2013; <sup>1</sup>Sarkina, 2014b); **Kaliningrad Oblast** (<sup>1</sup>Dedkov, Volodina, and Gubareva, 2007; <sup>1</sup>Volodina, 2007); **Kaluga Oblast** (<sup>1</sup>Sionova, 2003); **Karachay-Cherkess Republic** (<sup>4</sup>Vassiljeva, 1939; <sup>1</sup>Kalamees and Botashev, 2000); **Karelia** (<sup>1</sup>Krutov et al., 2014); **Kirov Oblast** (<sup>1</sup>Kirillov and Luginina, 2011; <sup>1</sup>Kirillov, 2011; <sup>1</sup>Kirillov, Perevedentseva, and Egoshina, 2011; <sup>1</sup>Stavishenko, Luginina, Kirillov, and Egoshina, 2019); **Komi Republic** (<sup>1</sup>Nezdojminogo, 1996; <sup>1</sup>Bobretsova, 2004; <sup>1</sup>Palamarchuk, 2012; <sup>1</sup>Palamarchuk and Kirillov, 2017; <sup>1</sup>Palamarchuk and Kirillov, 2018a); **Krasnodar Krai** (<sup>1</sup>Kovalenko, 1980a; <sup>1</sup>Kovalenko, 1980b; <sup>1</sup>Vaasma, Kalamees, and Raitviir, 1986; <sup>1</sup>Nezdojminogo, 1996); **Leningrad Oblast** (<sup>3</sup>Thesleff, 1920; <sup>1</sup>Stolyarskaya, 1989; <sup>1</sup>Nezdojminogo, 1996; <sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Popov et al., 2007; <sup>1</sup>Psurtseva, Kiyashko, Gachkova, and Belova, 2007; <sup>1</sup>Zmitrovich et al., 2015); **Mari El Republic** (<sup>1</sup>Nezdojminogo, 1996); **Moscow Oblast** (<sup>1</sup>Gorlenko, Sidorova, and Sidorova, 1989; <sup>1</sup>Levitskaya, 1995c; <sup>1</sup>Voronina et al., 2012; <sup>1</sup>Levitskaya, 2013; <sup>1</sup>Voronina et al., 2014); **Murmansk Oblast** (<sup>1</sup>Nezdojminogo, 1996); **Novgorod Oblast** (<sup>1</sup>Kovalenko, Morozova, Nezdojminogo, and Popov, 2005; <sup>1</sup>Popov et al., 2013); **Perm Krai** (<sup>1</sup>Perevedentseva, 2008; <sup>1</sup>Belkovskaya et al., 2014); **Ryazan Oblast** (<sup>1</sup>Volosnova, 2014); **Saint Petersburg** (<sup>2,5</sup>Weinmann, 1828; <sup>2,6</sup>Weinmann, 1836; <sup>2,5</sup>Weinmann, 1837; <sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Psurtseva, Kiyashko, Gachkova, and Belova, 2007; <sup>1</sup>Morozova, Kovalenko, Rebriev, and Malysheva, 2014); **Samara Oblast** (<sup>1</sup>Malysheva and Malysheva, 2008); **Sverdlovsk Oblast** (<sup>3</sup>Pilát, 1935; <sup>1</sup>Stepanova and Sirko, 1977; <sup>1</sup>Nezdojminogo, 1996; <sup>1</sup>Marina, 2006); **Tatarstan** (<sup>1</sup>Vassiljeva, 1977); **Tula Oblast** (<sup>1</sup>Svetasheva, 2001); **Tver Oblast** (<sup>1</sup>Kurochkin, 1993); **Udmurt Republic** (<sup>1</sup>Tychinin and Kuzmina, 2003); **Ulyanovsk Oblast** (<sup>1</sup>Ilyukhin, 2010a); **Vologda Oblast** (<sup>1</sup>Kirillova, 2007); **Yaroslavl Oblast** (<sup>1</sup>Lazareva, 1997; <sup>1</sup>Lazareva, 1998a).

**SIBERIA: Altai Republic** (<sup>1</sup>Gorbunova, 2001b; <sup>1</sup>Perova and Gorbunova, 2001; <sup>1</sup>Gorbunova, 2008; <sup>1</sup>Gorbunova, 2010); **Buryatia** (<sup>1</sup>Nezdojminogo, 1973; <sup>1</sup>Nezdojminogo, 1996); **Irkutsk Oblast** (<sup>1</sup>Petrov, Nezdojminogo, and Bulakh, 1987; <sup>1</sup>Petrov, 1989; <sup>1</sup>Astapenko, 1990a; <sup>1</sup>Nezdojminogo, 1996; <sup>1</sup>Bardunov et al., 2005; <sup>1</sup>Petrov, 2008; <sup>1</sup>Gorbunova and Stepantsova, 2015); **Kemerovo Oblast** (<sup>3</sup>Killermann, 1943); **Khanty-Mansi Autonomous Okrug** (<sup>1</sup>Filippova and Bulyonkova, 2017a; <sup>1</sup>Filippova and Bulyonkova, 2017b); **Krasnoyarsk Krai** (<sup>1</sup>Beglyanova, 1972a; <sup>1</sup>Lapitskaya, 1993; <sup>1</sup>Nezdojminogo, 1996; <sup>1</sup>Gorbunova, 2016; <sup>1</sup>Kryuchkova and Yaskova, 2017); **Tomsk Oblast** (<sup>1</sup>Kudashova, Gashkov, and Kutafjeva, 2013); **Tyumen Oblast** (<sup>1</sup>Nezdojminogo, 1996).

FAR EAST: **Amur Oblast** (<sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdoyminogo, 1990; <sup>1</sup>Nezdoyminogo, 1996; <sup>1</sup>Azbukina et al., 1998); **Magadan Oblast** (<sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdoyminogo, 1990; <sup>1</sup>Nezdoyminogo, 1996; <sup>1</sup>Sazanova, 2005; <sup>1</sup>Sazanova, 2009a; <sup>1</sup>Sazanova, 2011); **Primorsky Krai** (<sup>1</sup>Vassiljeva, 1973; <sup>1</sup>Bunkina and Nazarova, 1978; <sup>1</sup>Azbukina et al., 1990; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdoyminogo, 1990; <sup>1</sup>Nezdoyminogo, 1996; <sup>1</sup>Bardunov et al., 2002; <sup>1</sup>Azbukina et al., 2006; <sup>1</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Bogacheva, Bulakh, Bukharova, and Egorova, 2020).

***Gymnopilus satur* Kühner**

EASTERN EUROPE: **Belgorod Oblast** (Bedenko, 1979a; Bedenko, 1979b).

***Gymnopilus stabilis* (Weinm.) Kühner & Romagn. ex Bon**

≡ *Agaricus stabilis* Weinm.<sup>1</sup> ≡ *Gymnopilus stabilis* (Weinm.) Kühner & Romagn.<sup>2</sup>

EASTERN EUROPE: **Leningrad Oblast** (<sup>2</sup>Kovalenko and Morozova, 1999a; <sup>2</sup>Popov et al., 2007); **Perm Krai** (<sup>2</sup>Nezdoyminogo, 1996; <sup>2</sup>Perevedentseva, 2008; <sup>2</sup>Belkovskaya et al., 2014; <sup>2</sup>Botalov, 2017); **Saint Petersburg** (<sup>1</sup>Weinmann, 1836); **Tula Oblast** (<sup>2</sup>Svetasheva, 2004).

SIBERIA: **Tomsk Oblast** (<sup>2</sup>Kudashova, Gashkov, and Vaishlya, 2016a).

***Gymnopus alkalivirens* (Singer) Halling<sup>1</sup>**

≡ *Collybia alkalivirens* Singer<sup>2</sup>

EASTERN EUROPE: **Crimea** (<sup>2</sup>Moser, 1993; <sup>2</sup>Sarkina, 2001; <sup>2</sup>Dudka et al., 2004; <sup>2</sup>Sarkina, 2011).

SIBERIA: **Altai Krai** (<sup>2</sup>Gorbunova and Chubarova, 2008; <sup>1</sup>Gorbunova, Vlasenko, and Tzhubarova, 2011); **Khakassia** (<sup>1</sup>Zauzolkova, 2015); **Novosibirsk Oblast** (<sup>1</sup>Koropachinskiy and Banaev, 2014).

***Gymnopus alpicola* (Bon & Ballarà) Esteve-Rav., V. González, Arenal & E. Horak**

SIBERIA: **Altai Republic** (Gorbunova, 2019).

***Gymnopus alpinus* (Vilgalys & O.K. Mill.) Antonín & Noordel.**

EASTERN EUROPE: **Komi Republic** (Palamarchuk, 2016a).

FAR EAST: **Magadan Oblast** (Sazanova, 2016).

***Gymnopus androsaceus* (L.) Della Magg. & Trassin.<sup>1</sup>**

≡ *Agaricus androsaceus* L.<sup>2</sup> ≡ *Gymnopus androsaceus* (L.) J.L. Mata & R.H. Petersen<sup>3</sup> ≡ *Marasmius androsaceus* (L.) Fr.<sup>4</sup> ≡ *Setulipes androsaceus* (L.) Antonín<sup>5</sup>

EASTERN EUROPE: **Adygea** (<sup>4</sup>Vassiljeva, 1939; <sup>4</sup>Vaasma, Kalamees, and Raitviir, 1986; <sup>4</sup>Sopina, 2004b; <sup>4</sup>Kummer, 2007); **Arkhangelsk Oblast** (<sup>4</sup>Lebedeva, 1933); **Belgorod Oblast** (<sup>4</sup>Bedenko, 1979a); **Bryansk Oblast** (<sup>4</sup>Kruglikov, 2007); **Chelyabinsk Oblast** (<sup>4</sup>Sirko and Stepanova, 1977; <sup>4</sup>Stepanova and Sirko, 1977; <sup>4</sup>Psurtseva, Kiyashko, Gachkova, and Belova, 2007); **Chuvash Republic** (<sup>1</sup>Vladimirova and Potapov, 2018); **Crimea** (<sup>4</sup>Sarkina, 2001; <sup>4</sup>Dudka et al., 2004; <sup>4</sup>Sarkina, 2010b; <sup>4</sup>Sarkina and Prydiuk, 2012; <sup>4</sup>Sarkina, 2013; <sup>1</sup>Sarkina and Mironova, 2015); **Ivanovo Oblast** (<sup>4</sup>Alyavdina, 1928; <sup>4</sup>Alyavdina, 1949); **Kabardino-Balkarian Republic** (<sup>4</sup>Shkhagapsoev and Krapivina, 2003; <sup>4</sup>Shkhagapsoev and Krapivina, 2004); **Kaliningrad Oblast** (<sup>4</sup>Hennings, 1895; <sup>4</sup>Dedkov, Volodina, and Gubareva, 2007; <sup>4</sup>Volodina, 2007); **Kaluga Oblast** (<sup>4</sup>Sionova, 2003; <sup>4</sup>Sionova, 2006); **Karachay-Cherkess Republic** (<sup>4</sup>Vassiljeva, 1939; <sup>4</sup>Kalamees and Botashev, 2000); **Karelia** (<sup>4</sup>Freindling, 1949; <sup>4</sup>Czerepanova, Perfiljeva, and Tobias, 1982; <sup>4</sup>Bondartseva et al., 2001; <sup>4</sup>Predtechenskaya and Ruokolainen, 2013; <sup>4</sup>Predtechenskaya, 2013; <sup>4</sup>Krutov et al., 2014; <sup>4</sup>Predtechenskaya and Ruokolainen, 2014; <sup>4</sup>Predtechenskaya, 2015; <sup>1</sup>Savelev and Kikeeva, 2018); **Kirov Oblast** (<sup>4</sup>Kirillov and Luginina, 2011; <sup>4</sup>Kirillov, 2011; <sup>4</sup>Kirillov, Perevedentseva, and Egoshina, 2011; <sup>3</sup>Stavishenko, Luginina, Kirillov, and Egoshina, 2019); **Komi Republic** (<sup>4</sup>Karatygin, Nezdoyminogo, Novozhilov, and Zhurbenko, 1999; <sup>4</sup>Bobretsova, 2004; <sup>4</sup>Palamarchuk, 2011b; <sup>3</sup>Palamarchuk, 2012; <sup>3</sup>Palamarchuk, 2016a; <sup>3</sup>Palamarchuk, 2016b; <sup>1</sup>Palamarchuk and Kirillov, 2017; <sup>1</sup>Palamarchuk, 2017); **Krasnodar Krai** (<sup>4</sup>Vassiljeva, 1939; <sup>4</sup>Kovalenko, 1980a; <sup>4</sup>Kovalenko, 1980b; <sup>4</sup>Vaasma, Kalamees, and Raitviir, 1986); **Leningrad Oblast** (<sup>4</sup>Thesleff, 1920; <sup>4</sup>Nezdoyminogo, 1967; <sup>4</sup>Chastukhin and Nikolaevskaya, 1969; <sup>4</sup>Stolyarskaya, 1993; <sup>4</sup>Kovalenko and Morozova, 1999a; <sup>4</sup>Morozova and Kovalenko, 2000; <sup>4</sup>Morozova, 2007; <sup>4</sup>Popov et al., 2007; <sup>1</sup>Zmitrovich et al., 2015); **Lipetsk Oblast** (<sup>4</sup>Afanasyev, Rtishcheva, and Starodubtseva, 2007; <sup>4</sup>Sarycheva et al., 2009; <sup>4</sup>Sarycheva, 2011; <sup>4</sup>Sarycheva, 2014a; <sup>4</sup>Sarycheva, 2016); **Mari El Republic** (<sup>4</sup>Prokhorov, 2007); **Mordovia** (<sup>4</sup>Chastukhin, 1948a; <sup>4</sup>Kuznetsov, 1960; <sup>4</sup>Chastukhin and Nikolaevskaya, 1969; <sup>4</sup>Chastukhin, 2011; <sup>4</sup>Ivoilov and Bolshakov, 2011a); **Moscow** (<sup>4</sup>Bucholtz, 1897a; <sup>4</sup>Hennings, 1904; <sup>4</sup>Mosolov, 1906; <sup>4</sup>Burova, 1968); **Moscow Oblast** (<sup>4</sup>Gorlenko, Sidorova, and Sidorova, 1989; <sup>4</sup>Vishnevsky, 1998; <sup>4</sup>Levitskaya, 2006; <sup>3</sup>Voronina et al., 2012; <sup>4</sup>Levitskaya,

2013; <sup>3</sup>Voronina et al., 2014); **Murmansk Oblast** (<sup>4</sup>Pystina, Pavlova, and Shestakova, 1969); **Nenets Autonomous Okrug** (<sup>4</sup>Karatygin, Nezdojminogo, Novozhilov, and Zhurbenko, 1999); **Nizhny Novgorod Oblast** (<sup>4</sup>Murashkinsky, 1911); **North Ossetia** (<sup>4</sup>Nikolayev, 2001); **Novgorod Oblast** (<sup>4</sup>Kovalenko, Morozova, Nezdojminogo, and Popov, 2005; <sup>4</sup>Psurtseva, Kiyashko, Gachkova, and Belova, 2007; <sup>3</sup>Popov et al., 2013); **Penza Oblast** (<sup>4</sup>Ivanov, 1981a); **Perm Krai** (<sup>4</sup>Naoumoff, 1915; <sup>4</sup>Perevedentseva, 2008; <sup>3</sup>Belkovskaya et al., 2014; <sup>4</sup>Perevedentseva and Shishigin, 2014; <sup>4</sup>Botalov, 2017; <sup>4</sup>Botalov and Perevedentseva, 2020; <sup>4</sup>Botalov, Perevedentseva, and Shishigin, 2020); **Pskov Oblast** (<sup>4</sup>Kovalenko, Kolmakov, Morozova, and Popov, 2003; <sup>4</sup>Psurtseva, Kiyashko, Gachkova, and Belova, 2007; <sup>3</sup>Popov et al., 2013); **Ryazan Oblast** (<sup>4</sup>Volosnova, 2005; <sup>4</sup>Volosnova, 2014); **Saint Petersburg** (<sup>2</sup>Weinmann, 1828; <sup>2</sup>Weinmann, 1837; <sup>4</sup>Kovalenko and Morozova, 1999a; <sup>4</sup>Kotkova, Morozova, and Popov, 2005; <sup>4</sup>Morozova and Smirnov, 2011; <sup>1</sup>Morozova, Kovalenko, Rebriev, and Malysheva, 2014; <sup>1</sup>Morozova et al., 2020); **Smolensk Oblast** (<sup>4</sup>Jaczewski, 1896; <sup>4</sup>Burova, 1969); **Sverdlovsk Oblast** (<sup>4</sup>Naoumoff, 1915; <sup>4</sup>Stepanova and Sirko, 1977; <sup>4</sup>Marina, 2006); **Tatarstan** (<sup>4</sup>Vassiljeva, 1977); **Tula Oblast** (<sup>4</sup>Svetasheva, 2001; <sup>4</sup>Svetasheva, 2004); **Tver Oblast** (<sup>4</sup>Tranzschel, 1901; <sup>4</sup>Chastukhin, 1948b; <sup>4</sup>Chastukhin and Nikolaevskaya, 1969; <sup>4</sup>Kurochkin, 1993; <sup>5</sup>Mukhina and Garibova, 2010; <sup>5</sup>Mukhina, 2011a; <sup>5</sup>Mukhina, 2011b; <sup>3</sup>Popov et al., 2013; <sup>3</sup>Kotkova, 2014); **Udmurt Republic** (<sup>4</sup>Tychinin, 1990; <sup>4</sup>Tychinin and Kuzmina, 2003); **Vologda Oblast** (<sup>4</sup>Kutova, 1957; <sup>5</sup>Kirillova, 2007; <sup>4</sup>Kirillova, 2009); **Voronezh Oblast** (<sup>4</sup>Afanasyev, Rtishcheva, and Starodubtseva, 2007; <sup>1</sup>Sarycheva, Starodubtseva, and Sapelnikova, 2017); **Yamalo-Nenets Autonomous Okrug** (<sup>4</sup>Stepanova and Sirko, 1970; <sup>4</sup>Stepanova and Sirko, 1977); **Yaroslavl Oblast** (<sup>4</sup>Lazareva, 1997; <sup>4</sup>Lazareva, 1998a); **Arid territories** (<sup>3</sup>Rebriev, Rusanov, et al., 2012); **Lapland** (<sup>4</sup>Karsten, 1866).

SIBERIA: **Altai Krai** (<sup>4</sup>Gorbunova and Perova, 2006; <sup>4</sup>Gorbunova and Chubarova, 2008; <sup>4</sup>Gorbunova, Vlasenko, and Tzhubarova, 2011); **Altai Republic** (<sup>4</sup>Singer, 1943; <sup>4</sup>Gorbunova, 2008); **Buryatia** (<sup>4</sup>Nezdojminogo, 1970a); **Irkutsk Oblast** (<sup>4</sup>Kutafjeva, 1983; <sup>4</sup>Petrov, 1984; <sup>4</sup>Petrov, 1989; <sup>4</sup>Muzyka, 2002; <sup>4</sup>Bardunov et al., 2005; <sup>4</sup>Petrov, 2008; <sup>3</sup>Gorbunova and Stepantsova, 2015); **Kemerovo Oblast** (<sup>4</sup>Perova and Gorbunova, 2001); **Khanty-Mansi Autonomous Okrug** (<sup>4</sup>Filippova, 2009; <sup>4</sup>Zvyagina and Baykalova, 2012; <sup>1</sup>Filippova and Thormann, 2014; <sup>1</sup>Filippova, 2014; <sup>3</sup>Filippova, Mourgues, and Philippe, 2014; <sup>1</sup>Filippova, Bulyonkova, and Lapshina, 2015; <sup>1</sup>Filippova and Bulyonkova, 2017a; <sup>1</sup>Filippova and Bulyonkova, 2017b; <sup>1</sup>Zvyagina and Baykalova, 2017); **Krasnoyarsk Krai** (<sup>4</sup>Beglyanova, 1972a; <sup>4</sup>Beglyanova, 1972c; <sup>4</sup>Nezdojminogo, 1976a; <sup>4</sup>Lapitskaya, 1993; <sup>4</sup>Karatygin, Nezdojminogo, Novozhilov, and Zhurbenko, 1999; <sup>4</sup>Kutafjeva and Kosheleva, 2005; <sup>4</sup>Kosheleva and Kutafjeva, 2008a; <sup>4</sup>Kosheleva and Kutafjeva, 2008b; <sup>3</sup>Zauzolkova, 2012; <sup>1</sup>Zauzolkova, 2015; <sup>3</sup>Gorbunova, 2016; <sup>1</sup>Malysheva, Malysheva, Kiyashko, et al., 2017; <sup>1</sup>Krom and Kapitonov, 2019); **Kurgan Oblast** (<sup>1</sup>Bystrushkin, 2016); **Novosibirsk Oblast** (<sup>4</sup>Perova and Gorbunova, 2001; <sup>4</sup>Perova and Gorbunova, 2007); **Tomsk Oblast** (<sup>4</sup>Perova, 1972; <sup>4</sup>Perova and Gorbunova, 2001; <sup>4</sup>Kosheleva and Kutafjeva, 2004; <sup>4</sup>Agaphonova, Kutafjeva, and Gashkov, 2007; <sup>3</sup>Kudashova, Gashkov, and Kutafjeva, 2013); **Yamalo-Nenets Autonomous Okrug** (<sup>4</sup>Tarчевskaya, 1990; <sup>4</sup>Karatygin, Nezdojminogo, Novozhilov, and Zhurbenko, 1999).

FAR EAST: **Amur Oblast** (<sup>4</sup>Taranina, 2005); **Kamchatka Krai** (<sup>4</sup>Kalamees and Vaasma, 1981); **Khabarovsk Krai** (<sup>4</sup>Azbukina et al., 1986; <sup>4</sup>Azbukina et al., 1989; <sup>4</sup>Bau, Bulakh, and Govorova, 2011; <sup>3</sup>Bulakh, 2013; <sup>3</sup>Bogacheva, Bulakh, Bukharova, and Egorova, 2015; <sup>3</sup>Erofeeva and Bulakh, 2015a); **Magadan Oblast** (<sup>4</sup>Nazarova, 1976; <sup>4</sup>Sazanova, 2005; <sup>4</sup>Sazanova, 2009a; <sup>4</sup>Sazanova, 2011; <sup>1</sup>Sazanova and Golodnova, 2015); **Primorsky Krai** (<sup>4</sup>Vassiljeva, 1972; <sup>4</sup>Vassiljeva, 1973; <sup>4</sup>Bunkina and Nazarova, 1978; <sup>4</sup>Azbukina et al., 1984; <sup>4</sup>Azbukina et al., 1990; <sup>4</sup>Bardunov et al., 2002; <sup>4</sup>Azbukina et al., 2006; <sup>4</sup>Bau, Bulakh, Zhuang, and Li, 2007; <sup>4</sup>Bau, Bulakh, and Govorova, 2011; <sup>3</sup>Bulakh et al., 2016); **Sakhalin Oblast** (<sup>4</sup>Vassiljeva and Nazarova, 1972).

### ***Gymnopus aquosus* (Bull.) Antonín & Noordel.<sup>1</sup>**

≡ *Collybia aquosa* (Bull.) P. Kumm.<sup>2</sup> ≡ *Collybia dryophila* var. *aquosa* (Bull.) Quél.<sup>3</sup> = *Collybia dryophila* var. *oedipus* Quél.<sup>4</sup>

EASTERN EUROPE: **Chelyabinsk Oblast** (<sup>2</sup>Sirko and Stepanova, 1977; <sup>3</sup>Stepanova and Sirko, 1977); **Leningrad Oblast** (<sup>2</sup>Thesleff, 1920; <sup>4</sup>Singer, 1943; <sup>2</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Popov et al., 2007; <sup>2</sup>Psurtseva, Kiyashko, Gachkova, and Belova, 2007); **Moscow Oblast** (<sup>2</sup>Levitskaya, 2013); **Murmansk Oblast** (<sup>2</sup>Pystina, Pavlova, and Shestakova, 1969); **Novgorod Oblast** (<sup>2</sup>Kovalenko, Morozova, Nezdojminogo, and Popov, 2005; <sup>2</sup>Psurtseva, Kiyashko, Gachkova, and Belova, 2007; <sup>1</sup>Popov et al., 2013); **Saint Petersburg** (<sup>2</sup>Morozova and Smirnov, 2011); **Sverdlovsk Oblast** (<sup>2</sup>Marina, 2006); **Tatarstan** (<sup>4</sup>Singer, 1943); **Tula Oblast** (<sup>2</sup>Svetasheva, 2004); **Ulyanovsk Oblast** (<sup>2</sup>Ilyukhin, 2009); **Vologda Oblast** (<sup>2</sup>Kirillova, 2009); **Yamalo-Nenets Autonomous Okrug** (<sup>3</sup>Stepanova and Sirko, 1977); **Yaroslavl Oblast** (<sup>2</sup>Lazareva, 1997; <sup>2</sup>Lazareva, 1998a); **Arid territories** (<sup>1</sup>Rebriev, Rusanov, et al., 2012).

SIBERIA: **Krasnoyarsk Krai** (<sup>2</sup>Beglyanova, 1972a); **Zabaykalsky Krai** (<sup>2</sup>Karsten, 1906).

FAR EAST: **Chukotka Autonomous Okrug** (<sup>3</sup>Sazanova, 1993); **Magadan Oblast** (<sup>3</sup>Sazanova, 2005; <sup>1</sup>Sazanova, 2009a; <sup>1</sup>Sazanova, 2012).

***Gymnopus benoistii* (Boud.) Antonín & Noordel.<sup>1</sup>**

≡ *Collybia benoistii* Boud.<sup>2</sup>

EASTERN EUROPE: **Mordovia** (<sup>2</sup>Chastukhin, 1948a; <sup>1</sup>Ivoilov and Bolshakov, 2011a; <sup>2</sup>Chastukhin, 2011).

***Gymnopus brassicolens* (Romagn.) Antonín & Noordel.<sup>1</sup>**

≡ *Marasmius brassicolens* Romagn.<sup>2</sup> ≡ *Micromphale brassicolens* (Romagn.) P.D. Orton<sup>3</sup> ≡ *Micromphale brassicolens* var. *brassicolens* (Romagn.) P.D. Orton<sup>4</sup> = *Micromphale acicola* Knudsen<sup>5</sup>

According to Antonín and Noordeloos (2010) *Collybia romagnesii* Bon is a synonym of *Gymnopus brassicolens* var. *pallidus* Antonín & Noordel.

EASTERN EUROPE: **Crimea** (<sup>1</sup>Sarkina, 2020a); **Kabardino-Balkarian Republic** (<sup>3</sup>Krapivina et al., 2020); **Sevastopol** (<sup>3</sup>Sarkina, 2016b); **Tula Oblast** (<sup>3</sup>Svetasheva, 2004); **Yaroslavl Oblast** (<sup>5</sup>Lazareva, 1998a).

FAR EAST: **Kamchatka Krai** (<sup>2</sup>Kalamees and Vaasma, 1981); **Magadan Oblast** (<sup>4</sup>Sazanova, 2009a; <sup>4</sup>Sazanova, 2009b; <sup>4</sup>Sazanova, 2011; <sup>1</sup>Sazanova and Golodnova, 2015; <sup>1</sup>Sazanova, 2016).

***Gymnopus contrarius* (Peck) Halling**

SIBERIA: **Tomsk Oblast** (Kudashova, Gashkov, and Vaishlya, 2016a).

***Gymnopus dryophilus* (Bull.) Murrill<sup>1</sup>**

≡ *Agaricus dryophilus* Bull.<sup>2</sup> ≡ *Collybia dryophila* (Bull.) P. Kumm.<sup>3</sup> ≡ *Collybia dryophila* var. *dryophila* (Bull.) P. Kumm.<sup>4</sup> = *Agaricus dryophilus* γ *lupuletorum* (Weinm.) Weinm.<sup>5</sup> = *Agaricus lupuletorum* Weinm.<sup>6</sup> = *Marasmius lupuletorum* (Weinm.) Bres.<sup>7</sup>

EASTERN EUROPE: **Adygea** (<sup>3</sup>Vassiljeva, 1939; <sup>3</sup>Vaasma, Kalamees, and Raitviir, 1986); **Belgorod Oblast** (<sup>3</sup>Bedenko, 1979a); **Bryansk Oblast** (<sup>3</sup>Kruglikov, 2007); **Chechen Republic** (<sup>3</sup>Taysumov, Krapivina, and Kushaliev, 2016); **Chelyabinsk Oblast** (<sup>3,7</sup>Sirko and Stepanova, 1977; <sup>3,7</sup>Stepanova and Sirko, 1977; <sup>3</sup>Psurtseva, Kiyashko, Gachkova, and Belova, 2007); **Chuvash Republic** (<sup>1</sup>Vladimirova and Potapov, 2018); **Crimea** (<sup>3</sup>Zerova, 1962; <sup>3,7</sup>Moser, 1993; <sup>3,7</sup>Sarkina, 2001; <sup>3,7</sup>Dudka et al., 2004; <sup>3,7</sup>Sarkina, 2010b; <sup>3,7</sup>Sarkina, 2011; <sup>3,7</sup>Sarkina and Prydiuk, 2012; <sup>3</sup>Sarkina, 2013; <sup>1,7</sup>Sarkina, 2014b; <sup>1,7</sup>Sarkina and Mironova, 2015; <sup>1</sup>Sarkina and Stavishenko, 2019); **Kabardino-Balkarian Republic** (<sup>3</sup>Shkhagapsoev and Krapivina, 2003; <sup>3</sup>Shkhagapsoev and Krapivina, 2004); **Kaliningrad Oblast** (<sup>3</sup>Neuhoff, 1922; <sup>3</sup>Dedkov, Volodina, and Gubareva, 2007; <sup>3</sup>Volodina, 2007; <sup>1</sup>Atayev and Volodina, 2020); **Kaluga Oblast** (<sup>3</sup>Sionova, 2003; <sup>3</sup>Sionova, 2006); **Karachay-Cherkess Republic** (<sup>3</sup>Vassiljeva, 1939; <sup>7</sup>Onipchenko and Kaverina, 1989; <sup>1,7</sup>Kalamees and Botashev, 2000); **Karelia** (<sup>3</sup>Freindling, 1949; <sup>3</sup>Bondartseva et al., 2001; <sup>1</sup>Predtechenskaya and Ruokolainen, 2013; <sup>1</sup>Predtechenskaya, 2013; <sup>1</sup>Krutov et al., 2014; <sup>1</sup>Predtechenskaya and Ruokolainen, 2014; <sup>1</sup>Predtechenskaya, 2015; <sup>1</sup>Savelev and Kikeeva, 2020); **Kirov Oblast** (<sup>1</sup>Kirillov and Luginina, 2011; <sup>1</sup>Kirillov, 2011; <sup>1</sup>Kirillov, Perevedentseva, and Egoshina, 2011; <sup>1</sup>Stavishenko, Luginina, Kirillov, and Egoshina, 2019); **Komi Republic** (<sup>3</sup>Karatygin, Nezdojminogo, Novozhilov, and Zhurbenko, 1999; <sup>3</sup>Palamarchuk, 2011b; <sup>1</sup>Palamarchuk, 2012; <sup>1</sup>Palamarchuk, 2016a; <sup>1</sup>Palamarchuk, 2016b; <sup>1</sup>Palamarchuk and Kirillov, 2017; <sup>1</sup>Palamarchuk, 2017); **Krasnodar Krai** (<sup>3</sup>Vassiljeva, 1939; <sup>3</sup>Kovalenko, 1980a; <sup>3</sup>Kovalenko, 1980b; <sup>3</sup>Vaasma, Kalamees, and Raitviir, 1986; <sup>3</sup>Psurtseva, Kiyashko, Gachkova, and Belova, 2007); **Kursk Oblast** (<sup>3</sup>Ryabova and Ignatenko, 1981; <sup>3</sup>Baranov, 2002; <sup>3</sup>Soshnina, 2005); **Leningrad Oblast** (<sup>2</sup>Weinmann, 1836; <sup>3</sup>Thesleff, 1920; <sup>3</sup>Stolyarskaya, 1989; <sup>3,7</sup>Kovalenko and Morozova, 1999a; <sup>3</sup>Morozova and Kovalenko, 2000; <sup>3</sup>Morozova, 2007; <sup>1,7</sup>Popov et al., 2007; <sup>3</sup>Psurtseva, Kiyashko, Gachkova, and Belova, 2007; <sup>1</sup>Zmitrovich et al., 2015; <sup>1</sup>Kalinina, 2018); **Lipetsk Oblast** (<sup>3</sup>Alferova, 1977; <sup>3</sup>Rtishcheva, 1999; <sup>3</sup>Sarycheva, 1999; <sup>3</sup>Afanasyev, Rtishcheva, and Starodubtseva, 2007; <sup>1</sup>Sarycheva et al., 2009; <sup>1</sup>Sarycheva, 2011; <sup>1</sup>Sarycheva, 2014a; <sup>1</sup>Sarycheva, 2016; <sup>1</sup>Sarycheva, Starodubtseva, and Sapelnikova, 2017); **Mordovia** (<sup>3</sup>Chastukhin, 1948a; <sup>3</sup>Kuznetsov, 1960; <sup>1</sup>Ivoilov and Bolshakov, 2011a; <sup>3</sup>Chastukhin, 2011); **Moscow** (<sup>2</sup>Bucholtz, 1897b; <sup>2</sup>Bucholtz, 1897c; <sup>3</sup>Hennings, 1904; <sup>2</sup>Mosolov, 1906; <sup>3</sup>Burova, 1968); **Moscow Oblast** (<sup>3</sup>Gorlenko, Sidorova, and Sidorova, 1989; <sup>3</sup>Levitskaya, 1995b; <sup>3</sup>Vishnevsky, 1998; <sup>1</sup>Voronina et al., 2012; <sup>3</sup>Levitskaya, 2013; <sup>1</sup>Voronina et al., 2014); **Murmansk Oblast** (<sup>3</sup>Mikhailovskii, 1975b; <sup>3</sup>Nezdojminogo, 1997b; <sup>3</sup>Karatygin, Nezdojminogo, Novozhilov, and Zhurbenko, 1999); **Nenets Autonomous Okrug** (<sup>3</sup>Karatygin, Nezdojminogo, Novozhilov, and Zhurbenko, 1999); **North Ossetia** (<sup>3</sup>Nikolayev, 2001); **Novgorod Oblast** (<sup>3</sup>Kovalenko, Morozova, Nezdojminogo, and Popov, 2005; <sup>3</sup>Psurtseva, Kiyashko, Gachkova, and Belova, 2007; <sup>1</sup>Popov et al., 2013; <sup>1</sup>Baklan, 2015); **Orenburg Oblast** (<sup>3</sup>Korshikova, 2005; <sup>3</sup>Korshikova, 2006; <sup>3</sup>Desyatova, 2008); **Penza Oblast** (<sup>3</sup>Ivanov, 1981a; <sup>3</sup>Ivanov, 1981b); **Perm Krai** (<sup>3</sup>Shkaraba, Perevedentseva, and Moshkina, 1990; <sup>1</sup>Perevedentseva, 2008; <sup>1</sup>Belkovskaya et al., 2014; <sup>3,7</sup>Perevedentseva and Shishigin, 2014; <sup>3</sup>Botalov, 2017; <sup>3</sup>Botalov and Perevedentseva, 2020; <sup>3</sup>Botalov, Perevedentseva, and Shishigin, 2020); **Pskov Oblast** (<sup>3</sup>Kovalenko and Morozova, 1999b; <sup>3</sup>Popov, 2001a; <sup>1</sup>Popov et al., 2013); **Rostov Oblast** (<sup>3</sup>Rusanov et al., 2004; <sup>3</sup>Morozova et al., 2008; <sup>3</sup>Zmitrovich et al., 2008); **Ryazan Oblast** (<sup>3</sup>Volosnova, 1997; <sup>7</sup>Volosnova, 2005; <sup>1</sup>Volosnova,



2014); **Saint Petersburg** (<sup>2,6</sup>Weinmann, 1828; <sup>2,5</sup>Weinmann, 1836; <sup>2,5</sup>Weinmann, 1837; <sup>3</sup>Kovalenko and Morozova, 1999a; <sup>3</sup>Morozova and Kovalenko, 2000; <sup>3</sup>Kotkova, Morozova, and Popov, 2005; <sup>3</sup>Kotkova, Morozova, and Popov, 2006; <sup>3</sup>Morozova and Smirnov, 2011; <sup>1</sup>Morozova et al., 2020); **Samara Oblast** (<sup>3</sup>Malysheva and Malysheva, 2005b; <sup>3</sup>Psurtseva, Kiyashko, Gachkova, and Belova, 2007; <sup>1</sup>Malysheva and Malysheva, 2008); **Saratov Oblast** (<sup>3</sup>Komirnyaya, 1970); **Sevastopol** (<sup>1</sup>Sarkina, 2016b; <sup>1</sup>Sarkina, 2020b; <sup>1</sup>Sarkina, 2020c); **Smolensk Oblast** (<sup>3</sup>Jaczewski, 1896; <sup>3</sup>Burova, 1969); **Sverdlovsk Oblast** (<sup>3</sup>Stepanova and Sirko, 1977; <sup>3</sup>Marina, 2006); **Tatarstan** (<sup>3</sup>Vassiljeva, 1977); **Tula Oblast** (<sup>3</sup>Svetasheva, 2001; <sup>3</sup>Svetasheva, 2004; <sup>1</sup>Svetasheva, 2013; <sup>1</sup>Svetasheva, Aleksandrova, Zaytseva, and Solovjova, 2017); **Tver Oblast** (<sup>3</sup>Chastukhin, 1948b; <sup>3</sup>Chastukhin and Nikolaevskaya, 1969; <sup>3</sup>Kurochkin, 1993; <sup>1</sup>Mukhina, 2011a; <sup>1</sup>Mukhina, 2011b; <sup>1</sup>Kotkova, 2014); **Udmurt Republic** (<sup>3</sup>Tychinin and Kuzmina, 2003); **Ulyanovsk Oblast** (<sup>3</sup>Ilyukhin, 2009; <sup>3</sup>Ilyukhin, 2010a); **Volgograd Oblast** (<sup>3</sup>Burova and Nezdoininogo, 1982); **Vologda Oblast** (<sup>3</sup>Kutova, 1957; <sup>3</sup>Kirillova, 2007; <sup>3</sup>Kirillova, 2009); **Voronezh Oblast** (<sup>3,7</sup>Chastukhin, 1952; <sup>3</sup>Chastukhin and Nikolaevskaya, 1953; <sup>3</sup>Chastukhin and Nikolaevskaya, 1969; <sup>3</sup>Rtishcheva, 1999; <sup>3</sup>Afanasyev, Rtishcheva, and Starodubtseva, 2007; <sup>3</sup>Selochnik, 2015; <sup>1</sup>Sarycheva, Starodubtseva, and Sapelnikova, 2017; <sup>3</sup>Kochergina and Furmenkova, 2019); **Yamalo-Nenets Autonomous Okrug** (<sup>3</sup>Kazantseva, 1966; <sup>3</sup>Kazanthseva, 1970; <sup>3</sup>Stepanova and Sirko, 1970; <sup>3</sup>Kazantseva, 1972; <sup>3</sup>Stepanova and Sirko, 1977; <sup>3</sup>Karatygin, Nezdoininogo, Novozhilov, and Zhurbenko, 1999; <sup>3</sup>Nezdoininogo, 2001); **Yaroslavl Oblast** (<sup>3</sup>Lazareva, 1997; <sup>3</sup>Lazareva, 1998a); **Arid territories** (<sup>1</sup>Rebriev, Rusanov, et al., 2012); **Lapland** (<sup>2</sup>Karsten, 1866).

**SIBERIA: Altai Krai** (<sup>3</sup>Gorbunova and Perova, 2006; <sup>3</sup>Gorbunova and Chubarova, 2008; <sup>1</sup>Gorbunova, Vlasenko, and Tzhubarova, 2011); **Altai Republic** (<sup>3</sup>Singer, 1943; <sup>3</sup>Zhukov, 1979; <sup>3</sup>Kovalenko, 1992; <sup>3</sup>Gorbunova, 1996; <sup>3</sup>Gorbunova, 2001a; <sup>3</sup>Gorbunova, 2001b; <sup>3</sup>Gorbunova, 2006; <sup>3</sup>Gorbunova, 2008; <sup>1</sup>Gorbunova, 2010); **Buryatia** (<sup>3</sup>Nezdoininogo, 1970a); **Irkutsk Oblast** (<sup>3</sup>Kutafjeva, 1983; <sup>3</sup>Petrov, 1984; <sup>3</sup>Petrov, 1989; <sup>3</sup>Astapenko, 1990a; <sup>3</sup>Muzyka, 2002; <sup>3</sup>Bardunov et al., 2005; <sup>3</sup>Petrov, 2008; <sup>1</sup>Gorbunova and Stepantsova, 2015; <sup>3</sup>Muzyka and Penzina, 2017); **Khakassia** (<sup>3</sup>Beglyanova, 1972a; <sup>1</sup>Zauzolkova, 2015); **Khanty-Mansi Autonomous Okrug** (<sup>3</sup>Zvyagina, Baykalova, and Gorbunova, 2007; <sup>1</sup>Zvyagina, 2008; <sup>1</sup>Zvyagina and Baykalova, 2012; <sup>1</sup>Filippova and Thormann, 2014; <sup>1</sup>Filippova, 2014; <sup>1</sup>Filippova, Mourgues, and Philippe, 2014; <sup>1</sup>Shepeleva et al., 2014; <sup>1</sup>Filippova and Bulyonkova, 2017a; <sup>1</sup>Filippova and Bulyonkova, 2017b); **Krasnoyarsk Krai** (<sup>3</sup>Perova, 1970; <sup>3</sup>Beglyanova, 1972a; <sup>3</sup>Beglyanova, 1972c; <sup>7</sup>Beglyanova, 1972a; <sup>3</sup>Nezdoininogo, 1976a; <sup>3</sup>Lapitskaya, 1993; <sup>3</sup>Pavlov et al., 2007; <sup>1</sup>Kosheleva and Kutafjeva, 2008a; <sup>1</sup>Zauzolkova, 2012; <sup>1</sup>Kryuchkova, 2014a; <sup>1</sup>Zauzolkova, 2015; <sup>1</sup>Gorbunova, 2016; <sup>1</sup>Malysheva, Malysheva, Kiyashko, et al., 2017; <sup>1</sup>Krom and Kapitonov, 2019); **Novosibirsk Oblast** (<sup>3</sup>Nozdrenko, 1970; <sup>3</sup>Zaytseva, 1971; <sup>3</sup>Zhukov, 1972; <sup>3</sup>Perova, 1977; <sup>3</sup>Zhukov, 1980; <sup>3</sup>Gorbunova, 2007; <sup>3</sup>Perova and Gorbunova, 2007; <sup>1</sup>Koropachinskiy and Banaev, 2014); **Sakha Republic** (<sup>3</sup>Karatygin, Nezdoininogo, Novozhilov, and Zhurbenko, 1999; <sup>3</sup>Nezdoininogo, 2003); **Tomsk Oblast** (<sup>3,7</sup>Perova, 1972; <sup>3</sup>Milovidova, 1980; <sup>7</sup>Perova and Gorbunova, 2001; <sup>3</sup>Kosheleva and Kutafjeva, 2004; <sup>3</sup>Agaphonova, Kutafjeva, and Gashkov, 2007; <sup>1</sup>Kudashova, Gashkov, and Kutafjeva, 2013); **Yamalo-Nenets Autonomous Okrug** (<sup>3</sup>Tarchevskaya, 1990; <sup>3</sup>Karatygin, Nezdoininogo, Novozhilov, and Zhurbenko, 1999); **Zabaykalsky Krai** (<sup>3</sup>Karsten, 1911).

**FAR EAST: Amur Oblast** (<sup>3</sup>Nazarova, 1986; <sup>3</sup>Azbukina et al., 1998; <sup>3</sup>Bulakh, Govorova, and Taranina, 2003; <sup>1</sup>Taranina, 2005; <sup>1</sup>Kochunova, 2019); **Chukotka Autonomous Okrug** (<sup>4</sup>Sazanova, 1993; <sup>3</sup>Karatygin, Nezdoininogo, Novozhilov, and Zhurbenko, 1999); **Jewish Autonomous Oblast** (<sup>3</sup>Bau, Bulakh, Zhuang, and Li, 2007; <sup>3</sup>Bulakh, Govorova, Nazarova, and Vassiljeva, 2007; <sup>1</sup>Bau, Bulakh, and Govorova, 2011); **Kamchatka Krai** (<sup>3</sup>Kalamees and Vaasma, 1981; <sup>3</sup>Karatygin, Nezdoininogo, Novozhilov, and Zhurbenko, 1999); **Khabarovsk Krai** (<sup>3</sup>Azbukina et al., 1986; <sup>3</sup>Azbukina et al., 1989; <sup>1</sup>Bulakh, Vassiljeva, and Erofeeva, 2010; <sup>1</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Bulakh, 2013; <sup>1</sup>Bogacheva, Bulakh, Bukharova, and Egorova, 2015; <sup>1</sup>Erofeeva and Bulakh, 2015a); **Magadan Oblast** (<sup>3</sup>Nazarova, 1976; <sup>3</sup>Sazanova, 1996; <sup>4</sup>Sazanova, 2005; <sup>1</sup>Sazanova, 2009a; <sup>1</sup>Sazanova, 2011; <sup>1</sup>Sazanova, 2012; <sup>1</sup>Sazanova and Golodnova, 2015; <sup>1</sup>Sazanova, 2016); **Primorsky Krai** (<sup>3</sup>Vassiljeva, 1972; <sup>3</sup>Vassiljeva, 1973; <sup>3</sup>Shalapugina, 1976; <sup>3,7</sup>Bulakh, 1977; <sup>3</sup>Bunkina and Nazarova, 1978; <sup>3,7</sup>Azbukina et al., 1984; <sup>3</sup>Azbukina et al., 1990; <sup>3</sup>Bardunov et al., 2002; <sup>3,7</sup>Azbukina et al., 2006; <sup>3</sup>Bau, Bulakh, Zhuang, and Li, 2007; <sup>1,7</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Bulakh et al., 2016; <sup>1</sup>Bogacheva, Bulakh, Bukharova, and Egorova, 2020); **Sakhalin Oblast** (<sup>3</sup>Vassiljeva and Nazarova, 1972; <sup>3</sup>Bulakh, Govorova, and Bogatov, 1999).

### ***Gymnopus erythropus* (Pers.) Antonín, Halling & Noordel.<sup>1</sup>**

≡ *Collybia erythropus* (Pers.) P. Kumm.<sup>2</sup> ≡ *Marasmius erythropus* (Pers.) Fr.<sup>3</sup> = *Collybia marasmioides* (Sacc.) Bresinsky & Stangl<sup>4</sup>

**EASTERN EUROPE: Crimea** (<sup>4</sup>Dudka et al., 2004; <sup>4</sup>Sarkina, 2011; <sup>1</sup>Sarkina, 2020a); **Kaliningrad Oblast** (<sup>2</sup>Dedkov, Volodina, and Gubareva, 2007); **Karelia** (<sup>1</sup>Predtechenskaya and Ruokolainen, 2013); **Krasnodar Krai** (<sup>2</sup>Psurtseva, Kiyashko, Gachkova, and Belova, 2007); **Moscow Oblast** (<sup>2</sup>Levitskaya, 2013); **Murmansk Oblast** (<sup>2</sup>Pystina, Pavlova,

and Shestakova, 1969); **Pskov Oblast** (<sup>1</sup>Kalinina, Bolshakov, and Bulyonkova, 2020); **Tula Oblast** (<sup>2</sup>Svetasheva, 2004; <sup>2</sup>Svetasheva, 2005b; <sup>1</sup>Svetasheva, 2013); **Voronezh Oblast** (<sup>3</sup>Chastukhin and Nikolaevskaya, 1953; <sup>2</sup>Chastukhin and Nikolaevskaya, 1969).

SIBERIA: **Altai Republic** (<sup>1</sup>Gorbunova, 2008); **Irkutsk Oblast** (<sup>4</sup>Astapenko and Kutafjeva, 1990); **Khakassia** (<sup>1</sup>Zauzolkova, 2015; <sup>1</sup>Zauzolkova and Gorbunova, 2016); **Khanty-Mansi Autonomous Okrug** (<sup>1</sup>Zvyagina, 2008; <sup>1</sup>Shepeleva et al., 2014; <sup>1</sup>Zvyagina and Baykalova, 2017); **Krasnoyarsk Krai** (<sup>1</sup>Zauzolkova, 2015; <sup>1</sup>Zauzolkova and Gorbunova, 2016); **Tomsk Oblast** (<sup>1</sup>Kudashova, Gashkov, and Kutafjeva, 2013).

FAR EAST: **Jewish Autonomous Oblast** (<sup>4</sup>Bulakh, Govorova, Nazarova, and Vassiljeva, 2007).

### ***Gymnopus exsculptus* (Fr.) Murrill<sup>1</sup>**

≡ *Collybia exsculpta* (Fr.) Gillet<sup>2</sup>

EASTERN EUROPE: **Kaliningrad Oblast** (<sup>2</sup>Volodina, 2007); **Karelia** (<sup>2</sup>Bondartseva et al., 2001; <sup>1</sup>Krutov et al., 2014); **Moscow Oblast** (<sup>2</sup>Levitskaya, 2013); **Perm Krai** (<sup>1</sup>Belkovskaya et al., 2014; <sup>2</sup>Perevedentseva and Shishigin, 2014; <sup>2</sup>Botalov, 2017; <sup>2</sup>Botalov and Perevedentseva, 2020); **Pskov Oblast** (<sup>2</sup>Kovalenko and Morozova, 1999b).

SIBERIA: **Irkutsk Oblast** (<sup>2</sup>Petrov, 1991); **Khakassia** (<sup>2</sup>Beglyanova, 1972a; <sup>1</sup>Zauzolkova, 2015); **Krasnoyarsk Krai** (<sup>2</sup>Beglyanova, 1972a; <sup>2</sup>Beglyanova, 1972c; <sup>2</sup>Nezdojminogo, 1976a).

FAR EAST: **Primorsky Krai** (<sup>2</sup>Bulakh, 1977; <sup>2</sup>Azbukina et al., 1984).

### ***Gymnopus fasciatus* (Penn.) Halling**

≡ *Marasmius fasciatus* Penn.<sup>1</sup> = *Marasmius anomalus* Peck<sup>2</sup>

EASTERN EUROPE: **Arid territories** (<sup>2</sup>Rebriev, Rusanov, et al., 2012).

SIBERIA: **Krasnoyarsk Krai** (<sup>2</sup>Zauzolkova, 2012; <sup>2</sup>Zauzolkova, 2015); **Novosibirsk Oblast** (<sup>2</sup>Perova and Gorbunova, 2007).

FAR EAST: **Amur Oblast** (<sup>1</sup>Azbukina et al., 1998); **Jewish Autonomous Oblast** (<sup>1</sup>Bulakh, Govorova, Nazarova, and Vassiljeva, 2007; <sup>1</sup>Bau, Bulakh, and Govorova, 2011); **Khabarovsk Krai** (<sup>1</sup>Bau, Bulakh, and Govorova, 2011); **Primorsky Krai** (<sup>1</sup>Vassiljeva, 1972; <sup>1</sup>Vassiljeva, 1973; <sup>1</sup>Bunkina and Nazarova, 1978; <sup>1</sup>Azbukina et al., 1984; <sup>1</sup>Azbukina et al., 2006; <sup>1</sup>Bau, Bulakh, and Govorova, 2011); **Sakhalin Oblast** (<sup>1</sup>Vassiljeva and Nazarova, 1972).

### ***Gymnopus foetidus* (Sowerby) P.M. Kirk<sup>1</sup>**

≡ *Gymnopus foetidus* (Sowerby) J.L. Mata & R.H. Petersen<sup>2</sup> ≡ *Heliomyces foetidus* (Sowerby) Singer<sup>3</sup> ≡ *Marasmiellus foetidus* (Sowerby) Antonín, Halling & Noordel.<sup>4</sup> ≡ *Marasmius foetidus* (Sowerby) Fr.<sup>5</sup> ≡ *Micromphale foetidum* (Sowerby) Singer<sup>6</sup> = *Micromphale rufocarneum* (Velen.) Knudsen<sup>7</sup>

EASTERN EUROPE: **Adygea** (<sup>6</sup>Vaasma, Kalamees, and Raitviir, 1986; <sup>6</sup>Psurtseva, Kiyashko, Gachkova, and Belova, 2007); **Bryansk Oblast** (<sup>5</sup>Kruglikov, 2007); **Chechen Republic** (<sup>6</sup>Taysumov, Krapivina, and Kushalieva, 2016); **Crimea** (<sup>5</sup>Sarkina, 2001; <sup>6</sup>Dudka et al., 2004; <sup>6</sup>Sarkina, 2011; <sup>6</sup>Sarkina and Prydiuk, 2012; <sup>1</sup>Sarkina and Mironova, 2015); **Kabardino-Balkarian Republic** (<sup>6</sup>Shkhagapsoev and Krapivina, 2004); **Krasnodar Krai** (<sup>3</sup>Vassiljeva, 1939; <sup>6</sup>Vaasma, Kalamees, and Raitviir, 1986); **Leningrad Oblast** (<sup>6</sup>Kovalenko and Morozova, 1999a; <sup>6</sup>Popov et al., 2007); **Lipetsk Oblast** (<sup>6</sup>Sarycheva et al., 2009; <sup>6</sup>Sarycheva, 2011; <sup>6</sup>Sarycheva, 2014a; <sup>6</sup>Sarycheva, 2016; <sup>1</sup>Sarycheva, Starodubtseva, and Sapelnikova, 2017); **Moscow Oblast** (<sup>6</sup>Levitskaya, 1995b; <sup>6</sup>Vishnevsky, 1998; <sup>6</sup>Levitskaya, 2013); **Novgorod Oblast** (<sup>1</sup>Morozova, Popov, and Fedosova, 2014); **Perm Krai** (<sup>5</sup>Naoumoff, 1915); **Pskov Oblast** (<sup>6</sup>Popov et al., 2013; <sup>6</sup>Aleksandrov et al., 2014); **Saint Petersburg** (<sup>6</sup>Kovalenko and Morozova, 1999a; <sup>6</sup>Morozova and Kovalenko, 2000; <sup>6</sup>Kotkova, Morozova, and Popov, 2006); **Samara Oblast** (<sup>6</sup>Malysheva and Malysheva, 2005b; <sup>4</sup>Malysheva and Malysheva, 2008); **Sevastopol** (<sup>6</sup>Sarkina, 2016b; <sup>1</sup>Sarkina, 2020c); **Tula Oblast** (<sup>6,7</sup>Svetasheva, 2004); **Ulyanovsk Oblast** (<sup>6</sup>Ilyukhin, 2010a; <sup>6</sup>Ilyukhin, 2010b); **Yaroslavl Oblast** (<sup>6</sup>Lazareva, 1998a); **Arid territories** (<sup>2</sup>Rebriev, Rusanov, et al., 2012).

SIBERIA: **Altai Krai** (<sup>6</sup>Gorbunova and Perova, 2006); **Irkutsk Oblast** (<sup>6</sup>Petrov, 1984; <sup>6</sup>Petrov, 1991; <sup>6</sup>Petrov, 2008); **Khanty-Mansi Autonomous Okrug** (<sup>1</sup>Filippova, Bulyonkova, and Lapshina, 2015); **Krasnoyarsk Krai** (<sup>6</sup>Beglyanova, 1972a; <sup>6</sup>Karatygin, Nezdojminogo, Novozhilov, and Zhurbenko, 1999); **Novosibirsk Oblast** (<sup>2</sup>Koropachinskiy and Banaev, 2014).

FAR EAST: **Magadan Oblast** (<sup>6</sup>Sazanova, 2005; <sup>6</sup>Sazanova, 2009a; <sup>2</sup>Sazanova, 2016).

### ***Gymnopus fuscopurpureus* (Pers.) Antonín, Halling & Noordel.<sup>1</sup>**

≡ *Agaricus fuscopurpureus* Pers.<sup>2</sup> ≡ *Collybia fuscopurpurea* (Pers.) P. Kumm.<sup>3</sup> = *Collybia obscura* J. Favre<sup>4</sup>

EASTERN EUROPE: **Adygea** (<sup>4</sup>Vaasma, Kalamees, and Raitviir, 1986); **Belgorod Oblast** (<sup>3</sup>Bedenko, 1979a); **Chelyabinsk Oblast** (<sup>3</sup>Sirko and Stepanova, 1977; <sup>3</sup>Stepanova and Sirko, 1977); **Crimea** (<sup>3</sup>Sarkina, 2001; <sup>3</sup>Dudka

et al., 2004; <sup>3</sup>Sarkina, 2011); **Karachay-Cherkess Republic** (<sup>1</sup>Kalamees and Botashev, 2000); **Karelia** (<sup>3</sup>Freindling, 1949; <sup>3</sup>Czerepanova, Perfiljeva, and Tobias, 1982; <sup>4</sup>Bondartseva et al., 2001; <sup>1</sup>Krutov et al., 2014); **Komi Republic** (<sup>1</sup>Palamarchuk, 2016a; <sup>1</sup>Palamarchuk, 2016b; <sup>1</sup>Palamarchuk and Kirillov, 2017); **Krasnodar Krai** (<sup>4</sup>Vaasma, Kalamees, and Raitviir, 1986); **Leningrad Oblast** (<sup>3</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Popov et al., 2007; <sup>3</sup>Morozova, 2007); **Perm Krai** (<sup>1</sup>Perevedentseva, 2008; <sup>1</sup>Belkovskaya et al., 2014; <sup>3</sup>Perevedentseva and Shishigin, 2014); **Saint Petersburg** (<sup>2</sup>Weinmann, 1836; <sup>2</sup>Weinmann, 1837); **Samara Oblast** (<sup>1</sup>Malysheva and Malysheva, 2008); **Sverdlovsk Oblast** (<sup>4</sup>Marina, 2006); **Tver Oblast** (<sup>3</sup>Kurochkin, 1993); **Arid territories** (<sup>1</sup>Rebriev, Rusanov, et al., 2012).

SIBERIA: **Irkutsk Oblast** (<sup>3,4</sup>Petrov, 1984; <sup>4</sup>Astapenko, 1990a; <sup>3,4</sup>Petrov, 1991; <sup>3,4</sup>Petrov, 2008); **Krasnoyarsk Krai** (<sup>3</sup>Beglyanova, 1972a; <sup>3</sup>Beglyanova, 1972b; <sup>1</sup>Zauzolkova, 2012; <sup>1</sup>Zauzolkova, 2015; <sup>1</sup>Gorbunova, 2016); **Novosibirsk Oblast** (<sup>4</sup>Perova, 1982; <sup>4</sup>Perova and Gorbunova, 2001; <sup>4</sup>Perova and Gorbunova, 2007; <sup>1</sup>Koropachinskiy and Banaev, 2014); **Tuva Republic** (<sup>1</sup>Gorbunova, 2015).

FAR EAST: **Amur Oblast** (<sup>3</sup>Azbukina et al., 1998); **Jewish Autonomous Oblast** (<sup>3</sup>Bulakh, Govorova, Nazarova, and Vassiljeva, 2007; <sup>1</sup>Bau, Bulakh, and Govorova, 2011); **Khabarovsk Krai** (<sup>3</sup>Azbukina et al., 1986; <sup>1</sup>Bau, Bulakh, and Govorova, 2011); **Magadan Oblast** (<sup>3</sup>Sazanova, 1996; <sup>3</sup>Sazanova, 2005; <sup>1</sup>Sazanova, 2009a; <sup>1</sup>Sazanova, 2011); **Primorsky Krai** (<sup>3</sup>Vassiljeva, 1973; <sup>3</sup>Bunkina and Nazarova, 1978; <sup>3</sup>Azbukina et al., 1984; <sup>3</sup>Azbukina et al., 1990; <sup>3</sup>Bardunov et al., 2002; <sup>3</sup>Azbukina et al., 2006; <sup>1</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Bulakh et al., 2016); **Sakhalin Oblast** (<sup>3</sup>Vassiljeva and Nazarova, 1972; <sup>3</sup>Bulakh, Govorova, and Bogatov, 1999).

### ***Gymnopus fusipes* (Bull.) Gray<sup>1</sup>**

≡ *Agaricus fusipes* Bull.<sup>2</sup> ≡ *Collybia fusipes* (Bull.) Quél.<sup>3</sup> = *Agaricus contortus* Bull.<sup>4</sup> = *Agaricus oedematopus* Schaeff.<sup>5</sup> = *Collybia contorta* (Bull.) Sacc.<sup>6</sup>

EASTERN EUROPE: **Adygea** (<sup>3</sup>Vassiljeva, 1939); **Astrakhan Oblast** (<sup>1</sup>Rebriev, Aleksandrova, et al., 2012); **Crimea** (<sup>2</sup>Léveillé, 1842; <sup>3</sup>Sarkina, 2001; <sup>3</sup>Dudka et al., 2004; <sup>3</sup>Sarkina, 2011; <sup>3</sup>Sarkina and Prydiuk, 2012; <sup>1</sup>Sarkina and Stavishenko, 2019); **Kabardino-Balkarian Republic** (<sup>3</sup>Shkhagapsoev and Krapivina, 2004); **Kaliningrad Oblast** (<sup>3</sup>Dedkov, Volodina, and Gubareva, 2007; <sup>3</sup>Volodina, 2007); **Karelia** (<sup>1</sup>Krutov et al., 2014); **Krasnodar Krai** (<sup>3</sup>Vassiljeva, 1939; <sup>3</sup>Kovalenko, 1980a; <sup>3</sup>Kovalenko, 1980b; <sup>3</sup>Vaasma, Kalamees, and Raitviir, 1986); **Leningrad Oblast** (<sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Popov et al., 2007; <sup>1</sup>Zmitrovich et al., 2015; <sup>1</sup>Kalinina, 2018); **Lipetsk Oblast** (<sup>1</sup>Sarycheva et al., 2009); **Mordovia** (<sup>3</sup>Chastukhin, 1948a; <sup>3</sup>Chastukhin and Nikolaevskaya, 1969; <sup>1</sup>Ivoilov and Bolshakov, 2011a; <sup>3</sup>Chastukhin, 2011); **Murmansk Oblast** (<sup>3</sup>Pystina, Pavlova, and Shestakova, 1969); **Penza Oblast** (<sup>3</sup>Ivanov, 1981b; <sup>3</sup>Ivanov, 1983); **Ryazan Oblast** (<sup>1</sup>Volosnova, 2014); **Saint Petersburg** (<sup>2</sup>Weinmann, 1828; <sup>2,4,5</sup>Weinmann, 1836; <sup>2,4</sup>Weinmann, 1837; <sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Zhukova, Morozova, Volobuev, and Bryantseva, 2017); **Saratov Oblast** (<sup>6</sup>Kazakevich and Prisyazhnyuk, 1932); **Sverdlovsk Oblast** (<sup>3</sup>Marina, 2006); **Tula Oblast** (<sup>1</sup>Svetasheva, 2004; <sup>1</sup>Svetasheva, 2005b; <sup>1</sup>Shcherbakov, 2010); **Tver Oblast** (<sup>3</sup>Kurochkin, 1993); **Yamalo-Nenets Autonomous Okrug** (<sup>3</sup>Kazantseva, 1972; <sup>3</sup>Stepanova and Sirko, 1977); **Arid territories** (<sup>1</sup>Rebriev, Rusanov, et al., 2012).

SIBERIA: **Altai Krai** (<sup>3</sup>Gorbunova and Chubarova, 2008; <sup>1</sup>Gorbunova, Vlasenko, and Tzhubarova, 2011); **Irkutsk Oblast** (<sup>3</sup>Bardunov et al., 2005); **Khakassia** (<sup>1</sup>Zauzolkova, 2015); **Krasnoyarsk Krai** (<sup>3</sup>Beglyanova, 1972a); **Zabaykalsky Krai** (<sup>3</sup>Karsten, 1911).

FAR EAST: **Primorsky Krai** (<sup>6</sup>Vassiljeva, 1973).

### ***Gymnopus hariolorum* (Bull.) Antonín, Halling & Noordel.<sup>1</sup>**

≡ *Collybia hariolorum* (Bull.) Quél.<sup>2</sup> ≡ *Marasmius hariolorum* (Bull.) Quél.<sup>3</sup>

EASTERN EUROPE: **Crimea** (<sup>3</sup>Zerova, 1962; <sup>2</sup>Dudka et al., 2004; <sup>2</sup>Sarkina, 2011); **Kaliningrad Oblast** (<sup>2</sup>Volodina, 2007; <sup>1</sup>Atayev and Volodina, 2020); **Karachay-Cherkess Republic** (<sup>1</sup>Kalamees and Botashev, 2000); **Karelia** (<sup>1</sup>Krutov et al., 2014); **Leningrad Oblast** (<sup>2</sup>Chastukhin and Nikolaevskaya, 1969; <sup>2</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Popov et al., 2007); **Moscow Oblast** (<sup>2</sup>Levitskaya, 1995b; <sup>2</sup>Vishnevsky, 1998; <sup>2</sup>Levitskaya, 2013); **Murmansk Oblast** (<sup>2</sup>Pystina, Pavlova, and Shestakova, 1969); **Perm Krai** (<sup>1</sup>Perevedentseva, 2008); **Pskov Oblast** (<sup>2</sup>Popov, 2001a; <sup>1</sup>Popov et al., 2013); **Samara Oblast** (<sup>2</sup>Malysheva and Malysheva, 2006; <sup>2</sup>Psurtsseva, Kiyashko, Gachkova, and Belova, 2007; <sup>1</sup>Malysheva and Malysheva, 2008); **Udmurt Republic** (<sup>1</sup>Kapitonov, 2013); **Arid territories** (<sup>1</sup>Rebriev, Rusanov, et al., 2012).

SIBERIA: **Altai Republic** (<sup>1</sup>Gorbunova, 2017a); **Irkutsk Oblast** (<sup>1</sup>Gorbunova and Stepantsova, 2015); **Khakassia** (<sup>1</sup>Zauzolkova and Gorbunova, 2013; <sup>1</sup>Zauzolkova, 2015); **Novosibirsk Oblast** (<sup>2</sup>Perova, 1977; <sup>2</sup>Perova and Gorbunova, 2001; <sup>2</sup>Gorbunova, 2007; <sup>1</sup>Koropachinskiy and Banaev, 2014); **Tomsk Oblast** (<sup>2</sup>Perova and Gorbunova, 2001; <sup>1</sup>Kudashova, Gashkov, and Kutafjeva, 2013).

FAR EAST: **Jewish Autonomous Oblast** (<sup>2</sup>Bulakh, Govorova, Nazarova, and Vassiljeva, 2007; <sup>1</sup>Bau, Bulakh, and Govorova, 2011); **Khabarovsk Krai** (<sup>2</sup>Azbukina et al., 1986; <sup>2</sup>Azbukina et al., 1989; <sup>1</sup>Bau, Bulakh, and Govorova, 2011); **Primorsky Krai** (<sup>2</sup>Vassiljeva, 1972; <sup>2</sup>Vassiljeva, 1973; <sup>2</sup>Bunkina and Nazarova, 1978; <sup>2</sup>Azbukina et al., 1984; <sup>2</sup>Bardunov et al., 2002; <sup>2</sup>Azbukina et al., 2006; <sup>1</sup>Bau, Bulakh, and Govorova, 2011).

***Gymnopus hybridus* (Kühner & Romagn.) Antonín & Noordel.**

≡ *Collybia hybrida* (Kühner & Romagn.) Svrček & Kubička<sup>1</sup>

EASTERN EUROPE: **Belgorod Oblast** (<sup>1</sup>Psurtseva, Belova, and Ryabusheva, 2003; <sup>1</sup>Psurtseva, Kiyashko, Gachkova, and Belova, 2007).

***Gymnopus impudicus* (Fr.) Antonín, Halling & Noordel.<sup>1</sup>**

≡ *Collybia impudica* (Fr.) Singer<sup>2</sup>

EASTERN EUROPE: **Belgorod Oblast** (<sup>2</sup>Psurtseva, Belova, and Ryabusheva, 2003; <sup>2</sup>Psurtseva, Kiyashko, Gachkova, and Belova, 2007); **Krasnodar Krai** (<sup>2</sup>Vassiljeva, 1939; <sup>2</sup>Kovalenko, 1980a; <sup>2</sup>Kovalenko, 1980b); **Leningrad Oblast** (<sup>2</sup>Psurtseva, Kiyashko, Gachkova, and Belova, 2007); **Penza Oblast** (<sup>2</sup>Ivanov, 1983); **Perm Krai** (<sup>1</sup>Perevedentseva, Shilkova, and Botalov, 2011); **Ryazan Oblast** (<sup>2</sup>Volosnova, 2005; <sup>1</sup>Volosnova, 2014); **Tatarstan** (<sup>2</sup>Vassiljeva, 1977); **Yaroslavl Oblast** (<sup>2</sup>Lazareva, 1997; <sup>2</sup>Lazareva, 1998a).

SIBERIA: **Altai Krai** (<sup>2</sup>Gorbunova and Chubarova, 2008; <sup>1</sup>Gorbunova, Vlasenko, and Tzhubarova, 2011); **Buryatia** (<sup>2</sup>Nezdojminogo, 1973); **Irkutsk Oblast** (<sup>2</sup>Petrov, 1984; <sup>2</sup>Bardunov et al., 2005; <sup>2</sup>Petrov, 2008); **Tomsk Oblast** (<sup>2</sup>Perova and Gorbunova, 2001; <sup>1</sup>Kudashova, Gashkov, and Kutafjeva, 2013).

FAR EAST: **Amur Oblast** (<sup>2</sup>Nazarova, 1986; <sup>1</sup>Taranina, 2005); **Khabarovsk Krai** (<sup>2</sup>Azbukina et al., 1986; <sup>2</sup>Azbukina et al., 1989; <sup>1</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Bulakh, 2013; <sup>1</sup>Bogacheva, Bulakh, Bukharova, and Egorova, 2015); **Magadan Oblast** (<sup>2</sup>Nazarova, 1976; <sup>2</sup>Sazanova, 2005; <sup>1</sup>Sazanova, 2009a); **Primorsky Krai** (<sup>2</sup>Vassiljeva, 1973; <sup>2</sup>Bulakh, 1977; <sup>2</sup>Bunkina and Nazarova, 1978; <sup>2</sup>Azbukina et al., 1984; <sup>2</sup>Azbukina et al., 1990; <sup>2</sup>Bardunov et al., 2002; <sup>2</sup>Azbukina et al., 2006; <sup>1</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Bulakh et al., 2016); **Sakhalin Oblast** (<sup>2</sup>Vassiljeva and Nazarova, 1972).

***Gymnopus inodorus* (Pat.) Antonín & Noordel.**

SIBERIA: **Khanty-Mansi Autonomous Okrug** (Filippova and Bulyonkova, 2017a; Filippova and Bulyonkova, 2017b).

***Gymnopus kauffmanii* (Halling) Halling**

≡ *Collybia kauffmanii* Halling<sup>1</sup>

EASTERN EUROPE: **Pskov Oblast** (<sup>1</sup>Kovalenko and Morozova, 1999b).

***Gymnopus ocior* (Pers.) Antonín & Noordel.<sup>1</sup>**

≡ *Collybia ocior* (Pers.) Vilgalys & O.K. Mill.<sup>2</sup> = *Agaricus dryophilus* β *funicularis* Fr.<sup>3</sup> = *Agaricus xanthopus* Fr.<sup>4</sup> = *Collybia dryophila* var. *funicularis* (Fr.) P. Karst.<sup>5</sup> = *Collybia extuberans* (Fr.) Quél.<sup>6</sup> = *Collybia luteifolia* Gillet<sup>7</sup> = *Collybia succinea* Quél.<sup>8</sup>

EASTERN EUROPE: **Chelyabinsk Oblast** (<sup>2</sup>Psurtseva, Kiyashko, Gachkova, and Belova, 2007); **Crimea** (<sup>8</sup>Dudka et al., 2004); **Karelia** (<sup>2</sup>Psurtseva, Kiyashko, Gachkova, and Belova, 2007; <sup>1</sup>Krutov et al., 2014; <sup>1</sup>Savelev and Kikeeva, 2020); **Kirov Oblast** (<sup>1</sup>Kirillov, 2011; <sup>1</sup>Kirillov, Perevedentseva, and Egoshina, 2011); **Komi Republic** (<sup>1</sup>Palamarchuk and Kirillov, 2018a; <sup>1</sup>Palamarchuk, 2020a); **Krasnodar Krai** (<sup>6</sup>Vassiljeva, 1939); **Kursk Oblast** (<sup>2,7</sup>Baranov, 2002); **Leningrad Oblast** (<sup>3</sup>Weinmann, 1836; <sup>5</sup>Thesleff, 1920; <sup>2</sup>Kovalenko and Morozova, 1999a; <sup>2</sup>Morozova and Kovalenko, 2000; <sup>1</sup>Popov et al., 2007; <sup>2</sup>Morozova, 2007; <sup>1</sup>Zmitrovich et al., 2015); **Moscow Oblast** (<sup>8</sup>Levitskaya, 2013); **Novgorod Oblast** (<sup>2</sup>Kovalenko, Morozova, Nezdojminogo, and Popov, 2005; <sup>2</sup>Psurtseva, Kiyashko, Gachkova, and Belova, 2007; <sup>1</sup>Popov et al., 2013); **Penza Oblast** (<sup>5,6</sup>Ivanov, 1999); **Perm Krai** (<sup>1</sup>Perevedentseva, 2008); **Pskov Oblast** (<sup>1</sup>Popov et al., 2013); **Rostov Oblast** (<sup>1</sup>Rusanov, Rebriev, and Bulgakov, 2018); **Ryazan Oblast** (<sup>1</sup>Volosnova, 2014); **Saint Petersburg** (<sup>4</sup>Weinmann, 1836; <sup>3,4</sup>Weinmann, 1837; <sup>2</sup>Kovalenko and Morozova, 1999a; <sup>2</sup>Morozova and Smirnov, 2011; <sup>1</sup>Morozova et al., 2020); **Samara Oblast** (<sup>2</sup>Malysheva and Malysheva, 2005b; <sup>1</sup>Malysheva and Malysheva, 2008); **Sverdlovsk Oblast** (<sup>2</sup>Marina, 2006); **Tula Oblast** (<sup>2</sup>Svetasheva, 2004); **Udmurt Republic** (<sup>6</sup>Tychinin, 1990); **Ulyanovsk Oblast** (<sup>2</sup>Ilyukhin, 2009; <sup>2</sup>Ilyukhin, 2010a); **Vologda Oblast** (<sup>2</sup>Kirillova, 2007; <sup>2</sup>Kirillova, 2009); **Yaroslavl Oblast** (<sup>2</sup>Lazareva, 1997; <sup>2</sup>Lazareva, 1998a); **Arid territories** (<sup>1</sup>Rebriev, Rusanov, et al., 2012).

SIBERIA: **Altai Republic** (<sup>1</sup>Gorbunova, 2008; <sup>1</sup>Gorbunova, 2017b); **Irkutsk Oblast** (<sup>7</sup>Petrov, 1991; <sup>7</sup>Petrov, 2008); **Khakassia** (<sup>1</sup>Zauzolkova and Gorbunova, 2013; <sup>1</sup>Zauzolkova, 2015); **Khanty-Mansi Autonomous Okrug**

(<sup>1</sup>Zvyagina, 2008; <sup>1</sup>Shepeleva et al., 2014; <sup>1</sup>Filippova and Bulyonkova, 2017a; <sup>1</sup>Filippova and Bulyonkova, 2017b); **Krasnoyarsk Krai** (<sup>7,8</sup>Beglyanova, 1972a; <sup>1</sup>Malysheva, Malysheva, Kiyashko, et al., 2017; <sup>1</sup>Krom and Kapitonov, 2019); **Novosibirsk Oblast** (<sup>1</sup>Koropachinskiy and Banaev, 2014); **Tomsk Oblast** (<sup>1</sup>Kudashova, Gashkov, and Vaishlya, 2016a); **Yamalo-Nenets Autonomous Okrug** (<sup>1</sup>Kapitonov, 2015).

FAR EAST: **Magadan Oblast** (<sup>8</sup>Nazarova, 1976; <sup>8</sup>Sazanova, 2005; <sup>1</sup>Sazanova, 2009a); **Primorsky Krai** (<sup>8</sup>Bulakh, 1977; <sup>8</sup>Azbukina et al., 1984; <sup>1</sup>Bau, Bulakh, and Govorova, 2011).

***Gymnopus oreadoides* (Pass.) Antonín & Noordel.**

EASTERN EUROPE: **Kaliningrad Oblast** (Atayev and Volodina, 2020).

***Gymnopus putillus* (Fr.) Antonín, Halling & Noordel.<sup>1</sup>**

≡ *Collybia putilla* (Fr.) Singer<sup>2</sup> ≡ *Marasmius putillus* (Fr.) Fr.<sup>3</sup>

EASTERN EUROPE: **Belgorod Oblast** (<sup>2</sup>Bedenko, 1979a; <sup>2</sup>Psurtseva, Belova, and Ryabusheva, 2003; <sup>2</sup>Psurtseva, Kiyashko, Gachkova, and Belova, 2007); **Kaliningrad Oblast** (<sup>2</sup>Volodina, 2007); **Karelia** (<sup>1</sup>Krutov et al., 2014); **Komi Republic** (<sup>1</sup>Palamarchuk and Kirillov, 2017); **Leningrad Oblast** (<sup>3</sup>Thesleff, 1920; <sup>2</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Popov et al., 2007); **Moscow Oblast** (<sup>2</sup>Levitskaya, 2006; <sup>2</sup>Levitskaya, 2013); **Perm Krai** (<sup>2</sup>Botalov, 2015; <sup>2</sup>Botalov, 2017; <sup>2</sup>Botalov and Perevedentseva, 2020); **Yaroslavl Oblast** (<sup>2</sup>Lazareva, 1998a).

SIBERIA: **Buryatia** (<sup>2</sup>Nezdojminogo, 1970a; <sup>2</sup>Petrov, 1991); **Irkutsk Oblast** (<sup>2</sup>Astapenko and Kutafjeva, 1990); **Khanty-Mansi Autonomous Okrug** (<sup>1</sup>Filippova and Bulyonkova, 2017a; <sup>1</sup>Filippova and Bulyonkova, 2017b); **Tomsk Oblast** (<sup>2</sup>Perova and Gorbunova, 2001; <sup>1</sup>Kudashova, Gashkov, and Kutafjeva, 2013).

***Gymnopus terginus* (Fr.) Antonín & Noordel.<sup>1</sup>**

≡ *Collybia tergina* (Fr.) S. Lundell<sup>2</sup>

EASTERN EUROPE: **Komi Republic** (<sup>1</sup>Palamarchuk, 2016a; <sup>1</sup>Palamarchuk, 2016b); **Leningrad Oblast** (<sup>2</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Popov et al., 2007); **Murmansk Oblast** (<sup>2</sup>Pystina, Pavlova, and Shestakova, 1969); **Perm Krai** (<sup>1</sup>Perevedentseva, 2008; <sup>2</sup>Botalov, 2017; <sup>2</sup>Botalov and Perevedentseva, 2020); **Pskov Oblast** (<sup>1</sup>Kalinina, Bolshakov, and Bulyonkova, 2020); **Sverdlovsk Oblast** (<sup>2</sup>Marina, 2006).

FAR EAST: **Primorsky Krai** (<sup>1</sup>Bulakh et al., 2016).

***Gymnopus vernus* (Ryman) Antonín & Noordel.**

EASTERN EUROPE: **Leningrad Oblast** (Bolshakov et al., 2020); **Udmurt Republic** (Kapitonov, 2013).

SIBERIA: **Tomsk Oblast** (Kudashova, Gashkov, and Vaishlya, 2016a).

***Gyrodon lividus* (Bull.) Sacc.**

EASTERN EUROPE: **Bryansk Oblast** (Kruglikov, 2007); **Crimea** (Dudka et al., 2004; Sarkina, 2011); **Kabardino-Balkarian Republic** (Shkhagapsoev and Krapivina, 2004); **Kaliningrad Oblast** (Dedkov, Volodina, and Gubareva, 2007; Dedkov and Grishanov, 2010); **Krasnodar Krai** (Kovalenko, 1980a; Kovalenko, 1980b; Sopina, 2001a); **Leningrad Oblast** (Kovalenko and Morozova, 1999a; Morozova, 1999; Morozova and Kovalenko, 2000; Tzvelev, 2000; Popov et al., 2007; Geltman et al., 2018); **North Ossetia** (Nikolayev, 2001); **Novgorod Oblast** (Kovalenko, Morozova, Nezdojminogo, and Popov, 2005; Popov et al., 2013); **Orenburg Oblast** (Psurtseva, Kiyashko, Gachkova, and Belova, 2007); **Pskov Oblast** (Popov, 2001a; Popov et al., 2013; Aleksandrov et al., 2014); **Ryazan Oblast** (Volosnova, 2005; Ivanchev and Kazakova, 2011); **Saint Petersburg** (Noskov, 2004; Morozova and Smirnov, 2011); **Udmurt Republic** (Kapitonov, 2013); **Vologda Oblast** (Kirillova, 2007; Suslova et al., 2013).

***Gyroflexus brevibasidiatus* (Singer) Raithelh.**

≡ *Clitocybe brevibasidiata* Singer<sup>1</sup> ≡ *Sphagnomphalia brevibasidiata* (Singer) Redhead, Moncalvo, Vilgalys & Lutzoni<sup>2</sup>

SIBERIA: **Altai Republic** (<sup>1</sup>Singer, 1943); **Khanty-Mansi Autonomous Okrug** (<sup>2</sup>Filippova and Thormann, 2014; <sup>2</sup>Filippova, 2014; <sup>2</sup>Filippova, Mourgues, and Philippe, 2014).

***Gyroporus castaneus* (Bull.) Quél.**

EASTERN EUROPE: **Adygea** (Vassiljeva, 1939; Zamotajlov, Sirotyuk (Kuvaeva), Akatova, and Lipka, 2012); **Belgorod Oblast** (Bedenko, 1979a; Prisky, 2005; Prisky, 2019); **Bryansk Oblast** (Fedotov, 2004; Kruglikov, 2007; Bulokhov, Panasenko, Semenishchenkov, and Sitnikova, 2016); **Chuvash Republic** (Ivanov, 2001; Gafurova, Ignatov, Tolpysheva, and Svetasheva, 2020); **Crimea** (Sarkina, 2001; Dudka et al., 2004; Akulov and Pryidiuk, 2007; Sarkina,

2010b; Sarkina, 2013); **Kabardino-Balkarian Republic** (Shkhagapsoev and Krapivina, 2004); **Kaliningrad Oblast** (Dedkov, Volodina, and Gubareva, 2007; Volodina, 2007; Dedkov and Grishanov, 2010); **Kaluga Oblast** (Sionova, 2003; Alekseev et al., 2006; Sionova, 2009; Antokhina et al., 2015); **Krasnodar Krai** (Kovalenko, 1980a; Kovalenko, 1980b; Litvinskaya, 2007; Litvinskaya, 2017); **Kursk Oblast** (Baranov, 2002; Zolotukhin, 2002; Konechnaya et al., 2017); **Leningrad Oblast** (Popov et al., 2007); **Lipetsk Oblast** (Rtishcheva, 1999; Sarycheva, 1999; Afanasyev, Rtishcheva, and Starodubtseva, 2007; Sarycheva et al., 2009; Sarycheva, 2014a; Shcherbakov, 2014; Sarycheva, 2016; Sarycheva, Starodubtseva, and Sapelnikova, 2017); **Mari El Republic** (Bogdanov, Abramov, Urbanavichus, and Bogdanova, 2013); **Mordovia** (Silaeva et al., 2009; Ivoilov and Bolshakov, 2011b; Bolshakov and Ivoilov, 2012b; Silaeva et al., 2013; Ivoilov and Bolshakov, 2014; Silaeva, 2017); **Moscow** (Samoilov and Morozova, 2011; Muchnik et al., 2020); **Moscow Oblast** (Gorlenko, Sidorova, and Sidorova, 1989; Levitskaya, 1995b; Varlygina, Zubakin, and Sobolev, 2008; Levitskaya, 2013; Varlygina, Zubakin, Nikitsky, and Sviridov, 2018); **Nizhny Novgorod Oblast** (Okhapkin, 2005; Chkalov, 2017); **North Ossetia** (Komzha, Lipkovich, and Popov, 1999; Nikolayev, 2001); **Oryol Oblast** (Radygina, Derzhavina, and Tsutsupa, 2014); **Penza Oblast** (Ivanov, 1981a); **Perm Krai** (Perevedentseva, 2008); **Pskov Oblast** (Popov, 2001a; Popov, 2001b; Popov et al., 2013; Aleksandrov et al., 2014); **Rostov Oblast** (Rusanov et al., 2004; Zmitrovich et al., 2008; Fedyaeva, 2014; Rusanov, Rebriev, and Bulgakov, 2018); **Ryazan Oblast** (Volosnova, 1997; Ivanchev and Kazakova, 2011; Volosnova, 2014); **Saint Petersburg** (Kovalenko and Morozova, 1999a; Morozova, Kovalenko, Rebriev, and Malysheva, 2014; Geltman, 2018a); **Saratov Oblast** (Komirnaya, 1975; Shlyakhtin, 2006; Nagumanov, 2015); **Sevastopol** (Sarkina, 2020c); **Tambov Oblast** (Elenevskiy, 2002; Konakov et al., 2019); **Tatarstan** (Vassiljeva, 1977; Shchepovskih, Boroznov, Bojko, and Liubarsky, 1995; Shchepovskih, Bojko, Gorshkov, and Rogova, 2006; Yupina, Marfin, Sapayev, and Potapov, 2006; Potapov, 2015b; Nazirov, Gorshkov, Ivanov, and Rogova, 2016); **Tula Oblast** (Shcherbakov, 2010); **Tver Oblast** (Kurochkin, 1993; Sorokin, 2002; Kurochkin, 2015; Orlov et al., 2016); **Udmurt Republic** (Tychinin and Kuzmina, 2003); **Vladimir Oblast** (Azbukina et al., 2010; Kanishcheva and Sergeev, 2018); **Volgograd Oblast** (Novikov and Klinkova, 2006; Baranova and Salagaev, 2017); **Voronezh Oblast** (Rtishcheva, 1999; Afanasyev, Rtishcheva, and Starodubtseva, 2007; Agafonov, 2011; Sarycheva, Starodubtseva, and Sapelnikova, 2017; Agafonov, 2018); **Yaroslavl Oblast** (Lazareva, 1997; Lazareva, 1998a; Nyankovsky, 2015); **Arid territories** (Rebriev, Rusanov, et al., 2012); **Northern Caucasus** (Vassiljeva, 1939).

SIBERIA: **Krasnoyarsk Krai** (Kosheleva and Kutafjeva, 2008a).

FAR EAST: **Jewish Autonomous Oblast** (Shlotgauer and Rubtsova, 2006; Bulakh, Govorova, Nazarova, and Vassiljeva, 2007; Bau, Bulakh, and Govorova, 2011; Bogacheva et al., 2018; Erofeeva and Bukharova, 2019; Erofeeva, Bukharova, and Bulakh, 2019; Shlotgauer and Rubtsova, 2019); **Khabarovsk Krai** (Erofeeva and Bulakh, 2015a; Bogacheva et al., 2018); **Primorsky Krai** (Vassiljeva, 1956; Vassiljeva, 1972; Vassiljeva, 1973; Azbukina et al., 1990; Bardunov et al., 2002; Kozhevnikov, 2008; Bau, Bulakh, and Govorova, 2011; Bulakh et al., 2016; Bogacheva et al., 2018; Bogacheva, Bulakh, Bukharova, and Egorova, 2020).

### ***Gyroporus cyanescens* (Bull.) Quél.<sup>1</sup>**

≡ *Gyroporus cyanescens* var. *cyanescens* (Bull.) Quél.<sup>2</sup> ≡ *Suillus cyanescens* (Bull.) P. Karst.<sup>3</sup> = *Gyroporus cyanescens* var. *sulfureus* Kalamees<sup>4</sup> = *Gyroporus sulfureus* (Kalamees) Kalamees<sup>5</sup>

EASTERN EUROPE: **Adygea** (<sup>1</sup>Kovalenko, 1980b; <sup>1</sup>Sopina, 2001a; <sup>1</sup>Zamotajlov, Sirotyuk (Kuvaeva), Akatova, and Lipka, 2012); **Bryansk Oblast** (<sup>1</sup>Fedotov, 2004; <sup>1</sup>Kruglikov, 2007; <sup>1</sup>Bulokhov, Panasenko, Semenishchenkov, and Sitnikova, 2016); **Chechen Republic** (<sup>1</sup>Taysumov, Krapivina, Umarov, and Astamirova, 2012; <sup>1</sup>Taysumov, Zamotaylov, and Batkhiev, 2020); **Chuvash Republic** (<sup>1</sup>Ivanov, 2001; <sup>1</sup>Gafurova, Ignatov, Tolpysheva, and Svetasheva, 2020); **Crimea** (<sup>1</sup>Akulov and Pryidiuk, 2007); **Ivanovo Oblast** (<sup>1</sup>Borisova and Mineyeva, 2020); **Kabardino-Balkarian Republic** (<sup>1</sup>Shkhagapsoev and Krapivina, 2004); **Kaliningrad Oblast** (<sup>1</sup>Dedkov, Volodina, and Gubareva, 2007; <sup>1</sup>Dedkov and Grishanov, 2010); **Kaluga Oblast** (<sup>1</sup>Sionova, 2003; <sup>1</sup>Alekseev et al., 2006; <sup>1</sup>Sionova, 2009; <sup>1</sup>Antokhina et al., 2015); **Karachay-Cherkess Republic** (<sup>2</sup>Kalamees and Botashev, 2000); **Karelia** (<sup>1</sup>Ivanter and Kuznetsov, 2007; <sup>1</sup>Krutov et al., 2014; <sup>1</sup>Kuznetsov, 2020); **Kirov Oblast** (<sup>1</sup>Kirillov, 2011; <sup>1</sup>Kirillov, Perevedentseva, and Egoshina, 2011; <sup>1</sup>Baranova et al., 2014); **Komi Republic** (<sup>1</sup>Bobretsova, 2004; <sup>1</sup>Taskaev, 2009; <sup>1</sup>Palamarchuk, 2012; <sup>1</sup>Palamarchuk and Kirillov, 2017; <sup>1</sup>Dyogteva, 2019); **Krasnodar Krai** (<sup>1</sup>Vassiljeva, 1939; <sup>1</sup>Kovalenko, 1980a; <sup>1</sup>Kovalenko, 1980b; <sup>4</sup>Vaasma, Kalamees, and Raitviir, 1986; <sup>5</sup>Kalamees, 1989; <sup>1</sup>Litvinskaya, 2007; <sup>1</sup>Litvinskaya, 2017; <sup>5</sup>Crous et al., 2017); **Kursk Oblast** (<sup>1</sup>Bedenko, 1985; <sup>1</sup>Zolotukhin, 2002; <sup>1</sup>Konechnaya et al., 2017); **Leningrad Oblast** (<sup>3</sup>Thesleff, 1920; <sup>1</sup>Stolyarskaya, 1989; <sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Fomina, 2000; <sup>1</sup>Tzvelev, 2000; <sup>1</sup>Morozova, 2007; <sup>1</sup>Popov et al., 2007; <sup>1</sup>Zmitrovich et al., 2015; <sup>1</sup>Geltman et al., 2018; <sup>1</sup>Geltman, 2018b; <sup>1</sup>Kalinina, 2018); **Lipetsk Oblast** (<sup>1</sup>Rtishcheva, 1999; <sup>1</sup>Afanasyev, Rtishcheva, and Starodubtseva, 2007; <sup>1</sup>Sarycheva et al., 2009; <sup>1</sup>Shcherbakov, 2014; <sup>1</sup>Sarycheva, Starodubtseva, and Sapelnikova, 2017); **Mari El Republic** (<sup>1</sup>Prokhorov, 2007; <sup>1</sup>Bogdanov, Abramov, Urbanavichus, and Bogdanova, 2013); **Mordovia** (<sup>1</sup>Novikov and Silaeva, 2003; <sup>1</sup>Ivoilov and Bolshakov, 2011b; <sup>1</sup>Bolshakov and

Ivoilov, 2012b; <sup>1</sup>Ivoilov and Bolshakov, 2014; <sup>1</sup>Silaeva, 2017); **Moscow Oblast** (<sup>1</sup>Gorlenko, Sidorova, and Sidorova, 1989; <sup>1</sup>Levitskaya, 1995b; <sup>1</sup>Varlygina, Zubakin, and Sobolev, 2008; <sup>1</sup>Voronina et al., 2012; <sup>1</sup>Levitskaya, 2013; <sup>1</sup>Voronina et al., 2014; <sup>1</sup>Varlygina, Zubakin, Nikitsky, and Sviridov, 2018); **Nizhny Novgorod Oblast** (<sup>1</sup>Okhapkin, 2005); **North Ossetia** (<sup>1</sup>Komzha, Lipkovich, and Popov, 1999; <sup>1</sup>Nikolayev, 2001); **Novgorod Oblast** (<sup>1</sup>Arslanov, 2012; <sup>1</sup>Vetkin et al., 2015); **Oryol Oblast** (<sup>1</sup>Prigoryanu, 2007; <sup>1</sup>Radygina, Derzhavina, and Tsutsupa, 2014); **Penza Oblast** (<sup>1</sup>Ivanov, 1981a; <sup>1</sup>Ivanov, 2013a); **Perm Krai** (<sup>1</sup>Perevedentseva, 2008; <sup>1</sup>Shepel', 2008; <sup>1</sup>Belkovskaya et al., 2014; <sup>1</sup>Botalov, 2017; <sup>1</sup>Baklanov, 2018); **Pskov Oblast** (<sup>1</sup>Popov, 2001a; <sup>1</sup>Popov, 2001b; <sup>1</sup>Popov et al., 2013; <sup>1</sup>Aleksandrov et al., 2014); **Ryazan Oblast** (<sup>1</sup>Volosnova, 1997; <sup>1</sup>Ivanchev and Kazakova, 2011; <sup>1</sup>Volosnova, 2014); **Saint Petersburg** (<sup>1</sup>Morozova and Smirnov, 2011; <sup>1</sup>Geltman, 2018a); **Saratov Oblast** (<sup>1</sup>Shlyakhtin, 2006; <sup>1</sup>Nagumanov, 2015); **Tambov Oblast** (<sup>1</sup>Elenevskiy, 2002; <sup>1</sup>Konakov et al., 2019); **Tatarstan** (<sup>1</sup>Shchepovskih, Boroznov, Bojko, and Liubarsky, 1995; <sup>1</sup>Shchepovskih, Bojko, Gorshkov, and Rogova, 2006; <sup>1</sup>Nazirov, Gorshkov, Ivanov, and Rogova, 2016); **Tula Oblast** (<sup>1</sup>Svetasheva, 2004; <sup>1</sup>Svetasheva, 2005b; <sup>1</sup>Shcherbakov, 2010); **Tver Oblast** (<sup>1</sup>Kurochkin, 1993; <sup>1</sup>Sorokin, 2002; <sup>1</sup>Orlov et al., 2016); **Udmurt Republic** (<sup>1</sup>Tychinin and Kuzmina, 2003); **Vladimir Oblast** (<sup>1</sup>Azbukina et al., 2010); **Voronezh Oblast** (<sup>1</sup>Rtishcheva, 1999; <sup>1</sup>Afanasyev, Rtishcheva, and Starodubtseva, 2007; <sup>1</sup>Agafonov, 2011; <sup>1</sup>Sarycheva, Starodubtseva, and Sapelnikova, 2017; <sup>1</sup>Agafonov, 2018); **Yaroslavl Oblast** (<sup>1</sup>Lazareva, 1997; <sup>1</sup>Lazareva, 1998a; <sup>1</sup>Nyankovsky, 2015); **Arid territories** (<sup>1</sup>Rebriev, Rusanov, et al., 2012).

SIBERIA: **Khanty-Mansi Autonomous Okrug** (<sup>1</sup>Zvyagina, Baykalova, and Gorbunova, 2007; <sup>1</sup>Zvyagina, 2012; <sup>1</sup>Vasin and Vasina, 2013); **Krasnoyarsk Krai** (<sup>1</sup>Lapitskaya, 1990; <sup>1</sup>Stepanov, 2012; <sup>1</sup>Krom and Kapitonov, 2019); **Novosibirsk Oblast** (<sup>1</sup>Zaytseva, 1971).

FAR EAST: **Primorsky Krai** (<sup>1</sup>Vassiljeva, 1956; <sup>1</sup>Vassiljeva, 1972; <sup>1</sup>Vassiljeva, 1973; <sup>1</sup>Azbukina et al., 1990; <sup>1</sup>Bardunov et al., 2002; <sup>1</sup>Bogacheva et al., 2018).

#### ***Gyroporus punctatus* Lj.N. Vassiljeva**

FAR EAST: **Jewish Autonomous Oblast** (Bogacheva et al., 2018); **Primorsky Krai** (Vassiljeva, 1950; Vassiljeva, 1956; Vassiljeva, 1972; Vassiljeva, 1973; Azbukina et al., 1990; Bardunov et al., 2002; Kozhevnikov, 2008; Bulakh et al., 2016; Bogacheva et al., 2018; Bogacheva, Bulakh, Bukharova, and Egorova, 2020).

#### ***Haasiella venustissima* (Fr.) Kotl. & Pouzar ex Chiaffi & Surault**

≡ *Gerronema venustissimum* (Fr.) Singer<sup>1</sup> ≡ *Omphalina venustissima* (Fr.) M. Lange<sup>2</sup>

EASTERN EUROPE: **Samara Oblast** (<sup>2</sup>Malysheva and Malysheva, 2004; <sup>2</sup>Malysheva and Malysheva, 2008).

SIBERIA: **Krasnoyarsk Krai** (<sup>1</sup>Beglyanova, 1972a).

#### ***Harrya chromipes* (Frost) Halling, Nuhn, Osmundson & Manfr. Binder<sup>1</sup>**

≡ *Krombholzia chromipes* (Frost) Singer<sup>2</sup> ≡ *Leccinum chromipes* (Frost) Singer<sup>3</sup>

SIBERIA: **Krasnoyarsk Krai** (<sup>3</sup>Beglyanova, 1972a; <sup>2</sup>Beglyanova, 1972b).

FAR EAST: **Amur Oblast** (<sup>2</sup>Vassiljeva, 1956; <sup>2</sup>Tomilin, 1962; <sup>3</sup>Taranina, 2005; <sup>3</sup>Streltsov, 2009; <sup>1</sup>Senchik and Malikova, 2019); **Jewish Autonomous Oblast** (<sup>3</sup>Shlotgauer and Rubtsova, 2006; <sup>3</sup>Bulakh, Govorova, Nazarova, and Vassiljeva, 2007; <sup>3</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Erofeeva and Bukharova, 2019; <sup>1</sup>Shlotgauer and Rubtsova, 2019); **Kamchatka Krai** (<sup>3</sup>Kalamees and Vaasma, 1981; <sup>3</sup>Chernyagina, 2018); **Khabarovsk Krai** (<sup>3</sup>Azbukina et al., 1989; <sup>3</sup>Voronov, 2008; <sup>3</sup>Ermolin et al., 2018); **Primorsky Krai** (<sup>2</sup>Vassiljeva, 1956; <sup>3</sup>Vassiljeva, 1972; <sup>3</sup>Vassiljeva, 1973; <sup>3</sup>Azbukina et al., 1990; <sup>3</sup>Bardunov et al., 2002; <sup>3</sup>Azbukina et al., 2006; <sup>3</sup>Kozhevnikov, 2008; <sup>3</sup>Bau, Bulakh, and Govorova, 2011; <sup>3</sup>Bulakh et al., 2016); **Sakhalin Oblast** (<sup>3</sup>Bulakh, Govorova, and Bogatov, 1999; <sup>3</sup>Eremin, 2005; <sup>1</sup>Eremin, 2019).

#### ***Hebeloma aberrans* Singer**

EASTERN EUROPE: **Karelia** (Freindling, 1949; Bondartseva et al., 2001; Krutov et al., 2014).

#### ***Hebeloma aestivale* Vesterh.**

SIBERIA: **Khakassia** (Zauzolkova, 2015; Zauzolkova and Gorbunova, 2016).

#### ***Hebeloma album* Peck**

EASTERN EUROPE: **Kaliningrad Oblast** (Atayev and Volodina, 2020); **Lipetsk Oblast** (Sarycheva et al., 2009; Sarycheva, 2011; Sarycheva, 2014a); **Moscow Oblast** (Levitskaya, 1995c); **Perm Krai** (Perevedentseva, 2008; Belkovskaya et al., 2014); **Pskov Oblast** (Popov et al., 2013); **Ryazan Oblast** (Volosnova, 2005; Volosnova, 2014); **Tula Oblast** (Svetasheva, 2003; Svetasheva, 2004); **Ulyanovsk Oblast** (Ilyukhin, 2009; Ilyukhin, 2010a); **Vologda Oblast** (Kirillova, 2007).

FAR EAST: **Jewish Autonomous Oblast** (Bulakh, Govorova, Nazarova, and Vassiljeva, 2007; Bau, Bulakh, and Govorova, 2011; Erofeeva, Bukharova, and Bulakh, 2019); **Khabarovsk Krai** (Erofeeva and Bulakh, 2015a); **Primorsky Krai** (Bulakh, 1977; Azbukina et al., 1984; Bulakh, Wasser, Nazarova, and Nezdoininogo, 1990; Nezdoininogo, 1996; Bau, Bulakh, and Govorova, 2011).

#### *Hebeloma alpinum* (J. Favre) Bruchet

EASTERN EUROPE: **Arkhangelsk Oblast** (Nezdoininogo, 1996; Karatygin, Nezdoininogo, Novozhilov, and Zhurbenko, 1999); **Komi Republic** (Nezdoininogo, 1994; Nezdoininogo, 1996; Karatygin, Nezdoininogo, Novozhilov, and Zhurbenko, 1999); **Yamalo-Nenets Autonomous Okrug** (Nezdoininogo, 1994; Nezdoininogo, 1996; Karatygin, Nezdoininogo, Novozhilov, and Zhurbenko, 1999; Nezdoininogo, 2001).

SIBERIA: **Altai Republic** (Gorbunova, 2003; Gorbunova, 2019); **Krasnoyarsk Krai** (Nezdoininogo, 1994; Nezdoininogo and Zhurbenko, 1996; Nezdoininogo, 1997a; Karatygin, Nezdoininogo, Novozhilov, and Zhurbenko, 1999).

FAR EAST: **Chukotka Autonomous Okrug** (Nezdoininogo, 1994; Nezdoininogo, 1996; Karatygin, Nezdoininogo, Novozhilov, and Zhurbenko, 1999).

#### *Hebeloma anthracophilum* Maire

EASTERN EUROPE: **Karelia** (Kovalenko, Morozova, Fomina, and Särkisilta, 1998; Krutov et al., 2014); **Leningrad Oblast** (Nezdoininogo, 1996; Kovalenko and Morozova, 1999a; Popov et al., 2007); **Moscow Oblast** (Gorlenko, Sidorova, and Sidorova, 1989); **Penza Oblast** (Nezdoininogo, 1996); **Perm Krai** (Perevedentseva, 2008); **Ryazan Oblast** (Volosnova, 1997); **Saint Petersburg** (Kotkova, Morozova, and Popov, 2005); **Sverdlovsk Oblast** (Marina, 2006); **Tatarstan** (Vassiljeva, 1977; Bulakh, Wasser, Nazarova, and Nezdoininogo, 1990; Nezdoininogo, 1996); **Udmurt Republic** (Tychinin and Kuzmina, 2003).

FAR EAST: **Magadan Oblast** (Bulakh, Wasser, Nazarova, and Nezdoininogo, 1990; Nezdoininogo, 1996; Sazanova, 2005; Sazanova, 2009a).

#### *Hebeloma aprile* Romagn.

EASTERN EUROPE: **Orenburg Oblast** (Desyatova, 2008); **Penza Oblast** (Nezdoininogo, 1996; Ivanov, 2019); **Saint Petersburg** (Nezdoininogo, 1996; Kovalenko and Morozova, 1999a; Morozova, Kovalenko, Rebriev, and Malysheva, 2014).

#### *Hebeloma birrus* (Fr.) Gillet<sup>1</sup>

= *Hebeloma danicum* Gröger<sup>2</sup> = *Hebeloma pumilum* J.E. Lange<sup>3</sup>

EASTERN EUROPE: **Crimea** (<sup>3</sup>Prydiuk, 2002; <sup>1,3</sup>Dudka et al., 2004; <sup>3</sup>Sarkina, 2011; <sup>1</sup>Sarkina, 2014b); **Krasnodar Krai** (<sup>1</sup>Vassiljeva, 1939); **Leningrad Oblast** (<sup>3</sup>Nezdoininogo, 1996; <sup>3</sup>Popov et al., 2007); **Lipetsk Oblast** (<sup>1</sup>Sarycheva et al., 2009; <sup>1</sup>Sarycheva, 2016); **Moscow Oblast** (<sup>3</sup>Levitskaya, 2013); **Penza Oblast** (<sup>3</sup>Ivanov, 1982; <sup>3</sup>Bulakh, Wasser, Nazarova, and Nezdoininogo, 1990; <sup>3</sup>Nezdoininogo, 1996); **Perm Krai** (<sup>3</sup>Perevedentseva, Shilkova, and Botalov, 2011); **Ryazan Oblast** (<sup>2</sup>Volosnova, 2005; <sup>2</sup>Volosnova, 2014); **Saint Petersburg** (<sup>3</sup>Kovalenko and Morozova, 1999a); **Tatarstan** (<sup>3</sup>Vassiljeva, 1977; <sup>3</sup>Bulakh, Wasser, Nazarova, and Nezdoininogo, 1990; <sup>3</sup>Nezdoininogo, 1996); **Tula Oblast** (<sup>3</sup>Svetasheva, 2004; <sup>3</sup>Svetasheva, 2005a); **Udmurt Republic** (<sup>3</sup>Tychinin, 1990); **Volgograd Oblast** (<sup>3</sup>Burova and Nezdoininogo, 1980).

SIBERIA: **Altai Krai** (<sup>3</sup>Gorbunova and Perova, 2006); **Altai Republic** (<sup>3</sup>Gorbunova, 1996; <sup>3</sup>Gorbunova, 1997; <sup>3</sup>Gorbunova, 2001a; <sup>3</sup>Gorbunova, 2001b; <sup>3</sup>Perova and Gorbunova, 2001; <sup>3</sup>Gorbunova, 2003); **Irkutsk Oblast** (<sup>3</sup>Kutafjeva, 1984; <sup>2,3</sup>Bulakh, Wasser, Nazarova, and Nezdoininogo, 1990; <sup>2,3</sup>Nezdoininogo, 1996; <sup>1</sup>Gorbunova and Stepantsova, 2015); **Khakassia** (<sup>3</sup>Beglyanova, 1972a); **Krasnoyarsk Krai** (<sup>3</sup>Beglyanova, 1972a; <sup>2</sup>Bulakh, Wasser, Nazarova, and Nezdoininogo, 1990; <sup>3</sup>Bulakh, Wasser, Nazarova, and Nezdoininogo, 1990; <sup>3</sup>Nezdoininogo, 1996; <sup>1</sup>Krom and Kapitonov, 2019); **Novosibirsk Oblast** (<sup>3</sup>Perova, 1982; <sup>1</sup>Perova and Gorbunova, 2001; <sup>3</sup>Perova and Gorbunova, 2001; <sup>3</sup>Perova and Gorbunova, 2007).

FAR EAST: **Amur Oblast** (<sup>3</sup>Nazarova, 1986; <sup>3</sup>Bulakh, Wasser, Nazarova, and Nezdoininogo, 1990; <sup>3</sup>Nezdoininogo, 1996); **Jewish Autonomous Oblast** (<sup>2</sup>Bulakh, Govorova, Nazarova, and Vassiljeva, 2007; <sup>1</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Bogacheva et al., 2018); **Primorsky Krai** (<sup>3</sup>Vassiljeva, 1972; <sup>3</sup>Vassiljeva, 1973; <sup>3</sup>Bunkina and Nazarova, 1978; <sup>2,3</sup>Bulakh, Wasser, Nazarova, and Nezdoininogo, 1990; <sup>2,3</sup>Nezdoininogo, 1996; <sup>2</sup>Bardunov et al., 2002; <sup>3</sup>Azbukina et al., 2006; <sup>3</sup>Bau, Bulakh, and Govorova, 2011; <sup>3</sup>Bulakh et al., 2016).



***Hebeloma bruchetii* Bon**EASTERN EUROPE: **Yamalo-Nenets Autonomous Okrug** (Nezdojminogo, 2001).SIBERIA: **Buryatia** (Nezdojminogo and Petrov, 1999); **Sakha Republic** (Nezdojminogo, 2003).***Hebeloma cavipes* Huijsman**EASTERN EUROPE: **Tula Oblast** (Svetasheva, 2004; Svetasheva, 2005a; Svetasheva, 2005b).***Hebeloma circinans* (Quél.) Sacc.**EASTERN EUROPE: **Chelyabinsk Oblast** (Stepanova and Sirko, 1977; Nezdojminogo, 1996); **Karelia** (Krutov et al., 2014); **Kirov Oblast** (Kirillov, 2011; Kirillov, Perevedentseva, and Egoshina, 2011); **Leningrad Oblast** (Fomina, 2000; Fomina, 2001); **Moscow Oblast** (Levitskaya, 1998; Levitskaya, 2013); **Murmansk Oblast** (Mikhailovskii, 1975a; Mikhailovskii, 1975b); **Yamalo-Nenets Autonomous Okrug** (Karatygin, Nezdojminogo, Novozhilov, and Zhurbenko, 1999).SIBERIA: **Altai Republic** (Gorbunova, 2010; Gorbunova, 2019); **Irkutsk Oblast** (Nezdojminogo, 1996; Petrov, 2008); **Khakassia** (Zauzolkova, 2015; Zauzolkova and Gorbunova, 2016).FAR EAST: **Sakhalin Oblast** (Nezdojminogo, 1996).***Hebeloma clavulipes* Romagn.<sup>1</sup>**= *Hebeloma candidipes* Bruchet<sup>2</sup>EASTERN EUROPE: **Karelia** (<sup>2</sup>Kovalenko, Morozova, Fomina, and Särkisilta, 1998; <sup>2</sup>Krutov et al., 2014); **Perm Krai** (<sup>2</sup>Shkaraba, Perevedentseva, and Moshkina, 1990; <sup>2</sup>Nezdojminogo, 1996; <sup>2</sup>Perevedentseva, 2008; <sup>2</sup>Botalov, 2017; <sup>2</sup>Botalov and Perevedentseva, 2018).SIBERIA: **Altai Krai** (<sup>2</sup>Gorbunova, 2018a).FAR EAST: **Primorsky Krai** (<sup>1</sup>Azbukina et al., 1990; <sup>1</sup>Bardunov et al., 2002).***Hebeloma crustuliniforme* (Bull.) Quél.<sup>1</sup>**≡ *Agaricus crustuliniformis* Bull.<sup>2</sup> ≡ *Derminus crustuliniformis* (Bull.) J. Schröt.<sup>3</sup> = *Agaricus longicaudus* Pers.<sup>4</sup> = *Hebeloma longicaudum* (Pers.) P. Kumm.<sup>5</sup> = *Hebeloma longicaudum* var. *radicatum* (Cooke) Sacc.<sup>6</sup> = *Hebeloma nudipes* (Fr.) Kalchbr.<sup>7</sup>EASTERN EUROPE: **Belgorod Oblast** (<sup>1</sup>Bedenko, 1980); **Bryansk Oblast** (<sup>1</sup>Kruglikov, 2007); **Chelyabinsk Oblast** (<sup>1</sup>Aleksandrovskaia and Lobanova, 1968; <sup>1,5</sup>Stepanova and Sirko, 1977; <sup>5</sup>Sirko and Stepanova, 1977); **Crimea** (<sup>1,5,6</sup>Zerova, 1962; <sup>1,5</sup>Sarkina, 2001; <sup>1,5</sup>Dudka et al., 2004; <sup>1,5</sup>Sarkina, 2010b; <sup>1</sup>Sarkina, 2011; <sup>1,5</sup>Sarkina and Prydiuk, 2012; <sup>1</sup>Sarkina, 2013; <sup>5</sup>Sarkina, 2014b; <sup>1</sup>Sarkina and Mironova, 2015; <sup>5</sup>Sarkina, 2016a; <sup>1</sup>Sarkina and Stavishenko, 2019); **Kabardino-Balkarian Republic** (<sup>1</sup>Shkhagapsoev and Krapivina, 2004); **Kaliningrad Oblast** (<sup>1,5</sup>Volodina, 2007); **Karelia** (<sup>1</sup>Kovalenko, Morozova, Fomina, and Särkisilta, 1998; <sup>1</sup>Bondartseva et al., 2001; <sup>1</sup>Predtechenskaya and Ruokolainen, 2013; <sup>1,5</sup>Krutov et al., 2014; <sup>1</sup>Savelev and Kikeeva, 2018); **Kirov Oblast** (<sup>1</sup>Kirillov and Luginina, 2011; <sup>1</sup>Kirillov, 2011; <sup>1</sup>Kirillov, Perevedentseva, and Egoshina, 2011; <sup>1</sup>Stavishenko, Luginina, Kirillov, and Egoshina, 2019); **Komi Republic** (<sup>1</sup>Palamarchuk, 2020b); **Krasnodar Krai** (<sup>1,5</sup>Kovalenko, 1980a; <sup>1,5</sup>Kovalenko, 1980b; <sup>1</sup>Shumkova, Krivorotov, and Gayday, 2018); **Leningrad Oblast** (<sup>4</sup>Weinmann, 1837; <sup>1,5,7</sup>Thesleff, 1920; <sup>1,5</sup>Kovalenko and Morozova, 1999a; <sup>1,5</sup>Popov et al., 2007); **Lipetsk Oblast** (<sup>1</sup>Alferova, 1977; <sup>1</sup>Rtishcheva, 1999; <sup>1</sup>Sarycheva, 1999; <sup>1</sup>Afanasyev, Rtishcheva, and Starodubtseva, 2007; <sup>1</sup>Sarycheva et al., 2009; <sup>1</sup>Sarycheva, 2011; <sup>1</sup>Sarycheva, 2014a; <sup>1</sup>Sarycheva, 2016; <sup>1</sup>Sarycheva, Starodubtseva, and Sapelnikova, 2017); **Mordovia** (<sup>1</sup>Kuznetsov, 1960; <sup>1</sup>Ivoilov and Bolshakov, 2011a); **Moscow** (<sup>3</sup>Bucholtz, 1897a; <sup>3</sup>Bucholtz, 1897b; <sup>3</sup>Bucholtz, 1897c; <sup>3</sup>Mosolov, 1906); **Moscow Oblast** (<sup>1,5</sup>Gorlenko, Sidorova, and Sidorova, 1989; <sup>1,5</sup>Levitskaya, 1998; <sup>1,5</sup>Levitskaya, 2013; <sup>1</sup>Voronina et al., 2014; <sup>1</sup>Sidorova, Alexandrova, and Voronina, 2017); **Murmansk Oblast** (<sup>5</sup>Pystina, Pavlova, and Shestakova, 1969); **North Ossetia** (<sup>1</sup>Nikolayev, 2001); **Novgorod Oblast** (<sup>1</sup>Malysheva, Malysheva, and Zmitrovich, 2007); **Orenburg Oblast** (<sup>1</sup>Desyatova, 2008); **Penza Oblast** (<sup>1</sup>Ivanov, 1982; <sup>1</sup>Ivanov, 2019); **Perm Krai** (<sup>1,5</sup>Perevedentseva, 2008; <sup>1,5</sup>Belkovskaya et al., 2014; <sup>1</sup>Perevedentseva and Shishigin, 2015; <sup>1,5</sup>Botalov, 2017; <sup>1,5</sup>Botalov and Perevedentseva, 2018); **Ryazan Oblast** (<sup>1,5</sup>Volosnova, 1997; <sup>1</sup>Volosnova, 2014); **Saint Petersburg** (<sup>4</sup>Weinmann, 1836; <sup>1</sup>Kovalenko and Morozova, 1999a; <sup>5</sup>Kotkova, Morozova, and Popov, 2005; <sup>1</sup>Morozova and Smirnov, 2011; <sup>1</sup>Morozova, Kovalenko, Rebriev, and Malysheva, 2014; <sup>1</sup>Morozova et al., 2020); **Samara Oblast** (<sup>1</sup>Malysheva and Malysheva, 2004; <sup>1</sup>Malysheva and Malysheva, 2008); **Sevastopol** (<sup>1</sup>Sarkina, 2016b; <sup>1</sup>Sarkina, 2020c); **Smolensk Oblast** (<sup>5</sup>Jaczewski, 1896); **Sverdlovsk Oblast** (<sup>1,5</sup>Marina, 2006); **Tatarstan** (<sup>1</sup>Vassiljeva, 1977); **Tula Oblast** (<sup>1</sup>Svetasheva, 2003; <sup>1,5</sup>Svetasheva, 2004; <sup>5</sup>Svetasheva, 2005a; <sup>5</sup>Svetasheva, 2005b); **Tver Oblast** (<sup>1</sup>Kurochkin, 1993; <sup>1</sup>Kurochkin and Medvedev, 2015); **Udmurt Republic** (<sup>1</sup>Tychinin, 1990; <sup>1,5</sup>Tychinin and Kuzmina, 2003); **Ulyanovsk Oblast** (<sup>1</sup>Ilyukhin, 2010a; <sup>1</sup>Ilyukhin,

2010b); **Vologda Oblast** (<sup>1</sup>Kutova, 1957; <sup>5</sup>Kirillova, 2007); **Voronezh Oblast** (<sup>1</sup>Chastukhin and Nikolaevskaya, 1953; <sup>1</sup>Chastukhin and Nikolaevskaya, 1969; <sup>1</sup>Rtishcheva, 1999; <sup>1</sup>Afanasyev, Rtishcheva, and Starodubtseva, 2007; <sup>1</sup>Sarycheva, Starodubtseva, and Sapelnikova, 2017; <sup>1</sup>Kochergina and Furmenkova, 2019); **Yaroslavl Oblast** (<sup>1,5</sup>Lazareva, 1998a; <sup>1,5</sup>Lazareva, 2002); **Arid territories** (<sup>1</sup>Rebriev, Rusanov, et al., 2012).

SIBERIA: **Altai Krai** (<sup>1,5</sup>Gorbunova and Perova, 2006; <sup>1</sup>Gorbunova, 2018a); **Altai Republic** (<sup>5</sup>Gorbunova, 1996; <sup>5</sup>Gorbunova, 1997; <sup>1</sup>Gorbunova, 2001a; <sup>5</sup>Gorbunova, 2001b; <sup>5</sup>Gorbunova, 2003; <sup>1,5</sup>Gorbunova, 2008; <sup>5</sup>Gorbunova, 2010); **Buryatia** (<sup>5</sup>Nezdojminogo, 1970a; <sup>1</sup>Petrov, 1991; <sup>5</sup>Penzina and Petrov, 1994); **Irkutsk Oblast** (<sup>1,5</sup>Kutafjeva, 1984; <sup>1,5</sup>Petrov, Nezdojminogo, and Bulakh, 1987; <sup>1</sup>Kutafjeva and Astapenko, 1989; <sup>5</sup>Petrov, 1989; <sup>1</sup>Astapenko, 1990b; <sup>1</sup>Petrov, 1991; <sup>5</sup>Bardunov et al., 2005; <sup>1,5</sup>Petrov, 2008); **Khakassia** (<sup>1</sup>Zauzolkova and Gorbunova, 2013; <sup>1</sup>Zauzolkova, 2015); **Krasnoyarsk Krai** (<sup>1</sup>Perova, 1970; <sup>1,5</sup>Beglyanova, 1972a; <sup>1,5</sup>Nezdojminogo, 1976a; <sup>5</sup>Lapitskaya, 1993; <sup>1</sup>Kryuchkova, 2014a); **Novosibirsk Oblast** (<sup>1</sup>Zaytseva, 1971; <sup>1,5</sup>Perova, 1977; <sup>1</sup>Perova and Gorbunova, 2001; <sup>1</sup>Gorbunova, 2007; <sup>1,5</sup>Perova and Gorbunova, 2007; <sup>1</sup>Koropachinskiy and Banaev, 2014); **Tomsk Oblast** (<sup>1</sup>Perova, 1972; <sup>1</sup>Milovidova, 1980; <sup>1</sup>Perova and Gorbunova, 2001; <sup>5</sup>Kosheleva and Kutafjeva, 2004; <sup>1,5</sup>Kudashova, Gashkov, and Kutafjeva, 2013; <sup>5</sup>Vaishlya et al., 2017); **Zabaykalsky Krai** (<sup>1</sup>Karsten, 1911).

FAR EAST: **Amur Oblast** (<sup>5</sup>Nazarova, 1986; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>5</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>5</sup>Azbukina et al., 1998); **Chukotka Autonomous Okrug** (<sup>2</sup>Berkeley and Curtis, 1978); **Khabarovsk Krai** (<sup>5</sup>Azbukina et al., 1989); **Magadan Oblast** (<sup>1,5</sup>Nazarova, 1976; <sup>1,5</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1,5</sup>Sazanova, 2005; <sup>1,5</sup>Sazanova, 2009a; <sup>1</sup>Sazanova and Golodnova, 2015); **Primorsky Krai** (<sup>1</sup>Vassiljeva, 1972; <sup>1,5</sup>Vassiljeva, 1973; <sup>1</sup>Bunkina and Nazarova, 1978; <sup>1,5</sup>Azbukina et al., 1984; <sup>1,5</sup>Azbukina et al., 1990; <sup>1,5</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1,5</sup>Bardunov et al., 2002; <sup>1</sup>Azbukina et al., 2006; <sup>1</sup>Bau, Bulakh, Zhuang, and Li, 2007; <sup>1,5</sup>Bau, Bulakh, and Govorova, 2011; <sup>1,5</sup>Bulakh et al., 2016).

#### ***Hebeloma cylindrosporum* Romagn.**

EASTERN EUROPE: **Kaliningrad Oblast** (Volodina, 2007; Atayev and Volodina, 2020).

#### ***Hebeloma dunense* L. Corb. & R. Heim**

EASTERN EUROPE: **Kaliningrad Oblast** (Dedkov, Volodina, and Gubareva, 2007; Volodina, 2007; Dedkov and Grishanov, 2010); **Arid territories** (Rebriev, Rusanov, et al., 2012).

#### ***Hebeloma fragilipes* Romagn.**

EASTERN EUROPE: **Saint Petersburg** (Morozova, Kovalenko, Rebriev, and Malysheva, 2014).

SIBERIA: **Khakassia** (Zauzolkova and Gorbunova, 2013; Zauzolkova, 2015); **Khanty-Mansi Autonomous Okrug** (Filippova and Bulyonkova, 2017a; Filippova and Bulyonkova, 2017b); **Tomsk Oblast** (Kudashova, Gashkov, and Vaishlya, 2016a).

FAR EAST: **Amur Oblast** (Kochunova, 2019).

#### ***Hebeloma gigaspermum* Gröger & Zschiesch.**

EASTERN EUROPE: **Arkhangelsk Oblast** (Ezhov, Gavriilo, and Zmitrovich, 2014; Zmitrovich and Ezhov, 2015; Ezhov, Zmitrovich, and Ershov, 2016; Shiryayev, Zmitrovich, and Ezhov, 2018); **Volgograd Oblast** (Svetasheva, 2015).

SIBERIA: **Khakassia** (Zauzolkova and Gorbunova, 2013; Zauzolkova, 2015).

#### ***Hebeloma helodes* J. Favre**

EASTERN EUROPE: **Arkhangelsk Oblast** (Nezdojminogo, 1996; Karatygin, Nezdojminogo, Novozhilov, and Zhurbenko, 1999); **Kaliningrad Oblast** (Dedkov, Volodina, and Gubareva, 2007; Volodina, 2007); **Karelia** (Krutov et al., 2014); **Komi Republic** (Nezdojminogo, 1996; Karatygin, Nezdojminogo, Novozhilov, and Zhurbenko, 1999; Palamarchuk, 2012); **Leningrad Oblast** (Stolyarskaya, 1993; Nezdojminogo, 1996; Kovalenko and Morozova, 1999a; Morozova, 2007; Popov et al., 2007; Zmitrovich et al., 2015); **Orenburg Oblast** (Korshikova, 2005; Desyatova, 2008); **Penza Oblast** (Ivanov, 1982; Nezdojminogo, 1996; Ivanov, 2019); **Perm Krai** (Nezdojminogo, 1996; Perevedentseva, 2008; Belkovskaya et al., 2014; Botalov, 2017); **Pskov Oblast** (Popov et al., 2013); **Saint Petersburg** (Kotkova, Morozova, and Popov, 2005); **Sverdlovsk Oblast** (Marina, 2006); **Tver Oblast** (Kurochkin, 1993); **Udmurt Republic** (Tychinin and Kuzmina, 2003); **Vologda Oblast** (Kirillova, 2007).

SIBERIA: **Altai Republic** (Gorbunova, 2010); **Buryatia** (Nezdojminogo, 1996); **Khakassia** (Zauzolkova, 2015; Zauzolkova and Gorbunova, 2016); **Khanty-Mansi Autonomous Okrug** (Filippova, Bulyonkova, and Lapshina, 2015); **Krasnoyarsk Krai** (Nezdojminogo, 1996).

***Hebeloma hetieri* Boud.**

= *Hebeloma sacchariolens* var. *tomentosum* M.M. Moser<sup>1</sup> = *Hebeloma tomentosum* (M.M. Moser) Gröger & Zschiesch.<sup>2</sup>

EASTERN EUROPE: **Krasnodar Krai** (<sup>2</sup>Sopina, 2001a); **Sverdlovsk Oblast** (<sup>1</sup>Marina, 2006).

***Hebeloma hiemale* Bres.**

EASTERN EUROPE: **Belgorod Oblast** (Bedenko, 1980; Bulakh, Wasser, Nazarova, and Nezdjominogo, 1990); **Crimea** (Sarkina and Mironova, 2015; Sarkina and Stavishenko, 2019); **Kaliningrad Oblast** (Volodina, 2007); **Karelia** (Nezdjominogo, 1996; Krutov et al., 2014); **Komi Republic** (Palamarchuk, 2011b; Palamarchuk, 2016a; Palamarchuk, 2016b; Palamarchuk and Kirillov, 2017); **Leningrad Oblast** (Kovalenko and Morozova, 1999a; Morozova and Kovalenko, 2000; Popov et al., 2007; Zmitrovich et al., 2015); **Moscow Oblast** (Levitskaya, 1998; Levitskaya, 2013); **Orenburg Oblast** (Desyatova, 2008); **Penza Oblast** (Nezdjominogo, 1996; Ivanov, 2019); **Perm Krai** (Perevedentseva, 2008; Perevedentseva and Shishigin, 2015); **Rostov Oblast** (Morozova et al., 2008); **Ryazan Oblast** (Volosnova, 2005; Volosnova, 2014); **Samara Oblast** (Malysheva and Malysheva, 2005b; Malysheva and Malysheva, 2008); **Sevastopol** (Sarkina and Belyaeva, 2013; Sarkina, 2016b); **Sverdlovsk Oblast** (Marina, 2006); **Tatarstan** (Vassiljeva, 1977; Nezdjominogo, 1996); **Tula Oblast** (Svetasheva, 2004; Svetasheva, 2005a); **Tver Oblast** (Kurochkin, 1993); **Udmurt Republic** (Tychinin and Kuzmina, 2003); **Ulyanovsk Oblast** (Ilyukhin, 2009; Ilyukhin, 2010a); **Vologda Oblast** (Kirillova, 2007); **Arid territories** (Rebriev, Rusanov, et al., 2012).

SIBERIA: **Altai Republic** (Nezdjominogo, 1996; Gorbunova, 2001b; Perova and Gorbunova, 2001); **Irkutsk Oblast** (Petrov, Nezdjominogo, and Bulakh, 1987; Bulakh, Wasser, Nazarova, and Nezdjominogo, 1990; Petrov, 1991; Nezdjominogo, 1996); **Khakassia** (Zauzolkova and Gorbunova, 2013; Zauzolkova, 2015); **Khanty-Mansi Autonomous Okrug** (Filippova, Bulyonkova, and Lapshina, 2015; Filippova and Bulyonkova, 2017a; Filippova and Bulyonkova, 2017b); **Tomsk Oblast** (Perova and Gorbunova, 2001; Kudashova, Gashkov, and Kutafjeva, 2013).

FAR EAST: **Amur Oblast** (Nazarova, 1986; Kochunova, 2019); **Jewish Autonomous Oblast** (Bulakh, Govorova, Nazarova, and Vassiljeva, 2007; Bau, Bulakh, and Govorova, 2011; Erofeeva, Bukharova, and Bulakh, 2019); **Khabarovsk Krai** (Erofeeva and Bulakh, 2015a); **Primorsky Krai** (Vassiljeva, 1973; Bulakh, Wasser, Nazarova, and Nezdjominogo, 1990; Nezdjominogo, 1996; Bau, Bulakh, and Govorova, 2011).

***Hebeloma incarnatum* A.H. Sm.**

EASTERN EUROPE: **Komi Republic** (Palamarchuk, 2020b).

SIBERIA: **Khanty-Mansi Autonomous Okrug** (Filippova and Thormann, 2014; Filippova, 2014; Filippova, Mourgues, and Philippe, 2014; Filippova, Bulyonkova, and Lapshina, 2015; Filippova and Bulyonkova, 2017a; Filippova and Bulyonkova, 2017b); **Tomsk Oblast** (Kudashova, Gashkov, and Vaishlya, 2016a; Vaishlya et al., 2017).

***Hebeloma ingratum* Bruchet**

EASTERN EUROPE: **Leningrad Oblast** (Nezdjominogo, 1996; Kovalenko and Morozova, 1999a; Fomina, 2000; Tzvelev, 2000; Popov et al., 2007; Geltman et al., 2018); **Orenburg Oblast** (Korshikova, 2005; Desyatova, 2008); **Ryazan Oblast** (Volosnova, 2005; Volosnova, 2014).

FAR EAST: **Primorsky Krai** (Bulakh, Wasser, Nazarova, and Nezdjominogo, 1990; Nezdjominogo, 1996; Bau, Bulakh, and Govorova, 2011).

***Hebeloma kuehneri* Bruchet**

EASTERN EUROPE: **Arkhangelsk Oblast** (Nezdjominogo, 1996); **Samara Oblast** (Malysheva and Malysheva, 2008); **Yamalo-Nenets Autonomous Okrug** (Nezdjominogo, 2001).

SIBERIA: **Altai Republic** (Gorbunova, 2010); **Irkutsk Oblast** (Gorbunova and Stepantsova, 2015); **Krasnoyarsk Krai** (Nezdjominogo, 1994; Nezdjominogo, 1996; Nezdjominogo, 1997a; Karatygin, Nezdjominogo, Novozhilov, and Zhurbenko, 1999); **Sakha Republic** (Nezdjominogo, 1994).

FAR EAST: **Chukotka Autonomous Okrug** (Nezdjominogo, 1994; Karatygin, Nezdjominogo, Novozhilov, and Zhurbenko, 1999).

***Hebeloma laterinum* (Batsch) Vesterh.<sup>1</sup>**

= *Hebeloma edurum* Métrod ex Bon<sup>2</sup>

EASTERN EUROPE: **Kaliningrad Oblast** (<sup>1</sup>Atayev and Volodina, 2020); **Krasnodar Krai** (<sup>2</sup>Kovalenko, 1980a; <sup>2</sup>Kovalenko, 1980b); **Penza Oblast** (<sup>1</sup>Ivanov, 2019); **Perm Krai** (<sup>2</sup>Perevedentseva, Nezdjominogo, and Kovalenko, 1990; <sup>2</sup>Perevedentseva, 2008); **Samara Oblast** (<sup>2</sup>Malysheva and Malysheva, 2005b; <sup>2</sup>Malysheva and Malysheva, 2008).

FAR EAST: **Primorsky Krai** (<sup>2</sup>Nezdjominogo, 1996); **Sakhalin Oblast** (<sup>2</sup>Nezdjominogo, 1996).

***Hebeloma leucosarx* P.D. Orton<sup>1</sup>**= *Hebeloma velutipes* Bruchet<sup>2</sup>

EASTERN EUROPE: **Karelia** (<sup>1</sup>Bondartseva et al., 2001; <sup>1</sup>Krutov et al., 2014); **Komi Republic** (<sup>1</sup>Palamarchuk, 2017; <sup>2</sup>Shiryayeva and Palamarchuk, 2019; <sup>1</sup>Palamarchuk, 2020a); **Leningrad Oblast** (<sup>1</sup>Morozova, 2002; <sup>1</sup>Morozova, 2007; <sup>1</sup>Popov et al., 2007); **Moscow Oblast** (<sup>1,2</sup>Levitskaya, 1998; <sup>1,2</sup>Levitskaya, 2013); **Penza Oblast** (<sup>2</sup>Nezdojminogo, 1996); **Rostov Oblast** (<sup>1</sup>Fedyayeva, 2014); **Tula Oblast** (<sup>1</sup>Svetasheva, 2003; <sup>1</sup>Svetasheva, 2004); **Yaroslavl Oblast** (<sup>1</sup>Lazareva, 1998a; <sup>1</sup>Lazareva, 2002); **Arid territories** (<sup>1</sup>Rebriev, Rusanov, et al., 2012).

SIBERIA: **Altai Krai** (<sup>1</sup>Gorbunova, 2018a); **Altai Republic** (<sup>2</sup>Gorbunova, 2010); **Khakassia** (<sup>1</sup>Zauzolkova and Gorbunova, 2013; <sup>1</sup>Zauzolkova, 2015); **Khanty-Mansi Autonomous Okrug** (<sup>2</sup>Filippova, Bulyonkova, and Lapshina, 2015; <sup>2</sup>Filippova and Bulyonkova, 2017a; <sup>2</sup>Filippova and Bulyonkova, 2017b); **Novosibirsk Oblast** (<sup>1</sup>Koropachinskiy and Banaev, 2014); **Tyva Republic** (<sup>2</sup>Gorbunova, 2015).

FAR EAST: **Amur Oblast** (<sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1</sup>Nezdojminogo, 1996); **Primorsky Krai** (<sup>2</sup>Azbukina et al., 1990; <sup>2</sup>Nezdojminogo, 1996; <sup>2</sup>Bardunov et al., 2002).

***Hebeloma malenconii* Bellù & Lanzoni**= *Hebeloma pallidum* Malençon<sup>1</sup>

EASTERN EUROPE: **Leningrad Oblast** (<sup>1</sup>Morozova, 2002; <sup>1</sup>Popov et al., 2007); **Lipetsk Oblast** (<sup>1</sup>Sarycheva et al., 2009; <sup>1</sup>Shcherbakov, 2014; <sup>1</sup>Sarycheva, 2016); **Tula Oblast** (<sup>1</sup>Svetasheva, 2003; <sup>1</sup>Svetasheva, 2004).

SIBERIA: **Krasnoyarsk Krai** (<sup>1</sup>Nezdojminogo, 1996).

***Hebeloma marginatum* (J. Favre) Bruchet**

EASTERN EUROPE: **Arkhangelsk Oblast** (Ezhov, Gavrilov, and Zmitrovich, 2014; Zmitrovich and Ezhov, 2015; Ezhov, Zmitrovich, and Ershov, 2016; Shiryayev, Zmitrovich, and Ezhov, 2018); **Komi Republic** (Nezdojminogo, 1994; Nezdojminogo, 1996; Karatygin, Nezdojminogo, Novozhilov, and Zhurbenko, 1999; Palamarchuk and Kirillov, 2018a).

SIBERIA: **Altai Republic** (Gorbunova, 2003; Gorbunova, 2010); **Irkutsk Oblast** (Gorbunova and Stepanova, 2015); **Krasnoyarsk Krai** (Nezdojminogo, 1994; Nezdojminogo and Zhurbenko, 1996; Nezdojminogo, 1996; Nezdojminogo, 1997a; Karatygin, Nezdojminogo, Novozhilov, and Zhurbenko, 1999; Nezdojminogo, 2003); **Tyva Republic** (Gorbunova, 2015).

FAR EAST: **Chukotka Autonomous Okrug** (Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; Nezdojminogo, 1994; Nezdojminogo, 1996; Nezdojminogo, 1997a; Karatygin, Nezdojminogo, Novozhilov, and Zhurbenko, 1999).

***Hebeloma mesophaeum* (Pers.) Quél.<sup>1</sup>**

≡ *Hebeloma mesophaeum* var. *mesophaeum* (Pers.) Quél.<sup>2</sup> = *Hebeloma flammuloides* Romagn.<sup>3</sup> = *Hebeloma mesophaeum* var. *strophosum* (Fr.) Quadr.<sup>4</sup> = *Hebeloma strophosum* (Fr.) Sacc.<sup>5</sup>

EASTERN EUROPE: **Belgorod Oblast** (<sup>1</sup>Bedenko, 1979a; <sup>5</sup>Bedenko, 1980; <sup>1,5</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>5</sup>Nezdojminogo, 1996); **Chelyabinsk Oblast** (<sup>1</sup>Sirko and Stepanova, 1977; <sup>1</sup>Stepanova and Sirko, 1977; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990); **Crimea** (<sup>5</sup>Prydiuk, 2002; <sup>5</sup>Dudka et al., 2004; <sup>5</sup>Sarkina, 2011); **Kabardino-Balkarian Republic** (<sup>1</sup>Krapivina et al., 2020); **Kaliningrad Oblast** (<sup>1</sup>Dedkov, Volodina, and Gubareva, 2007; <sup>1,5</sup>Volodina, 2007; <sup>1</sup>Atayev and Volodina, 2020); **Karachay-Cherkess Republic** (<sup>5</sup>Kalamees and Botashev, 2000); **Karelia** (<sup>2</sup>Kovalenko, Morozova, Fomina, and Särkisilta, 1998; <sup>1</sup>Bondartseva et al., 2001; <sup>1</sup>Krutov et al., 2014); **Kirov Oblast** (<sup>1</sup>Kirillov and Luginina, 2011; <sup>1,5</sup>Kirillov, 2011; <sup>1,5</sup>Kirillov, Perevedentseva, and Egoshina, 2011; <sup>1</sup>Stavishenko, Luginina, Kirillov, and Egoshina, 2019); **Komi Republic** (<sup>5</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1</sup>Nezdojminogo, 1994; <sup>5</sup>Nezdojminogo, 1996; <sup>1,5</sup>Karatygin, Nezdojminogo, Novozhilov, and Zhurbenko, 1999; <sup>1</sup>Palamarchuk and Kirillov, 2017; <sup>1</sup>Palamarchuk, 2017); **Leningrad Oblast** (<sup>1</sup>Thesleff, 1920; <sup>1</sup>Kalamees and Kovalenko, 1984; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>5</sup>Nezdojminogo, 1996; <sup>2</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Fomina, 2000; <sup>1,3</sup>Morozova, 2007; <sup>1,3,5</sup>Popov et al., 2007); **Lipetsk Oblast** (<sup>1</sup>Sarycheva, 1999; <sup>1</sup>Sarycheva et al., 2009; <sup>1</sup>Sarycheva, 2011; <sup>1,5</sup>Sarycheva, 2014a; <sup>1</sup>Sarycheva, 2016); **Moscow Oblast** (<sup>1</sup>Gorlenko, Sidorova, and Sidorova, 1989; <sup>5</sup>Levitskaya, 1995c; <sup>4</sup>Levitskaya, 2013); **Murmansk Oblast** (<sup>1</sup>Pystina, Pavlova, and Shestakova, 1969; <sup>1</sup>Mikhailovskii, 1975b; <sup>1,5</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>5</sup>Nezdojminogo, 1996; <sup>5</sup>Nezdojminogo, 1997b; <sup>1,5</sup>Karatygin, Nezdojminogo, Novozhilov, and Zhurbenko, 1999); **Orenburg Oblast** (<sup>3</sup>Korshikova, 2005; <sup>2</sup>Desyatova, 2008); **Penza Oblast** (<sup>5</sup>Nezdojminogo, 1996); **Perm Krai** (<sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1,5</sup>Perevedentseva, 2008; <sup>1</sup>Belkovskaya et al., 2014); **Rostov Oblast** (<sup>1</sup>Morozova et al., 2008); **Ryazan Oblast** (<sup>1,5</sup>Volosnova, 1997; <sup>3</sup>Volosnova, 2005; <sup>1,3</sup>Volosnova, 2014); **Saint Petersburg** (<sup>2,5</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Morozova and Smirnov, 2011; <sup>5</sup>Morozova and Smirnov, 2011);

<sup>1,5</sup>Morozova, Kovalenko, Rebriev, and Malysheva, 2014; <sup>1</sup>Zhukova, Morozova, Volobuev, and Bryantseva, 2017; <sup>1</sup>Morozova et al., 2020); **Sverdlovsk Oblast** (<sup>1,3</sup>Marina, 2006); **Tatarstan** (<sup>1,5</sup>Vassiljeva, 1977; <sup>1,5</sup>Bulakh, Wasser, Nazarova, and Nezdoininogo, 1990; <sup>3,5</sup>Nezdoininogo, 1996); **Tula Oblast** (<sup>2,3,5</sup>Svetasheva, 2003; <sup>2</sup>Svetasheva, 2004); **Tver Oblast** (<sup>1</sup>Kurochkin, 1993); **Ulyanovsk Oblast** (<sup>1</sup>Ilyukhin, 2010a); **Volgograd Oblast** (<sup>1</sup>Burova and Nezdoininogo, 1980; <sup>1</sup>Burova and Nezdoininogo, 1982); **Vologda Oblast** (<sup>1</sup>Kirillova, 2007); **Voronezh Oblast** (<sup>1</sup>Chastukhin and Nikolaevskaya, 1953; <sup>1</sup>Chastukhin and Nikolaevskaya, 1969; <sup>1</sup>Sarycheva, Starodubtseva, and Sapelnikova, 2017); **Yamalo-Nenets Autonomous Okrug** (<sup>1</sup>Nezdoininogo, 1994; <sup>1</sup>Karatygin, Nezdoininogo, Novozhilov, and Zhurbenko, 1999); **Yaroslavl Oblast** (<sup>1</sup>Lazareva, 1998a; <sup>1</sup>Lazareva, 2002); **Arid territories** (<sup>1</sup>Rebriev, Rusanov, et al., 2012).

**SIBERIA: Altai Krai** (<sup>1</sup>Gorbunova and Perova, 2006); **Altai Republic** (<sup>1</sup>Kovalenko, 1992; <sup>1</sup>Gorbunova, 2001b; <sup>1</sup>Perova and Gorbunova, 2001; <sup>1,5</sup>Gorbunova, 2003; <sup>1</sup>Gorbunova, 2010); **Buryatia** (<sup>1</sup>Nezdoininogo, 1973; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdoininogo, 1990); **Irkutsk Oblast** (<sup>1,5</sup>Kutafjeva, 1984; <sup>1,5</sup>Petrov, Nezdoininogo, and Bulakh, 1987; <sup>1</sup>Kutafjeva and Astapenko, 1989; <sup>1</sup>Astapenko, 1990b; <sup>1,5</sup>Bulakh, Wasser, Nazarova, and Nezdoininogo, 1990; <sup>5</sup>Petrov, 1991; <sup>5</sup>Nezdoininogo, 1996; <sup>1</sup>Bardunov et al., 2005; <sup>1,5</sup>Petrov, 2008; <sup>1</sup>Gorbunova and Stepantsova, 2015); **Khakassia** (<sup>1</sup>Beglyanova, 1972a; <sup>1</sup>Zauzolkova, 2015); **Khanty-Mansi Autonomous Okrug** (<sup>1</sup>Filippova, Bulyonkova, and Lapshina, 2015); **Krasnoyarsk Krai** (<sup>1</sup>Vassilkov, 1971b; <sup>1,5</sup>Beglyanova, 1972a; <sup>1</sup>Stepanova and Tomilin, 1973; <sup>1,5</sup>Bulakh, Wasser, Nazarova, and Nezdoininogo, 1990; <sup>1</sup>Nezdoininogo, 1994; <sup>3,5</sup>Nezdoininogo, 1996; <sup>1</sup>Karatygin, Nezdoininogo, Novozhilov, and Zhurbenko, 1999); **Novosibirsk Oblast** (<sup>5</sup>Nozdrenko, 1970; <sup>1</sup>Perova, 1977; <sup>1</sup>Perova and Gorbunova, 2001; <sup>2</sup>Perova and Gorbunova, 2007; <sup>1</sup>Koropachinskiy and Banaev, 2014); **Sakha Republic** (<sup>1</sup>Nezdoininogo, 1994; <sup>1</sup>Nezdoininogo, 1997a; <sup>1</sup>Karatygin, Nezdoininogo, Novozhilov, and Zhurbenko, 1999); **Tomsk Oblast** (<sup>1</sup>Perova, 1972; <sup>1</sup>Perova and Gorbunova, 2001; <sup>1</sup>Kudashova, Gashkov, and Kutafjeva, 2013; <sup>1</sup>Vaishlya et al., 2017); **Zabaykalsky Krai** (<sup>1</sup>Karsten, 1911); **Altai** (<sup>1</sup>Zhukov, 1979).

**FAR EAST: Amur Oblast** (<sup>1,5</sup>Bulakh, Wasser, Nazarova, and Nezdoininogo, 1990; <sup>5</sup>Nezdoininogo, 1996; <sup>1</sup>Kochunova, 2019); **Chukotka Autonomous Okrug** (<sup>1</sup>Sazanova, 1993; <sup>1</sup>Nezdoininogo, 1994; <sup>1</sup>Nezdoininogo, 1997a; <sup>1</sup>Karatygin, Nezdoininogo, Novozhilov, and Zhurbenko, 1999); **Jewish Autonomous Oblast** (<sup>1</sup>Erofeeva, Bukharova, and Bulakh, 2019); **Khabarovsk Krai** (<sup>1</sup>Azbukina et al., 1986; <sup>1,5</sup>Bulakh, Wasser, Nazarova, and Nezdoininogo, 1990; <sup>5</sup>Nezdoininogo, 1996); **Magadan Oblast** (<sup>1</sup>Nazarova, 1976; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdoininogo, 1990; <sup>1</sup>Nezdoininogo, 1994; <sup>1</sup>Sazanova, 2005; <sup>1</sup>Sazanova, 2009a); **Primorsky Krai** (<sup>1</sup>Vassiljeva, 1972; <sup>1</sup>Vassiljeva, 1973; <sup>1</sup>Azbukina et al., 1984; <sup>1</sup>Azbukina et al., 1990; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdoininogo, 1990; <sup>1</sup>Bardunov et al., 2002; <sup>1</sup>Azbukina et al., 2006; <sup>1</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Bulakh et al., 2016); **Sakhalin Oblast** (<sup>1</sup>Vassiljeva and Nazarova, 1972; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdoininogo, 1990).

### *Hebeloma minus* Bruchet

**SIBERIA: Krasnoyarsk Krai** (Nezdoininogo, 1994; Karatygin, Nezdoininogo, Novozhilov, and Zhurbenko, 1999).

### *Hebeloma monticola* Vesterh.

**EASTERN EUROPE: Komi Republic** (Shiryayeva and Palamarchuk, 2019); **Murmansk Oblast** (Kalamees and Raitviir, 2006).

**SIBERIA: Khanty-Mansi Autonomous Okrug** (Filippova, Bulyonkova, and Lapshina, 2015).

### *Hebeloma nigellum* Bruchet

**EASTERN EUROPE: Komi Republic** (Palamarchuk, 2020b).

**SIBERIA: Tyva Republic** (Gorbunova, 2015).

### *Hebeloma ochroalbidum* Bohus

**EASTERN EUROPE: Penza Oblast** (Nezdoininogo, 1996); **Yaroslavl Oblast** (Lazareva, 1998a; Lazareva, 2002).

**SIBERIA: Khanty-Mansi Autonomous Okrug** (Zvyagina and Baykalova, 2017).

### *Hebeloma pallidoluctuosum* Gröger & Zschiesch.<sup>1</sup>

= *Hebeloma latifolium* Gröger & Zschiesch.<sup>2</sup>

**EASTERN EUROPE: Kaliningrad Oblast** (<sup>1</sup>Atayev and Volodina, 2020); **Karelia** (<sup>2</sup>Nezdoininogo, 1996); **Leningrad Oblast** (<sup>2</sup>Popov et al., 2007); **Moscow Oblast** (<sup>1</sup>Levitskaya, 1995c; <sup>2</sup>Levitskaya, 2013); **Penza Oblast** (<sup>2</sup>Nezdoininogo, 1996); **Rostov Oblast** (<sup>2</sup>Morozova et al., 2008); **Saint Petersburg** (<sup>2</sup>Kotkova, Morozova, and Popov,

2005); **Tula Oblast** (<sup>2</sup>Svetasheva, 2003; <sup>2</sup>Svetasheva, 2004); **Yamalo-Nenets Autonomous Okrug** (<sup>2</sup>Karatygin, Nezdjominogo, Novozhilov, and Zhurbenko, 1999); **Arid territories** (<sup>1</sup>Rebriev, Rusanov, et al., 2012).

SIBERIA: **Tyumen Oblast** (<sup>2</sup>Nezdjominogo, 1996).

FAR EAST: **Amur Oblast** (<sup>2</sup>Nezdjominogo, 1996); **Khabarovsk Krai** (<sup>2</sup>Nezdjominogo, 1996); **Primorsky Krai** (<sup>2</sup>Nezdjominogo, 1996).

#### ***Hebeloma polare* Vesterh.**

EASTERN EUROPE: **Arkhangelsk Oblast** (Ezhov, Gavriilo, and Zmitrovich, 2014; Zmitrovich and Ezhov, 2015); **Yamalo-Nenets Autonomous Okrug** (Nezdjominogo, 2001).

#### ***Hebeloma populinum* Romagn.**

EASTERN EUROPE: **Kirov Oblast** (Kirillov, 2011; Kirillov, Perevedentseva, and Egoshina, 2011); **Penza Oblast** (Nezdjominogo, 1996); **Perm Krai** (Perevedentseva, 2008); **Rostov Oblast** (Morozova et al., 2008; Shiryaev, Rebriev, and Knudsen, 2017); **Tula Oblast** (Svetasheva, 2003; Svetasheva, 2004; Shcherbakov, 2010); **Udmurt Republic** (Tychinin, 1990); **Volgograd Oblast** (Burova and Nezdjominogo, 1980); **Yaroslavl Oblast** (Lazareva, 1998a; Lazareva, 2002); **Arid territories** (Rebriev, Rusanov, et al., 2012).

SIBERIA: **Khakassia** (Zauzolkova and Gorbunova, 2013; Zauzolkova, 2015); **Krasnoyarsk Krai** (Zauzolkova, 2012; Zauzolkova, 2015); **Novosibirsk Oblast** (Perova and Gorbunova, 2001; Perova and Gorbunova, 2007; Koropachinskiy and Banaev, 2014).

FAR EAST: **Primorsky Krai** (Nezdjominogo, 1996).

#### ***Hebeloma pseudoamarescens* (Kühner & Romagn.) P. Collin<sup>1</sup>**

≡ *Naucoria pseudoamarescens* (Kühner & Romagn.) Kühner & Romagn.<sup>2</sup> = *Hebeloma funariophilum* M.M. Moser<sup>3</sup>

EASTERN EUROPE: **Karelia** (<sup>1</sup>Krutov et al., 2014); **Leningrad Oblast** (<sup>3</sup>Stolyarskaya, 1993; <sup>3</sup>Kovalenko and Morozova, 1999a; <sup>3</sup>Popov et al., 2007; <sup>1</sup>Zmitrovich et al., 2015); **Samara Oblast** (<sup>2</sup>Malysheva and Malysheva, 2005b; <sup>2</sup>Malysheva and Malysheva, 2008); **Tula Oblast** (<sup>2</sup>Svetasheva, 2004; <sup>2</sup>Svetasheva, 2005a; <sup>1</sup>Shcherbakov, 2010; <sup>2</sup>Svetasheva, 2013); **Udmurt Republic** (<sup>3</sup>Tychinin and Kuzmina, 2003).

SIBERIA: **Altai Republic** (<sup>3</sup>Nezdjominogo, 1996).

#### ***Hebeloma punctatum* (Schaeff.) P. Kumm.**

EASTERN EUROPE: **Karelia** (Bondartseva et al., 2001); **Leningrad Oblast** (Thesleff, 1920).

#### ***Hebeloma pusillum* J.E. Lange<sup>1</sup>**

= *Hebeloma pusillum* var. *longisporum* Bruchet<sup>2</sup>

EASTERN EUROPE: **Komi Republic** (<sup>1</sup>Palamarchuk (Bobretsova), 2009; <sup>1</sup>Palamarchuk, 2011b; <sup>1</sup>Palamarchuk, 2012; <sup>1</sup>Palamarchuk, 2016a; <sup>1</sup>Palamarchuk, 2016b); **Krasnodar Krai** (<sup>2</sup>Sopina, 2001a); **Lipetsk Oblast** (<sup>1</sup>Sarycheva et al., 2009; <sup>1</sup>Sarycheva, 2011; <sup>1</sup>Sarycheva, 2014a; <sup>1</sup>Sarycheva, 2016); **Murmansk Oblast** (<sup>1</sup>Nezdjominogo, 1996); **Orenburg Oblast** (<sup>1</sup>Korshikova, 2005; <sup>1</sup>Desyatova, 2008); **Penza Oblast** (<sup>1</sup>Nezdjominogo, 1996); **Perm Krai** (<sup>1</sup>Perevedentseva, 2008); **Pskov Oblast** (<sup>1</sup>Kovalenko, Kolmakov, Morozova, and Popov, 2003; <sup>1</sup>Popov et al., 2013); **Ryazan Oblast** (<sup>1</sup>Volosnova, 2005; <sup>2</sup>Volosnova, 2005; <sup>1</sup>Volosnova, 2014; <sup>2</sup>Volosnova, 2014); **Tatarstan** (<sup>1</sup>Vassiljeva, 1977; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdjominogo, 1990; <sup>1</sup>Nezdjominogo, 1996); **Yamalo-Nenets Autonomous Okrug** (<sup>1</sup>Nezdjominogo, 2001).

SIBERIA: **Altai Krai** (<sup>1</sup>Gorbunova and Perova, 2006); **Altai Republic** (<sup>1</sup>Gorbunova, 2003; <sup>1</sup>Gorbunova, 2010); **Irkutsk Oblast** (<sup>1</sup>Nezdjominogo, 1996); **Khakassia** (<sup>1</sup>Zauzolkova, 2015); **Krasnoyarsk Krai** (<sup>1</sup>Vassilkov, 1971b; <sup>1</sup>Beglyanova, 1972a; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdjominogo, 1990; <sup>1</sup>Nezdjominogo, 1994; <sup>1</sup>Nezdjominogo, 1996; <sup>1</sup>Nezdjominogo, 1997a; <sup>1</sup>Karatygin, Nezdjominogo, Novozhilov, and Zhurbenko, 1999); **Novosibirsk Oblast** (<sup>1</sup>Perova and Gorbunova, 2007; <sup>1</sup>Koropachinskiy and Banaev, 2014); **Tomsk Oblast** (<sup>1</sup>Kudashova, Gashkov, and Kutafjeva, 2013).

FAR EAST: **Amur Oblast** (<sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdjominogo, 1990; <sup>1</sup>Nezdjominogo, 1996); **Khabarovsk Krai** (<sup>1</sup>Azbukina et al., 1986; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdjominogo, 1990; <sup>1</sup>Bau, Bulakh, and Govorova, 2011); **Magadan Oblast** (<sup>1</sup>Nazarova, 1976; <sup>1</sup>Sazanova, 2009a); **Primorsky Krai** (<sup>1</sup>Vassiljeva, 1973; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdjominogo, 1990; <sup>1</sup>Nezdjominogo, 1996; <sup>1</sup>Bau, Bulakh, and Govorova, 2011).

***Hebeloma quercetorum* Quadr.**

EASTERN EUROPE: **Volgograd Oblast** (Rebriev, Popov, and Svetasheva, 2015; Svetasheva, 2015).

SIBERIA: **Khakassia** (Zauzolkova, 2015; Zauzolkova and Gorbunova, 2016); **Novosibirsk Oblast** (Koropachinskiy and Banaev, 2014).

***Hebeloma radicosum* (Bull.) Ricken<sup>1</sup>**

≡ *Pholiota radicata* (Bull.) P. Kumm.<sup>2</sup>

EASTERN EUROPE: **Adygea** (<sup>1</sup>Vassiljeva, 1939); **Kabardino-Balkarian Republic** (<sup>1</sup>Shkhagapsoev and Krapivina, 2004); **Kaliningrad Oblast** (<sup>1</sup>Atayev and Volodina, 2020); **Komi Republic** (<sup>1</sup>Bobretsova, 2004); **Krasnodar Krai** (<sup>1</sup>Vassiljeva, 1939; <sup>1</sup>Nezdojminogo, 1996); **Leningrad Oblast** (<sup>1</sup>Kalinina, 2018); **Perm Krai** (<sup>1</sup>Perevedentseva, 2008); **Pskov Oblast** (<sup>1</sup>Popov et al., 2013); **Rostov Oblast** (<sup>1</sup>Rusanov, Rebriev, and Bulgakov, 2018); **Tula Oblast** (<sup>1</sup>Svetasheva, 2003; <sup>1</sup>Svetasheva, 2004; <sup>1</sup>Shcherbakov, 2010); **Yamalo-Nenets Autonomous Okrug** (<sup>2</sup>Kazantseva, 1966; <sup>1</sup>Stepanova and Sirko, 1977); **Arid territories** (<sup>1</sup>Rebriev, Rusanov, et al., 2012).

SIBERIA: **Khanty-Mansi Autonomous Okrug** (<sup>1</sup>Filippova and Bulyonkova, 2017a; <sup>1</sup>Filippova and Bulyonkova, 2017b); **Novosibirsk Oblast** (<sup>1</sup>Perova, 1982; <sup>1</sup>Perova and Gorbunova, 2001; <sup>1</sup>Perova and Gorbunova, 2007; <sup>1</sup>Koropachinskiy and Banaev, 2014).

***Hebeloma sacchariolens* QuéL.**

EASTERN EUROPE: **Belgorod Oblast** (Bedenko, 1979a; Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990); **Bryansk Oblast** (Kruglikov, 2007); **Crimea** (Sarkina, 2014b; Sarkina, 2016a; Sarkina and Stavishenko, 2019); **Kaliningrad Oblast** (Volodina, 2007); **Karelia** (Freindling, 1949; Bondartseva et al., 2001; Krutov et al., 2014); **Krasnodar Krai** (Sopina, 2001a); **Leningrad Oblast** (Kalinina, 2018); **Lipetsk Oblast** (Sarycheva, 1999; Sarycheva et al., 2009; Sarycheva, 2011; Sarycheva, 2014a; Sarycheva, 2016); **Moscow Oblast** (Gorlenko, Sidorova, and Sidorova, 1989; Levitskaya, 2013); **Murmansk Oblast** (Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; Nezdojminogo, 1996); **Penza Oblast** (Nezdojminogo, 1996; Ivanov, 2019); **Perm Krai** (Perevedentseva, 2008; Perevedentseva and Shishigin, 2015); **Pskov Oblast** (Kolmakov and Popov, 2005; Popov et al., 2013); **Rostov Oblast** (Vyshchepan, 1992); **Ryazan Oblast** (Volosnova, 1997); **Tula Oblast** (Svetasheva, 2003; Svetasheva, 2004); **Volgograd Oblast** (Dudka and Vedenev, 2014); **Arid territories** (Rebriev, Rusanov, et al., 2012).

SIBERIA: **Altai Krai** (Gorbunova and Perova, 2006; Gorbunova, 2018b); **Irkutsk Oblast** (Petrov, Nezdojminogo, and Bulakh, 1987; Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; Petrov, 2008); **Khakassia** (Beglyanova, 1972a; Zauzolkova, 2015); **Khanty-Mansi Autonomous Okrug** (Zvyagina, 2008; Shepeleva et al., 2014); **Krasnoyarsk Krai** (Beglyanova, 1972a; Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; Nezdojminogo, 1996).

FAR EAST: **Amur Oblast** (Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; Kochunova, 2019); **Primorsky Krai** (Bau, Bulakh, Zhuang, and Li, 2007; Bau, Bulakh, and Govorova, 2011).

***Hebeloma sarcophyllum* (Peck) Sacc.**

EASTERN EUROPE: **Penza Oblast** (Nezdojminogo, 1996; Ivanov, 1999).

***Hebeloma sinapizans* (Paulet) Gillet**

EASTERN EUROPE: **Adygea** (Sopina, 2001a); **Belgorod Oblast** (Bedenko, 1979a; Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990); **Chelyabinsk Oblast** (Sirko and Stepanova, 1977; Stepanova and Sirko, 1977; Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990); **Crimea** (Sarkina and Stavishenko, 2019); **Kaliningrad Oblast** (Volodina, 2007); **Karelia** (Krutov et al., 2014); **Kirov Oblast** (Kirillov, 2011; Kirillov, Perevedentseva, and Egoshina, 2011; Stavishenko, Luginina, Kirillov, and Egoshina, 2019); **Krasnodar Krai** (Kovalenko, 1980a; Kovalenko, 1980b; Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; Sopina, 2001a); **Leningrad Oblast** (Kovalenko and Morozova, 1999a; Fomina, 2000; Morozova and Kovalenko, 2000; Popov et al., 2007); **Lipetsk Oblast** (Sarycheva, 1999; Sarycheva et al., 2009; Sarycheva, 2011; Sarycheva, 2014a; Sarycheva, 2016); **Moscow Oblast** (Levitskaya, 1995c; Levitskaya, 2013); **Murmansk Oblast** (Pystina, Pavlova, and Shestakova, 1969; Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990); **Penza Oblast** (Ivanov, 1982; Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990); **Perm Krai** (Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; Perevedentseva, 2008; Perevedentseva and Shishigin, 2015; Botalov, 2017); **Saint Petersburg** (Kovalenko and Morozova, 1999a); **Samara Oblast** (Malysheva and Malysheva, 2008); **Sevastopol** (Sarkina, 2020c); **Tula Oblast** (Svetasheva, 2004; Svetasheva, 2005a); **Ulyanovsk Oblast** (Ilyukhin, 2009; Ilyukhin, 2010a); **Volgograd Oblast** (Burova and Nezdojminogo, 1980); **Vologda Oblast** (Kirillova, 2007); **Yaroslavl Oblast** (Lazareva, 1998a; Lazareva, 2002).

SIBERIA: **Altai Krai** (Gorbunova and Perova, 2006); **Altai Republic** (Gorbunova, 1996; Gorbunova, 1997; Perova and Gorbunova, 2001; Gorbunova, 2008); **Irkutsk Oblast** (Kutafjeva, 1984; Astapenko, 1990b; Bulakh, Wasser, Nazarova, and Nezdoininogo, 1990); **Khakassia** (Zauzolkova and Gorbunova, 2013; Zauzolkova, 2015); **Krasnoyarsk Krai** (Beglyanova, 1972a; Bulakh, Wasser, Nazarova, and Nezdoininogo, 1990); **Novosibirsk Oblast** (Perova, 1977; Perova and Gorbunova, 2001; Perova and Gorbunova, 2007; Koropachinskiy and Banaev, 2014); **Tomsk Oblast** (Agaphonova, Kutafjeva, and Gashkov, 2009a; Kudashova, Gashkov, and Kutafjeva, 2013; Kudashova, Gashkov, and Vaishlya, 2016b; Vaishlya et al., 2017).

FAR EAST: **Amur Oblast** (Bulakh, Wasser, Nazarova, and Nezdoininogo, 1990; Kochunova and Erofeeva, 2017; Kochunova, 2019); **Khabarovsk Krai** (Bulakh, 2013; Bogacheva, Bulakh, Bukharova, and Egorova, 2015); **Primorsky Krai** (Vassiljeva, 1973; Bunkina and Nazarova, 1978; Azbukina et al., 1990; Bulakh, Wasser, Nazarova, and Nezdoininogo, 1990; Bardunov et al., 2002; Azbukina et al., 2006; Bau, Bulakh, and Govorova, 2011; Bulakh et al., 2016).

#### ***Hebeloma sinuosum* (Fr.) Quél.**

EASTERN EUROPE: **Chelyabinsk Oblast** (Sirko and Stepanova, 1977; Stepanova and Sirko, 1977); **Crimea** (Prydiuk, 2002; Dudka et al., 2004; Sarkina, 2010b; Sarkina, 2011; Sarkina and Mironova, 2015); **Sverdlovsk Oblast** (Tomilin, 1965; Stepanova and Sirko, 1977); **Tatarstan** (Vassiljeva, 1977); **Volgograd Oblast** (Burova and Nezdoininogo, 1980; Burova and Nezdoininogo, 1982).

SIBERIA: **Krasnoyarsk Krai** (Perova, 1970; Beglyanova, 1972a).

FAR EAST: **Primorsky Krai** (Vassiljeva, 1973); **Sakhalin Oblast** (Vassiljeva and Nazarova, 1972).

#### ***Hebeloma sordescens* Vesterh.**

EASTERN EUROPE: **Kaliningrad Oblast** (Atayev and Volodina, 2020).

SIBERIA: **Khakassia** (Zauzolkova, 2015); **Khanty-Mansi Autonomous Okrug** (Filippova, Bulyonkova, and Lapshina, 2015; Filippova and Bulyonkova, 2017a; Filippova and Bulyonkova, 2017b); **Krasnoyarsk Krai** (Malysheva, Malysheva, Kiyashko, et al., 2017).

#### ***Hebeloma sordidum* Maire<sup>1</sup>**

= *Hebeloma mesophaeum* var. *crassipes* Vesterh.<sup>2</sup>

EASTERN EUROPE: **Tula Oblast** (<sup>2</sup>Svetasheva, 2003; <sup>2</sup>Svetasheva, 2004).

SIBERIA: **Khakassia** (<sup>1</sup>Zauzolkova, 2015; <sup>1</sup>Zauzolkova and Gorbunova, 2016).

FAR EAST: **Amur Oblast** (<sup>1</sup>Kochunova, 2019).

#### ***Hebeloma spoliatum* (Fr.) Gillet<sup>1</sup>**

≡ *Agaricus spoliatus* Fr.<sup>2</sup>

SIBERIA: **Irkutsk Oblast** (<sup>1</sup>Kutafjeva, 1984; <sup>1</sup>Petrov, Nezdoininogo, and Bulakh, 1987; <sup>1</sup>Petrov, 1991; <sup>1</sup>Petrov, 2008); **Krasnoyarsk Krai** (<sup>2</sup>Thümen, 1878; <sup>1</sup>Beglyanova, 1972a; <sup>1</sup>Zauzolkova, 2015).

FAR EAST: **Magadan Oblast** (<sup>1</sup>Nazarova, 1976); **Primorsky Krai** (<sup>1</sup>Vassiljeva, 1972; <sup>1</sup>Vassiljeva, 1973; <sup>1</sup>Azbukina et al., 1990).

#### ***Hebeloma subconcolor* Bruchet**

EASTERN EUROPE: **Komi Republic** (Palamarchuk, 2020b).

#### ***Hebeloma submelinoides* (Kühner) Kühner**

≡ *Alnicola submelinoides* Kühner<sup>1</sup> ≡ *Naucoria submelinoides* (Kühner) Maire<sup>2</sup>

EASTERN EUROPE: **Leningrad Oblast** (<sup>1</sup>Nezdoininogo, 1967; <sup>2</sup>Kovalenko and Morozova, 1999a; <sup>2</sup>Popov et al., 2007).

FAR EAST: **Jewish Autonomous Oblast** (<sup>2</sup>Bulakh, Govorova, Nazarova, and Vassiljeva, 2007); **Khabarovsk Krai** (<sup>2</sup>Azbukina et al., 1989); **Primorsky Krai** (<sup>1</sup>Bulakh, 1977; <sup>1</sup>Azbukina et al., 1984).

#### ***Hebeloma syrjense* (P. Karst.) P. Karst.**

EASTERN EUROPE: **Moscow Oblast** (Levitskaya, 1995c; Levitskaya, 2013).



***Hebeloma tenuifolium* Romagn.**

EASTERN EUROPE: **Karelia** (Krutov et al., 2014); **Leningrad Oblast** (Kovalenko and Morozova, 1999a; Popov et al., 2007; Zmitrovich et al., 2015); **Murmansk Oblast** (Nezdojminogo, 1996); **Ryazan Oblast** (Volosnova, 2005; Volosnova, 2014); **Tula Oblast** (Svetasheva, 2004; Svetasheva, 2005a).

SIBERIA: **Krasnoyarsk Krai** (Nezdojminogo, 1996).

FAR EAST: **Amur Oblast** (Nezdojminogo, 1996); **Magadan Oblast** (Sazanova, 2009a).

***Hebeloma theobrominum* Quadr.**

SIBERIA: **Krasnoyarsk Krai** (Krom and Kapitonov, 2019).

***Hebeloma vaccinum* Romagn.**

EASTERN EUROPE: **Komi Republic** (Palamarchuk, 2016a; Palamarchuk, 2016b); **Leningrad Oblast** (Nezdojminogo, 1996; Popov et al., 2007); **Moscow Oblast** (Levitskaya, 1995c; Levitskaya, 2013); **Rostov Oblast** (Rusanov, Rebriev, and Bulgakov, 2018); **Saint Petersburg** (Kovalenko and Morozova, 1999a); **Yamalo-Nenets Autonomous Okrug** (Karatygin, Nezdojminogo, Novozhilov, and Zhurbenko, 1999); **Arid territories** (Rebriev, Rusanov, et al., 2012).

SIBERIA: **Altai Republic** (Gorbunova, 2019); **Yamalo-Nenets Autonomous Okrug** (Nezdojminogo, 1996).

FAR EAST: **Primorsky Krai** (Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; Nezdojminogo, 1996; Bau, Bulakh, and Govorova, 2011).

***Hebeloma vatricosum* (Fr.) Murrill**

≡ *Agaricus vatricosus* Fr.<sup>1</sup> ≡ *Inocybe vatricosa* (Fr.) P. Karst.<sup>2</sup>

EASTERN EUROPE: **Leningrad Oblast** (<sup>2</sup>Thesleff, 1920; <sup>2</sup>Nezdojminogo, 1967; <sup>2</sup>Chastukhin and Nikolaevskaya, 1969); **Saint Petersburg** (<sup>1</sup>Weinmann, 1828; <sup>1</sup>Weinmann, 1836; <sup>1</sup>Weinmann, 1837).

***Hebeloma versipelle* (Fr.) Gillet<sup>1</sup>**

≡ *Agaricus versipellis* Fr.<sup>2</sup>

EASTERN EUROPE: **Belgorod Oblast** (<sup>1</sup>Bedenko, 1980); **Bryansk Oblast** (<sup>1</sup>Kruglikov, 2007); **Karelia** (<sup>1</sup>Krutov et al., 2014); **Leningrad Oblast** (<sup>1</sup>Thesleff, 1920; <sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Popov et al., 2007); **Murmansk Oblast** (<sup>1</sup>Pystina, Pavlova, and Shestakova, 1969; <sup>1</sup>Mikhailovskii, 1975b); **Orenburg Oblast** (<sup>1</sup>Desyatova, 2008); **Perm Krai** (<sup>1</sup>Perevedentseva, 2008); **Saint Petersburg** (<sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Psurtseva, Kiyashko, Gachkova, and Belova, 2007); **Tver Oblast** (<sup>1</sup>Kurochkin, 1993); **Udmurt Republic** (<sup>1</sup>Tychinin and Kuzmina, 2003); **Volgograd Oblast** (<sup>1</sup>Burova and Nezdojminogo, 1980); **Yaroslavl Oblast** (<sup>1</sup>Lazareva, 1998a; <sup>1</sup>Lazareva, 2002).

SIBERIA: **Altai Republic** (<sup>1</sup>Gorbunova, 2003; <sup>1</sup>Gorbunova, 2008; <sup>1</sup>Gorbunova, 2017b); **Irkutsk Oblast** (<sup>1</sup>Kutafjeva, 1984; <sup>1</sup>Petrov, Nezdojminogo, and Bulakh, 1987; <sup>1</sup>Petrov, 1991; <sup>1</sup>Muzyka, 2002; <sup>1</sup>Petrov, 2008); **Krasnoyarsk Krai** (<sup>2</sup>Thümen, 1878; <sup>1</sup>Beglyanova, 1972a; <sup>1</sup>Nezdojminogo, 1976a; <sup>1</sup>Zauzolkova, 2015); **Novosibirsk Oblast** (<sup>1</sup>Perova, 1977; <sup>1</sup>Perova and Gorbunova, 2001); **Sverdlovsk Oblast** (<sup>1</sup>Stepanova and Sirko, 1977); **Tomsk Oblast** (<sup>1</sup>Perova and Gorbunova, 2001; <sup>1</sup>Kudashova, Gashkov, and Kutafjeva, 2013; <sup>1</sup>Vaishlya et al., 2017); **Zabaykalsky Krai** (<sup>1</sup>Karsten, 1911).

FAR EAST: **Chukotka Autonomous Okrug** (<sup>1</sup>Nezdojminogo, 1996).

***Heliocybe sulcata* (Berk.) Redhead & Ginns<sup>1</sup>**

≡ *Lentinus sulcatus* Berk.<sup>2</sup> ≡ *Neolentinus sulcatus* (Berk.) F. Rune<sup>3</sup> = *Lentinus fulvidus* (Bres.) Pilát<sup>4</sup>

EASTERN EUROPE: **Chuvash Republic** (<sup>1</sup>Gafurova, Ignatov, Tolpysheva, and Svetasheva, 2020); **Ryazan Oblast** (<sup>2</sup>Volosnova, 2005; <sup>2</sup>Volosnova, 2014); **Sverdlovsk Oblast** (<sup>4</sup>Stepanova and Sirko, 1977); **Ulyanovsk Oblast** (<sup>1</sup>Ilyukhin, 2009; <sup>1</sup>Ilyukhin, 2010a); **Arid territories** (<sup>1</sup>Rebriev, Rusanov, et al., 2012).

SIBERIA: **Altai Krai** (<sup>1</sup>Czernyadjeva et al., 2019); **Altai Republic** (<sup>4</sup>Singer, 1939; <sup>4</sup>Singer, 1943); **Buryatia** (<sup>1</sup>Pronin, 2013); **Irkutsk Oblast** (<sup>4</sup>Kutafjeva, 1982; <sup>4</sup>Petrov, 1984; <sup>4</sup>Astapenko, 1990a; <sup>2</sup>Petrov, 1991; <sup>2</sup>Muzyka, 2002; <sup>1</sup>Psurtseva, Kiyashko, Gachkova, and Belova, 2007; <sup>2</sup>Petrov, 2008; <sup>2</sup>Gaykova and Popov, 2010; <sup>2</sup>Muzyka and Penzina, 2017; <sup>2</sup>Trofimova, Popov, and Merkacheva, 2020); **Khakassia** (<sup>4</sup>Beglyanova, 1972a; <sup>4</sup>Beglyanova, 1972b); **Krasnoyarsk Krai** (<sup>4</sup>Beglyanova, 1972a); **Tomsk Oblast** (<sup>4</sup>Kosheleva and Kutafjeva, 2004; <sup>1</sup>Kudashova, Gashkov, and Kutafjeva, 2013; <sup>1</sup>Kudashova, Gashkov, and Vaishlya, 2016b); **Zabaykalsky Krai** (<sup>1</sup>Polyakov, Popova, and Afonina, 2017).

FAR EAST: **Khabarovsk Krai** (<sup>4</sup>Azbukina et al., 1989); **Magadan Oblast** (<sup>2</sup>Sazanova, 1996; <sup>2</sup>Sazanova, 2005; <sup>2</sup>Chereshnev, 2008b; <sup>1</sup>Sazanova, 2009a; <sup>1</sup>Sazanova, 2011; <sup>1</sup>Khoreva and Dokuchaev, 2019); **Primorsky Krai** (<sup>4</sup>Nazarova, 1978; <sup>3</sup>Bau, Bulakh, and Govorova, 2011).

***Hemileccinum depilatum* (Redeuilh) Šutara<sup>1</sup>**≡ *Boletus depilatus* Redeuilh<sup>2</sup>

EASTERN EUROPE: **Crimea** (<sup>2</sup>Sarkina, 2013; <sup>2</sup>Sarkina, 2014a; <sup>2</sup>Dovgal and Korzhenevsky, 2018; <sup>1</sup>Sarkina, 2020a); **Sevastopol** (<sup>2</sup>Sarkina, 2016b; <sup>2</sup>Dovgal and Korzhenevsky, 2018; <sup>1</sup>Sarkina, 2020c); **Tatarstan** (<sup>2</sup>Potapov, 2015b); **Arid territories** (<sup>2</sup>Rebriev, Rusanov, et al., 2012).

***Hemileccinum impolitum* (Fr.) Šutara<sup>1</sup>**≡ *Boletus impolitus* Fr.<sup>2</sup> = *Boletus suspectus* Krombh.<sup>3</sup>

EASTERN EUROPE: **Adygea** (<sup>2</sup>Vaasma, Kalamees, and Raitviir, 1986); **Bashkortostan** (<sup>2</sup>Stepanova and Sirko, 1977); **Belgorod Oblast** (<sup>2</sup>Bedenko, 1979a; <sup>1</sup>Prisny, 2019); **Chuvash Republic** (<sup>1</sup>Gafurova, Ignatov, Tolpysheva, and Svetasheva, 2020); **Crimea** (<sup>2</sup>Sarkina, 2001; <sup>2</sup>Dudka et al., 2004; <sup>2</sup>Akulov and Pryidiuk, 2007; <sup>2</sup>Sarkina, 2010b; <sup>2</sup>Sarkina and Pryidiuk, 2012; <sup>2</sup>Sarkina, 2014b; <sup>2</sup>Sarkina and Mironova, 2015; <sup>2</sup>Sarkina, 2016a; <sup>1</sup>Sarkina and Stavishenko, 2019); **Krasnodar Krai** (<sup>2</sup>Kovalenko, 1980a; <sup>2</sup>Kovalenko, 1980b; <sup>2</sup>Shumkova, Krivorotov, and Gayday, 2018); **Lipetsk Oblast** (<sup>2</sup>Sarycheva, 1999; <sup>2</sup>Sarycheva et al., 2009; <sup>2</sup>Sarycheva, 2014a; <sup>2</sup>Shcherbakov, 2014; <sup>2</sup>Sarycheva, 2016); **Mordovia** (<sup>2</sup>Silaeva et al., 2009; <sup>2</sup>Ivoilov and Bolshakov, 2011b; <sup>2</sup>Silaeva et al., 2011; <sup>2</sup>Bolshakov and Ivoilov, 2012b; <sup>2</sup>Silaeva et al., 2012; <sup>2</sup>Silaeva et al., 2013; <sup>2</sup>Ivoilov and Bolshakov, 2014; <sup>1</sup>Silaeva, 2017); **Moscow Oblast** (<sup>2</sup>Gorlenko, Sidorova, and Sidorova, 1989; <sup>2</sup>Varlygina, Zubakin, and Sobolev, 2008; <sup>2</sup>Varlygina, Zubakin, Nikitsky, and Sviridov, 2018); **Rostov Oblast** (<sup>2</sup>Rusanov et al., 2004; <sup>2</sup>Zmitrovich et al., 2008); **Ryazan Oblast** (<sup>2</sup>Volosnova, 2014); **Samara Oblast** (<sup>3</sup>Malysheva and Malysheva, 2004; <sup>3</sup>Malysheva and Malysheva, 2008); **Saratov Oblast** (<sup>2</sup>Komirnaya, 1975); **Sevastopol** (<sup>2</sup>Sarkina, 2016b; <sup>1</sup>Sarkina, 2020c); **Tatarstan** (<sup>1</sup>Potapov, 2016b; <sup>2</sup>Nazirov, Gorshkov, Ivanov, and Rogova, 2016); **Tula Oblast** (<sup>2</sup>Svetasheva, 2004; <sup>2</sup>Svetasheva, 2005b; <sup>2</sup>Shcherbakov, 2010; <sup>2</sup>Svetasheva, Aleksandrova, Zaytseva, and Solovjova, 2017); **Udmurt Republic** (<sup>2</sup>Baranova, 2012; <sup>2</sup>Kapitonov, 2013); **Ulyanovsk Oblast** (<sup>1</sup>Svetasheva et al., 2017); **Vladimir Oblast** (<sup>2</sup>Azbukina et al., 2010); **Volgograd Oblast** (<sup>2</sup>Dudka and Vedeneyev, 2014; <sup>2</sup>Svetasheva, 2015); **Voronezh Oblast** (<sup>2</sup>Agafonov, 2011; <sup>2</sup>Sarycheva, Starodubtseva, and Sapelnikova, 2017; <sup>2</sup>Agafonov, 2018); **Arid territories** (<sup>2</sup>Rebriev, Rusanov, et al., 2012).

FAR EAST: **Primorsky Krai** (<sup>2</sup>Bulakh et al., 2016; <sup>1</sup>Bogacheva et al., 2018).

***Hemimycena angustispora* (P.D. Orton) Singer**

EASTERN EUROPE: **Perm Krai** (Perevedentseva, 2008; Belkovskaya et al., 2014).

***Hemimycena candida* (Bres.) Singer**

EASTERN EUROPE: **Rostov Oblast** (Morozova et al., 2008; Malysheva and Morozova, 2009); **Arid territories** (Rebriev, Rusanov, et al., 2012).

***Hemimycena cephalotricha* (Joss. ex Redhead) Singer**

EASTERN EUROPE: **Krasnodar Krai** (Malysheva and Morozova, 2009); **Penza Oblast** (Ivanov, 1999).

***Hemimycena crispata* (Kühner) Singer**

EASTERN EUROPE: **Adygea** (Kiyashko, 2009).

***Hemimycena cryptomeriae* Noordel. & Antonín**

EASTERN EUROPE: **Vologda Oblast** (Kirillova, 2012).

***Hemimycena cucullata* (Pers.) Singer<sup>1</sup>**= *Hemimycena gypsea* (Fr.) Singer<sup>2</sup> = *Mycena gypsea* (Fr.) Quél.<sup>3</sup>

EASTERN EUROPE: **Leningrad Oblast** (<sup>1</sup>Malysheva and Morozova, 2009); **Lipetsk Oblast** (<sup>1</sup>Sarycheva et al., 2009; <sup>1</sup>Sarycheva, 2011; <sup>1</sup>Sarycheva, 2016); **Penza Oblast** (<sup>1</sup>Ivanov, 1981a; <sup>1</sup>Ivanov, 1981b); **Samara Oblast** (<sup>1</sup>Malysheva and Malysheva, 2005b; <sup>1</sup>Psurtsseva, Kiyashko, Gachkova, and Belova, 2007; <sup>1</sup>Malysheva and Malysheva, 2008; <sup>1</sup>Malysheva and Morozova, 2009); **Tula Oblast** (<sup>1</sup>Svetasheva, 2004; <sup>1</sup>Malysheva and Morozova, 2009).

SIBERIA: **Altai Republic** (<sup>2</sup>Singer, 1943); **Krasnoyarsk Krai** (<sup>1</sup>Beglyanova, 1972a; <sup>1</sup>Gorbunova, 2016); **Tomsk Oblast** (<sup>3</sup>Perova, 1972; <sup>3</sup>Perova and Gorbunova, 2001; <sup>1</sup>Kudashova, Gashkov, and Kutafjeva, 2013).

FAR EAST: **Jewish Autonomous Oblast** (<sup>1</sup>Bulakh, Govorova, Nazarova, and Vassiljeva, 2007; <sup>1</sup>Bau, Bulakh, and Govorova, 2011); **Khabarovsk Krai** (<sup>3</sup>Azbukina et al., 1986; <sup>1</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Erofeeva and Bulakh, 2015a); **Primorsky Krai** (<sup>3</sup>Vassiljeva, 1973; <sup>3</sup>Bunkina and Nazarova, 1978; <sup>1</sup>Azbukina et al., 1984; <sup>1</sup>Azbukina et al., 2006; <sup>1</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Bulakh et al., 2016).

***Hemimycena depauperata* Singer**SIBERIA: **Altai Republic** (Singer, 1943).***Hemimycena epichloe* (Kühner) Singer**EASTERN EUROPE: **Leningrad Oblast** (Popov et al., 2007; Malysheva and Morozova, 2009; Zmitrovich et al., 2015); **Pskov Oblast** (Malysheva and Morozova, 2009).***Hemimycena globulifera* E.F. Malysheva & O.V. Morozova**EASTERN EUROPE: **Leningrad Oblast** (Malysheva and Morozova, 2009).***Hemimycena gracilis* (Quél.) Singer**EASTERN EUROPE: **Crimea** (Sarkina, 2010b); **Krasnodar Krai** (Kovalenko, 1980a; Kovalenko, 1980b); **Leningrad Oblast** (Malysheva and Morozova, 2009); **Moscow Oblast** (Gorlenko, Sidorova, and Sidorova, 1989; Vishnevsky, 1998); **Perm Krai** (Perevedentseva, 2008); **Pskov Oblast** (Kovalenko and Morozova, 1999b; Malysheva and Morozova, 2009; Popov et al., 2013); **Samara Oblast** (Malysheva and Malysheva, 2004; Malysheva and Malysheva, 2008); **Sverdlovsk Oblast** (Marina, 2006); **Vologda Oblast** (Kirillova, 2007; Kirillova, 2009; Malysheva and Morozova, 2009).SIBERIA: **Altai Republic** (Gorbunova, 2001b; Perova and Gorbunova, 2001); **Buryatia** (Nezdojminogo, 1973; Petrov, 1991); **Krasnoyarsk Krai** (Beglyanova, 1972a; Zauzolkova, 2012; Zauzolkova, 2015; Gorbunova, 2016); **Novosibirsk Oblast** (Perova and Gorbunova, 2001; Koropachinskiy and Banaev, 2014); **Tomsk Oblast** (Perova and Gorbunova, 2001; Kudashova, Gashkov, and Kutafjeva, 2013).FAR EAST: **Khabarovsk Krai** (Azbukina et al., 1986; Azbukina et al., 1989; Bau, Bulakh, and Govorova, 2011).***Hemimycena gypsella* (Kühner) Elborne & Læssøe**EASTERN EUROPE: **Moscow Oblast** (Vishnevsky, 1998).SIBERIA: **Krasnoyarsk Krai** (Gorbunova, 2016).***Hemimycena hirsuta* (Tode) Singer<sup>1</sup>**= *Hemimycena crispula* (Quél.) Singer<sup>2</sup> = *Hemimycena crispula* var. *crispula* (Quél.) Singer<sup>3</sup> = *Hemimycena crispula* var. *tetraspora* Antonín & Noordel.<sup>4</sup> = *Mycena crispula* (Quél.) Kühner<sup>5</sup>EASTERN EUROPE: **Chelyabinsk Oblast** (<sup>2</sup>Sirko and Stepanova, 1977; <sup>2</sup>Stepanova and Sirko, 1977); **Kaliningrad Oblast** (<sup>1</sup>Atayev and Volodina, 2020); **Krasnodar Krai** (<sup>2</sup>Kovalenko, 1980a; <sup>2</sup>Kovalenko, 1980b); **Leningrad Oblast** (<sup>3,4</sup>Malysheva and Morozova, 2009); **Moscow Oblast** (<sup>1</sup>Vishnevsky, 1998); **Pskov Oblast** (<sup>2</sup>Morozova et al., 2015); **Sverdlovsk Oblast** (<sup>2</sup>Stepanova and Sirko, 1977).SIBERIA: **Altai Republic** (<sup>1</sup>Gorbunova, 2017a).FAR EAST: **Jewish Autonomous Oblast** (<sup>1</sup>Bau, Bulakh, and Govorova, 2011); **Primorsky Krai** (<sup>5</sup>Bulakh, 1977; <sup>2</sup>Azbukina et al., 1984); **Sakhalin Oblast** (<sup>2</sup>Bulakh, Govorova, and Bogatov, 1999).***Hemimycena ignobilis* Joss. ex Bon**SIBERIA: **Tomsk Oblast** (Kudashova, Gashkov, and Vaishlya, 2016a).FAR EAST: **Khabarovsk Krai** (Erofeeva and Bulakh, 2015a).***Hemimycena lactea* (Pers.) Singer<sup>1</sup>**≡ *Agaricus lacteus* Pers.<sup>2</sup> ≡ *Hemimycena lactea* var. *lactea* (Pers.) Singer<sup>3</sup> ≡ *Mycena lactea* (Pers.) P. Kumm.<sup>4</sup> = *Hemimycena delicatella* (Peck) Singer<sup>5</sup> = *Hemimycena lactea* var. *tetraspora* (Kühner & Valla) Courtec.<sup>6</sup>EASTERN EUROPE: **Crimea** (<sup>1</sup>Sarkina, 2010b; <sup>1</sup>Sarkina and Mironova, 2015); **Kaliningrad Oblast** (<sup>1</sup>Atayev and Volodina, 2020); **Kaluga Oblast** (<sup>4</sup>Sionova, 2003); **Karelia** (<sup>1</sup>Kovalenko, Morozova, Fomina, and Särkisilta, 1998; <sup>3</sup>Malysheva and Morozova, 2009; <sup>1</sup>Krutov et al., 2014); **Krasnodar Krai** (<sup>6</sup>Malysheva and Morozova, 2009); **Kursk Oblast** (<sup>4</sup>Bedenko, 1987); **Leningrad Oblast** (<sup>4</sup>Thesleff, 1920; <sup>5</sup>Stolyarskaya, 1989; <sup>1,5</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Morozova and Kovalenko, 2000; <sup>1,5</sup>Popov et al., 2007; <sup>3</sup>Malysheva and Morozova, 2009; <sup>1</sup>Zmitrovich et al., 2015); **Mordovia** (<sup>4</sup>Chastukhin, 1948a; <sup>4</sup>Chastukhin and Nikolaevskaya, 1969); **Moscow** (<sup>4</sup>Burova, 1971); **Moscow Oblast** (<sup>4,5</sup>Gorlenko, Sidorova, and Sidorova, 1989; <sup>1</sup>Vishnevsky, 1998); **Murmansk Oblast** (<sup>4</sup>Pystina, Pavlova, and Shestakova, 1969); **Ryazan Oblast** (<sup>4</sup>Volosnova, 1997); **Saint Petersburg** (<sup>2</sup>Weinmann, 1828; <sup>2</sup>Weinmann, 1836; <sup>2</sup>Weinmann, 1837; <sup>1</sup>Kovalenko and Morozova, 1999a); **Tver Oblast** (<sup>4</sup>Chastukhin, 1948b; <sup>4</sup>Chastukhin and Nikolaevskaya, 1969; <sup>4</sup>Mukhina, 2011a; <sup>1</sup>Kotkova, 2014); **Udmurt Republic** (<sup>4</sup>Tychinin and Kuzmina, 2003); **Voronezh Oblast** (<sup>4</sup>Bedenko, 1987); **Yaroslavl Oblast** (<sup>4</sup>Lazareva, 1998a); **Lapland** (<sup>2</sup>Karsten, 1866).

SIBERIA: **Altai Republic** (<sup>1</sup>Gorbunova, 2001a; <sup>5</sup>Gorbunova, 2001b; <sup>5</sup>Perova and Gorbunova, 2001); **Buryatia** (<sup>5</sup>Nezdojminogo, 1973; <sup>5</sup>Petrov, 1991); **Irkutsk Oblast** (<sup>4</sup>Kutafjeva, 1983); **Krasnoyarsk Krai** (<sup>4</sup>Beglyanova, 1972a; <sup>1</sup>Gorbunova, 2016); **Novosibirsk Oblast** (<sup>1</sup>Gorbunova, 2007; <sup>1</sup>Koropachinskiy and Banaev, 2014); **Yamalo-Nenets Autonomous Okrug** (<sup>5</sup>Tarchevskaya, 1990).

FAR EAST: **Khabarovsk Krai** (<sup>4</sup>Azbukina et al., 1986); **Primorsky Krai** (<sup>4</sup>Vassiljeva, 1972; <sup>4</sup>Vassiljeva, 1973; <sup>4</sup>Bunkina and Nazarova, 1978; <sup>5</sup>Azbukina et al., 2006; <sup>1</sup>Bau, Bulakh, and Govorova, 2011).

***Hemimycena mairei* (E.-J. Gilbert) Singer**

EASTERN EUROPE: **Rostov Oblast** (Rebriev, 2018); **Samara Oblast** (Malysheva and Malysheva, 2008; Malysheva and Morozova, 2009); **Tula Oblast** (Svetasheva, 2004); **Arid territories** (Rebriev, Rusanov, et al., 2012).

SIBERIA: **Khanty-Mansi Autonomous Okrug** (Filippova and Bulyonkova, 2017a; Filippova and Bulyonkova, 2017b).

***Hemimycena mauretana* (Maire) Singer**

= *Hemimycena mauretana* var. *cystidiata* Antonín & Noordel.<sup>1</sup>

EASTERN EUROPE: **Leningrad Oblast** (<sup>1</sup>Popov et al., 2007; <sup>1</sup>Malysheva and Morozova, 2009); **Samara Oblast** (<sup>1</sup>Malysheva and Malysheva, 2006; <sup>1</sup>Malysheva and Malysheva, 2007; <sup>1</sup>Malysheva and Malysheva, 2008; <sup>1</sup>Malysheva and Morozova, 2009).

***Hemimycena nitriolens* (Valla) Antonín & Noordel.**

EASTERN EUROPE: **Vologda Oblast** (Kirillova, 2012).

***Hemimycena nivea* (Quél.) Singer**

≡ *Mycena nivea* Quél.<sup>1</sup>

FAR EAST: **Primorsky Krai** (<sup>1</sup>Naoumoff, 1914).

***Hemimycena ochrogaleata* (J. Favre) M.M. Moser**

SIBERIA: **Krasnoyarsk Krai** (Gorbunova, 2016).

***Hemimycena persimilis* (Redhead) Antonín & Noordel.**

EASTERN EUROPE: **Leningrad Oblast** (Malysheva and Morozova, 2009); **Samara Oblast** (Malysheva and Malysheva, 2007; Malysheva and Malysheva, 2008; Malysheva and Morozova, 2009).

***Hemimycena pithya* (Pers.) Dörfelt**

≡ *Agaricus lacteus* var. *pithyus* Pers.<sup>1</sup>

EASTERN EUROPE: **Saint Petersburg** (<sup>1</sup>Weinmann, 1828; <sup>1</sup>Weinmann, 1836; <sup>1</sup>Weinmann, 1837).

***Hemimycena pseudoconidiophora* Singer**

SIBERIA: **Altai Republic** (Singer, 1938c; Singer, 1943).

***Hemimycena pseudocrispata* (Valla) Maas Geest.**

EASTERN EUROPE: **Leningrad Oblast** (Malysheva and Morozova, 2009); **Novgorod Oblast** (Malysheva and Morozova, 2009; Popov et al., 2013); **Orenburg Oblast** (Desyatova, 2007; Desyatova, 2008).

***Hemimycena pseudocrispula* (Kühner) Singer**

EASTERN EUROPE: **Kaliningrad Oblast** (Volodina, 2007); **Krasnodar Krai** (Vaasma, Kalamees, and Raitviir, 1986); **Leningrad Oblast** (Singer, 1943; Malysheva and Morozova, 2009); **Murmansk Oblast** (Mikhailovskii, 1975a).

SIBERIA: **Altai Krai** (Gorbunova, 2018a); **Altai Republic** (Gorbunova, 2010; Gorbunova, 2017a); **Khanty-Mansi Autonomous Okrug** (Filippova and Bulyonkova, 2017a; Filippova and Bulyonkova, 2017b); **Krasnoyarsk Krai** (Gorbunova, 2016; Malysheva, Malysheva, Kiyashko, et al., 2017).

***Hemimycena pseudogibba* (Valla) Antonín & Noordel.**

EASTERN EUROPE: **Orenburg Oblast** (Desyatova, 2007; Desyatova, 2008).

***Hemimycena pseudolactea* (Kühner) Singer**

EASTERN EUROPE: **Komi Republic** (Shiryayeva and Palamarchuk, 2019); **Leningrad Oblast** (Singer, 1943; Malysheva and Morozova, 2009); **Moscow Oblast** (Vishnevsky, 1998); **Novgorod Oblast** (Malysheva and Morozova, 2009; Popov et al., 2013); **Samara Oblast** (Malysheva and Malysheva, 2006; Malysheva and Malysheva, 2007; Malysheva and Malysheva, 2008; Malysheva and Morozova, 2009).

FAR EAST: **Amur Oblast** (Azbukina et al., 1998); **Jewish Autonomous Oblast** (Bulakh, Govorova, Nazarova, and Vassiljeva, 2007; Bau, Bulakh, and Govorova, 2011).

***Hemimycena rickenii* (A.H. Sm.) Singer**

EASTERN EUROPE: **Moscow Oblast** (Gorlenko, Sidorova, and Sidorova, 1989; Vishnevsky, 1998).

FAR EAST: **Primorsky Krai** (Bau, Bulakh, and Govorova, 2011).

***Hemimycena sordida* Noordel. & Antonín**

EASTERN EUROPE: **Rostov Oblast** (Morozova et al., 2008); **Samara Oblast** (Malysheva and Malysheva, 2006; Malysheva and Malysheva, 2008); **Arid territories** (Rebriev, Rusanov, et al., 2012).

SIBERIA: **Khanty-Mansi Autonomous Okrug** (Filippova and Bulyonkova, 2017a; Filippova and Bulyonkova, 2017b).

***Hemimycena stiriispora* E.F. Malysheva & O.V. Morozova**

EASTERN EUROPE: **Leningrad Oblast** (Malysheva and Morozova, 2009).

***Hemimycena subimmaculata* (Murrill) Elborne & Læssøe**

EASTERN EUROPE: **Leningrad Oblast** (Malysheva and Morozova, 2009).

***Hemimycena subtilis* (Velen.) Antonín**

EASTERN EUROPE: **Leningrad Oblast** (Malysheva and Morozova, 2009).

SIBERIA: **Khanty-Mansi Autonomous Okrug** (Filippova and Bulyonkova, 2017a; Filippova and Bulyonkova, 2017b).

***Hemimycena tanjae* E.F. Malysheva & O.V. Morozova**

EASTERN EUROPE: **Novgorod Oblast** (Morozova, 2012; Popov et al., 2013); **Pskov Oblast** (Morozova et al., 2015); **Rostov Oblast** (Malysheva and Morozova, 2009); **Samara Oblast** (Malysheva and Morozova, 2009).

***Hemistropharia albocrenulata* (Peck) Jacobsson & E. Larss.<sup>1</sup>**

≡ *Hemipholiota albocrenulata* (Peck) Romagn.<sup>2</sup> ≡ *Hemipholiota albocrenulata* (Peck) Romagn. ex Bon<sup>3</sup> ≡ *Pholiota albocrenulata* (Peck) Sacc.<sup>4</sup> ≡ *Stropharia albocrenulata* (Peck) Kreisel<sup>5</sup>

EASTERN EUROPE: **Leningrad Oblast** (<sup>5</sup>Kalamees and Kovalenko, 1984; <sup>3</sup>Kovalenko and Morozova, 1999a; <sup>3</sup>Tzvelev, 2000; <sup>4</sup>Popov et al., 2007; <sup>1</sup>Geltman et al., 2018; <sup>1</sup>Geltman, 2018b; <sup>1</sup>Kalinina, 2018); **Moscow Oblast** (<sup>5</sup>Levitskaya, 1995c; <sup>1</sup>Voronina et al., 2012; <sup>2</sup>Levitskaya, 2013; <sup>1</sup>Voronina et al., 2014); **Novgorod Oblast** (<sup>1</sup>Arslanov, 2012; <sup>1</sup>Arslanov, 2014; <sup>1</sup>Vetkin et al., 2015); **Penza Oblast** (<sup>5</sup>Ivanov, 1981b; <sup>5</sup>Ivanov, 1982); **Pskov Oblast** (<sup>1</sup>Kalinina, Bolshakov, and Bulyonkova, 2020); **Saint Petersburg** (<sup>1</sup>Bolshakov et al., 2020); **Sverdlovsk Oblast** (<sup>5</sup>Stepanova and Sirko, 1977); **Tatarstan** (<sup>1</sup>Potapov, 2015b; <sup>1</sup>Nazirov, Gorshkov, Ivanov, and Rogova, 2016; <sup>1</sup>Potapov, 2016b); **Tula Oblast** (<sup>3</sup>Svetasheva, 2004; <sup>1</sup>Shcherbakov, 2010); **Udmurt Republic** (<sup>5</sup>Tychinin and Kuzmina, 2003).

SIBERIA: **Tomsk Oblast** (<sup>1</sup>Kudashova, Gashkov, and Kutafjeva, 2013; <sup>1</sup>Kudashova, Gashkov, and Vaishlya, 2016b).

FAR EAST: **Khabarovsk Krai** (<sup>4</sup>Azbukina et al., 1986; <sup>4</sup>Bau, Bulakh, and Govorova, 2011); **Primorsky Krai** (<sup>4</sup>Vassiljeva, 1973; <sup>4</sup>Bunkina and Nazarova, 1978; <sup>4</sup>Azbukina et al., 1984; <sup>4</sup>Azbukina et al., 1990; <sup>4</sup>Bardunov et al., 2002; <sup>5</sup>Azbukina et al., 2006; <sup>4</sup>Bau, Bulakh, and Govorova, 2011).

***Hodophilus albofloccipes* (Kovalenko, E.F. Malysheva & O.V. Morozova) Looney & Adamčík**

≡ *Camarophyllopsis albofloccipes* Kovalenko, E.F. Malysheva & O.V. Morozova<sup>1</sup>

EASTERN EUROPE: **Karachay-Cherkess Republic** (<sup>1</sup>Kovalenko, Malysheva, and Morozova, 2012); **Samara Oblast** (<sup>1</sup>Kovalenko, Malysheva, and Morozova, 2012).

***Hodophilus atropunctus* (Pers.) Birkebak & Adamčík**

≡ *Camarophylloopsis atropuncta* (Pers.) Arnolds<sup>1</sup>

EASTERN EUROPE: **Leningrad Oblast** (<sup>1</sup>Popov et al., 2007; <sup>1</sup>Kovalenko, Malysheva, and Morozova, 2012; <sup>1</sup>Geltman et al., 2018; <sup>1</sup>Geltman, 2018b); **Pskov Oblast** (<sup>1</sup>Kovalenko, Malysheva, and Morozova, 2012; <sup>1</sup>Popov et al., 2013); **Samara Oblast** (<sup>1</sup>Malysheva and Malysheva, 2007; <sup>1</sup>Malysheva and Malysheva, 2008; <sup>1</sup>Kovalenko, Malysheva, and Morozova, 2012).

***Hodophilus foetens* (W. Phillips) Birkebak & Adamčík<sup>1</sup>**

≡ *Camarophylloopsis foetens* (W. Phillips) Arnolds<sup>2</sup> ≡ *Camarophyllus foetens* (W. Phillips) J.E. Lange<sup>3</sup>

EASTERN EUROPE: **Leningrad Oblast** (<sup>2</sup>Popov et al., 2007; <sup>2</sup>Kovalenko, Malysheva, and Morozova, 2012); **Novgorod Oblast** (<sup>2</sup>Kovalenko, Malysheva, and Morozova, 2012; <sup>2</sup>Morozova, 2012; <sup>2</sup>Popov et al., 2013); **Samara Oblast** (<sup>2</sup>Malysheva and Malysheva, 2006; <sup>2</sup>Malysheva and Malysheva, 2007; <sup>2</sup>Malysheva and Malysheva, 2008; <sup>2</sup>Kovalenko, Malysheva, and Morozova, 2012); **Sverdlovsk Oblast** (<sup>1</sup>Shiryaeva and Palamarchuk, 2019); **Tula Oblast** (<sup>2</sup>Shcherbakov, 2010; <sup>2</sup>Svetasheva, Sheremetyeva, and Lakomov, 2019).

SIBERIA: **Altai Krai** (<sup>1</sup>Gorbunova, 2018a); **Irkutsk Oblast** (<sup>2</sup>Kovalenko, 1989; <sup>2</sup>Kovalenko, 1995).

FAR EAST: **Primorsky Krai** (<sup>3</sup>Vassiljeva, 1972; <sup>2</sup>Vassiljeva, 1973; <sup>2</sup>Kovalenko, 1989; <sup>2</sup>Kovalenko, 1995; <sup>2</sup>Kovalenko, Malysheva, and Morozova, 2012); **Sakhalin Oblast** (<sup>2</sup>Kovalenko, 1989; <sup>2</sup>Kovalenko, 1995).

***Hodophilus micaceus* (Berk. & Broome) Birkebak & Adamčík**

≡ *Camarophylloopsis micacea* (Berk. & Broome) Arnolds<sup>1</sup>

EASTERN EUROPE: **Karachay-Cherkess Republic** (<sup>1</sup>Malysheva and Svetasheva, 2011); **Leningrad Oblast** (<sup>1</sup>Kovalenko, Malysheva, and Morozova, 2012; <sup>1</sup>Geltman et al., 2018; <sup>1</sup>Geltman, 2018b); **Pskov Oblast** (<sup>1</sup>Morozova et al., 2015).

***Hodophilus phaeoxanthus* (Romagn.) Adamčík & Jančovič.**

≡ *Camarophylloopsis phaeoxantha* (Romagn.) Arnolds<sup>1</sup>

EASTERN EUROPE: **Moscow Oblast** (<sup>1</sup>Levitskaya, 1995b; <sup>1</sup>Levitskaya, 2013).

***Hodophilus subfuscescens* (A.H. Sm. & Hesler) Adamčík, Birkebak & Looney**

≡ *Camarophylloopsis subfuscescens* (A.H. Sm. & Hesler) Arnolds<sup>1</sup>

EASTERN EUROPE: **Leningrad Oblast** (<sup>1</sup>Popov et al., 2007).

***Hohenbuehelia abietina* Singer & Kuthan**

EASTERN EUROPE: **Komi Republic** (Palamarchuk, 2016a; Palamarchuk, 2016b).

***Hohenbuehelia angustata* (Berk.) Singer**

SIBERIA: **Novosibirsk Oblast** (Perova and Gorbunova, 2001; Perova and Gorbunova, 2007).

FAR EAST: **Amur Oblast** (Taranina, 2005); **Primorsky Krai** (Vassiljeva, 1973; Bunkina and Nazarova, 1978; Azbukina et al., 1984; Azbukina et al., 2006; Bau, Bulakh, and Govorova, 2011).

***Hohenbuehelia approximans* (Peck) Singer**

EASTERN EUROPE: **Pskov Oblast** (Kovalenko and Morozova, 1999b).

***Hohenbuehelia atrocoerulea* (Fr.) Singer<sup>1</sup>**

≡ *Acanthocystis atrocoerulea* (Fr.) Konrad & Maubl.<sup>2</sup>

EASTERN EUROPE: **Crimea** (<sup>1</sup>Dudka et al., 2004); **Krasnodar Krai** (<sup>2</sup>Vassiljeva, 1939); **Leningrad Oblast** (<sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Zmitrovich, 2003; <sup>1</sup>Zmitrovich, Malysheva, Malysheva, and Spirin, 2004; <sup>1</sup>Morozova, 2007; <sup>1</sup>Popov et al., 2007; <sup>1</sup>Zmitrovich et al., 2015); **Lipetsk Oblast** (<sup>1</sup>Sarycheva et al., 2009; <sup>1</sup>Sarycheva, 2011; <sup>1</sup>Sarycheva, 2014a; <sup>1</sup>Sarycheva, 2016); **Moscow Oblast** (<sup>1</sup>Vishnevsky, 1998); **Orenburg Oblast** (<sup>1</sup>Psurtseva, Kiyashko, Gachkova, and Belova, 2007); **Penza Oblast** (<sup>1</sup>Ivanov, 1981b; <sup>1</sup>Ivanov, 1983); **Rostov Oblast** (<sup>1</sup>Rusanov et al., 2004; <sup>1</sup>Zmitrovich et al., 2008); **Ryazan Oblast** (<sup>1</sup>Volosnova, 2005; <sup>1</sup>Volosnova, 2014); **Saint Petersburg** (<sup>1</sup>Zmitrovich, Malysheva, Malysheva, and Spirin, 2004); **Samara Oblast** (<sup>1</sup>Malysheva and Malysheva, 2005b; <sup>1</sup>Malysheva and Malysheva, 2008); **Sverdlovsk Oblast** (<sup>1</sup>Marina, 2006); **Tula Oblast** (<sup>1</sup>Svetasheva, 2004); **Ulyanovsk Oblast** (<sup>1</sup>Ilyukhin, 2010a; <sup>1</sup>Ilyukhin, 2010b); **Voronezh Oblast** (<sup>1</sup>Sarycheva, Starodubtseva, and Sapelnikova, 2017); **Arid territories** (<sup>1</sup>Rebriev, Rusanov, et al., 2012).

SIBERIA: **Irkutsk Oblast** (<sup>1</sup>Kutafjeva and Astapenko, 1988; <sup>1</sup>Astapenko, 1990a); **Kemerovo Oblast** (<sup>1</sup>Perova and Gorbunova, 2001); **Khanty-Mansi Autonomous Okrug** (<sup>1</sup>Mukhin, 1993); **Krasnoyarsk Krai** (<sup>1</sup>Kosheleva and Kutafjeva, 2008a); **Kurgan Oblast** (<sup>1</sup>Mukhin, 1993); **Novosibirsk Oblast** (<sup>1</sup>Perova, 1982; <sup>1</sup>Perova and Gorbunova, 2001; <sup>1</sup>Perova and Gorbunova, 2007; <sup>1</sup>Koropachinskiy and Banaev, 2014); **Sverdlovsk Oblast** (<sup>1</sup>Mukhin, 1993; <sup>1</sup>Mukhin et al., 2003); **Tomsk Oblast** (<sup>1</sup>Kudashova, Gashkov, and Kutafjeva, 2013; <sup>1</sup>Kudashova, Gashkov, and Vaishlya, 2016b); **Tyumen Oblast** (<sup>1</sup>Mukhin, 1993); **Yamalo-Nenets Autonomous Okrug** (<sup>1</sup>Mukhin, 1993).

FAR EAST: **Amur Oblast** (<sup>1</sup>Azbukina et al., 1998; <sup>1</sup>Taranina, 2005); **Jewish Autonomous Oblast** (<sup>1</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Erofeeva, Bukharova, and Bulakh, 2019); **Khabarovsk Krai** (<sup>1</sup>Azbukina et al., 1986; <sup>1</sup>Bau, Bulakh, and Govorova, 2011); **Primorsky Krai** (<sup>1</sup>Vassiljeva, 1972; <sup>1</sup>Vassiljeva, 1973; <sup>1</sup>Bunkina and Nazarova, 1978; <sup>1</sup>Azbukina et al., 2006; <sup>1</sup>Bau, Bulakh, and Govorova, 2011); **Sakhalin Oblast** (<sup>1</sup>Vassiljeva and Nazarova, 1972; <sup>1</sup>Bulakh, Govorova, and Bogatov, 1999).

***Hohenbuehelia cyphelliformis* (Berk.) O.K. Mill.<sup>1</sup>**

= *Marasmius spodoleucus* Berk. & Broome<sup>2</sup>

EASTERN EUROPE: **Chechen Republic** (<sup>2</sup>Hollós, 1902; <sup>2</sup>Hollós, 1905; <sup>2</sup>Filarszky, 1907); **Rostov Oblast** (<sup>1</sup>Rebriev, 2018); **Arid territories** (<sup>1</sup>Rebriev, Rusanov, et al., 2012).

FAR EAST: **Khabarovsk Krai** (<sup>1</sup>Bau, Bulakh, and Govorova, 2011).

***Hohenbuehelia fluxilis* (Fr.) P.D. Orton**

EASTERN EUROPE: **Chelyabinsk Oblast** (Psurtsseva, Kiyashko, Gachkova, and Belova, 2007); **Karelia** (Krutov et al., 2014); **Leningrad Oblast** (Kovalenko and Morozova, 1999a; Morozova and Kovalenko, 2000; Tzvelev, 2000; Zmitrovich, Malysheva, Malysheva, and Spirin, 2004; Popov et al., 2007; Psurtseva, Kiyashko, Gachkova, and Belova, 2007; Zmitrovich et al., 2015; Geltman et al., 2018; Kalinina, 2018); **Lipetsk Oblast** (Sarycheva et al., 2009; Sarycheva, 2011; Sarycheva, 2014a; Sarycheva, 2016); **Moscow Oblast** (Vishnevsky, 1998); **Novgorod Oblast** (Morozova, 2012; Popov et al., 2013); **Udmurt Republic** (Kapitonov, 2013).

SIBERIA: **Krasnoyarsk Krai** (Kosheleva and Kutafjeva, 2008a).

***Hohenbuehelia grisea* (Peck) Singer**

EASTERN EUROPE: **Kirov Oblast** (Kirillov, 2011; Kirillov, Perevedentseva, and Egoshina, 2011); **Leningrad Oblast** (Bolshakov et al., 2020); **Rostov Oblast** (Fedyeva, 2014; Rusanov, Rebriev, and Bulgakov, 2018); **Arid territories** (Rebriev, Rusanov, et al., 2012).

SIBERIA: **Tomsk Oblast** (Kudashova, Gashkov, and Vaishlya, 2016a; Kudashova, Gashkov, and Vaishlya, 2016b).

***Hohenbuehelia leightonii* (Berk.) Watling ex Courtec. & P. Roux**

≡ *Hohenbuehelia leightonii* (Berk.) Watling<sup>1</sup>

EASTERN EUROPE: **Leningrad Oblast** (<sup>1</sup>Zmitrovich, Malysheva, Malysheva, and Spirin, 2004; <sup>1</sup>Morozova, 2007; <sup>1</sup>Popov et al., 2007).

***Hohenbuehelia longipes* (Boud.) M.M. Moser**

EASTERN EUROPE: **Murmansk Oblast** (Mikhailovskii, 1975a).

SIBERIA: **Irkutsk Oblast** (Petrov, 1984; Petrov, 1991; Petrov, 2008).

***Hohenbuehelia mastrucata* (Fr.) Singer**

EASTERN EUROPE: **Crimea** (Sarkina, 2001; Dudka et al., 2004; Sarkina, 2011); **Novgorod Oblast** (Svetasheva et al., 2017); **Rostov Oblast** (Rusanov, Rebriev, and Bulgakov, 2018); **Udmurt Republic** (Kapitonov, 2013).

SIBERIA: **Khakassia** (Zauzolkova, 2015; Zauzolkova and Gorbunova, 2016).

FAR EAST: **Primorsky Krai** (Bunkina and Nazarova, 1978; Azbukina et al., 2006; Bau, Bulakh, and Govorova, 2011).

***Hohenbuehelia myxotricha* (Lév.) Singer<sup>1</sup>**

≡ *Pleurotus myxotrichus* (Lév.) Gillet<sup>2</sup>

EASTERN EUROPE: **Kaliningrad Oblast** (<sup>2</sup>Dedkov, Volodina, and Gubareva, 2007); **Lipetsk Oblast** (<sup>1</sup>Alferova, 1977; <sup>1</sup>Sarycheva, 1999); **Ryazan Oblast** (<sup>1</sup>Volosnova, 2005).

SIBERIA: **Kemerovo Oblast** (<sup>1</sup>Perova and Gorbunova, 2001); **Novosibirsk Oblast** (<sup>1</sup>Perova and Gorbunova, 2001).

FAR EAST: **Amur Oblast** (<sup>1</sup>Taranina, 2005); **Jewish Autonomous Oblast** (<sup>1</sup>Bulakh, Govorova, Nazarova, and Vassiljeva, 2007); **Khabarovsk Krai** (<sup>1</sup>Azbukina et al., 1989); **Primorsky Krai** (<sup>1</sup>Vassiljeva, 1973; <sup>1</sup>Bunkina and Nazarova, 1978; <sup>1</sup>Azbukina et al., 1984; <sup>1</sup>Azbukina et al., 2006; <sup>1</sup>Bau, Bulakh, and Govorova, 2011).

***Hohenbuehelia nigra* (Schwein.) Singer**

EASTERN EUROPE: **Novgorod Oblast** (Svetasheva et al., 2017).

SIBERIA: **Khanty-Mansi Autonomous Okrug** (Filippova and Bulyonkova, 2017a; Filippova and Bulyonkova, 2017b).

***Hohenbuehelia petaloides* (Bull.) Schulzer<sup>1</sup>**

≡ *Agaricus petaloides* Bull.<sup>2</sup> ≡ *Pleurotus petaloides* (Bull.) Quél.<sup>3</sup> = *Hohenbuehelia geogenia* (DC.) Singer<sup>4</sup>

EASTERN EUROPE: **Belgorod Oblast** (<sup>4</sup>Bedenko, 1980); **Crimea** (<sup>1</sup>Moser, 1993; <sup>1,4</sup>Sarkina, 2001; <sup>1,4</sup>Dudka et al., 2004; <sup>1,4</sup>Sarkina, 2010b; <sup>1</sup>Sarkina, 2011; <sup>4</sup>Sarkina and Prydiuk, 2012; <sup>1</sup>Sarkina and Mironova, 2015); **Karelia** (<sup>3</sup>Freindling, 1949; <sup>4</sup>Bondartseva et al., 2001; <sup>1</sup>Krutov et al., 2014); **Kirov Oblast** (<sup>1</sup>Kirillov, 2011; <sup>1</sup>Kirillov, Perevedentseva, and Egoshina, 2011); **Komi Republic** (<sup>1</sup>Palamarchuk, 2012); **Leningrad Oblast** (<sup>1</sup>Popov et al., 2007); **Perm Krai** (<sup>4</sup>Perevedentseva, 2008); **Rostov Oblast** (<sup>1</sup>Zmitrovich et al., 2008; <sup>1</sup>Fedyasheva, 2014; <sup>1</sup>Rusanov, Rebriev, and Bulgakov, 2018); **Ryazan Oblast** (<sup>1</sup>Volosnova, 2014); **Saint Petersburg** (<sup>2</sup>Weinmann, 1828; <sup>2</sup>Weinmann, 1836; <sup>2</sup>Weinmann, 1837; <sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Zmitrovich, Malysheva, Malysheva, and Spirin, 2004; <sup>1</sup>Morozova, Kovalenko, Rebriev, and Malysheva, 2014); **Sevastopol** (<sup>1</sup>Sarkina, 2016b; <sup>1</sup>Sarkina, 2020c); **Smolensk Oblast** (<sup>3</sup>Jaczevski, 1896); **Sverdlovsk Oblast** (<sup>1</sup>Stepanova and Sirko, 1977); **Udmurt Republic** (<sup>1</sup>Tychinin and Kuzmina, 2003); **Yamalo-Nenets Autonomous Okrug** (<sup>3</sup>Kazantseva, 1966; <sup>1</sup>Stepanova and Sirko, 1977); **Arid territories** (<sup>1</sup>Rebriev, Rusanov, et al., 2012).

SIBERIA: **Irkutsk Oblast** (<sup>1</sup>Kutafjeva, 1983; <sup>1</sup>Petrov, 1984; <sup>1</sup>Petrov, 1991; <sup>1</sup>Petrov, 2008); **Khanty-Mansi Autonomous Okrug** (<sup>1</sup>Filippova and Bulyonkova, 2017a; <sup>1</sup>Filippova and Bulyonkova, 2017b); **Krasnoyarsk Krai** (<sup>1</sup>Beglyanova, 1972a); **Tomsk Oblast** (<sup>1</sup>Perova, 1972; <sup>1</sup>Perova and Gorbunova, 2001; <sup>1</sup>Kudashova, Gashkov, and Kutafjeva, 2013).

FAR EAST: **Khabarovsk Krai** (<sup>1</sup>Azbukina et al., 1986; <sup>1</sup>Bau, Bulakh, and Govorova, 2011); **Magadan Oblast** (<sup>4</sup>Sazanova, 2005; <sup>1</sup>Sazanova, 2009a; <sup>1</sup>Sazanova, 2011); **Primorsky Krai** (<sup>1</sup>Vassiljeva, 1973; <sup>1</sup>Bunkina and Nazarova, 1978; <sup>1</sup>Azbukina et al., 2006; <sup>1</sup>Bau, Bulakh, and Govorova, 2011).

***Hohenbuehelia reniformis* (G. Mey.) Singer**

EASTERN EUROPE: **Krasnodar Krai** (Vaasma, Kalamees, and Raitviir, 1986).

SIBERIA: **Irkutsk Oblast** (Petrov, 1984; Petrov, 1991; Petrov, 2008); **Tomsk Oblast** (Perova and Gorbunova, 2001; Kudashova, Gashkov, and Kutafjeva, 2013; Kudashova, Gashkov, and Vaishlya, 2016b).

FAR EAST: **Amur Oblast** (Nazarova, 1986); **Khabarovsk Krai** (Azbukina et al., 1986; Azbukina et al., 1989; Bau, Bulakh, Zhuang, and Li, 2007; Bau, Bulakh, and Govorova, 2011); **Primorsky Krai** (Vassiljeva, 1973; Bunkina and Nazarova, 1978; Azbukina et al., 1984; Azbukina et al., 2006; Bau, Bulakh, and Govorova, 2011).

***Hohenbuehelia silvana* (Sacc.) O.K. Mill.**

EASTERN EUROPE: **Lipetsk Oblast** (Sarycheva et al., 2009).

***Hohenbuehelia spathulata* (Pers.) Singer**

≡ *Agaricus petaloides* var. *spathulatus* (Pers.) Fr.<sup>1</sup> ≡ *Pleurotus spathulatus* (Pers.) Peck<sup>2</sup>

EASTERN EUROPE: **Leningrad Oblast** (<sup>2</sup>Thesleff, 1920); **Saint Petersburg** (<sup>1</sup>Weinmann, 1828; <sup>1</sup>Weinmann, 1836; <sup>1</sup>Weinmann, 1837).

***Hohenbuehelia tremula* (Schaeff.) Thorn & G.L. Barron<sup>1</sup>**

≡ *Agaricus tremulus* Schaeff.<sup>2</sup> ≡ *Leptoglossum tremulum* (Schaeff.) Singer<sup>3</sup> ≡ *Pleurotus tremulus* (Schaeff.) P. Kumm.<sup>4</sup> ≡ *Scytinotopsis tremula* (Schaeff.) Singer<sup>5</sup>

EASTERN EUROPE: **Krasnodar Krai** (<sup>5</sup>Vassiljeva, 1939); **Leningrad Oblast** (<sup>4</sup>Thesleff, 1920; <sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Popov et al., 2007); **Saint Petersburg** (<sup>2</sup>Weinmann, 1836; <sup>2</sup>Weinmann, 1837); **Tatarstan** (<sup>3</sup>Vassiljeva, 1977).

FAR EAST: **Magadan Oblast** (<sup>3</sup>Nazarova, 1976; <sup>3</sup>Sazanova, 2005; <sup>1</sup>Sazanova, 2009a).



***Hohenbuehelia unguicularis* (Fr.) O.K. Mill.<sup>1</sup>**

≡ *Resupinatus unguicularis* (Fr.) Singer<sup>2</sup>

SIBERIA: **Tomsk Oblast** (<sup>1</sup>Kudashova, Gashkov, and Kutafjeva, 2013).

FAR EAST: **Amur Oblast** (<sup>2</sup>Taranina, 2005); **Khabarovsk Krai** (<sup>2</sup>Azbukina et al., 1986; <sup>2</sup>Bau, Bulakh, and Govorova, 2011).

***Homophron camptopodum* (Sacc.) Örstadius & E. Larss.**

SIBERIA: **Krasnoyarsk Krai** (Krom and Kapitonov, 2019).

***Homophron cernuum* (Vahl) Örstadius & E. Larss.<sup>1</sup>**

≡ *Agaricus cernuus* Vahl<sup>2</sup> ≡ *Psathyrella cernua* (Vahl) G. Hirsch<sup>3</sup> ≡ *Psathyrella cernua* (Vahl) M.M. Moser<sup>4</sup> ≡ *Psilocybe cernua* (Vahl) Qué<sup>l</sup>.<sup>5</sup>

EASTERN EUROPE: **Crimea** (<sup>3</sup>Dudka et al., 2004; <sup>3</sup>Sarkina, 2011); **Karelia** (<sup>3</sup>Bondartseva et al., 2001; <sup>3</sup>Krutov et al., 2014); **Leningrad Oblast** (<sup>5</sup>Thesleff, 1920; <sup>3</sup>Popov et al., 2007); **Lipetsk Oblast** (<sup>4</sup>Sarycheva et al., 2009; <sup>3</sup>Sarycheva, 2016); **Moscow Oblast** (<sup>3</sup>Gorlenko, Sidorova, and Sidorova, 1989; <sup>3</sup>Levitskaya, 1995c; <sup>3</sup>Levitskaya, 2013); **Penza Oblast** (<sup>4</sup>Ivanov, 1983); **Perm Krai** (<sup>3</sup>Perevedentseva, 2008); **Ryazan Oblast** (<sup>3</sup>Volosnova, 2014); **Saint Petersburg** (<sup>2</sup>Weinmann, 1828; <sup>2</sup>Weinmann, 1836; <sup>2</sup>Weinmann, 1837; <sup>3</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Zhukova, Morozova, Volobuev, and Bryantseva, 2017); **Samara Oblast** (<sup>3</sup>Malysheva and Malysheva, 2006; <sup>3</sup>Malysheva and Malysheva, 2008); **Sverdlovsk Oblast** (<sup>3</sup>Stepanova and Sirko, 1977; <sup>3</sup>Marina, 2006); **Tver Oblast** (<sup>4</sup>Kurochkin, 1993); **Udmurt Republic** (<sup>3</sup>Tychinin and Kuzmina, 2003); **Ulyanovsk Oblast** (<sup>3</sup>Ilyukhin, 2009; <sup>4</sup>Ilyukhin, 2010a); **Yamalo-Nenets Autonomous Okrug** (<sup>4</sup>Kazantseva, 1966; <sup>3</sup>Stepanova and Sirko, 1977); **Arid territories** (<sup>4</sup>Rebriev, Rusanov, et al., 2012).

SIBERIA: **Irkutsk Oblast** (<sup>3</sup>Kutafjeva and Astapenko, 1987; <sup>3</sup>Astapenko, 1990a); **Khanty-Mansi Autonomous Okrug** (<sup>4</sup>Filippova, Bulyonkova, and Lapshina, 2015); **Novosibirsk Oblast** (<sup>4</sup>Zaytseva, 1971); **Tomsk Oblast** (<sup>1</sup>Kudashova, Gashkov, and Vaishlya, 2016a).

FAR EAST: **Jewish Autonomous Oblast** (<sup>3</sup>Bulakh, Govorova, Nazarova, and Vassiljeva, 2007; <sup>4</sup>Bau, Bulakh, and Govorova, 2011); **Primorsky Krai** (<sup>4</sup>Azbukina et al., 2006; <sup>4</sup>Bau, Bulakh, and Govorova, 2011).

***Homophron spadiceum* (P. Kumm.) Örstadius & E. Larss.<sup>1</sup>**

≡ *Psathyrella spadicea* (P. Kumm.) Singer<sup>2</sup> ≡ *Psilocybe spadicea* P. Kumm.<sup>3</sup> = *Psathyrella sarcocephala* (Fr.) Singer<sup>4</sup> = *Psilocybe sarcocephala* (Fr.) Gillet<sup>5</sup>

EASTERN EUROPE: **Crimea** (<sup>2</sup>Dudka et al., 2004; <sup>2</sup>Sarkina, 2011); **Kaliningrad Oblast** (<sup>4</sup>Dedkov, Volodina, and Gubareva, 2007; <sup>4</sup>Volodina, 2007); **Kaluga Oblast** (<sup>2</sup>Sionova, 2012); **Karelia** (<sup>2</sup>Krutov et al., 2014); **Komi Republic** (<sup>2</sup>Palamarchuk, 2012; <sup>2</sup>Palamarchuk, 2016a; <sup>2</sup>Palamarchuk, 2016b); **Kursk Oblast** (<sup>4</sup>Baranov, 2002); **Leningrad Oblast** (<sup>3,5</sup>Thesleff, 1920; <sup>2,4</sup>Kovalenko and Morozova, 1999a; <sup>2</sup>Morozova, 2007; <sup>2,4</sup>Popov et al., 2007; <sup>1</sup>Kalinina, 2018); **Lipetsk Oblast** (<sup>2</sup>Sarycheva et al., 2009; <sup>2</sup>Sarycheva, 2014a; <sup>2</sup>Sarycheva, 2016; <sup>2</sup>Volobuev, Bolshakov, and Shakhova, 2020); **Moscow Oblast** (<sup>2</sup>Levitskaya, 1995c; <sup>2</sup>Levitskaya, 2013; <sup>2</sup>Voronina et al., 2014); **Orenburg Oblast** (<sup>2</sup>Desyatova, 2008); **Penza Oblast** (<sup>4</sup>Ivanov, 1981b; <sup>4</sup>Ivanov, 1982); **Perm Krai** (<sup>4</sup>Perevedentseva, Nezdojminogo, and Kovalenko, 1990; <sup>2,4</sup>Perevedentseva, 2008; <sup>2</sup>Belkovskaya et al., 2014); **Pskov Oblast** (<sup>2</sup>Kovalenko, Kolmakov, Morozova, and Popov, 2003; <sup>2</sup>Popov et al., 2013); **Rostov Oblast** (<sup>2</sup>Morozova et al., 2008); **Ryazan Oblast** (<sup>2</sup>Volosnova, 1997; <sup>2</sup>Volosnova, 2014); **Saint Petersburg** (<sup>2,4</sup>Kovalenko and Morozova, 1999a; <sup>4</sup>Morozova and Kovalenko, 2000; <sup>4</sup>Kotkova, Morozova, and Popov, 2006; <sup>2</sup>Morozova and Smirnov, 2011; <sup>2,4</sup>Morozova, Kovalenko, Rebriev, and Malysheva, 2014; <sup>1</sup>Zhukova, Morozova, Volobuev, and Bryantseva, 2017; <sup>2</sup>Morozova et al., 2020); **Smolensk Oblast** (<sup>3</sup>Jaczevski, 1896); **Sverdlovsk Oblast** (<sup>2</sup>Stepanova and Sirko, 1977; <sup>2</sup>Marina, 2006); **Tambov Oblast** (<sup>4</sup>Elenevskiy, 2002); **Tatarstan** (<sup>2</sup>Vassiljeva, 1977); **Tula Oblast** (<sup>2</sup>Svetasheva, 2004); **Tver Oblast** (<sup>4</sup>Kurochkin, 1993); **Ulyanovsk Oblast** (<sup>2</sup>Ilyukhin, 2009; <sup>2</sup>Ilyukhin, 2010a); **Volgograd Oblast** (<sup>2</sup>Burova and Nezdojminogo, 1982); **Vologda Oblast** (<sup>2</sup>Kirillova, 2007); **Arid territories** (<sup>2</sup>Rebriev, Rusanov, et al., 2012).

SIBERIA: **Altai Krai** (<sup>2,4</sup>Gorbunova and Perova, 2006; <sup>1</sup>Gorbunova, 2018b); **Altai Republic** (<sup>2</sup>Gorbunova, 2010); **Irkutsk Oblast** (<sup>2</sup>Petrov, 1986; <sup>4</sup>Astapenko, 1990a; <sup>2</sup>Petrov, 1991; <sup>2</sup>Petrov, 2008); **Khakassia** (<sup>4</sup>Beglyanova, 1972a; <sup>2</sup>Zauzolkova, 2015; <sup>2</sup>Zauzolkova and Gorbunova, 2016); **Khanty-Mansi Autonomous Okrug** (<sup>2</sup>Zvyagina and Vasina, 2015; <sup>1</sup>Zvyagina and Baykalova, 2017); **Krasnoyarsk Krai** (<sup>2,4</sup>Beglyanova, 1972a); **Novosibirsk Oblast** (<sup>2</sup>Perova, 1977; <sup>2</sup>Perova and Gorbunova, 2007; <sup>2</sup>Koropachinskiy and Banaev, 2014); **Tomsk Oblast** (<sup>4</sup>Perova and Gorbunova, 2001; <sup>2</sup>Kudashova, Gashkov, and Kutafjeva, 2013).

FAR EAST: **Amur Oblast** (<sup>2</sup>Taranina, 2005); **Jewish Autonomous Oblast** (<sup>2</sup>Bulakh, Govorova, Nazarova, and Vassiljeva, 2007; <sup>2</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Erofeeva, Bukharova, and Bulakh, 2019); **Khabarovsk Krai**

(<sup>4</sup>Azbukina et al., 1986; <sup>4</sup>Bau, Bulakh, and Govorova, 2011); **Magadan Oblast** (<sup>2</sup>Nazarova, 1976; <sup>2</sup>Sazanova, 2005; <sup>2</sup>Sazanova, 2009a); **Primorsky Krai** (<sup>2</sup>Vassiljeva, 1972; <sup>2</sup>Vassiljeva, 1973; <sup>2</sup>Bunkina and Nazarova, 1978; <sup>2</sup>Azbukina et al., 1984; <sup>2</sup>Azbukina et al., 1990; <sup>2</sup>Bardunov et al., 2002; <sup>2</sup>Azbukina et al., 2006; <sup>2</sup>Bau, Bulakh, and Govorova, 2011; <sup>4</sup>Bau, Bulakh, and Govorova, 2011).

***Hortiboletus bubalinus* (Oolbeek. & Duin) L. Albert & Dima**

≡ *Boletus bubalinus* Oolbeek. & Duin<sup>1</sup>

EASTERN EUROPE: **Udmurt Republic** (<sup>1</sup>Kapitonov, 2013).

***Hortiboletus rubellus* (Krombh.) Simonini, Vizzini & Gelardi<sup>1</sup>**

≡ *Boletus rubellus* Krombh.<sup>2</sup> ≡ *Xerocomellus rubellus* (Krombh.) Šutara<sup>3</sup>

EASTERN EUROPE: **Crimea** (<sup>2</sup>Akulov and Prydiuk, 2007; <sup>2</sup>Sarkina, 2010b; <sup>2</sup>Sarkina and Prydiuk, 2012); **Kaliningrad Oblast** (<sup>1</sup>Atayev and Volodina, 2020); **Lipetsk Oblast** (<sup>2</sup>Sarycheva et al., 2009; <sup>2</sup>Sarycheva, 2014a; <sup>2</sup>Shcherbakov, 2014; <sup>2</sup>Sarycheva, 2016); **Mordovia** (<sup>2</sup>Ivoilov and Bolshakov, 2011b); **Pskov Oblast** (<sup>2</sup>Popov, 2001a); **Ryazan Oblast** (<sup>2</sup>Volosnova, 2014); **Arid territories** (<sup>2</sup>Rebriev, Rusanov, et al., 2012).

SIBERIA: **Novosibirsk Oblast** (<sup>2</sup>Koropachinskiy and Banaev, 2014); **Tomsk Oblast** (<sup>2</sup>Kudashova, Gashkov, and Kutafjeva, 2013; <sup>1</sup>Kudashova, Gashkov, and Vaishlya, 2016b).

FAR EAST: **Jewish Autonomous Oblast** (<sup>3</sup>Erofeeva and Bulakh, 2015b; <sup>1</sup>Erofeeva, Bukharova, and Bulakh, 2019); **Khabarovsk Krai** (<sup>2</sup>Bau, Bulakh, and Govorova, 2011; <sup>3</sup>Erofeeva and Bulakh, 2015a); **Primorsky Krai** (<sup>2</sup>Bau, Bulakh, and Govorova, 2011; <sup>2</sup>Bulakh et al., 2016; <sup>1</sup>Bogacheva et al., 2018).

***Humidicutis czuica* (Singer) Singer**

≡ *Hygrocybe czuica* Singer<sup>1</sup>

SIBERIA: **Altai Republic** (<sup>1</sup>Singer, 1943).

***Hydropus atramentosus* (Kalchbr.) Kotl. & Pouzar**

EASTERN EUROPE: **Adygea** (Zamotajlov, Sirotyuk (Kuvaeva), Akatova, and Lipka, 2012); **Karachay-Cherkess Republic** (Malysheva and Svetasheva, 2011).

SIBERIA: **Altai Krai** (Gorbunova and Chubarova, 2008; Gorbunova, Vlasenko, and Tzhubarova, 2011; Shmakov and Silantjeva, 2016; Gorbunova, 2017b); **Altai Republic** (Gorbunova, 2001b; Perova and Gorbunova, 2001; Gorbunova, 2017b; Maneev, Achimova, Sedelnikova, and Gorbunova, 2017; Svetasheva et al., 2019); **Krasnoyarsk Krai** (Malysheva, Malysheva, Kiyashko, et al., 2017; Krom and Kapitonov, 2019); **Novosibirsk Oblast** (Perova, 1982; Perova and Gorbunova, 2007; Glupov and Shaulo, 2018); **Tomsk Oblast** (Perova, 1972; Kudashova, Gashkov, and Kutafjeva, 2013).

FAR EAST: **Amur Oblast** (Nazarova, 1986); **Primorsky Krai** (Azbukina et al., 2006).

***Hydropus floccipes* (Fr.) Singer<sup>1</sup>**

≡ *Mycena floccipes* (Fr.) Kühner<sup>2</sup>

FAR EAST: **Jewish Autonomous Oblast** (<sup>1</sup>Bau, Bulakh, and Govorova, 2011); **Primorsky Krai** (<sup>2</sup>Vassiljeva, 1973; <sup>2</sup>Bunkina and Nazarova, 1978; <sup>1</sup>Azbukina et al., 2006; <sup>1</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Bogacheva, Bulakh, Bukharova, and Egorova, 2020).

***Hydropus fuliginarius* (Batsch) Singer<sup>1</sup>**

≡ *Agaricus plexipes* b *fuliginaria* Batsch<sup>2</sup>

EASTERN EUROPE: **Saint Petersburg** (<sup>2</sup>Weinmann, 1836; <sup>2</sup>Weinmann, 1837).

FAR EAST: **Khabarovsk Krai** (<sup>1</sup>Azbukina et al., 1986; <sup>1</sup>Bau, Bulakh, and Govorova, 2011); **Primorsky Krai** (<sup>1</sup>Vassiljeva, 1972; <sup>1</sup>Vassiljeva, 1973; <sup>1</sup>Bunkina and Nazarova, 1978; <sup>1</sup>Bau, Bulakh, and Govorova, 2011); **Sakhalin Oblast** (<sup>1</sup>Vassiljeva and Nazarova, 1972).

***Hydropus marginellus* (Pers.) Singer<sup>1</sup>**

≡ *Mycena marginella* (Pers.) P. Kumm.<sup>2</sup>

EASTERN EUROPE: **Novgorod Oblast** (<sup>1</sup>Arslanov, 2014; <sup>1</sup>Vetkin et al., 2015); **Pskov Oblast** (<sup>1</sup>Kalinina, Bolshakov, and Bulyonkova, 2020).

SIBERIA: **Altai Krai** (<sup>1</sup>Gorbunova and Chubarova, 2008; <sup>1</sup>Gorbunova, Vlasenko, and Tzhubarova, 2011); **Altai Republic** (<sup>1</sup>Gorbunova, 2001b; <sup>1</sup>Perova and Gorbunova, 2001); **Krasnoyarsk Krai** (<sup>1</sup>Malysheva, Malysheva,

Kiyashko, et al., 2017); **Novosibirsk Oblast** (<sup>1</sup>Perova, 1982; <sup>1</sup>Perova and Gorbunova, 2001; <sup>1</sup>Perova and Gorbunova, 2007); **Tomsk Oblast** (<sup>1</sup>Perova and Gorbunova, 2001; <sup>1</sup>Kudashova, Gashkov, and Kutafjeva, 2013).

FAR EAST: **Jewish Autonomous Oblast** (<sup>1</sup>Bau, Bulakh, and Govorova, 2011); **Khabarovsk Krai** (<sup>1</sup>Azbukina et al., 1989; <sup>1</sup>Erofeeva and Bulakh, 2016); **Primorsky Krai** (<sup>2</sup>Vassiljeva, 1973; <sup>2</sup>Bunkina and Nazarova, 1978; <sup>1</sup>Azbukina et al., 1984; <sup>1</sup>Azbukina et al., 2006; <sup>1</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Bulakh et al., 2016; <sup>1</sup>Bogacheva, Bulakh, Bukharova, and Egorova, 2020).

***Hydropus nigrita* (Berk. & M.A. Curtis) Singer**

FAR EAST: **Primorsky Krai** (Azbukina et al., 1984).

***Hydropus omphaliiformis* (Kühner) Honrubia**

≡ *Marasmiellus omphaliiformis* (Kühner) Noordel.<sup>1</sup>

EASTERN EUROPE: **Kabardino-Balkarian Republic** (<sup>1</sup>Krapivina et al., 2020).

***Hydropus paradoxus* M.M. Moser**

FAR EAST: **Magadan Oblast** (Sazanova, 2009a; Sazanova, 2009b; Sazanova, 2011).

***Hydropus semimarginellus* Singer**

EASTERN EUROPE: **Karachay-Cherkess Republic** (Malysheva and Svetasheva, 2011).

***Hydropus subalpinus* (Höhn.) Singer**

EASTERN EUROPE: **Karachay-Cherkess Republic** (Malysheva and Svetasheva, 2011); **Samara Oblast** (Malysheva and Malysheva, 2004; Malysheva and Malysheva, 2008; Morozova and Popov, 2008); **Sverdlovsk Oblast** (Shiryaeva and Palamarchuk, 2019).

***Hydropus swaneticus* (Singer) Singer<sup>1</sup>**

≡ *Mycena swanetica* (Singer) Singer<sup>2</sup> ≡ *Omphalia swanetica* Singer<sup>3</sup>

EASTERN EUROPE: **Adygea** (<sup>3</sup>Vassiljeva, 1939); **Krasnodar Krai** (<sup>3</sup>Vassiljeva, 1939).

SIBERIA: **Krasnoyarsk Krai** (<sup>1</sup>Beglyanova, 1972a); **Tomsk Oblast** (<sup>2</sup>Perova, 1972; <sup>1</sup>Kudashova, Gashkov, and Kutafjeva, 2013).

***Hygrocybe acutoconica* (Clem.) Singer<sup>1</sup>**

= *Hygrocybe konradii* R. Haller Aar.<sup>2</sup> = *Hygrocybe langei* Kühner<sup>3</sup> = *Hygrocybe persistens* (Britzelm.) Singer<sup>4</sup> = *Hygrocybe persistens* var. *persistens* (Britzelm.) Singer<sup>5</sup> = *Hygrocybe subglobispora* (P.D. Orton) M.M. Moser<sup>6</sup>

EASTERN EUROPE: **Adygea** (<sup>2</sup>Sopina, 2004b); **Chelyabinsk Oblast** (<sup>1</sup>Stepanova and Sirko, 1977; <sup>4</sup>Kovalenko, 1995); **Kaliningrad Oblast** (<sup>4</sup>Dedkov, Volodina, and Gubareva, 2007; <sup>4</sup>Volodina, 2007; <sup>4</sup>Dedkov and Grishanov, 2010); **Karachay-Cherkess Republic** (<sup>1</sup>Onipchenko and Kaverina, 1989; <sup>4</sup>Kalamees and Botashev, 2000); **Komi Republic** (<sup>2</sup>Palamarchuk, 2012; <sup>2</sup>Palamarchuk, 2016a; <sup>2</sup>Palamarchuk, 2016b); **Leningrad Oblast** (<sup>4</sup>Kovalenko, 1995; <sup>4</sup>Kovalenko and Morozova, 1999a; <sup>4</sup>Popov et al., 2007); **Mordovia** (<sup>4</sup>Ivoilov and Bolshakov, 2011a); **Moscow Oblast** (<sup>1</sup>Gorlenko, Sidorova, and Sidorova, 1989; <sup>6</sup>Levitskaya, 1995a; <sup>6</sup>Levitskaya, 2013); **Novgorod Oblast** (<sup>4</sup>Kovalenko, Morozova, Nezdoinog, and Popov, 2005; <sup>4</sup>Popov et al., 2013); **Penza Oblast** (<sup>1</sup>Ivanov, 1983; <sup>4</sup>Kovalenko, 1995; <sup>4</sup>Ivanov, 1999); **Perm Krai** (<sup>2</sup>Perevedentseva, 2008; <sup>4</sup>Perevedentseva, 2008); **Pskov Oblast** (<sup>4</sup>Popov, 2001a; <sup>4</sup>Popov et al., 2013); **Saint Petersburg** (<sup>4</sup>Morozova and Smirnov, 2011; <sup>4</sup>Morozova et al., 2020); **Sverdlovsk Oblast** (<sup>1</sup>Stepanova and Sirko, 1977; <sup>4</sup>Kovalenko, 1995; <sup>2</sup>Marina, 2006; <sup>4</sup>Marina, 2006); **Tatarstan** (<sup>4</sup>Nazirov, Gorshkov, Ivanov, and Rogova, 2016); **Tula Oblast** (<sup>4</sup>Svetasheva, 2004); **Tver Oblast** (<sup>4</sup>Morozova, Aleksandrova, Popov, and Malysheva, 2016); **Ulyanovsk Oblast** (<sup>4</sup>Ilyukhin, 2010a); **Vologda Oblast** (<sup>4</sup>Kirillova, 2006; <sup>4</sup>Kirillova, 2007); **Voronezh Oblast** (<sup>1</sup>Bedenko, 1985; <sup>4</sup>Kovalenko, 1995); **Yaroslavl Oblast** (<sup>4</sup>Lazareva, 1998a; <sup>4</sup>Lazareva, 2002); **Arid territories** (<sup>5</sup>Rebriev, Rusanov, et al., 2012).

SIBERIA: **Altai Krai** (<sup>1</sup>Gorbunova, 2018a); **Altai Republic** (<sup>4</sup>Perova and Gorbunova, 2001; <sup>5</sup>Gorbunova, 2006); **Irkutsk Oblast** (<sup>1</sup>Petrov, 1984; <sup>1</sup>Kutafjeva and Astapenko, 1988; <sup>1</sup>Petrov, 1989; <sup>4</sup>Kovalenko, 1995; <sup>4</sup>Petrov, 2008); **Khakassia** (<sup>1</sup>Zauzolkova, 2015); **Krasnoyarsk Krai** (<sup>3</sup>Beglyanova, 1972a; <sup>4</sup>Kovalenko, 1995; <sup>4</sup>Kosheleva and Kutafjeva, 2008a; <sup>1</sup>Kryuchkova, 2014a; <sup>1</sup>Zauzolkova, 2015); **Novosibirsk Oblast** (<sup>1</sup>Perova, 1977; <sup>4</sup>Kovalenko, 1995; <sup>1</sup>Perova and Gorbunova, 2001; <sup>5</sup>Gorbunova, 2006); **Sakha Republic** (<sup>4</sup>Kovalenko, 1995); **Tomsk Oblast** (<sup>3</sup>Perova and Gorbunova, 2001; <sup>4</sup>Kudashova, Gashkov, and Kutafjeva, 2013); **Yamalo-Nenets Autonomous Okrug** (<sup>1</sup>Tarchevskaya, 1990).

FAR EAST: **Amur Oblast** (<sup>4</sup>Kovalenko, 1995; <sup>4</sup>Azbukina et al., 1998); **Jewish Autonomous Oblast** (<sup>4</sup>Bulakh, Govorova, Nazarova, and Vassiljeva, 2007; <sup>4</sup>Bau, Bulakh, and Govorova, 2011); **Khabarovsk Krai** (<sup>4</sup>Kovalenko, 1995; <sup>4</sup>Bau, Bulakh, and Govorova, 2011); **Magadan Oblast** (<sup>1</sup>Rebriev, Bulakh, Sazanova, and Shiryaev, 2020); **Primorsky Krai** (<sup>2</sup>Vassiljeva, 1972; <sup>2,4</sup>Vassiljeva, 1973; <sup>1</sup>Bunkina and Nazarova, 1978; <sup>1</sup>Azbukina et al., 1984; <sup>2</sup>Kovalenko, 1989; <sup>4</sup>Azbukina et al., 1990; <sup>2,4</sup>Kovalenko, 1995; <sup>4</sup>Bardunov et al., 2002; <sup>1</sup>Azbukina et al., 2006; <sup>4</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Bulakh et al., 2016); **Sakhalin Oblast** (<sup>4</sup>Kovalenko, 1995).

***Hygrocybe aurantiosplendens* R. Haller Aar.**

EASTERN EUROPE: **Tatarstan** (Nazirov, Gorshkov, Ivanov, and Rogova, 2016; Potapov, 2016a).

FAR EAST: **Primorsky Krai** (Kovalenko and Nezdjojminogo, 1989; Kovalenko, 1989; Kovalenko, 1995).

***Hygrocybe biminiata* Kühner**

EASTERN EUROPE: **Yamalo-Nenets Autonomous Okrug** (Borgen and Ohenoja, 2013).

***Hygrocybe calciphila* Arnolds<sup>1</sup>**

≡ *Pseudohygrocybe calciphila* (Arnolds) Kovalenko<sup>2</sup>

EASTERN EUROPE: **Karelia** (<sup>1</sup>Predtechenskaya, 2013); **Leningrad Oblast** (<sup>2</sup>Kovalenko and Morozova, 1999a; <sup>2</sup>Morozova, 1999; <sup>2</sup>Morozova and Kovalenko, 2000; <sup>2</sup>Tzvelev, 2000; <sup>1</sup>Popov et al., 2007; <sup>1</sup>Geltman et al., 2018; <sup>1</sup>Geltman, 2018b); **Novgorod Oblast** (<sup>2</sup>Morozova, Popov, and Fedosova, 2014); **Pskov Oblast** (<sup>1</sup>Morozova et al., 2015).

***Hygrocybe cantharellus* (Schwein.) Murrill<sup>1</sup>**

≡ *Pseudohygrocybe cantharella* (Schwein.) Kovalenko<sup>2</sup>

EASTERN EUROPE: **Bashkortostan** (<sup>1</sup>Stepanova and Sirko, 1977; <sup>2</sup>Kovalenko, 1989; <sup>2</sup>Kovalenko, 1995); **Chelyabinsk Oblast** (<sup>1</sup>Stepanova and Sirko, 1977; <sup>2</sup>Kovalenko, 1989; <sup>2</sup>Kovalenko, 1995); **Karelia** (<sup>1</sup>Freindling, 1949; <sup>2</sup>Kovalenko, 1989; <sup>2</sup>Kovalenko, 1995; <sup>1</sup>Krutov et al., 2014); **Kursk Oblast** (<sup>1</sup>Bedenko, 1985; <sup>2</sup>Kovalenko, 1989; <sup>2</sup>Kovalenko, 1995; <sup>2</sup>Baranov, 2002; <sup>1</sup>Soshnina, 2017); **Leningrad Oblast** (<sup>2</sup>Kovalenko, 1989; <sup>2</sup>Kovalenko, 1995; <sup>2</sup>Kovalenko and Morozova, 1999a; <sup>2</sup>Tzvelev, 2000; <sup>1</sup>Popov et al., 2007; <sup>2</sup>Morozova, 2007; <sup>1</sup>Geltman et al., 2018; <sup>1</sup>Geltman, 2018b); **Moscow Oblast** (<sup>2</sup>Levitskaya, 1995a; <sup>2</sup>Levitskaya, 2013); **Murmansk Oblast** (<sup>2</sup>Kovalenko, 1989; <sup>2</sup>Kovalenko, 1995); **Penza Oblast** (<sup>2</sup>Ivanov, 1999); **Pskov Oblast** (<sup>2</sup>Kovalenko, Kolmakov, Morozova, and Popov, 2003; <sup>2</sup>Popov et al., 2013); **Saint Petersburg** (<sup>2</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Noskov, 2004; <sup>1</sup>Geltman, 2018a); **Sverdlovsk Oblast** (<sup>1</sup>Stepanova and Sirko, 1977; <sup>2</sup>Kovalenko, 1989; <sup>2</sup>Kovalenko, 1995; <sup>2</sup>Marina, 2006); **Tatarstan** (<sup>1</sup>Vassiljeva, 1977; <sup>2</sup>Kovalenko, 1989; <sup>2</sup>Kovalenko, 1995; <sup>2</sup>Nazirov, Gorshkov, Ivanov, and Rogova, 2016).

SIBERIA: **Altai Republic** (<sup>1</sup>Gorbunova, 2010); **Irkutsk Oblast** (<sup>2</sup>Kovalenko, 1989; <sup>1</sup>Astapenko and Kutafjeva, 1990); **Khanty-Mansi Autonomous Okrug** (<sup>1</sup>Zvyagina and Baykalova, 2012; <sup>1</sup>Filippova and Bulyonkova, 2017a; <sup>1</sup>Filippova and Bulyonkova, 2017b); **Krasnoyarsk Krai** (<sup>1</sup>Kryuchkova, 2009); **Sverdlovsk Oblast** (<sup>1</sup>Stepanova and Sirko, 1977); **Tomsk Oblast** (<sup>1</sup>Perova and Gorbunova, 2001; <sup>2</sup>Kudashova, Gashkov, and Kutafjeva, 2013).

FAR EAST: **Amur Oblast** (<sup>2</sup>Kovalenko, 1989; <sup>2</sup>Kovalenko, 1995; <sup>2</sup>Azbukina et al., 1998); **Jewish Autonomous Oblast** (<sup>1</sup>Bau, Bulakh, Zhuang, and Li, 2007; <sup>2</sup>Bulakh, Govorova, Nazarova, and Vassiljeva, 2007; <sup>1</sup>Bau, Bulakh, and Govorova, 2011); **Khabarovsk Krai** (<sup>1</sup>Azbukina et al., 1986; <sup>2</sup>Kovalenko, 1989; <sup>2</sup>Kovalenko, 1995; <sup>1</sup>Bau, Bulakh, Zhuang, and Li, 2007; <sup>1</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Erofeeva and Bulakh, 2015a); **Primorsky Krai** (<sup>1</sup>Vassiljeva, 1972; <sup>1</sup>Vassiljeva, 1973; <sup>1</sup>Bunkina and Nazarova, 1978; <sup>1</sup>Azbukina et al., 1984; <sup>2</sup>Kovalenko, 1989; <sup>2</sup>Azbukina et al., 1990; <sup>2</sup>Kovalenko, 1995; <sup>2</sup>Bardunov et al., 2002; <sup>1</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Bulakh et al., 2016; <sup>1</sup>Bogacheva, Bulakh, Bukharova, and Egorova, 2020); **Sakhalin Oblast** (<sup>1</sup>Vassiljeva and Nazarova, 1972; <sup>2</sup>Kovalenko, 1989; <sup>2</sup>Bulakh, Govorova, and Bogatov, 1999).

***Hygrocybe ceracea* (Sowerby) P. Kumm.<sup>1</sup>**

≡ *Hygrophorus ceraceus* (Wulfen) Fr.<sup>2</sup> ≡ *Pseudohygrocybe ceracea* (Sowerby) Kovalenko<sup>3</sup>

EASTERN EUROPE: **Adygea** (<sup>3</sup>Sopina, 2004b); **Bashkortostan** (<sup>1</sup>Stepanova and Sirko, 1977; <sup>3</sup>Kovalenko, 1989; <sup>3</sup>Kovalenko, 1995); **Crimea** (<sup>1</sup>Sarkina and Stavishenko, 2019); **Komi Republic** (<sup>3</sup>Bobretsova, 2004; <sup>1</sup>Palamarchuk, 2012; <sup>1</sup>Palamarchuk, 2016a; <sup>1</sup>Palamarchuk, 2016b); **Leningrad Oblast** (<sup>1</sup>Thesleff, 1920; <sup>3</sup>Kovalenko, 1989; <sup>3</sup>Kovalenko, 1995; <sup>3</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Popov et al., 2007; <sup>3</sup>Morozova, 2007); **Moscow** (<sup>2</sup>Bucholtz, 1897b; <sup>2</sup>Bucholtz, 1897c; <sup>2</sup>Mosolov, 1906); **Moscow Oblast** (<sup>3</sup>Levitskaya, 1995b; <sup>3</sup>Levitskaya, 2013); **Novgorod Oblast** (<sup>3</sup>Morozova, Popov, and Fedosova, 2014); **Perm Krai** (<sup>3</sup>Perevedentseva, 2008); **Pskov Oblast** (<sup>3</sup>Popov et al., 2013); **Saint Petersburg** (<sup>1</sup>Morozova et al., 2020); **Samara Oblast** (<sup>3</sup>Malysheva and Malysheva, 2007; <sup>1</sup>Malysheva

and Malysheva, 2008); **Sverdlovsk Oblast** (<sup>3</sup>Marina, 2006); **Tatarstan** (<sup>1</sup>Potapov, 2016a; <sup>3</sup>Nazirov, Gorshkov, Ivanov, and Rogova, 2016); **Tula Oblast** (<sup>3</sup>Svetasheva, 2004).

SIBERIA: **Altai Krai** (<sup>1</sup>Gorbunova, 2018a); **Altai Republic** (<sup>3</sup>Gorbunova, 2001b; <sup>3</sup>Perova and Gorbunova, 2001); **Krasnoyarsk Krai** (<sup>1</sup>Zauzolkova, 2012; <sup>1</sup>Zauzolkova, 2015; <sup>1</sup>Krom and Kapitonov, 2019).

FAR EAST: **Chukotka Autonomous Okrug** (<sup>2</sup>Berkeley and Curtis, 1978); **Jewish Autonomous Oblast** (<sup>3</sup>Bulakh, Govorova, Nazarova, and Vassiljeva, 2007; <sup>1</sup>Bau, Bulakh, and Govorova, 2011); **Primorsky Krai** (<sup>1</sup>Vassiljeva, 1973; <sup>3</sup>Kovalenko and Nezdojminogo, 1989; <sup>3</sup>Kovalenko, 1989; <sup>3</sup>Kovalenko, 1995).

***Hygrocybe cereopallida* (Cléménçon) P. Roux & Eyssart.**

≡ *Cuphophyllus cereopallidus* (Cléménçon) Bon<sup>1</sup>

EASTERN EUROPE: **Leningrad Oblast** (<sup>1</sup>Kovalenko, 1989; <sup>1</sup>Kovalenko, 1995; <sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Morozova, 2007; <sup>1</sup>Popov et al., 2007); **Penza Oblast** (<sup>1</sup>Ivanov, 1999); **Perm Krai** (<sup>1</sup>Perevedentseva, 2008).

***Hygrocybe chlorophana* (Fr.) Wünsche<sup>1</sup>**

≡ *Hygrophorus chlorophanus* (Fr.) Fr.<sup>2</sup>

EASTERN EUROPE: **Adygea** (<sup>1</sup>Sopina, 2004b); **Crimea** (<sup>1</sup>Sarkina, 2011; <sup>1</sup>Sarkina and Prydiuk, 2012); **Karachay-Cherkess Republic** (<sup>1</sup>Onipchenko and Kaverina, 1989; <sup>1</sup>Kalamees and Botashev, 2000); **Krasnodar Krai** (<sup>1</sup>Vassiljeva, 1939; <sup>1</sup>Kovalenko, 1989; <sup>1</sup>Kovalenko, 1995; <sup>1</sup>Kovalenko, 1999); **Kursk Oblast** (<sup>1</sup>Ryabova and Ignatenko, 1981); **Leningrad Oblast** (<sup>1</sup>Thesleff, 1920; <sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Morozova and Kovalenko, 2000; <sup>1</sup>Popov et al., 2007); **Novgorod Oblast** (<sup>1</sup>Arslanov, 2014); **Pskov Oblast** (<sup>1</sup>Popov et al., 2013); **Sevastopol** (<sup>1</sup>Sarkina, 2016b); **Sverdlovsk Oblast** (<sup>1</sup>Stepanova and Sirko, 1977; <sup>1</sup>Kovalenko, 1989; <sup>1</sup>Kovalenko, 1995).

SIBERIA: **Altai Republic** (<sup>1</sup>Gorbunova, 1997; <sup>1</sup>Perova and Gorbunova, 2001; <sup>1</sup>Gorbunova, 2008; <sup>1</sup>Gorbunova, 2010); **Buryatia** (<sup>2</sup>Nezdojminogo, 1973; <sup>1</sup>Kovalenko, 1989; <sup>1</sup>Petrov, 1991; <sup>1</sup>Kovalenko, 1995; <sup>1</sup>Kovalenko, 1999); **Khakassia** (<sup>1</sup>Beglyanova, 1972a; <sup>1</sup>Zauzolkova, 2015); **Krasnoyarsk Krai** (<sup>1</sup>Beglyanova, 1972a; <sup>1</sup>Beglyanova, 1972b; <sup>1</sup>Kovalenko, 1989; <sup>1</sup>Kovalenko, 1995).

FAR EAST: **Khabarovsk Krai** (<sup>1</sup>Azbukina et al., 1986; <sup>1</sup>Bau, Bulakh, and Govorova, 2011); **Primorsky Krai** (<sup>1</sup>Vassiljeva, 1972; <sup>1</sup>Vassiljeva, 1973; <sup>1</sup>Kovalenko, 1989; <sup>1</sup>Kovalenko, 1995).

***Hygrocybe cinerea* (Pers.) P.D. Orton & Watling<sup>1</sup>**

≡ *Camarophyllus cinereus* (Pers.) P. Karst.<sup>2</sup>

EASTERN EUROPE: **Leningrad Oblast** (<sup>2</sup>Thesleff, 1920); **Yamalo-Nenets Autonomous Okrug** (<sup>1</sup>Nezdojminogo, 2001).

SIBERIA: **Irkutsk Oblast** (<sup>2</sup>Kutafjeva, 1983).

***Hygrocybe citrina* (Rea) J.E. Lange<sup>1</sup>**

≡ *Gliophorus citrinus* (Rea) Kovalenko<sup>2</sup>

EASTERN EUROPE: **Komi Republic** (<sup>1</sup>Palamarchuk, 2020b); **Leningrad Oblast** (<sup>1</sup>Pavlova, 1969; <sup>2</sup>Kovalenko, 1989; <sup>2</sup>Kovalenko, 1995; <sup>2</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Popov et al., 2007); **Moscow Oblast** (<sup>2</sup>Levitskaya, 2006; <sup>2</sup>Levitskaya, 2013); **Pskov Oblast** (<sup>2</sup>Popov et al., 2013); **Rostov Oblast** (<sup>1</sup>Vyshchepan, 1992); **Arid territories** (<sup>2</sup>Rebriev, Rusanov, et al., 2012).

SIBERIA: **Novosibirsk Oblast** (<sup>1</sup>Perova and Gorbunova, 2007); **Tyva Republic** (<sup>1</sup>Gorbunova, 2015).

FAR EAST: **Amur Oblast** (<sup>2</sup>Kovalenko, 1989; <sup>2</sup>Kovalenko, 1995); **Jewish Autonomous Oblast** (<sup>1</sup>Bulakh, Govorova, Nazarova, and Vassiljeva, 2007); **Khabarovsk Krai** (<sup>1</sup>Erofeeva and Bulakh, 2015a); **Magadan Oblast** (<sup>1</sup>Nazarova, 1976; <sup>2</sup>Kovalenko, 1989; <sup>2</sup>Kovalenko, 1995; <sup>2</sup>Sazanova, 2005); **Primorsky Krai** (<sup>1</sup>Vassiljeva, 1972; <sup>1</sup>Vassiljeva, 1973; <sup>2</sup>Kovalenko, 1989; <sup>2</sup>Kovalenko, 1995).

***Hygrocybe citrinovirens* (J.E. Lange) Jul. Schäff.**

EASTERN EUROPE: **Sverdlovsk Oblast** (Marina, 2006).

***Hygrocybe coccinea* (Schaeff.) P. Kumm.<sup>1</sup>**

≡ *Agaricus coccineus* Schaeff.<sup>2</sup> ≡ *Hygrophorus coccineus* (Schaeff.) Fr.<sup>3</sup> ≡ *Pseudohygrocybe coccinea* (Schaeff.) Kovalenko<sup>4</sup>

EASTERN EUROPE: **Adygea** (<sup>4</sup>Sopina, 2004b); **Bryansk Oblast** (<sup>3</sup>Kruglikov, 2007); **Crimea** (<sup>3</sup>Sarkina, 2001; <sup>1</sup>Dudka et al., 2004; <sup>1</sup>Sarkina, 2010b); **Kabardino-Balkarian Republic** (<sup>1</sup>Shkhagapsoev and Krapivina, 2004); **Karelia** (<sup>1</sup>Savelev and Kikeeva, 2018); **Komi Republic** (<sup>1</sup>Palamarchuk, 2012; <sup>1</sup>Palamarchuk, 2016a; <sup>1</sup>Palamarchuk,

2016b); **Krasnodar Krai** (<sup>1</sup>Vassiljeva, 1939; <sup>4</sup>Kovalenko, 1989; <sup>4</sup>Kovalenko, 1995; <sup>1</sup>Shumkova, Krivorotov, and Gayday, 2018); **Kursk Oblast** (<sup>1</sup>Bedenko, 1985; <sup>4</sup>Kovalenko, 1989; <sup>4</sup>Kovalenko, 1995); **Leningrad Oblast** (<sup>1</sup>Thesleff, 1920; <sup>4</sup>Kovalenko, 1989; <sup>4</sup>Kovalenko, 1995; <sup>4</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Popov et al., 2007); **Moscow Oblast** (<sup>4</sup>Levitskaya, 1995b; <sup>4</sup>Levitskaya, 2013); **Novgorod Oblast** (<sup>4</sup>Morozova, 2012; <sup>4</sup>Popov et al., 2013); **Perm Krai** (<sup>4</sup>Perevedentseva, 2008); **Pskov Oblast** (<sup>4</sup>Popov et al., 2013); **Ryazan Oblast** (<sup>4</sup>Volosnova, 1997; <sup>1</sup>Volosnova, 2014); **Saint Petersburg** (<sup>2</sup>Weinmann, 1837); **Samara Oblast** (<sup>4</sup>Malysheva and Malysheva, 2007; <sup>1</sup>Malysheva and Malysheva, 2008); **Smolensk Oblast** (<sup>3</sup>Jaczewski, 1896); **Sverdlovsk Oblast** (<sup>1</sup>Stepanova and Sirko, 1977; <sup>4</sup>Kovalenko, 1989; <sup>4</sup>Kovalenko, 1995; <sup>4</sup>Marina, 2006); **Tatarstan** (<sup>1</sup>Potapov, 2016a; <sup>4</sup>Nazirov, Gorshkov, Ivanov, and Rogova, 2016); **Tula Oblast** (<sup>4</sup>Svetasheva, 2004; <sup>4</sup>Shcherbakov, 2010); **Yamalo-Nenets Autonomous Okrug** (<sup>1</sup>Karatygin, Nezdoyminogo, Novozhilov, and Zhurbenko, 1999; <sup>4</sup>Kovalenko, 1999).

SIBERIA: **Altai Krai** (<sup>1</sup>Gorbunova, 2018a); **Altai Republic** (<sup>4</sup>Kovalenko, 1992; <sup>1</sup>Gorbunova, 1996; <sup>1</sup>Gorbunova, 1997; <sup>4</sup>Kovalenko, 1999; <sup>4</sup>Perova and Gorbunova, 2001; <sup>1</sup>Gorbunova, 2008; <sup>1</sup>Gorbunova, 2010; <sup>1</sup>Gorbunova, 2017b); **Buryatia** (<sup>1</sup>Nezdoyminogo, 1973; <sup>4</sup>Kovalenko, 1989; <sup>4</sup>Petrov, 1991; <sup>4</sup>Kovalenko, 1995); **Irkutsk Oblast** (<sup>1</sup>Muzyka, 2009); **Khakassia** (<sup>1</sup>Zauzolkova and Gorbunova, 2013; <sup>1</sup>Zauzolkova, 2015); **Krasnoyarsk Krai** (<sup>1</sup>Beglyanova, 1972a; <sup>3</sup>Beglyanova, 1972b; <sup>3</sup>Beglyanova, 1972c; <sup>4</sup>Kovalenko, 1989; <sup>1</sup>Lapitskaya, 1990; <sup>4</sup>Kovalenko, 1995); **Baikalia** (<sup>4</sup>Kovalenko, 1999).

FAR EAST: **Jewish Autonomous Oblast** (<sup>4</sup>Bulakh, Govorova, Nazarova, and Vassiljeva, 2007); **Khabarovsk Krai** (<sup>1</sup>Azbukina et al., 1986; <sup>1</sup>Bau, Bulakh, and Govorova, 2011); **Primorsky Krai** (<sup>1</sup>Vassiljeva, 1972; <sup>1</sup>Vassiljeva, 1973; <sup>1</sup>Bunkina and Nazarova, 1978; <sup>4</sup>Kovalenko, 1989; <sup>4</sup>Kovalenko, 1995; <sup>4</sup>Bardunov et al., 2002; <sup>1</sup>Bulakh et al., 2016).

#### ***Hygrocybe coccineocrenata* (P.D. Orton) M.M. Moser<sup>1</sup>**

≡ *Pseudohygrocybe coccineocrenata* (P.D. Orton) Kovalenko<sup>2</sup>

EASTERN EUROPE: **Leningrad Oblast** (<sup>2</sup>Morozova, 2002; <sup>1</sup>Popov et al., 2007; <sup>2</sup>Morozova, 2007); **Murmansk Oblast** (<sup>2</sup>Kovalenko, 1999; <sup>2</sup>Berlina, 2005); **Penza Oblast** (<sup>2</sup>Ivanov, 1999); **Pskov Oblast** (<sup>2</sup>Kovalenko, Kolmakov, Morozova, and Popov, 2003; <sup>2</sup>Popov et al., 2013); **Saint Petersburg** (<sup>2</sup>Morozova and Smirnov, 2011; <sup>1</sup>Geltman, 2018a); **Tula Oblast** (<sup>2</sup>Svetasheva, 2004; <sup>2</sup>Svetasheva, 2005b; <sup>2</sup>Shcherbakov, 2010).

SIBERIA: **Altai Republic** (<sup>1</sup>Gorbunova, 2010); **Irkutsk Oblast** (<sup>2</sup>Kovalenko, 1989; <sup>2</sup>Petrov, 1991; <sup>2</sup>Kovalenko, 1995).

FAR EAST: **Kamchatka Krai** (<sup>1</sup>Kalamees and Vaasma, 1981; <sup>2</sup>Kovalenko, 1989; <sup>2</sup>Kovalenko, 1995; <sup>2</sup>Kovalenko, 1999); **Magadan Oblast** (<sup>2</sup>Kovalenko, 1989; <sup>2</sup>Kovalenko, 1995; <sup>2</sup>Sazanova, 2005; <sup>1</sup>Sazanova, 2009a); **Primorsky Krai** (<sup>1</sup>Bulakh et al., 2016).

#### ***Hygrocybe conica* (Schaeff.) P. Kumm.<sup>1</sup>**

≡ *Agaricus conicus* Schaeff.<sup>2</sup> ≡ *Hygrocybe conica* var. *conica* (Schaeff.) P. Kumm.<sup>3</sup> ≡ *Hygrophorus conicus* (Schaeff.) Fr.<sup>4</sup> = *Hygrocybe chloroides* (Malençon) Kovalenko<sup>5</sup> = *Hygrocybe conica* f. *pseudoconica* (J.E. Lange) Arnolds<sup>6</sup> = *Hygrocybe conica* var. *chloroides* (Malençon) Bon<sup>7</sup> = *Hygrocybe pseudoconica* J.E. Lange<sup>8</sup> = *Hygrocybe tristis* (Bres.) F.H. Møller<sup>9</sup>

EASTERN EUROPE: **Adygea** (<sup>9</sup>Vaasma, Kalamees, and Raitviir, 1986; <sup>1</sup>Sopina, 2001a; <sup>5</sup>Sopina, 2004b); **Belgorod Oblast** (<sup>1</sup>Bedenko, 1980; <sup>8</sup>Kovalenko, 1989); **Chelyabinsk Oblast** (<sup>1</sup>Stepanova and Sirko, 1977); **Crimea** (<sup>4</sup>Sarkina, 2001; <sup>1</sup>Dudka et al., 2004; <sup>1</sup>Sarkina, 2010b; <sup>1</sup>Sarkina, 2011; <sup>1</sup>Sarkina and Prydiuk, 2012; <sup>1</sup>Sarkina and Mironova, 2015; <sup>1</sup>Sarkina and Stavishenko, 2019); **Kabardino-Balkarian Republic** (<sup>1</sup>Singer, 1931; <sup>1</sup>Shkhagapsoev and Krapivina, 2004); **Kaluga Oblast** (<sup>1</sup>Sionova, 2003); **Karachay-Cherkess Republic** (<sup>9</sup>Onipchenko and Kaverina, 1989; <sup>1,5</sup>Kalamees and Botashev, 2000); **Karelia** (<sup>4</sup>Karsten, 1866; <sup>1</sup>Freindling, 1949; <sup>1</sup>Bondartseva et al., 2001; <sup>1</sup>Ivanter and Kuznetsov, 2007; <sup>1</sup>Krutov et al., 2014; <sup>1</sup>Savelev and Kikeeva, 2018; <sup>1</sup>Kuznetsov, 2020); **Komi Republic** (<sup>1</sup>Bobretsova, 2004; <sup>3</sup>Palamarchuk, 2012; <sup>1,7</sup>Palamarchuk, 2016a; <sup>3,7</sup>Palamarchuk, 2016b; <sup>1,6</sup>Palamarchuk and Kirillov, 2017); **Krasnodar Krai** (<sup>9</sup>Vaasma, Kalamees, and Raitviir, 1986; <sup>8</sup>Kovalenko, 1989); **Kursk Oblast** (<sup>1</sup>Ryabova and Ignatenko, 1981; <sup>1</sup>Bedenko, 1985); **Leningrad Oblast** (<sup>1</sup>Thesleff, 1920; <sup>8</sup>Kovalenko, 1989; <sup>1,8</sup>Kovalenko and Morozova, 1999a; <sup>1,8</sup>Morozova and Kovalenko, 2000; <sup>1</sup>Morozova, 2007; <sup>1,8</sup>Popov et al., 2007; <sup>1</sup>Bondartseva et al., 2015; <sup>1</sup>Zmitrovich et al., 2015); **Lipetsk Oblast** (<sup>1</sup>Alferova, 1977; <sup>1</sup>Sarycheva, 1999; <sup>1</sup>Sarycheva et al., 2009; <sup>1</sup>Sarycheva, 2011; <sup>1</sup>Sarycheva, 2014a; <sup>1</sup>Sarycheva, 2016); **Mordovia** (<sup>1</sup>Ivoilov and Bolshakov, 2011a); **Moscow** (<sup>4</sup>Bucholtz, 1897b; <sup>4</sup>Bucholtz, 1897c; <sup>4</sup>Mosolov, 1906); **Moscow Oblast** (<sup>1</sup>Gorlenko, Sidorova, and Sidorova, 1989; <sup>1</sup>Levitskaya, 1995b; <sup>1</sup>Levitskaya, 2013; <sup>1</sup>Voronina et al., 2014); **Murmansk Oblast** (<sup>4</sup>Pystina, Pavlova, and Shestakova, 1969; <sup>1</sup>Mikhailovskii, 1975b; <sup>1</sup>Nezdoyminogo, 1997b; <sup>1</sup>Karatygin, Nezdoyminogo, Novozhilov, and Zhurbenko, 1999; <sup>1</sup>Kovalenko, 1999; <sup>8</sup>Kovalenko, 1999); **Novgorod Oblast** (<sup>1</sup>Kovalenko, Morozova, Nezdoyminogo, and Popov, 2005; <sup>1</sup>Popov et al., 2013; <sup>1</sup>Morozova, Popov, and Fedosova, 2014); **Penza Oblast** (<sup>1</sup>Ivanov, 1985; <sup>8</sup>Kovalenko, 1989; <sup>1</sup>Ivanov, 1999); **Perm Krai** (<sup>1,8</sup>Perevedentseva, 2008); **Pskov**

**Oblast** (<sup>3</sup>Popov, 2001a; <sup>1,8</sup>Popov et al., 2013); **Ryazan Oblast** (<sup>1</sup>Volosnova, 1997; <sup>1</sup>Volosnova, 2014); **Saint Petersburg** (<sup>2</sup>Weinmann, 1828; <sup>2</sup>Weinmann, 1836; <sup>2</sup>Weinmann, 1837; <sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Morozova and Smirnov, 2011; <sup>1</sup>Morozova, Kovalenko, Rebriev, and Malysheva, 2014; <sup>1</sup>Morozova et al., 2020); **Samara Oblast** (<sup>1</sup>Malysheva and Malysheva, 2005b; <sup>1,5</sup>Malysheva and Malysheva, 2007; <sup>1</sup>Malysheva and Malysheva, 2008); **Smolensk Oblast** (<sup>4</sup>Jaczevski, 1896); **Sverdlovsk Oblast** (<sup>1</sup>Tomilin, 1965; <sup>1,5,8</sup>Marina, 2006); **Tatarstan** (<sup>8</sup>Kovalenko, 1989; <sup>1</sup>Potapov, Galejev, and Zhukov, 2013); **Tula Oblast** (<sup>1,8</sup>Svetasheva, 2004; <sup>1</sup>Svetasheva, 2013); **Tver Oblast** (<sup>1</sup>Kurochkin, 1993; <sup>1</sup>Mukhina, 2011a; <sup>1</sup>Mukhina, 2011b; <sup>1</sup>Kotkova, 2014); **Udmurt Republic** (<sup>1</sup>Tychinin and Kuzmina, 2003); **Ulyanovsk Oblast** (<sup>1</sup>Ilyukhin, 2010a; <sup>1</sup>Ilyukhin, 2010b); **Vologda Oblast** (<sup>8</sup>Kovalenko, 1989; <sup>1</sup>Kirillova, 2006; <sup>1</sup>Kirillova, 2007); **Voronezh Oblast** (<sup>4</sup>Chastukhin, 1952; <sup>4</sup>Chastukhin and Nikolaevskaya, 1953; <sup>4</sup>Chastukhin and Nikolaevskaya, 1969; <sup>9</sup>Bedenko, 1985); **Yamalo-Nenets Autonomous Okrug** (<sup>1</sup>Stepanova and Sirko, 1977; <sup>1</sup>Karatygin, Nezdjominogo, Novozhilov, and Zhurbenko, 1999; <sup>1</sup>Kovalenko, 1999; <sup>1</sup>Nezdjominogo, 2001); **Yaroslavl Oblast** (<sup>1,8</sup>Lazareva, 1998a; <sup>1,8</sup>Lazareva, 2002); **Arid territories** (<sup>1</sup>Rebriev, Rusanov, et al., 2012).

**SIBERIA: Altai Krai** (<sup>1</sup>Gorbunova, 2018a); **Altai Republic** (<sup>1</sup>Kovalenko, 1992; <sup>1</sup>Gorbunova, 1997; <sup>1</sup>Gorbunova, 2003; <sup>3</sup>Gorbunova, 2006; <sup>1</sup>Gorbunova, 2008; <sup>1</sup>Gorbunova, 2010); **Buryatia** (<sup>1</sup>Nezdjominogo, 1973; <sup>1</sup>Kovalenko, 1995; <sup>8</sup>Kovalenko, 1999); **Irkutsk Oblast** (<sup>1</sup>Kutafjeva, 1983; <sup>8</sup>Petrov, 1991; <sup>1</sup>Kovalenko, 1995; <sup>1</sup>Muzyka, 2002; <sup>8</sup>Bardunov et al., 2005; <sup>1,8</sup>Petrov, 2008; <sup>1</sup>Muzyka, 2009); **Khakassia** (<sup>1</sup>Beglyanova, 1972a; <sup>1</sup>Zauzolkova, 2015); **Khanty-Mansi Autonomous Okrug** (<sup>3</sup>Filippova, Bulyonkova, and Lapshina, 2015; <sup>3</sup>Filippova and Bulyonkova, 2017a; <sup>1</sup>Filippova and Bulyonkova, 2017b; <sup>1</sup>Zvyagina and Baykalova, 2017); **Krasnoyarsk Krai** (<sup>1</sup>Beglyanova, 1972a; <sup>1</sup>Nezdjominogo, 1982a; <sup>8</sup>Kovalenko, 1989; <sup>1</sup>Lapitskaya, 1990; <sup>1</sup>Kovalenko, 1995; <sup>1</sup>Kosheleva and Kutafjeva, 2008a; <sup>1</sup>Zauzolkova, 2012; <sup>1</sup>Zauzolkova, 2015; <sup>1</sup>Gorbunova, 2016; <sup>1</sup>Krom and Kapitonov, 2019); **Novosibirsk Oblast** (<sup>4</sup>Zaytseva, 1971; <sup>1</sup>Perova, 1977; <sup>1</sup>Kovalenko, 1995; <sup>3</sup>Gorbunova, 2006; <sup>1</sup>Gorbunova, 2007; <sup>3</sup>Perova and Gorbunova, 2007; <sup>1</sup>Koropachinskiy and Banaev, 2014); **Sakha Republic** (<sup>1</sup>Kovalenko, 1995); **Tomsk Oblast** (<sup>1</sup>Kovalenko, 1995; <sup>1</sup>Kudashova, Gashkov, and Kutafjeva, 2013); **Tyumen Oblast** (<sup>1</sup>Kovalenko, 1995); **Baikalia** (<sup>1</sup>Kovalenko, 1999).

**FAR EAST: Amur Oblast** (<sup>1</sup>Tomilin, 1962; <sup>1</sup>Gordienko, Petrova, and Tarasov, 1981; <sup>1</sup>Kovalenko, 1995; <sup>1</sup>Azbukina et al., 1998; <sup>1</sup>Taranina, 2005); **Chukotka Autonomous Okrug** (<sup>4</sup>Berkeley and Curtis, 1978; <sup>1</sup>Sazanova, 1993; <sup>1</sup>Karatygin, Nezdjominogo, Novozhilov, and Zhurbenko, 1999; <sup>1</sup>Kovalenko, 1999); **Jewish Autonomous Oblast** (<sup>1</sup>Bau, Bulakh, Zhuang, and Li, 2007; <sup>1</sup>Bulakh, Govorova, Nazarova, and Vassiljeva, 2007; <sup>1</sup>Bau, Bulakh, and Govorova, 2011); **Kamchatka Krai** (<sup>1</sup>Kalamees and Vaasma, 1981; <sup>1</sup>Kovalenko, 1995; <sup>1</sup>Kovalenko, 1999); **Khabarovsk Krai** (<sup>1</sup>Azbukina et al., 1986; <sup>1</sup>Azbukina et al., 1989; <sup>1</sup>Kovalenko, 1995; <sup>1</sup>Bau, Bulakh, Zhuang, and Li, 2007; <sup>1</sup>Bulakh, Vassiljeva, and Erofeeva, 2010; <sup>1</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Bulakh, 2013; <sup>1</sup>Bogacheva, Bulakh, Bukharova, and Egorova, 2015; <sup>1</sup>Erofeeva and Bulakh, 2015a); **Magadan Oblast** (<sup>1</sup>Nazarova, 1976; <sup>1</sup>Kovalenko, 1995; <sup>1</sup>Sazanova, 2005; <sup>1</sup>Sazanova, 2009a); **Primorsky Krai** (<sup>1</sup>Vassiljeva, 1972; <sup>1</sup>Vassiljeva, 1973; <sup>1</sup>Bulakh, 1977; <sup>1</sup>Azbukina et al., 1984; <sup>5</sup>Kovalenko and Nezdjominogo, 1989; <sup>5</sup>Kovalenko, 1989; <sup>8</sup>Kovalenko and Nezdjominogo, 1989; <sup>8</sup>Azbukina et al., 1990; <sup>1,5</sup>Kovalenko, 1995; <sup>1,8</sup>Bardunov et al., 2002; <sup>1</sup>Azbukina et al., 2006; <sup>1</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Bulakh et al., 2016; <sup>1</sup>Bogacheva, Bulakh, Bukharova, and Egorova, 2020); **Sakhalin Oblast** (<sup>1</sup>Vassiljeva and Nazarova, 1972; <sup>1</sup>Kovalenko, 1995; <sup>1</sup>Bulakh, Govorova, and Bogatov, 1999).

### ***Hygrocybe conicoides* (P.D. Orton) P.D. Orton & Watling**

EASTERN EUROPE: **Penza Oblast** (Ivanov, 1999).

SIBERIA: **Novosibirsk Oblast** (Gorbunova, 2007).

### ***Hygrocybe constrictospora* Arnolds<sup>1</sup>**

≡ *Pseudohygrocybe constrictospora* (Arnolds) Kovalenko<sup>2</sup>

EASTERN EUROPE: **Leningrad Oblast** (<sup>2</sup>Kovalenko, 1989; <sup>2</sup>Kovalenko, 1995; <sup>2</sup>Kovalenko and Morozova, 1999a; <sup>2</sup>Tzvelev, 2000; <sup>1</sup>Popov et al., 2007; <sup>1</sup>Geltman et al., 2018; <sup>1</sup>Geltman, 2018b); **Moscow Oblast** (<sup>2</sup>Levitskaya, 1995b; <sup>2</sup>Levitskaya, 2013).

SIBERIA: **Khanty-Mansi Autonomous Okrug** (<sup>1</sup>Filippova and Bulyonkova, 2017a; <sup>1</sup>Filippova and Bulyonkova, 2017b).

FAR EAST: **Khabarovsk Krai** (<sup>1</sup>Erofeeva and Bulakh, 2015a).

### ***Hygrocybe cruenta* (Hongo) Hongo<sup>1</sup>**

≡ *Pseudohygrocybe cruenta* (Hongo) Kovalenko<sup>2</sup>

FAR EAST: **Jewish Autonomous Oblast** (<sup>1</sup>Erofeeva, Bukharova, and Bulakh, 2019); **Khabarovsk Krai** (<sup>1</sup>Bulakh, Vassiljeva, and Erofeeva, 2010; <sup>1</sup>Bulakh, 2013; <sup>1</sup>Bogacheva, Bulakh, Bukharova, and Egorova, 2015); **Primorsky Krai** (<sup>2</sup>Kovalenko and Nezdjominogo, 1989; <sup>2</sup>Kovalenko, 1989; <sup>2</sup>Kovalenko, 1995).

***Hygrocybe cystidiata* Arnolds**

EASTERN EUROPE: **Leningrad Oblast** (Kovalenko, 1989; Kovalenko, 1995; Kovalenko and Morozova, 1999a; Popov et al., 2007).

FAR EAST: **Primorsky Krai** (Azbukina et al., 2006; Bau, Bulakh, and Govorova, 2011).

***Hygrocybe flammea* (Scop.) Murrill**

≡ *Hygrophorus flammans* (Scop.) J. Schröt.<sup>1</sup>

EASTERN EUROPE: **Moscow** (<sup>1</sup>Bucholtz, 1897b; <sup>1</sup>Bucholtz, 1897c; <sup>1</sup>Mosolov, 1906).

***Hygrocybe flavescens* (Kauffman) Singer**

EASTERN EUROPE: **Kaluga Oblast** (Sionova, 2012); **Moscow Oblast** (Levitskaya, 1995a; Levitskaya, 2013); **Tula Oblast** (Svetasheva, 2004).

FAR EAST: **Khabarovsk Krai** (Bau, Bulakh, Zhuang, and Li, 2007; Bau, Bulakh, and Govorova, 2011); **Primorsky Krai** (Kovalenko and Nezdojminogo, 1989; Kovalenko, 1989; Kovalenko, 1995; Bogacheva, Bulakh, Bukharova, and Egorova, 2020).

***Hygrocybe glutinipes* (J.E. Lange) R. Haller Aar.<sup>1</sup>**

≡ *Gliophorus glutinipes* (J.E. Lange) Kovalenko<sup>2</sup> ≡ *Hygrocybe glutinipes* var. *glutinipes* (J.E. Lange) R. Haller Aar.<sup>3</sup>

EASTERN EUROPE: **Komi Republic** (<sup>1</sup>Palamarchuk, 2020b); **Krasnodar Krai** (<sup>1</sup>Kovalenko, 1980a; <sup>1</sup>Kovalenko, 1980b; <sup>2</sup>Kovalenko, 1989); **Ryazan Oblast** (<sup>2</sup>Morozova and Popov, 2008; <sup>3</sup>Malysheva and Volosnova, 2008; <sup>3</sup>Volosnova, 2014); **Tula Oblast** (<sup>1</sup>Svetasheva, 2018).

SIBERIA: **Khanty-Mansi Autonomous Okrug** (<sup>3</sup>Filippova and Bulyonkova, 2017a; <sup>1</sup>Filippova and Bulyonkova, 2017b).

FAR EAST: **Amur Oblast** (<sup>2</sup>Azbukina et al., 1998); **Magadan Oblast** (<sup>1</sup>Sazanova, 2009a).

***Hygrocybe helobia* (Arnolds) Bon<sup>1</sup>**

≡ *Pseudohygrocybe helobia* (Arnolds) Kovalenko<sup>2</sup>

EASTERN EUROPE: **Karelia** (<sup>2</sup>Kovalenko, 1989; <sup>2</sup>Kovalenko, 1995); **Leningrad Oblast** (<sup>2</sup>Kovalenko, 1989; <sup>2</sup>Kovalenko, 1995; <sup>2</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Popov et al., 2007); **Moscow Oblast** (<sup>2</sup>Levitskaya, 1995a; <sup>2</sup>Levitskaya, 2013); **Murmansk Oblast** (<sup>2</sup>Kovalenko, 1989; <sup>2</sup>Kovalenko, 1995); **Penza Oblast** (<sup>1</sup>Ivanov, 1986).

SIBERIA: **Khanty-Mansi Autonomous Okrug** (<sup>2</sup>Filippova, 2009; <sup>1</sup>Zvyagina and Baykalova, 2017); **Krasnoyarsk Krai** (<sup>2</sup>Kovalenko, 1989; <sup>2</sup>Kovalenko, 1995).

FAR EAST: **Primorsky Krai** (<sup>2</sup>Kovalenko, 1989; <sup>2</sup>Azbukina et al., 1990; <sup>2</sup>Kovalenko, 1995; <sup>2</sup>Bardunov et al., 2002).

***Hygrocybe ingrata* J.P. Jensen & F.H. Møller<sup>1</sup>**

≡ *Neohygrocybe ingrata* (J.P. Jensen & F.H. Møller) Herink<sup>2</sup>

EASTERN EUROPE: **Adygea** (<sup>2</sup>Sopina, 2004b; <sup>1</sup>Zamotajlov, Sirotyuk (Kuvaeva), Akatova, and Lipka, 2012); **Samara Oblast** (<sup>2</sup>Malysheva and Malysheva, 2007; <sup>1</sup>Malysheva and Malysheva, 2008).

FAR EAST: **Primorsky Krai** (<sup>2</sup>Kovalenko and Nezdojminogo, 1989; <sup>2</sup>Kovalenko, 1989; <sup>2</sup>Kovalenko, 1995; <sup>1</sup>Bulakh et al., 2016).

***Hygrocybe insipida* (J.E. Lange) M.M. Moser<sup>1</sup>**

≡ *Gliophorus insipidus* (J.E. Lange) Kovalenko<sup>2</sup> ≡ *Hygrocybe reae* var. *insipida* J.E. Lange<sup>3</sup> ≡ *Hygrophorus insipidus* (J.E. Lange) S. Lundell<sup>4</sup>

EASTERN EUROPE: **Leningrad Oblast** (<sup>3</sup>Singer, 1943; <sup>4</sup>Morozova and Kovalenko, 2000; <sup>1</sup>Popov et al., 2007); **Murmansk Oblast** (<sup>2</sup>Kovalenko, 1999); **Ryazan Oblast** (<sup>1</sup>Malysheva and Volosnova, 2008; <sup>1</sup>Volosnova, 2014).

SIBERIA: **Buryatia** (<sup>1</sup>Nezdojminogo, 1973; <sup>2</sup>Kovalenko, 1989; <sup>2</sup>Petrov, 1991; <sup>2</sup>Kovalenko, 1995; <sup>2</sup>Kovalenko, 1999); **Khakassia** (<sup>1</sup>Zauzolkova, 2015; <sup>1</sup>Zauzolkova and Gorbunova, 2016); **Khanty-Mansi Autonomous Okrug** (<sup>1</sup>Filippova, Bulyonkova, and Lapshina, 2015).

FAR EAST: **Jewish Autonomous Oblast** (<sup>1</sup>Bulakh, Govorova, Nazarova, and Vassiljeva, 2007; <sup>1</sup>Bau, Bulakh, and Govorova, 2011).



***Hygrocybe intermedia* (Pass.) Fayod<sup>1</sup>**≡ *Pseudohygrocybe intermedia* (Pass.) Kovalenko<sup>2</sup>EASTERN EUROPE: **Karachay-Cherkess Republic** (<sup>1</sup>Onipchenko and Kaverina, 1989; <sup>2</sup>Kalamees and Botashev, 2000); **Kursk Oblast** (<sup>2</sup>Baranov, 2002); **Sverdlovsk Oblast** (<sup>2</sup>Marina, 2006); **Voronezh Oblast** (<sup>1</sup>Bedenko, 1985).SIBERIA: **Khakassia** (<sup>1</sup>Beglyanova, 1972a; <sup>1</sup>Zauzolkova, 2015); **Krasnoyarsk Krai** (<sup>2</sup>Kovalenko, 1989; <sup>2</sup>Kovalenko, 1995).FAR EAST: **Primorsky Krai** (<sup>1</sup>Vassiljeva, 1973; <sup>2</sup>Kovalenko, 1989; <sup>2</sup>Kovalenko, 1995).***Hygrocybe lepida* Arnolds**EASTERN EUROPE: **Karelia** (Bondartseva et al., 2001).***Hygrocybe leporina* (Fr.) P.D. Orton & Watling**≡ *Hygrophorus leporinus* Fr.<sup>1</sup>EASTERN EUROPE: **Saint Petersburg** (<sup>1</sup>Borszczow, 1857).***Hygrocybe marchii* (Bres.) F.H. Møller<sup>1</sup>**≡ *Pseudohygrocybe marchii* (Bres.) Kovalenko<sup>2</sup>EASTERN EUROPE: **Adygea** (<sup>2</sup>Sopina, 2001a); **Karelia** (<sup>1</sup>Predtechenskaya and Ruokolainen, 2013; <sup>1</sup>Predtechenskaya, 2013; <sup>1</sup>Krutov et al., 2014); **Kirov Oblast** (<sup>2</sup>Kirillov, 2011; <sup>2</sup>Kirillov, Perevedentseva, and Egoshina, 2011; <sup>1</sup>Stavishenko, Luginina, Kirillov, and Egoshina, 2019); **Komi Republic** (<sup>1</sup>Palamarchuk, 2016a; <sup>1</sup>Palamarchuk, 2016b); **Leningrad Oblast** (<sup>2</sup>Kovalenko, 1989; <sup>2</sup>Kovalenko, 1995; <sup>2</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Popov et al., 2007); **Murmansk Oblast** (<sup>1</sup>Mikhailovskii, 1975a; <sup>2</sup>Kovalenko, 1989; <sup>2</sup>Kovalenko, 1995); **Perm Krai** (<sup>2</sup>Perevedentseva, 2008; <sup>1</sup>Belkovskaya et al., 2014); **Tula Oblast** (<sup>2</sup>Svetasheva, 2004).SIBERIA: **Altai Krai** (<sup>1</sup>Gorbunova, 2018a); **Irkutsk Oblast** (<sup>1</sup>Petrov, 1984; <sup>2</sup>Kovalenko, 1989; <sup>2</sup>Petrov, 1991; <sup>2</sup>Kovalenko, 1995; <sup>2</sup>Petrov, 2008); **Krasnoyarsk Krai** (<sup>1</sup>Gorbunova, 2016).FAR EAST: **Magadan Oblast** (<sup>1</sup>Sazanova, 2015).***Hygrocybe miniata* (Fr.) P. Kumm.<sup>1</sup>**≡ *Agaricus miniatus* Fr.<sup>2</sup> ≡ *Hygrophorus miniatus* (Fr.) Fr.<sup>3</sup> ≡ *Pseudohygrocybe miniata* (Fr.) Kovalenko<sup>4</sup>EASTERN EUROPE: **Belgorod Oblast** (<sup>1</sup>Bedenko, 1980; <sup>4</sup>Kovalenko, 1989; <sup>4</sup>Kovalenko, 1995); **Bryansk Oblast** (<sup>1</sup>Kruglikov, 2007); **Kaliningrad Oblast** (<sup>1</sup>Neuhoff, 1922; <sup>4</sup>Dedkov, Volodina, and Gubareva, 2007); **Kaluga Oblast** (<sup>4</sup>Sionova, 2012); **Karelia** (<sup>1</sup>Freindling, 1949; <sup>4</sup>Kovalenko, 1989; <sup>4</sup>Kovalenko, 1995; <sup>1</sup>Bondartseva et al., 2001; <sup>1,4</sup>Krutov et al., 2014); **Krasnodar Krai** (<sup>1</sup>Vassiljeva, 1939; <sup>4</sup>Kovalenko, 1989; <sup>4</sup>Kovalenko, 1995); **Leningrad Oblast** (<sup>1</sup>Thesleff, 1920; <sup>1</sup>Pavlova, 1969; <sup>4</sup>Kovalenko, 1989; <sup>4</sup>Kovalenko, 1995; <sup>4</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Popov et al., 2007; <sup>4</sup>Morozova, 2007); **Lipetsk Oblast** (<sup>1</sup>Alferova, 1977; <sup>4</sup>Sarycheva, 1999; <sup>4</sup>Sarycheva et al., 2009; <sup>4</sup>Sarycheva, 2011; <sup>4</sup>Sarycheva, 2014a; <sup>4</sup>Sarycheva, 2016); **Moscow** (<sup>3</sup>Bucholtz, 1897a; <sup>3</sup>Bucholtz, 1897b; <sup>3</sup>Bucholtz, 1897c; <sup>3</sup>Mosolov, 1906); **Moscow Oblast** (<sup>1</sup>Gorlenko, Sidorova, and Sidorova, 1989; <sup>4</sup>Kovalenko, 1989; <sup>4</sup>Kovalenko, 1995; <sup>4</sup>Levitskaya, 1995a; <sup>4</sup>Levitskaya, 2013); **Murmansk Oblast** (<sup>3</sup>Pystina, Pavlova, and Shestakova, 1969; <sup>4</sup>Kovalenko, 1989; <sup>4</sup>Kovalenko, 1995); **Novgorod Oblast** (<sup>4</sup>Morozova, 2012; <sup>4</sup>Popov et al., 2013); **Perm Krai** (<sup>4</sup>Kovalenko, 1989; <sup>4</sup>Kovalenko, 1995; <sup>4</sup>Perevedentseva, 2008); **Pskov Oblast** (<sup>1</sup>Popov, 2001a; <sup>4</sup>Popov et al., 2013); **Rostov Oblast** (<sup>1</sup>Vyshchepan, 1992); **Saint Petersburg** (<sup>2</sup>Weinmann, 1836; <sup>2</sup>Weinmann, 1837; <sup>4</sup>Morozova and Smirnov, 2011); **Sverdlovsk Oblast** (<sup>1</sup>Stepanova and Sirko, 1977; <sup>4</sup>Kovalenko, 1989; <sup>4</sup>Kovalenko, 1995); **Tatarstan** (<sup>1</sup>Vassiljeva, 1977; <sup>4</sup>Kovalenko, 1989; <sup>4</sup>Kovalenko, 1995; <sup>4</sup>Nazirov, Gorshkov, Ivanov, and Rogova, 2016); **Tver Oblast** (<sup>4</sup>Kurochkin, 1993); **Udmurt Republic** (<sup>1</sup>Tychinin and Kuzmina, 2003); **Voronezh Oblast** (<sup>4</sup>Agafonov, 2011; <sup>1</sup>Sarycheva, Starodubtseva, and Sapelnikova, 2017; <sup>1</sup>Agafonov, 2018); **Yamalo-Nenets Autonomous Okrug** (<sup>1</sup>Stepanova and Sirko, 1970; <sup>1</sup>Stepanova and Sirko, 1977); **Arid territories** (<sup>4</sup>Rebriev, Rusanov, et al., 2012); **Lapland** (<sup>3</sup>Karsten, 1866).SIBERIA: **Khakassia** (<sup>1</sup>Zauzolkova, 2015); **Khanty-Mansi Autonomous Okrug** (<sup>1</sup>Zvyagina and Baykalova, 2017); **Krasnoyarsk Krai** (<sup>1</sup>Beglyanova, 1972a; <sup>3</sup>Beglyanova, 1972b; <sup>4</sup>Kovalenko, 1989; <sup>4</sup>Kovalenko, 1995); **Tomsk Oblast** (<sup>4</sup>Kovalenko, 1989; <sup>4</sup>Kovalenko, 1995; <sup>1</sup>Perova and Gorbunova, 2001; <sup>4</sup>Kudashova, Gashkov, and Kutafjeva, 2013); **Tyumen Oblast** (<sup>4</sup>Kovalenko, 1989; <sup>4</sup>Kovalenko, 1995); **Yamalo-Nenets Autonomous Okrug** (<sup>1</sup>Tarчевskaya, 1990).FAR EAST: **Primorsky Krai** (<sup>1</sup>Vassiljeva, 1972; <sup>1</sup>Vassiljeva, 1973; <sup>4</sup>Kovalenko, 1989; <sup>4</sup>Kovalenko, 1995); **Sakhalin Oblast** (<sup>1</sup>Vassiljeva and Nazarova, 1972; <sup>4</sup>Kovalenko, 1989).

***Hygrocybe minutula* (Peck) Murrill<sup>1</sup>**

≡ *Gliophorus minutulus* (Peck) Kovalenko<sup>2</sup>

EASTERN EUROPE: **Pskov Oblast** (<sup>2</sup>Popov et al., 2013).

FAR EAST: **Kamchatka Krai** (<sup>2</sup>Kovalenko, 1995; <sup>2</sup>Kovalenko, 1999); **Primorsky Krai** (<sup>1</sup>Vassiljeva, 1973; <sup>2</sup>Kovalenko and Nezdojminogo, 1989; <sup>2</sup>Kovalenko, 1989; <sup>2</sup>Kovalenko, 1995).

***Hygrocybe mollis* (Berk. & Broome) M.M. Moser**

EASTERN EUROPE: **Karelia** (Krutov et al., 2014); **Murmansk Oblast** (Mikhailovskii, 1975a; Mikhailovskii, 1975b; Karatygin, Nezdojminogo, Novozhilov, and Zhurbenko, 1999).

***Hygrocybe mucronella* (Fr.) P. Karst.<sup>1</sup>**

= *Gliophorus reae* (Maire) Herink<sup>2</sup> = *Gliophorus reae* (Maire) Kovalenko<sup>3</sup> = *Hygrocybe reae* (Maire) J.E. Lange<sup>4</sup>

EASTERN EUROPE: **Leningrad Oblast** (<sup>1</sup>Zmitrovich et al., 2015); **Novgorod Oblast** (<sup>3</sup>Morozova, 2012; <sup>2</sup>Popov et al., 2013; <sup>2</sup>Morozova, Popov, and Fedosova, 2014); **Pskov Oblast** (<sup>2</sup>Popov et al., 2013; <sup>4</sup>Morozova et al., 2015).

SIBERIA: **Irkutsk Oblast** (<sup>4</sup>Petrov, 1984; <sup>3</sup>Kovalenko, 1989; <sup>4</sup>Petrov, 1989; <sup>3</sup>Petrov, 1991; <sup>3</sup>Kovalenko, 1995); **Krasnoyarsk Krai** (<sup>4</sup>Beglyanova, 1972a; <sup>3</sup>Kovalenko, 1989; <sup>3</sup>Kovalenko, 1995).

FAR EAST: **Khabarovsk Krai** (<sup>4</sup>Azbukina et al., 1989; <sup>3</sup>Kovalenko, 1995); **Primorsky Krai** (<sup>1</sup>Vassiljeva, 1973; <sup>4</sup>Bunkina and Nazarova, 1978; <sup>4</sup>Azbukina et al., 1984; <sup>3</sup>Kovalenko and Nezdojminogo, 1989; <sup>3</sup>Kovalenko, 1989; <sup>3</sup>Kovalenko, 1995; <sup>3</sup>Azbukina et al., 2006; <sup>1</sup>Bau, Bulakh, and Govorova, 2011).

***Hygrocybe murinacea* (Bull.) M.M. Moser**

EASTERN EUROPE: **Karelia** (Krutov et al., 2014); **Moscow Oblast** (Gorlenko, Sidorova, and Sidorova, 1989).

***Hygrocybe nigrescens* (Quél.) Kühner<sup>1</sup>**

≡ *Hygrophorus nigrescens* (Quél.) Quél.<sup>2</sup>

EASTERN EUROPE: **Belgorod Oblast** (<sup>1</sup>Bedenko, 1980); **Kaliningrad Oblast** (<sup>1</sup>Dedkov, Volodina, and Gubareva, 2007); **Kaluga Oblast** (<sup>1</sup>Sionova, 2003); **Karelia** (<sup>1</sup>Bondartseva et al., 2001; <sup>1</sup>Predtechenskaya, 2013; <sup>1</sup>Krutov et al., 2014; <sup>1</sup>Predtechenskaya, 2015); **Krasnodar Krai** (<sup>1</sup>Kovalenko, 1980a; <sup>1</sup>Kovalenko, 1980b); **Moscow Oblast** (<sup>1</sup>Gorlenko, Sidorova, and Sidorova, 1989); **Penza Oblast** (<sup>1</sup>Ivanov, 1982); **Tatarstan** (<sup>1</sup>Vassiljeva, 1977; <sup>1</sup>Shchepovskih, Bojko, Gorshkov, and Rogova, 2006; <sup>1</sup>Potapov, 2015b; <sup>1</sup>Potapov, 2016a); **Vologda Oblast** (<sup>2</sup>Kutova, 1957).

SIBERIA: **Irkutsk Oblast** (<sup>1</sup>Petrov, 1984; <sup>1</sup>Petrov, 1989); **Khakassia** (<sup>1</sup>Beglyanova, 1972a; <sup>1</sup>Zauzolkova, 2015); **Krasnoyarsk Krai** (<sup>1</sup>Beglyanova, 1972a; <sup>1</sup>Zauzolkova, 2015).

FAR EAST: **Khabarovsk Krai** (<sup>1</sup>Azbukina et al., 1986).

***Hygrocybe nitrata* (Pers.) Wünsche<sup>1</sup>**

≡ *Camarophyllus nitratus* (Pers.) Ricken<sup>2</sup> ≡ *Hygrophorus nitratus* (Pers.) Fr.<sup>3</sup> ≡ *Neohygrocybe nitrata* (Pers.) Kovalenko<sup>4</sup>

EASTERN EUROPE: **Krasnodar Krai** (<sup>2</sup>Vassiljeva, 1939); **Leningrad Oblast** (<sup>1</sup>Thesleff, 1920; <sup>4</sup>Kovalenko and Morozova, 1999a; <sup>4</sup>Tzvelev, 2000; <sup>1</sup>Popov et al., 2007; <sup>1</sup>Geltman et al., 2018; <sup>1</sup>Geltman, 2018b); **Murmansk Oblast** (<sup>3</sup>Pystina, Pavlova, and Shestakova, 1969); **Pskov Oblast** (<sup>4</sup>Popov et al., 2013); **Saint Petersburg** (<sup>4</sup>Morozova and Kovalenko, 2000; <sup>4</sup>Kotkova, Morozova, and Popov, 2006); **Arid territories** (<sup>4</sup>Rebriev, Rusanov, et al., 2012).

SIBERIA: **Krasnoyarsk Krai** (<sup>1</sup>Beglyanova, 1972a; <sup>4</sup>Kovalenko, 1989; <sup>4</sup>Kovalenko, 1995).

***Hygrocybe obrussea* (Fr.) Wünsche<sup>1</sup>**

≡ *Hygrophorus obrusseus* (Fr.) Sacc.<sup>2</sup> ≡ *Pseudohygrocybe obrussea* (Fr.) Kovalenko<sup>3</sup>

EASTERN EUROPE: **Lipetsk Oblast** (<sup>3</sup>Sarycheva, 2016); **Moscow** (<sup>2</sup>Bucholtz, 1897b; <sup>2</sup>Bucholtz, 1897c; <sup>2</sup>Mosolov, 1906).

SIBERIA: **Tomsk Oblast** (<sup>3</sup>Kudashova, Gashkov, and Kutafjeva, 2013).

FAR EAST: **Khabarovsk Krai** (<sup>1</sup>Erofeeva and Bulakh, 2016); **Primorsky Krai** (<sup>1</sup>Vassiljeva, 1972; <sup>1</sup>Vassiljeva, 1973; <sup>1</sup>Bulakh, 1977; <sup>1</sup>Bunkina and Nazarova, 1978; <sup>1</sup>Azbukina et al., 1984; <sup>3</sup>Kovalenko, 1989; <sup>3</sup>Azbukina et al., 1990; <sup>3</sup>Kovalenko, 1995; <sup>3</sup>Bardunov et al., 2002; <sup>3</sup>Azbukina et al., 2006).

***Hygrocybe ovina* (Bull.) Kühner<sup>1</sup>**

≡ *Neohygrocybe ovina* (Bull.) Herink<sup>2</sup> = *Hygrocybe nitiosa* (A. Blytt) M.M. Moser<sup>3</sup>

EASTERN EUROPE: **Sverdlovsk Oblast** (<sup>1</sup>Stepanova and Sirko, 1977; <sup>2</sup>Kovalenko, 1989; <sup>2</sup>Kovalenko, 1995); **Tula Oblast** (<sup>2</sup>Svetasheva, 2004; <sup>2</sup>Shcherbakov, 2010).

SIBERIA: **Altai Krai** (<sup>1</sup>Gorbunova, 2018a).

FAR EAST: **Primorsky Krai** (<sup>3</sup>Vassiljeva, 1973).

***Hygrocybe parvula* (Peck) Murrill<sup>1</sup>**

≡ *Pseudohygrocybe parvula* (Peck) Kovalenko<sup>2</sup>

EASTERN EUROPE: **Leningrad Oblast** (<sup>2</sup>Kovalenko, 1989; <sup>2</sup>Kovalenko, 1995; <sup>2</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Popov et al., 2007); **Lipetsk Oblast** (<sup>2</sup>Sarycheva et al., 2009; <sup>2</sup>Shcherbakov, 2014); **Penza Oblast** (<sup>1</sup>Ivanov, 1982; <sup>2</sup>Kovalenko, 1989; <sup>2</sup>Kovalenko, 1995).

SIBERIA: **Altai Republic** (<sup>2</sup>Gorbunova, 2001b; <sup>2</sup>Perova and Gorbunova, 2001); **Krasnoyarsk Krai** (<sup>1,2</sup>Kosheleva and Kutafjeva, 2008a).

FAR EAST: **Amur Oblast** (<sup>2</sup>Azbukina et al., 1998); **Khabarovsk Krai** (<sup>1</sup>Azbukina et al., 1986; <sup>1</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Erofeeva and Bulakh, 2015a); **Primorsky Krai** (<sup>1</sup>Vassiljeva, 1973; <sup>1</sup>Bunkina and Nazarova, 1978; <sup>2</sup>Kovalenko and Nezdoinog, 1989; <sup>2</sup>Kovalenko, 1989; <sup>2</sup>Azbukina et al., 1990; <sup>2</sup>Kovalenko, 1995; <sup>2</sup>Bardunov et al., 2002; <sup>2</sup>Azbukina et al., 2006; <sup>1</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Bulakh et al., 2016).

***Hygrocybe phaeococcinea* (Arnolds) Bon<sup>1</sup>**

≡ *Pseudohygrocybe phaeococcinea* (Arnolds) Kovalenko<sup>2</sup>

EASTERN EUROPE: **Leningrad Oblast** (<sup>2</sup>Kovalenko, 1989; <sup>2</sup>Kovalenko, 1995; <sup>2</sup>Kovalenko and Morozova, 1999a; <sup>2</sup>Tzvelev, 2000; <sup>1</sup>Popov et al., 2007; <sup>1</sup>Geltman et al., 2018; <sup>1</sup>Geltman, 2018b); **Moscow Oblast** (<sup>2</sup>Levitskaya, 1995a; <sup>2</sup>Levitskaya, 2013); **Pskov Oblast** (<sup>2</sup>Kolmakov and Popov, 2005; <sup>2</sup>Popov et al., 2013).

SIBERIA: **Altai Republic** (<sup>1</sup>Gorbunova, 2008; <sup>1</sup>Gorbunova, 2017b); **Khanty-Mansi Autonomous Okrug** (<sup>2</sup>Filippova, 2009).

***Hygrocybe procera* (G. Stev.) E. Horak<sup>1</sup>**

≡ *Pseudohygrocybe procera* (G. Stev.) Kovalenko<sup>2</sup>

FAR EAST: **Jewish Autonomous Oblast** (<sup>1</sup>Erofeeva and Bulakh, 2015b); **Primorsky Krai** (<sup>2</sup>Kovalenko and Nezdoinog, 1989; <sup>2</sup>Kovalenko, 1989; <sup>2</sup>Kovalenko, 1995).

***Hygrocybe punicea* (Fr.) P. Kumm.<sup>1</sup>**

≡ *Hygrophorus puniceus* (Fr.) Fr.<sup>2</sup> ≡ *Pseudohygrocybe punicea* (Fr.) Kovalenko<sup>3</sup>

EASTERN EUROPE: **Adygea** (<sup>3</sup>Sopina, 2004b; <sup>1</sup>Zamotajlov, Sirotyuk (Kuvaeva), Akatova, and Lipka, 2012); **Bryansk Oblast** (<sup>2</sup>Kruglikov, 2007); **Kabardino-Balkarian Republic** (<sup>1</sup>Shkhagapsoev and Krapivina, 2004); **Kaliningrad Oblast** (<sup>3</sup>Dedkov, Volodina, and Gubareva, 2007; <sup>3</sup>Dedkov and Grishanov, 2010); **Karelia** (<sup>1</sup>Bondartseva et al., 2001; <sup>1</sup>Krutov et al., 2014); **Leningrad Oblast** (<sup>3</sup>Kovalenko, 1989; <sup>3</sup>Kovalenko, 1995; <sup>3</sup>Kovalenko and Morozova, 1999a; <sup>3</sup>Tzvelev, 2000; <sup>1</sup>Popov et al., 2007; <sup>1</sup>Geltman et al., 2018; <sup>1</sup>Geltman, 2018b); **Novgorod Oblast** (<sup>1</sup>Arslanov, 2012; <sup>1</sup>Morozova, 2012; <sup>1</sup>Popov et al., 2013; <sup>1</sup>Vetkin et al., 2015); **Sverdlovsk Oblast** (<sup>3</sup>Marina, 2006; <sup>1</sup>Korytin, 2018); **Vologda Oblast** (<sup>3</sup>Kovalenko, 1989; <sup>3</sup>Kovalenko, 1995).

SIBERIA: **Altai Krai** (<sup>1</sup>Gorbunova, 2018a); **Altai Republic** (<sup>1</sup>Svetasheva et al., 2019); **Irkutsk Oblast** (<sup>1</sup>Petrov, 1984; <sup>3</sup>Kovalenko, 1989; <sup>3</sup>Petrov, 1991; <sup>3</sup>Kovalenko, 1995; <sup>3</sup>Petrov, 2008); **Khakassia** (<sup>1</sup>Beglyanova, 1972a; <sup>1</sup>Zauzolkova, 2015); **Krasnoyarsk Krai** (<sup>1</sup>Beglyanova, 1972a; <sup>3</sup>Kovalenko, 1989; <sup>3</sup>Kovalenko, 1995).

FAR EAST: **Jewish Autonomous Oblast** (<sup>1</sup>Erofeeva and Bulakh, 2015b); **Khabarovsk Krai** (<sup>1</sup>Erofeeva and Bulakh, 2015a); **Primorsky Krai** (<sup>1</sup>Vassiljeva, 1973; <sup>3</sup>Kovalenko, 1989; <sup>3</sup>Kovalenko, 1995).

***Hygrocybe quieta* (Kühner) Singer**

EASTERN EUROPE: **Komi Republic** (Palamarchuk, 2016a; Palamarchuk, 2016b).

SIBERIA: **Novosibirsk Oblast** (Gorbunova, 2007); **Tomsk Oblast** (Perova and Gorbunova, 2001).

FAR EAST: **Khabarovsk Krai** (Azbukina et al., 1986; Bau, Bulakh, and Govorova, 2011); **Primorsky Krai** (Vassiljeva, 1973; Bulakh et al., 2016).

***Hygrocybe reidii* Kühner**

EASTERN EUROPE: **Komi Republic** (Palamarchuk, 2016a; Palamarchuk, 2016b; Palamarchuk and Kirillov, 2017); **Krasnodar Krai** (Kiyashko, 2009).

SIBERIA: **Altai Krai** (Gorbunova, 2018a); **Khanty-Mansi Autonomous Okrug** (Filippova and Bulyonkova, 2017a; Filippova and Bulyonkova, 2017b).

***Hygrocybe riparia* Kreisel**

EASTERN EUROPE: **Murmansk Oblast** (Mikhailovskii, 1975a; Mikhailovskii, 1975b).

***Hygrocybe spadicea* (Scop.) P. Karst.<sup>1</sup>**

≡ *Hygrophorus spadiceus* (Scop.) Fr.<sup>2</sup>

SIBERIA: **Altai Republic** (<sup>1</sup>Gorbunova, 2017a); **Krasnoyarsk Krai** (<sup>1</sup>Beglyanova, 1972a; <sup>2</sup>Beglyanova, 1972b; <sup>1</sup>Kovalenko, 1989; <sup>1</sup>Kovalenko, 1995).

***Hygrocybe subminutula* Murrill<sup>1</sup>**

≡ *Gliophorus subminutulus* (Murrill) Kovalenko<sup>2</sup>

EASTERN EUROPE: **Krasnodar Krai** (<sup>2</sup>Kiyashko, 2009); **Leningrad Oblast** (<sup>2</sup>Kovalenko, 1989; <sup>2</sup>Kovalenko, 1995; <sup>2</sup>Kovalenko and Morozova, 1999a; <sup>2</sup>Tzvelev, 2000; <sup>2</sup>Malysheva and Malysheva, 2005a; <sup>1</sup>Popov et al., 2007; <sup>1</sup>Zmitrovich et al., 2015; <sup>1</sup>Geltman et al., 2018; <sup>1</sup>Geltman, 2018b); **Tula Oblast** (<sup>2</sup>Shcherbakov, 2010); **Tver Oblast** (<sup>1</sup>Morozova, Aleksandrova, Popov, and Malysheva, 2016).

SIBERIA: **Irkutsk Oblast** (<sup>2</sup>Kovalenko, 1989; <sup>2</sup>Astapenko and Kutafjeva, 1990; <sup>2</sup>Kovalenko, 1995); **Krasnoyarsk Krai** (<sup>1</sup>Krom and Kapitonov, 2019).

FAR EAST: **Primorsky Krai** (<sup>2</sup>Kovalenko and Nezdoininogo, 1989; <sup>2</sup>Kovalenko, 1989; <sup>2</sup>Kovalenko, 1995).

***Hygrocybe substrangulata* (P.D. Orton) P.D. Orton & Watling<sup>1</sup>**

≡ *Hygrocybe substrangulata* var. *substrangulata* (P.D. Orton) P.D. Orton & Watling<sup>2</sup> ≡ *Pseudohygrocybe substrangulata* (P.D. Orton) Kovalenko<sup>3</sup>

EASTERN EUROPE: **Komi Republic** (<sup>1</sup>Palamarchuk, 2016a; <sup>1</sup>Palamarchuk, 2016b); **Yamalo-Nenets Autonomous Okrug** (<sup>1</sup>Karatygin, Nezdoininogo, Novozhilov, and Zhurbenko, 1999; <sup>3</sup>Kovalenko, 1999; <sup>2</sup>Borgen and Ohenoja, 2013).

***Hygrocybe swanetica* Singer<sup>1</sup>**

≡ *Pseudohygrocybe swanetica* (Singer) Kovalenko<sup>2</sup>

EASTERN EUROPE: **Adygea** (<sup>1</sup>Zamotajlov, Sirotyuk (Kuvaeva), Akatova, and Lipka, 2012); **Karachay-Cherkess Republic** (<sup>1</sup>Vassiljeva, 1939; <sup>1</sup>Onipchenko et al., 2013; <sup>1</sup>Morozova and Popov, 2014); **Krasnodar Krai** (<sup>1</sup>Vassiljeva, 1939; <sup>1</sup>Kovalenko, 1980a; <sup>1</sup>Kovalenko, 1980b; <sup>2</sup>Kovalenko, 1989; <sup>2</sup>Kovalenko, 1995; <sup>2</sup>Litvinskaya, 2007; <sup>1</sup>Litvinskaya, 2017).

FAR EAST: **Amur Oblast** (<sup>2</sup>Kovalenko, 1989; <sup>2</sup>Kovalenko, 1995; <sup>2</sup>Azbukina et al., 1998); **Jewish Autonomous Oblast** (<sup>2</sup>Bulakh, Govorova, Nazarova, and Vassiljeva, 2007; <sup>1</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Erofeeva and Bukharova, 2019); **Primorsky Krai** (<sup>1</sup>Vassiljeva, 1973; <sup>1</sup>Bunkina and Nazarova, 1978; <sup>2</sup>Kovalenko and Nezdoininogo, 1989; <sup>2</sup>Kovalenko, 1989; <sup>2</sup>Azbukina et al., 1990; <sup>2</sup>Kovalenko, 1995; <sup>2</sup>Bardunov et al., 2002; <sup>2</sup>Azbukina et al., 2006; <sup>1</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Bulakh et al., 2016); **Sakhalin Oblast** (<sup>1</sup>Vassiljeva and Nazarova, 1972; <sup>2</sup>Kovalenko, 1989; <sup>2</sup>Kovalenko, 1995).

***Hygrocybe turunda* (Fr.) P. Karst.<sup>1</sup>**

≡ *Hygrophorus turundus* (Fr.) Fr.<sup>2</sup> ≡ *Pseudohygrocybe turunda* (Fr.) Kovalenko<sup>3</sup>

EASTERN EUROPE: **Adygea** (<sup>3</sup>Sopina, 2004b); **Kaluga Oblast** (<sup>1</sup>Sionova, 2009; <sup>3</sup>Sionova, 2012; <sup>1</sup>Antokhina et al., 2015); **Karelia** (<sup>1</sup>Freindling, 1949; <sup>3</sup>Kovalenko, 1989; <sup>3</sup>Kovalenko, 1995; <sup>3</sup>Bondartseva et al., 2001; <sup>1</sup>Krutov et al., 2014; <sup>1</sup>Predtechenskaya and Ruokolainen, 2014); **Leningrad Oblast** (<sup>3</sup>Kovalenko, 1989; <sup>3</sup>Kovalenko, 1995; <sup>3</sup>Kovalenko and Morozova, 1999a; <sup>3</sup>Morozova, 2005; <sup>1</sup>Popov et al., 2007; <sup>1</sup>Zmitrovich et al., 2015); **Murmansk Oblast** (<sup>2</sup>Pystina, Pavlova, and Shestakova, 1969; <sup>3</sup>Kovalenko, 1989; <sup>3</sup>Kovalenko, 1995; <sup>1</sup>Nezdoininogo, 1997b; <sup>1</sup>Karatygin, Nezdoininogo, Novozhilov, and Zhurbenko, 1999; <sup>3</sup>Kovalenko, 1999); **Saint Petersburg** (<sup>1</sup>Morozova, Kovalenko, Rebriev, and Malysheva, 2014); **Tula Oblast** (<sup>3</sup>Svetasheva, 2004; <sup>3</sup>Svetasheva, 2005b; <sup>3</sup>Shcherbakov, 2010).

SIBERIA: **Sakha Republic** (<sup>3</sup>Kovalenko, 1989; <sup>3</sup>Kovalenko, 1995).

FAR EAST: **Magadan Oblast** (<sup>1</sup>Nazarova, 1976; <sup>3</sup>Kovalenko, 1989; <sup>3</sup>Kovalenko, 1995; <sup>3</sup>Sazanova, 2005; <sup>1</sup>Sazanova, 2009a); **Primorsky Krai** (<sup>1</sup>Vassiljeva, 1973; <sup>3</sup>Kovalenko, 1989; <sup>3</sup>Kovalenko, 1995).

***Hygrophoropsis aurantiaca* (Wulfen) Maire<sup>1</sup>**≡ *Cantharellus aurantiacus* (Wulfen) Fr.<sup>2</sup> ≡ *Clitocybe aurantiaca* (Wulfen) Stud.-Steinh.<sup>3</sup>

EASTERN EUROPE: **Adygea** (<sup>3</sup>Vassiljeva, 1939; <sup>1</sup>Kovalenko, 1980b); **Arkhangelsk Oblast** (<sup>2</sup>Lebedeva, 1933); **Belgorod Oblast** (<sup>1</sup>Bedenko, 1979a); **Bryansk Oblast** (<sup>3</sup>Kruglikov, 2007); **Chechen Republic** (<sup>3</sup>Taysumov, Krapivina, and Kushalieva, 2016); **Chelyabinsk Oblast** (<sup>3</sup>Aleksandrovskaya and Lobanova, 1968); **Crimea** (<sup>2</sup>Zerova, 1962; <sup>3</sup>Sarkina, 2001; <sup>1</sup>Dudka et al., 2004; <sup>1</sup>Sarkina, 2011; <sup>1</sup>Sarkina and Prydiuk, 2012); **Kabardino-Balkarian Republic** (<sup>1</sup>Shkhagapsoev and Krapivina, 2003; <sup>1,3</sup>Shkhagapsoev and Krapivina, 2004); **Kaliningrad Oblast** (<sup>1</sup>Dedkov, Volodina, and Gubareva, 2007; <sup>1</sup>Volodina, 2007); **Kaluga Oblast** (<sup>1</sup>Sionova, 2003; <sup>1</sup>Sionova, 2006); **Karachay-Cherkess Republic** (<sup>1</sup>Kalamees and Botashev, 2000); **Karelia** (<sup>3</sup>Freindling, 1949; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdoininogo, 1990; <sup>1</sup>Kovalenko, Morozova, Fomina, and Särkisilta, 1998; <sup>1</sup>Bondartseva et al., 2001; <sup>1</sup>Psurtseva, Kiyashko, Gachkova, and Belova, 2007; <sup>1</sup>Predtechenskaya and Ruokolainen, 2013; <sup>1</sup>Krutov et al., 2014; <sup>1</sup>Predtechenskaya and Ruokolainen, 2014; <sup>1</sup>Predtechenskaya, 2015; <sup>1</sup>Savelev and Kikeeva, 2018); **Kirov Oblast** (<sup>1</sup>Kirillov and Luginina, 2011; <sup>1</sup>Kirillov, 2011; <sup>1</sup>Kirillov, Perevedentseva, and Egoshina, 2011; <sup>1</sup>Stavishenko, Luginina, Kirillov, and Egoshina, 2019); **Komi Republic** (<sup>1</sup>Bobretsova, 2004; <sup>1</sup>Palamarchuk, 2012; <sup>1</sup>Palamarchuk and Kirillov, 2017); **Kostroma Oblast** (<sup>1</sup>Burova, 1982); **Krasnodar Krai** (<sup>3</sup>Vassiljeva, 1939; <sup>1</sup>Kovalenko, 1980a; <sup>1</sup>Vaasma, Kalamees, and Raitviir, 1986; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdoininogo, 1990; <sup>1</sup>Sopina, 2001a); **Kursk Oblast** (<sup>3</sup>Ryabova and Ignatenko, 1981; <sup>1</sup>Soshnina, 2001; <sup>1</sup>Soshnina, 2005); **Leningrad Oblast** (<sup>2</sup>Thesleff, 1920; <sup>1</sup>Kalamees and Kovalenko, 1984; <sup>1</sup>Stolyarskaya, 1989; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdoininogo, 1990; <sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Morozova and Kovalenko, 2000; <sup>1</sup>Morozova, 2007; <sup>1</sup>Popov et al., 2007; <sup>1</sup>Psurtseva, Kiyashko, Gachkova, and Belova, 2007; <sup>1</sup>Zmitrovich et al., 2015; <sup>1</sup>Malysheva, Malysheva, Shchepin, and Novozhilov, 2018); **Lipetsk Oblast** (<sup>1</sup>Rtishcheva, 1999; <sup>1</sup>Afanasyev, Rtishcheva, and Starodubtseva, 2007; <sup>1</sup>Sarycheva et al., 2009; <sup>1</sup>Sarycheva, 2011; <sup>1</sup>Sarycheva, 2014a; <sup>1</sup>Sarycheva, 2016; <sup>1</sup>Sarycheva, Starodubtseva, and Sapelnikova, 2017); **Mordovia** (<sup>3</sup>Kuznetsov, 1960; <sup>1</sup>Ivoilov and Bolshakov, 2011b); **Moscow Oblast** (<sup>1</sup>Gorlenko, Sidorova, and Sidorova, 1989; <sup>1</sup>Levitskaya, 1995b; <sup>1</sup>Levitskaya, 2013; <sup>1</sup>Voronina et al., 2014); **Murmansk Oblast** (<sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdoininogo, 1990); **North Ossetia** (<sup>1</sup>Nikolayev, 2001); **Novgorod Oblast** (<sup>1</sup>Malysheva, Malysheva, and Zmitrovich, 2007); **Orenburg Oblast** (<sup>1</sup>Desyatova, 2008); **Penza Oblast** (<sup>1</sup>Ivanov, 1981a; <sup>1</sup>Ivanov, 1981b); **Perm Krai** (<sup>1</sup>Perevedentseva, 2008; <sup>1</sup>Belkovskaya et al., 2014; <sup>1</sup>Botalov, 2017); **Pskov Oblast** (<sup>1</sup>Popov et al., 2013); **Rostov Oblast** (<sup>1</sup>Morozova et al., 2008); **Ryazan Oblast** (<sup>1</sup>Volosnova, 1997; <sup>1</sup>Volosnova, 2014); **Saint Petersburg** (<sup>2</sup>Weinmann, 1828; <sup>2</sup>Weinmann, 1836; <sup>2</sup>Weinmann, 1837; <sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Morozova and Smirnov, 2011; <sup>1</sup>Morozova et al., 2020); **Samara Oblast** (<sup>1</sup>Malysheva and Malysheva, 2005b; <sup>1</sup>Malysheva and Malysheva, 2008); **Sverdlovsk Oblast** (<sup>1</sup>Stepanova and Sirko, 1977; <sup>1</sup>Marina, 2006); **Tatarstan** (<sup>1</sup>Vassiljeva, 1977; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdoininogo, 1990); **Tula Oblast** (<sup>1</sup>Svetasheva, 2001; <sup>1</sup>Svetasheva, 2004); **Tver Oblast** (<sup>1</sup>Kurochkin, 1993; <sup>1</sup>Kotkova, 2014); **Udmurt Republic** (<sup>1</sup>Tychinin and Kuzmina, 2003); **Ulyanovsk Oblast** (<sup>1</sup>Ilyukhin, 2010a); **Vologda Oblast** (<sup>3</sup>Kutova, 1957; <sup>1</sup>Kirillova, 2007); **Voronezh Oblast** (<sup>1</sup>Rtishcheva, 1999; <sup>1</sup>Afanasyev, Rtishcheva, and Starodubtseva, 2007; <sup>1</sup>Sarycheva, Starodubtseva, and Sapelnikova, 2017); **Yaroslavl Oblast** (<sup>1</sup>Lazareva, 1997; <sup>1</sup>Lazareva, 1998a); **Arid territories** (<sup>1</sup>Rebriev, Rusanov, et al., 2012).

SIBERIA: **Altai Republic** (<sup>1</sup>Gorbunova, 2001b; <sup>1</sup>Perova and Gorbunova, 2001); **Buryatia** (<sup>1</sup>Nezdoininogo, 1973); **Irkutsk Oblast** (<sup>1</sup>Kutafjeva, 1982; <sup>1</sup>Petrov, 1984; <sup>1</sup>Petrov, 1989; <sup>1</sup>Astapenko, 1990a; <sup>1</sup>Muzyka, 2002; <sup>1</sup>Bardunov et al., 2005; <sup>1</sup>Petrov, 2008; <sup>1</sup>Muzyka, 2009); **Khanty-Mansi Autonomous Okrug** (<sup>1</sup>Zvyagina, Baykalova, and Gorbunova, 2007); **Krasnoyarsk Krai** (<sup>1</sup>Beglyanova, 1972a; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdoininogo, 1990; <sup>1</sup>Zauzolkova, 2015; <sup>1</sup>Krom and Kapitonov, 2019); **Novosibirsk Oblast** (<sup>1</sup>Perova and Gorbunova, 2001; <sup>1</sup>Gorbunova, 2007; <sup>1</sup>Perova and Gorbunova, 2007); **Tomsk Oblast** (<sup>1</sup>Milovidova, 1980; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdoininogo, 1990; <sup>1</sup>Perova and Gorbunova, 2001; <sup>1</sup>Kudashova, Gashkov, and Kutafjeva, 2013; <sup>1</sup>Vaishlya et al., 2017); **Zabaykalsky Krai** (<sup>2</sup>Karsten, 1906); **Sayans** (<sup>2</sup>Pilát, 1934).

FAR EAST: **Amur Oblast** (<sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdoininogo, 1990; <sup>1</sup>Azbukina et al., 1998); **Khabarovsk Krai** (<sup>1</sup>Azbukina et al., 1986; <sup>1</sup>Azbukina et al., 1989; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdoininogo, 1990; <sup>1</sup>Bulakh, Vassiljeva, and Erofeeva, 2010; <sup>1</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Bulakh, 2013; <sup>1</sup>Bogacheva, Bulakh, Bukharova, and Egorova, 2015; <sup>1</sup>Erofeeva and Bulakh, 2015a); **Primorsky Krai** (<sup>1</sup>Vassiljeva, 1972; <sup>1</sup>Vassiljeva, 1973; <sup>1</sup>Shalapugina, 1976; <sup>1</sup>Bunkina and Nazarova, 1978; <sup>1</sup>Azbukina et al., 1984; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdoininogo, 1990; <sup>1</sup>Azbukina et al., 2006; <sup>1</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Bulakh et al., 2016); **Sakhalin Oblast** (<sup>1</sup>Vassiljeva and Nazarova, 1972; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdoininogo, 1990).

***Hygrophoropsis fuscusquamula* P.D. Orton**EASTERN EUROPE: **Leningrad Oblast** (Popov et al., 2007); **Saint Petersburg** (Morozova and Smirnov, 2011).

***Hygrophoropsis macrospora* (D.A. Reid) Kuyper<sup>1</sup>**= *Hygrophoropsis pallida* (Peck) Kreisel<sup>2</sup>

EASTERN EUROPE: **Komi Republic** (<sup>1</sup>Palamarchuk and Kirillov, 2017); **Leningrad Oblast** (<sup>2</sup>Kovalenko and Morozova, 1999a; <sup>2</sup>Morozova, 1999; <sup>2</sup>Popov et al., 2007); **Moscow Oblast** (<sup>2</sup>Levitskaya, 1995c; <sup>2</sup>Levitskaya, 2013; <sup>1</sup>Varlygina, Zubakin, Nikitsky, and Sviridov, 2018); **Novgorod Oblast** (<sup>1</sup>Svetasheva et al., 2017); **Perm Krai** (<sup>2</sup>Perevedentseva, 2008); **Saint Petersburg** (<sup>2</sup>Kovalenko and Morozova, 1999a; <sup>2</sup>Morozova and Smirnov, 2011); **Tver Oblast** (<sup>2</sup>Morozova, Aleksandrova, Popov, and Malysheva, 2016); **Yaroslavl Oblast** (<sup>2</sup>Lazareva, 1998a; <sup>2</sup>Lazareva, 1998b).

SIBERIA: **Irkutsk Oblast** (<sup>2</sup>Astapenko and Kutafjeva, 1990); **Krasnoyarsk Krai** (<sup>2</sup>Krom and Kapitonov, 2019); **Tomsk Oblast** (<sup>2</sup>Vaishlya et al., 2017).

***Hygrophoropsis rufa* (D.A. Reid) Knudsen**

EASTERN EUROPE: **Leningrad Oblast** (Volobuev et al., 2019); **Novgorod Oblast** (Kovalenko, Morozova, Nezdojminogo, and Popov, 2005 [as *Hygrophoropsis fuscusquamula* P.D. Orton, redet. in Volobuev et al., 2019]; Popov et al., 2013 [as *Hygrophoropsis fuscusquamula* P.D. Orton, redet. in Volobuev et al., 2019]; Volobuev et al., 2019); **Vologda Oblast** (Bolshakov et al., 2018).

***Hygrophorus agathosmus* (Fr.) Fr.<sup>1</sup>**≡ *Limacium agathosmum* (Fr.) Wünsche<sup>2</sup> = *Hygrophorus agathosmus* f. *albus* Candusso<sup>3</sup> = *Hygrophorus hyacinthinus* Quél.<sup>4</sup>

EASTERN EUROPE: **Adygea** (<sup>1</sup>Vaasma, Kalamees, and Raitviir, 1986); **Crimea** (<sup>1</sup>Sarkina, 2001; <sup>1</sup>Dudka et al., 2004; <sup>1</sup>Sarkina and Prydiuk, 2012); **Kabardino-Balkarian Republic** (<sup>1</sup>Shkhagapsoev and Krapivina, 2003; <sup>1</sup>Shkhagapsoev and Krapivina, 2004); **Kaliningrad Oblast** (<sup>1</sup>Dedkov, Volodina, and Gubareva, 2007; <sup>1</sup>Volodina, 2007); **Karachay-Cherkess Republic** (<sup>1</sup>Kalamees and Botashev, 2000); **Karelia** (<sup>1</sup>Bondartseva et al., 2001; <sup>1</sup>Predtechenskaya, 2013; <sup>1</sup>Krutov et al., 2014; <sup>1</sup>Predtechenskaya and Ruokolainen, 2014; <sup>1</sup>Predtechenskaya, 2015); **Kirov Oblast** (<sup>1</sup>Kirillov, 2011; <sup>1</sup>Kirillov, Perevedentseva, and Egoshina, 2011); **Komi Republic** (<sup>1</sup>Palamarchuk, 2020b); **Leningrad Oblast** (<sup>1</sup>Thesleff, 1920; <sup>1,4</sup>Kovalenko, 1989; <sup>1</sup>Stolyarskaya, 1993; <sup>1,4</sup>Kovalenko, 1995; <sup>1,4</sup>Kovalenko and Morozova, 1999a; <sup>4</sup>Tzvelev, 2000; <sup>1,4</sup>Popov et al., 2007; <sup>1</sup>Zmitrovich et al., 2015; <sup>4</sup>Geltman et al., 2018; <sup>4</sup>Geltman, 2018b); **Lipetsk Oblast** (<sup>1</sup>Sarycheva, 1999; <sup>1</sup>Sarycheva et al., 2009; <sup>1</sup>Sarycheva, 2011; <sup>1</sup>Sarycheva, 2014a; <sup>1</sup>Sarycheva, 2016); **Mordovia** (<sup>1</sup>Kovalenko, 1989; <sup>1</sup>Kovalenko, 1995; <sup>1</sup>Ivoilov and Bolshakov, 2011a); **Moscow** (<sup>2</sup>Bucholtz, 1897b; <sup>2</sup>Bucholtz, 1897c; <sup>2</sup>Mosolov, 1906); **Moscow Oblast** (<sup>1</sup>Kovalenko, 1989; <sup>1</sup>Kovalenko, 1995; <sup>1</sup>Levitskaya, 1995a; <sup>1,4</sup>Levitskaya, 2013); **Murmansk Oblast** (<sup>4</sup>Mikhailovskii, 1975a; <sup>4</sup>Kovalenko, 1989; <sup>4</sup>Kovalenko, 1995; <sup>4</sup>Kovalenko, 1999); **Perm Krai** (<sup>1</sup>Perevedentseva, 2008); **Rostov Oblast** (<sup>1</sup>Morozova et al., 2008); **Sverdlovsk Oblast** (<sup>1</sup>Stepanova and Sirko, 1977; <sup>1</sup>Kovalenko, 1989; <sup>1</sup>Kovalenko, 1995; <sup>1</sup>Marina, 2006); **Tatarstan** (<sup>1</sup>Vassiljeva, 1977; <sup>1</sup>Kovalenko, 1989; <sup>1</sup>Kovalenko, 1995); **Tula Oblast** (<sup>1</sup>Svetasheva, 2004; <sup>1</sup>Shcherbakov, 2010); **Udmurt Republic** (<sup>1</sup>Tychinin, 1990; <sup>1</sup>Tychinin and Kuzmina, 2003); **Vologda Oblast** (<sup>1</sup>Kutova, 1957; <sup>1</sup>Kovalenko, 1989; <sup>1</sup>Kovalenko, 1995; <sup>1</sup>Kirillova, 2006; <sup>1</sup>Kirillova, 2007); **Voronezh Oblast** (<sup>1</sup>Bedenko, 1985; <sup>1</sup>Kovalenko, 1989; <sup>1</sup>Kovalenko, 1995); **Arid territories** (<sup>1</sup>Rebriev, Rusanov, et al., 2012).

SIBERIA: **Altai Krai** (<sup>1</sup>Gorbunova, 2018a); **Buryatia** (<sup>1</sup>Heklau and Dörfelt, 2017); **Irkutsk Oblast** (<sup>1</sup>Kutafjeva, 1983; <sup>1</sup>Petrov, 1984; <sup>4</sup>Kutafjeva and Astapenko, 1988; <sup>1,4</sup>Kovalenko, 1989; <sup>1</sup>Petrov, 1989; <sup>1,4</sup>Astapenko, 1990b; <sup>1</sup>Petrov, 1991; <sup>1,4</sup>Kovalenko, 1995; <sup>1</sup>Muzyka, 2002; <sup>1</sup>Petrov, 2008; <sup>1</sup>Muzyka, 2009; <sup>1</sup>Gorbunova and Stepanтова, 2015; <sup>1</sup>Heklau and Dörfelt, 2017; <sup>1</sup>Muzyka and Penzina, 2017); **Khakassia** (<sup>1</sup>Beglyanova, 1972a); **Khanty-Mansi Autonomous Okrug** (<sup>1</sup>Filippova, Bulyonkova, and Lapshina, 2015; <sup>1</sup>Zvyagina and Baykalova, 2017); **Krasnoyarsk Krai** (<sup>1</sup>Perova, 1970; <sup>1</sup>Beglyanova, 1972a; <sup>1</sup>Kovalenko, 1989; <sup>1</sup>Kovalenko, 1995; <sup>1</sup>Pavlov et al., 2007; <sup>1</sup>Zauzolkova, 2015; <sup>3</sup>Krom and Kapitonov, 2019); **Sakha Republic** (<sup>1</sup>Kovalenko, 1989; <sup>1</sup>Kovalenko, 1995); **Tomsk Oblast** (<sup>1</sup>Perova, 1972; <sup>1</sup>Kovalenko, 1989; <sup>1</sup>Perova and Gorbunova, 2001; <sup>1</sup>Kudashova, Gashkov, and Kutafjeva, 2013; <sup>1</sup>Vaishlya et al., 2017).

FAR EAST: **Khabarovsk Krai** (<sup>1</sup>Azbukina et al., 1989; <sup>1</sup>Bulakh, Vassiljeva, and Erofeeva, 2010; <sup>1</sup>Bulakh, 2013; <sup>1</sup>Bogacheva, Bulakh, Bukharova, and Egorova, 2015); **Primorsky Krai** (<sup>1</sup>Vassiljeva, 1973; <sup>1</sup>Shalapugina, 1976; <sup>1</sup>Bulakh, 1977; <sup>1</sup>Azbukina et al., 1984; <sup>1</sup>Kovalenko, 1989; <sup>1</sup>Kovalenko, 1995).

***Hygrophorus arbustivus* Fr.**

EASTERN EUROPE: **Belgorod Oblast** (Kovalenko, 1989; Kovalenko, 1995); **Crimea** (Sarkina, 2014a; Sarkina, 2014b; Sarkina, 2016a; Sarkina and Stavishenko, 2019); **Karelia** (Krutov et al., 2014); **Kursk Oblast** (Bedenko, 1985); **Lipetsk Oblast** (Sarycheva, 1999; Sarycheva et al., 2009; Sarycheva, 2011; Sarycheva, 2014a; Sarycheva,

2016); **Murmansk Oblast** (Pystina, Pavlova, and Shestakova, 1969); **Penza Oblast** (Ivanov, 1988a; Kovalenko, 1989; Kovalenko, 1995); **Sevastopol** (Sarkina, 2016b); **Tula Oblast** (Shcherbakov, 2010).

FAR EAST: **Primorsky Krai** (Vassiljeva, 1973; Bunkina and Nazarova, 1978; Kovalenko, 1989; Azbukina et al., 1990; Kovalenko, 1995; Bardunov et al., 2002; Azbukina et al., 2006; Bau, Bulakh, and Govorova, 2011; Bogacheva et al., 2018).

***Hygrophorus atramentosus* (Alb. & Schwein.) H. Haas & R. Haller Aar. ex Bon**

EASTERN EUROPE: **Karelia** (Kovalenko, 1989; Krutov et al., 2014); **Murmansk Oblast** (Kovalenko, 1989).

***Hygrophorus camarophyllus* (Alb. & Schwein.) Dumée, Grandjean & Maire<sup>1</sup>**

≡ *Agaricus camarophyllus* Alb. & Schwein.<sup>2</sup> ≡ *Hygrophorus camarophyllus* f. *camarophyllus* (Alb. & Schwein.) Dumée, Grandjean & Maire<sup>3</sup> = *Camarophyllus caprinus* (Scop.) P. Kumm.<sup>4</sup> = *Hygrophorus caprinus* (Scop.) Fr.<sup>5</sup>

EASTERN EUROPE: **Kaliningrad Oblast** (<sup>1</sup>Dedkov, Volodina, and Gubareva, 2007; <sup>1</sup>Volodina, 2007); **Karelia** (<sup>1</sup>Kovalenko, 1989; <sup>1</sup>Kovalenko, 1995; <sup>1</sup>Bondartseva et al., 2001; <sup>1</sup>Krutov et al., 2014; <sup>1</sup>Predtechenskaya, 2015); **Komi Republic** (<sup>1</sup>Shiryayeva and Palamarchuk, 2019); **Leningrad Oblast** (<sup>2</sup>Weinmann, 1836; <sup>4</sup>Thesleff, 1920; <sup>1</sup>Kovalenko, 1989; <sup>1</sup>Stolyarskaya, 1993; <sup>1</sup>Kovalenko, 1995; <sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Fomina, 2000; <sup>1</sup>Morozova and Kovalenko, 2000; <sup>1</sup>Popov et al., 2007; <sup>1</sup>Zmitrovich et al., 2015); **Moscow Oblast** (<sup>1</sup>Voronina et al., 2014); **Murmansk Oblast** (<sup>1</sup>Berlina, 2005); **Penza Oblast** (<sup>1</sup>Ivanov, 1982; <sup>1</sup>Kovalenko, 1989; <sup>1</sup>Kovalenko, 1995); **Saint Petersburg** (<sup>2</sup>Weinmann, 1828; <sup>2</sup>Weinmann, 1836; <sup>2</sup>Weinmann, 1837; <sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Morozova and Kovalenko, 2000; <sup>1</sup>Kotkova, Morozova, and Popov, 2006; <sup>1</sup>Morozova and Smirnov, 2011); **Udmurt Republic** (<sup>1</sup>Kapitonov, 2013).

SIBERIA: **Altai Krai** (<sup>1</sup>Gorbunova and Chubarova, 2008; <sup>1</sup>Gorbunova, Vlasenko, and Tzhubarova, 2011); **Altai Republic** (<sup>1</sup>Kovalenko, 1992); **Buryatia** (<sup>1</sup>Nezdojminogo, 1970a; <sup>1</sup>Kovalenko, 1989; <sup>1</sup>Petrov, 1991; <sup>1</sup>Kovalenko, 1995); **Irkutsk Oblast** (<sup>1</sup>Kutafjeva, 1983; <sup>1</sup>Kovalenko, 1989; <sup>1</sup>Kovalenko, 1995; <sup>1</sup>Muzyka, 2009); **Krasnoyarsk Krai** (<sup>5</sup>Thümen, 1878; <sup>1</sup>Beglyanova, 1972a; <sup>1</sup>Kovalenko, 1989; <sup>1</sup>Kovalenko, 1995; <sup>1</sup>Zauzolkova, 2015; <sup>1</sup>Krom and Kapitonov, 2019); **Sakha Republic** (<sup>1</sup>Kovalenko, 1989; <sup>1</sup>Kovalenko, 1995); **Tomsk Oblast** (<sup>1</sup>Perova, 1972; <sup>1</sup>Kovalenko, 1989; <sup>1</sup>Kovalenko, 1995; <sup>3</sup>Perova and Gorbunova, 2001; <sup>1</sup>Kudashova, Gashkov, and Kutafjeva, 2013; <sup>1</sup>Vaishlya et al., 2017).

FAR EAST: **Amur Oblast** (<sup>1</sup>Kochunova and Erofeeva, 2017); **Magadan Oblast** (<sup>1</sup>Rebriev, Bulakh, Sazanova, and Shiryayev, 2020); **Primorsky Krai** (<sup>5</sup>Vassiljeva, 1972; <sup>1</sup>Vassiljeva, 1973; <sup>1</sup>Bunkina and Nazarova, 1978; <sup>1</sup>Kovalenko, 1989; <sup>1</sup>Kovalenko, 1995; <sup>1</sup>Azbukina et al., 2006; <sup>1</sup>Bau, Bulakh, and Govorova, 2011).

***Hygrophorus capreolarius* (Kalchbr.) Sacc.**

EASTERN EUROPE: **Belgorod Oblast** (Bedenko, 1980; Kovalenko, 1989; Kovalenko, 1995); **Perm Krai** (Perevedentseva, 2008).

SIBERIA: **Irkutsk Oblast** (Petrov, 1984; Kovalenko, 1989; Petrov, 1991; Kovalenko, 1995; Petrov, 2008).

FAR EAST: **Primorsky Krai** (Vassiljeva, 1972; Vassiljeva, 1973; Kovalenko, 1989; Kovalenko, 1995; Bulakh et al., 2016).

***Hygrophorus chrysodon* (Batsch) Fr.**

EASTERN EUROPE: **Belgorod Oblast** (Bedenko, 1980; Kovalenko, 1989; Kovalenko, 1995); **Crimea** (Sarkina, 2001; Dudka et al., 2004; Sarkina and Prydiuk, 2012); **Kabardino-Balkarian Republic** (Shkhagapsoev and Krapivina, 2003; Shkhagapsoev and Krapivina, 2004); **Kaliningrad Oblast** (Dedkov and Grishanov, 2010); **Krasnodar Krai** (Sopina, 2001a); **Lipetsk Oblast** (Sarycheva et al., 2009; Sarycheva, 2014a; Shcherbakov, 2014; Sarycheva, 2016); **Mordovia** (Bolshakov and Ivoilov, 2012a; Bolshakov, 2015); **Moscow Oblast** (Levitskaya, 1998; Levitskaya, 2013); **Penza Oblast** (Ivanov, 1982; Kovalenko, 1989; Kovalenko, 1995); **Perm Krai** (Perevedentseva, 2008; Shepel', 2008; Baklanov, 2018); **Pskov Oblast** (Popov et al., 2013); **Samara Oblast** (Malysheva and Malysheva, 2008); **Sevastopol** (Sarkina, 2020c); **Tatarstan** (Kovalenko, 1989; Kovalenko, 1995; Nazirov, Gorshkov, Ivanov, and Rogova, 2016; Potapov, 2016b); **Tula Oblast** (Svetasheva, 2001; Svetasheva, 2004); **Udmurt Republic** (Kapitonov, 2013); **Voronezh Oblast** (Sarycheva, Starodubtseva, and Sapelnikova, 2017); **Yaroslavl Oblast** (Nyankovsky, 2015).

SIBERIA: **Irkutsk Oblast** (Kutafjeva and Astapenko, 1988; Kovalenko, 1989; Astapenko, 1990b; Kovalenko, 1995); **Krasnoyarsk Krai** (Beglyanova, 1972b; Kovalenko, 1989; Kovalenko, 1995); **Sakha Republic** (Kovalenko, 1989; Kovalenko, 1995); **Tomsk Oblast** (Kudashova, Gashkov, and Kutafjeva, 2013; Vaishlya et al., 2017).

FAR EAST: **Jewish Autonomous Oblast** (Bulakh, Govorova, Nazarova, and Vassiljeva, 2007; Bau, Bulakh, and Govorova, 2011; Bogacheva et al., 2018); **Khabarovsk Krai** (Azbukina et al., 1986; Kovalenko, 1995; Bau, Bulakh, and Govorova, 2011; Bulakh, 2013; Bogacheva, Bulakh, Bukharova, and Egorova, 2015; Bogacheva et al., 2018);

**Primorsky Krai** (Vassiljeva, 1972; Vassiljeva, 1973; Shalapugina, 1976; Bulakh, 1977; Bunkina and Nazarova, 1978; Azbukina et al., 1984; Kovalenko, 1989; Azbukina et al., 1990; Kovalenko, 1995; Bardunov et al., 2002; Azbukina et al., 2006; Bau, Bulakh, and Govorova, 2011; Bogacheva et al., 2018).

***Hygrophorus cossus* (Sowerby) Fr.**

EASTERN EUROPE: **Adygea** (Vaasma, Kalamees, and Raitviir, 1986); **Crimea** (Zerova, 1962; Dudka et al., 2004; Sarkina, 2011; Sarkina and Prydiuk, 2012; Sarkina and Mironova, 2015); **Karelia** (Bondartseva et al., 2001; Krutov et al., 2014); **Krasnodar Krai** (Kovalenko, 1980a; Kovalenko, 1980b; Vaasma, Kalamees, and Raitviir, 1986); **Sverdlovsk Oblast** (Stepanova and Sirko, 1977).

SIBERIA: **Irkutsk Oblast** (Petrov, 1984); **Krasnoyarsk Krai** (Beglyanova, 1972b); **Tomsk Oblast** (Perova, 1972; Perova and Gorbunova, 2001; Kudashova, Gashkov, and Kutafjeva, 2013; Vaishlya et al., 2017).

***Hygrophorus dichrous* Kühner & Romagn.**

EASTERN EUROPE: **Penza Oblast** (Ivanov, 1982).

***Hygrophorus discoideus* (Pers.) Fr.**

EASTERN EUROPE: **Krasnodar Krai** (Kovalenko, 1980a; Kovalenko, 1980b; Kovalenko, 1989; Kovalenko, 1995; Sopina, 2001a); **Leningrad Oblast** (Thesleff, 1920; Kovalenko and Morozova, 1999a; Popov et al., 2007); **Sverdlovsk Oblast** (Stepanova and Sirko, 1977; Kovalenko, 1989; Kovalenko, 1995; Marina, 2006); **Udmurt Republic** (Kapitonov, 2013).

SIBERIA: **Altai Republic** (Gorbunova, 2019); **Irkutsk Oblast** (Kutafjeva and Astapenko, 1988; Astapenko, 1990b); **Krasnoyarsk Krai** (Beglyanova, 1972a; Beglyanova, 1972b; Kovalenko, 1989; Kovalenko, 1995).

FAR EAST: **Amur Oblast** (Kochunova and Erofeeva, 2017); **Primorsky Krai** (Naoumoff, 1914; Vassiljeva, 1973; Bulakh, 1977; Bunkina and Nazarova, 1978; Azbukina et al., 1984; Kovalenko, 1989; Kovalenko, 1995; Azbukina et al., 2006; Bau, Bulakh, and Govorova, 2011).

***Hygrophorus discoxanthus* (Fr.) Rea<sup>1</sup>**

= *Hygrophorus chrysaepis* Métrod<sup>2</sup>

EASTERN EUROPE: **Krasnodar Krai** (<sup>1</sup>Kovalenko, 1989; <sup>1</sup>Kovalenko, 1995; <sup>1</sup>Sopina, 2001a); **Perm Krai** (<sup>1</sup>Perevedentseva, Shilkova, and Botalov, 2011).

SIBERIA: **Krasnoyarsk Krai** (<sup>2</sup>Beglyanova, 1972a; <sup>2</sup>Beglyanova, 1972b).

***Hygrophorus eburneus* (Bull.) Fr.<sup>1</sup>**

≡ *Agaricus eburneus* Bull.<sup>2</sup> ≡ *Limacium eburneum* (Bull.) P. Kumm.<sup>3</sup>

EASTERN EUROPE: **Adygea** (<sup>1</sup>Kovalenko, 1979a; <sup>1</sup>Kovalenko, 1980b; <sup>1</sup>Sopina, 2001a); **Belgorod Oblast** (<sup>1</sup>Bedenko, 1979a; <sup>1</sup>Kovalenko, 1995); **Chelyabinsk Oblast** (<sup>1</sup>Sirko and Stepanova, 1977; <sup>1</sup>Stepanova and Sirko, 1977; <sup>1</sup>Kovalenko, 1995); **Crimea** (<sup>1</sup>Zerova, 1962; <sup>1</sup>Sarkina, 2001; <sup>1</sup>Dudka et al., 2004; <sup>1</sup>Sarkina, 2010b; <sup>1</sup>Sarkina, 2011; <sup>1</sup>Sarkina and Prydiuk, 2012; <sup>1</sup>Sarkina and Stavishenko, 2019); **Kaliningrad Oblast** (<sup>1</sup>Atayev and Volodina, 2020); **Kaluga Oblast** (<sup>1</sup>Sionova, 2012); **Karelia** (<sup>1</sup>Kovalenko, 1995; <sup>1</sup>Bondartseva et al., 2001; <sup>1</sup>Krutov et al., 2014; <sup>1</sup>Predtechenskaya, 2015); **Krasnodar Krai** (<sup>3</sup>Vassiljeva, 1939; <sup>1</sup>Kovalenko, 1980a; <sup>1</sup>Kovalenko, 1980b; <sup>1</sup>Kovalenko, 1995); **Kursk Oblast** (<sup>1</sup>Ryabova and Ignatenko, 1981; <sup>1</sup>Baranov, 2002); **Leningrad Oblast** (<sup>1</sup>Thesleff, 1920; <sup>1</sup>Kovalenko, 1995; <sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Popov et al., 2007); **Lipetsk Oblast** (<sup>1</sup>Alferova, 1977; <sup>1</sup>Rtishcheva, 1999; <sup>1</sup>Sarycheva, 1999; <sup>1</sup>Afanasyev, Rtishcheva, and Starodubtseva, 2007; <sup>1</sup>Sarycheva et al., 2009; <sup>1</sup>Sarycheva, 2011; <sup>1</sup>Sarycheva, 2014a; <sup>1</sup>Sarycheva, 2016; <sup>1</sup>Sarycheva, Starodubtseva, and Sapelnikova, 2017); **Moscow Oblast** (<sup>1</sup>Gorlenko, Sidorova, and Sidorova, 1989; <sup>1</sup>Levitskaya, 1995b; <sup>1</sup>Levitskaya, 2013); **Murmansk Oblast** (<sup>1</sup>Pystina, Pavlova, and Shestakova, 1969; <sup>1</sup>Kovalenko, 1995); **Penza Oblast** (<sup>1</sup>Ivanov, 1982; <sup>1</sup>Kovalenko, 1995; <sup>1</sup>Ivanov, 2019); **Perm Krai** (<sup>1</sup>Perevedentseva, 2008); **Pskov Oblast** (<sup>1</sup>Popov et al., 2013); **Ryazan Oblast** (<sup>1</sup>Volosnova, 2005; <sup>1</sup>Volosnova, 2014); **Saint Petersburg** (<sup>2</sup>Weinmann, 1828; <sup>2</sup>Weinmann, 1837); **Samara Oblast** (<sup>1</sup>Malysheva and Malysheva, 2008); **Sevastopol** (<sup>1</sup>Sarkina, 2016b; <sup>1</sup>Sarkina, 2020c); **Smolensk Oblast** (<sup>1</sup>Jaczewski, 1898); **Sverdlovsk Oblast** (<sup>1</sup>Tomilin, 1965; <sup>1</sup>Stepanova and Sirko, 1977; <sup>1</sup>Kovalenko, 1995); **Tatarstan** (<sup>1</sup>Vassiljeva, 1977; <sup>1</sup>Kovalenko, 1995); **Tula Oblast** (<sup>1</sup>Svetasheva, 2001; <sup>1</sup>Svetasheva, 2004); **Tver Oblast** (<sup>1</sup>Kurochkin, 1993); **Udmurt Republic** (<sup>1</sup>Tychinin, 1990; <sup>1</sup>Tychinin and Kuzmina, 2003); **Ulyanovsk Oblast** (<sup>1</sup>Ilyukhin, 2009; <sup>1</sup>Ilyukhin, 2010a); **Vladimir Oblast** (<sup>2</sup>Weinmann, 1836); **Voronezh Oblast** (<sup>1</sup>Rtishcheva, 1999; <sup>1</sup>Afanasyev, Rtishcheva, and Starodubtseva, 2007; <sup>1</sup>Sarycheva, Starodubtseva, and Sapelnikova, 2017); **Arid territories** (<sup>1</sup>Rebriev, Rusanov, et al., 2012).



SIBERIA: **Buryatia** (<sup>1</sup>Nezdojminogo, 1973; <sup>1</sup>Penzina and Petrov, 1994; <sup>1</sup>Kovalenko, 1995); **Irkutsk Oblast** (<sup>1</sup>Kutafjeva, 1983; <sup>1</sup>Petrov, 1984; <sup>1</sup>Kovalenko, 1995; <sup>1</sup>Muzyka, 2002; <sup>1</sup>Petrov, 2008; <sup>1</sup>Muzyka, 2009; <sup>1</sup>Gorbunova and Stepantsova, 2015; <sup>1</sup>Muzyka and Penzina, 2017); **Krasnoyarsk Krai** (<sup>1</sup>Thümen, 1878; <sup>1</sup>Beglyanova, 1972a; <sup>1</sup>Lapitskaya, 1990; <sup>1</sup>Kovalenko, 1995); **Novosibirsk Oblast** (<sup>1</sup>Perova and Gorbunova, 2001; <sup>1</sup>Koropachinskiy and Banaev, 2014).

FAR EAST: **Amur Oblast** (<sup>1</sup>Azbukina et al., 1998); **Khabarovsk Krai** (<sup>1</sup>Azbukina et al., 1986; <sup>1</sup>Kovalenko, 1995; <sup>1</sup>Bau, Bulakh, and Govorova, 2011); **Magadan Oblast** (<sup>1</sup>Nazarova, 1976; <sup>1</sup>Kovalenko, 1995; <sup>1</sup>Sazanova, 2005; <sup>1</sup>Sazanova, 2009a); **Primorsky Krai** (<sup>1</sup>Vassiljeva, 1972; <sup>1</sup>Vassiljeva, 1973; <sup>1</sup>Shalapugina, 1976; <sup>1</sup>Bulakh, 1977; <sup>1</sup>Bunkina and Nazarova, 1978; <sup>1</sup>Azbukina et al., 1984; <sup>1</sup>Kovalenko, 1995; <sup>1</sup>Bardunov et al., 2002; <sup>1</sup>Azbukina et al., 2006; <sup>1</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Bulakh et al., 2016; <sup>1</sup>Bogacheva et al., 2018); **Sakhalin Oblast** (<sup>1</sup>Vassiljeva and Nazarova, 1972; <sup>1</sup>Kovalenko, 1995).

### *Hygrophorus erubescens* (Fr.) Fr.<sup>1</sup>

≡ *Agaricus erubescens* Fr.<sup>2</sup> ≡ *Limacium erubescens* (Fr.) Wünsche<sup>3</sup>

EASTERN EUROPE: **Crimea** (<sup>1</sup>Sarkina and Mironova, 2015); **Kaliningrad Oblast** (<sup>1</sup>Kovalenko, 1989; <sup>1</sup>Kovalenko, 1995; <sup>1</sup>Dedkov, Volodina, and Gubareva, 2007); **Karelia** (<sup>3</sup>Freindling, 1949; <sup>1</sup>Kovalenko, 1989; <sup>1</sup>Kovalenko, 1995; <sup>1</sup>Bondartseva et al., 2001; <sup>1</sup>Ivanter and Kuznetsov, 2007; <sup>1</sup>Krutov et al., 2014; <sup>1</sup>Kuznetsov, 2020); **Kirov Oblast** (<sup>1</sup>Kirillov, 2011; <sup>1</sup>Kirillov, Perevedentseva, and Egoshina, 2011); **Komi Republic** (<sup>1</sup>Kovalenko, 1989; <sup>1</sup>Kovalenko, 1995; <sup>1</sup>Karatygin, Nezdojminogo, Novozhilov, and Zhurbenko, 1999; <sup>1</sup>Kovalenko, 1999; <sup>1</sup>Palamarchuk, 2012; <sup>1</sup>Palamarchuk, 2016a; <sup>1</sup>Palamarchuk, 2016b; <sup>1</sup>Palamarchuk and Kirillov, 2017); **Leningrad Oblast** (<sup>1</sup>Thesleff, 1920; <sup>1</sup>Kovalenko, 1989; <sup>1</sup>Kovalenko, 1995; <sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Fomina, 2000; <sup>1</sup>Fomina, 2001; <sup>1</sup>Popov et al., 2007; <sup>1</sup>Geltman et al., 2018; <sup>1</sup>Geltman, 2018b); **Moscow Oblast** (<sup>1</sup>Voronina et al., 2014); **Murmansk Oblast** (<sup>1</sup>Kovalenko, 1989; <sup>1</sup>Kovalenko, 1995; <sup>1</sup>Kovalenko, 1999; <sup>1</sup>Berlina, 2005); **Perm Krai** (<sup>1</sup>Perevedentseva, 2008; <sup>1</sup>Belkovskaya et al., 2014); **Saint Petersburg** (<sup>2</sup>Weinmann, 1828; <sup>2</sup>Weinmann, 1836; <sup>2</sup>Weinmann, 1837; <sup>1</sup>Morozova and Smirnov, 2011; <sup>1</sup>Geltman, 2018a); **Udmurt Republic** (<sup>1</sup>Kapitonov, 2013); **Vologda Oblast** (<sup>1</sup>Kovalenko, 1989; <sup>1</sup>Kovalenko, 1995; <sup>1</sup>Kirillova, 2007; <sup>1</sup>Suslova et al., 2013); **Yamalo-Nenets Autonomous Okrug** (<sup>1</sup>Karatygin, Nezdojminogo, Novozhilov, and Zhurbenko, 1999; <sup>1</sup>Kovalenko, 1999).

SIBERIA: **Altai Krai** (<sup>1</sup>Gorbunova and Perova, 2006; <sup>1</sup>Gorbunova and Chubarova, 2008; <sup>1</sup>Gorbunova, Vlasenko, and Tzhubarova, 2011); **Buryatia** (<sup>1</sup>Nezdojminogo, 1970a; <sup>1</sup>Kovalenko, 1989; <sup>1</sup>Petrov, 1991; <sup>1</sup>Kovalenko, 1995); **Irkutsk Oblast** (<sup>1</sup>Kutafjeva, 1989; <sup>1</sup>Astapenko, 1990b; <sup>1</sup>Kovalenko, 1995; <sup>1</sup>Muzyka, 2002; <sup>1</sup>Muzyka, 2009; <sup>1</sup>Gorbunova and Stepantsova, 2015); **Khanty-Mansi Autonomous Okrug** (<sup>1</sup>Zvyagina and Vasina, 2015; <sup>1</sup>Filippova and Bulyonkova, 2017a; <sup>1</sup>Filippova and Bulyonkova, 2017b; <sup>1</sup>Zvyagina and Baykalova, 2017); **Krasnoyarsk Krai** (<sup>1</sup>Thümen, 1878; <sup>1</sup>Beglyanova, 1972a; <sup>1</sup>Beglyanova, 1972b; <sup>1</sup>Kovalenko, 1989; <sup>1</sup>Lapitskaya, 1990; <sup>1</sup>Kovalenko, 1995; <sup>1</sup>Zauzolkova, 2015).

FAR EAST: **Khabarovsk Krai** (<sup>1</sup>Kovalenko, 1995; <sup>1</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Bulakh, 2013; <sup>1</sup>Bogacheva, Bulakh, Bukharova, and Egorova, 2015); **Primorsky Krai** (<sup>1</sup>Vassiljeva, 1973; <sup>1</sup>Bulakh, 1977; <sup>1</sup>Bunkina and Nazarova, 1978; <sup>1</sup>Azbukina et al., 1984; <sup>1</sup>Kovalenko, 1989; <sup>1</sup>Kovalenko, 1995; <sup>1</sup>Azbukina et al., 2006; <sup>1</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Bulakh et al., 2016); **Sakhalin Oblast** (<sup>1</sup>Vassiljeva and Nazarova, 1972; <sup>1</sup>Kovalenko, 1989; <sup>1</sup>Kovalenko, 1995).

### *Hygrophorus hedrychii* (Velen.) K. Kult

EASTERN EUROPE: **Kaliningrad Oblast** (Dedkov, Volodina, and Gubareva, 2007); **Karelia** (Kovalenko, 1989; Kovalenko, 1995); **Leningrad Oblast** (Kovalenko, 1989; Kovalenko, 1995; Kovalenko and Morozova, 1999a; Popov et al., 2007); **Moscow Oblast** (Kovalenko, 1989; Kovalenko, 1995; Levitskaya, 1995b; Levitskaya, 2013); **Murmansk Oblast** (Kovalenko, 1989; Kovalenko, 1995); **Perm Krai** (Kovalenko, 1989; Kovalenko, 1995; Perevedentseva, 2008); **Saint Petersburg** (Morozova et al., 2020); **Sverdlovsk Oblast** (Marina, 2006); **Tatarstan** (Potapov, 2016b); **Tula Oblast** (Svetasheva, 2004); **Udmurt Republic** (Kapitonov, 2013); **Vologda Oblast** (Kirillova, 2006; Kirillova, 2007).

SIBERIA: **Buryatia** (Kovalenko, 1989; Kovalenko, 1995); **Irkutsk Oblast** (Kovalenko, 1989; Astapenko, 1990b; Kovalenko, 1995; Bardunov et al., 2005; Petrov, 2008); **Khakassia** (Zauzolkova and Gorbunova, 2013; Zauzolkova, 2015); **Krasnoyarsk Krai** (Kovalenko, 1989; Kovalenko, 1995); **Novosibirsk Oblast** (Koropachinskiy and Banaev, 2014); **Sakha Republic** (Kovalenko, 1989; Kovalenko, 1995).

FAR EAST: **Amur Oblast** (Kovalenko, 1989; Kovalenko, 1995; Taranina, 2005; Kochunova and Erofeeva, 2017; Kochunova, 2019); **Chukotka Autonomous Okrug** (Kovalenko, 1999); **Jewish Autonomous Oblast** (Erofeeva and Bulakh, 2015b); **Khabarovsk Krai** (Kovalenko, 1989; Kovalenko, 1995; Erofeeva and Bulakh, 2015a); **Magadan Oblast** (Sazanova, 2005; Sazanova, 2009a); **Primorsky Krai** (Kovalenko, 1989; Azbukina et al., 1990; Kovalenko, 1995; Bardunov et al., 2002; Bau, Bulakh, Zhuang, and Li, 2007; Bau, Bulakh, and Govorova, 2011).

***Hygrophorus hypothejus* (Fr.) Fr.<sup>1</sup>**

≡ *Agaricus hypothejus* Fr.<sup>2</sup> = *Hygrophorus aureus* Arrh.<sup>3</sup>

EASTERN EUROPE: **Belgorod Oblast** (<sup>1</sup>Bedenko, 1979a); **Bryansk Oblast** (<sup>1</sup>Kruglikov, 2007); **Crimea** (<sup>1</sup>Zerova, 1962; <sup>1</sup>Sarkina, 2001; <sup>1</sup>Dudka et al., 2004; <sup>1</sup>Sarkina, 2010b; <sup>1</sup>Sarkina, 2011; <sup>1</sup>Sarkina and Prydiuk, 2012; <sup>1</sup>Sarkina, 2013; <sup>1</sup>Sarkina, 2014b; <sup>1</sup>Sarkina, 2016a); **Kaliningrad Oblast** (<sup>1</sup>Dedkov, Volodina, and Gubareva, 2007; <sup>1</sup>Volodina, 2007); **Kaluga Oblast** (<sup>1</sup>Sionova, 2003); **Karelia** (<sup>1</sup>Bondartseva et al., 2001; <sup>1</sup>Krutov et al., 2014); **Kirov Oblast** (<sup>1</sup>Kirillov, 2011; <sup>1</sup>Kirillov, Perevedentseva, and Egoshina, 2011); **Komi Republic** (<sup>1</sup>Palamarchuk and Kirillov, 2017); **Leningrad Oblast** (<sup>1</sup>Thesleff, 1920; <sup>1</sup>Stolyarskaya, 1989; <sup>1,3</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Fomina, 2000; <sup>1</sup>Fomina, 2001; <sup>1,3</sup>Popov et al., 2007; <sup>1</sup>Psurtseva, Kiyashko, Gachkova, and Belova, 2007; <sup>1</sup>Zmitrovich et al., 2015; <sup>1</sup>Malysheva, Malysheva, Shchepin, and Novozhilov, 2018); **Lipetsk Oblast** (<sup>1</sup>Rtishcheva, 1999; <sup>1</sup>Sarycheva, 1999; <sup>1</sup>Afanasyev, Rtishcheva, and Starodubtseva, 2007; <sup>1</sup>Sarycheva et al., 2009; <sup>1</sup>Sarycheva, 2011; <sup>1</sup>Sarycheva, 2014a; <sup>1</sup>Sarycheva, 2016; <sup>1</sup>Sarycheva, Starodubtseva, and Sapelnikova, 2017); **Mordovia** (<sup>1</sup>Kuznetsov, 1960; <sup>1</sup>Ivoilov and Bolshakov, 2011a); **Moscow Oblast** (<sup>1</sup>Gorlenko, Sidorova, and Sidorova, 1989; <sup>1</sup>Levitskaya, 1995b; <sup>1</sup>Levitskaya, 2013; <sup>1</sup>Voronina et al., 2014); **Murmansk Oblast** (<sup>1</sup>Kovalenko, 1999; <sup>1</sup>Berlina, 2005); **Penza Oblast** (<sup>1,3</sup>Ivanov, 1982; <sup>3</sup>Kovalenko, 1989; <sup>3</sup>Kovalenko, 1995); **Perm Krai** (<sup>1</sup>Perevedentseva, 2008; <sup>1</sup>Belkovskaya et al., 2014); **Pskov Oblast** (<sup>1</sup>Popov et al., 2013); **Ryazan Oblast** (<sup>1</sup>Volosnova, 1997; <sup>1</sup>Volosnova, 2014); **Saint Petersburg** (<sup>2</sup>Weinmann, 1828; <sup>2</sup>Weinmann, 1836; <sup>2</sup>Weinmann, 1837; <sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Morozova and Kovalenko, 2000; <sup>1</sup>Kotkova, Morozova, and Popov, 2006; <sup>1</sup>Morozova and Smirnov, 2011; <sup>1</sup>Morozova et al., 2020); **Samara Oblast** (<sup>1</sup>Malysheva and Malysheva, 2008); **Smolensk Oblast** (<sup>1</sup>Jaczewski, 1898); **Sverdlovsk Oblast** (<sup>1</sup>Marina, 2006); **Tatarstan** (<sup>1</sup>Vassiljeva, 1977); **Tula Oblast** (<sup>1</sup>Svetasheva, 2004); **Tver Oblast** (<sup>1</sup>Kurochkin, 1993); **Udmurt Republic** (<sup>1</sup>Tychinin, 1990; <sup>1</sup>Tychinin and Kuzmina, 2003); **Volgograd Oblast** (<sup>1</sup>Stauchan and Vedeneyev, 2015); **Vologda Oblast** (<sup>1</sup>Kirillova, 2006; <sup>1</sup>Kirillova, 2007); **Voronezh Oblast** (<sup>1</sup>Rtishcheva, 1999; <sup>1</sup>Afanasyev, Rtishcheva, and Starodubtseva, 2007; <sup>1</sup>Sarycheva, Starodubtseva, and Sapelnikova, 2017); **Yaroslavl Oblast** (<sup>1</sup>Lazareva, 1998a; <sup>1</sup>Lazareva, 2002).

SIBERIA: **Irkutsk Oblast** (<sup>1</sup>Kutafjeva and Astapenko, 1988; <sup>1</sup>Astapenko, 1990a; <sup>1</sup>Astapenko, 1990b; <sup>1</sup>Muzyka, 2009; <sup>1</sup>Muzyka and Penzina, 2017); **Khanty-Mansi Autonomous Okrug** (<sup>1</sup>Zvyagina and Baykalova, 2017); **Krasnoyarsk Krai** (<sup>1</sup>Beglyanova, 1972a; <sup>1</sup>Beglyanova, 1972b; <sup>1</sup>Kovalenko, 1989; <sup>1</sup>Lapitskaya, 1990; <sup>1</sup>Kovalenko, 1995); **Novosibirsk Oblast** (<sup>1</sup>Perova and Gorbunova, 2001); **Sverdlovsk Oblast** (<sup>1</sup>Stepanova and Sirko, 1977); **Tomsk Oblast** (<sup>1</sup>Kudashova, Gashkov, and Kutafjeva, 2013; <sup>1</sup>Vaishlya et al., 2017).

FAR EAST: **Magadan Oblast** (<sup>1</sup>Sazanova, 2009a; <sup>1</sup>Sazanova, 2009b; <sup>1</sup>Sazanova, 2011; <sup>1</sup>Sazanova and Golodnova, 2015).

***Hygrophorus inocybiformis* A.H. Sm.**

EASTERN EUROPE: **Komi Republic** (Palamarchuk and Kirillov, 2016; Palamarchuk, 2016a; Palamarchuk, 2016b; Dyogteva, 2019; Palamarchuk et al., 2019).

***Hygrophorus korhonenii* Harmaja**

EASTERN EUROPE: **Karelia** (Kovalenko, 1989; Kovalenko, 1995); **Komi Republic** (Palamarchuk, 2020b); **Leningrad Oblast** (Kovalenko, 1989; Kovalenko, 1995; Kovalenko and Morozova, 1999a; Tzvelev, 2000; Popov et al., 2007; Geltman et al., 2018); **Moscow Oblast** (Voronina et al., 2014); **Murmansk Oblast** (Kovalenko, 1989; Kovalenko, 1995; Kovalenko, 1999; Berlina, 2005); **Novgorod Oblast** (Arslanov, 2012); **Perm Krai** (Perevedentseva, 2008; Belkovskaya et al., 2014); **Saint Petersburg** (Morozova et al., 2020); **Sverdlovsk Oblast** (Marina, 2006); **Tver Oblast** (Morozova, Aleksandrova, Popov, and Malysheva, 2016).

SIBERIA: **Irkutsk Oblast** (Kovalenko, 1989; Petrov, 1991; Kovalenko, 1995; Muzyka, 2002; Petrov, 2008); **Khanty-Mansi Autonomous Okrug** (Zvyagina and Baykalova, 2017).

***Hygrophorus latitabundus* Britzelm.**

EASTERN EUROPE: **Voronezh Oblast** (Kovalenko, 1989; Kovalenko, 1995).

SIBERIA: **Tomsk Oblast** (Kovalenko, 1989; Kovalenko, 1995; Kudashova, Gashkov, and Kutafjeva, 2013; Vaishlya et al., 2017).

FAR EAST: **Primorsky Krai** (Kovalenko, 1989; Kovalenko, 1995).

***Hygrophorus limacinus* (Scop.) Fr.<sup>1</sup>**

≡ *Agaricus limacinus* Scop.<sup>2</sup>

EASTERN EUROPE: **Leningrad Oblast** (<sup>2</sup>Weinmann, 1835).

FAR EAST: **Primorsky Krai** (<sup>1</sup>Vassiljeva, 1972; <sup>1</sup>Vassiljeva, 1973; <sup>1</sup>Bunkina and Nazarova, 1978; <sup>1</sup>Bardunov et al., 2002; <sup>1</sup>Azbukina et al., 2006).

***Hygrophorus lindtneri* M.M. Moser<sup>1</sup>**= *Hygrophorus carpini* Gröger<sup>2</sup>

EASTERN EUROPE: **Crimea** (<sup>1</sup>Sarkina, 2010b; <sup>2</sup>Sarkina, 2010b; <sup>1</sup>Sarkina and Mironova, 2015); **Karelia** (<sup>2</sup>Bondartseva et al., 2001; <sup>1</sup>Krutov et al., 2014); **Krasnodar Krai** (<sup>1</sup>Kovalenko, 1989; <sup>1</sup>Kovalenko, 1995); **Arid territories** (<sup>1</sup>Rebriev, Rusanov, et al., 2012).

FAR EAST: **Primorsky Krai** (<sup>1</sup>Kovalenko, 1989; <sup>1</sup>Kovalenko, 1995; <sup>1</sup>Azbukina et al., 2006; <sup>1</sup>Bau, Bulakh, and Govorova, 2011).

***Hygrophorus lucorum* Kalchbr.**

EASTERN EUROPE: **Komi Republic** (Palamarchuk, 2016a; Palamarchuk, 2016b); **Sverdlovsk Oblast** (Tomilin, 1965; Kovalenko, 1989; Kovalenko, 1995); **Yamalo-Nenets Autonomous Okrug** (Stepanova and Sirko, 1977; Karatygin, Nezdojminogo, Novozhilov, and Zhurbenko, 1999; Kovalenko, 1999).

SIBERIA: **Altai Republic** (Gorbunova, 2001b; Perova and Gorbunova, 2001); **Buryatia** (Nezdojminogo, 1970a; Kovalenko, 1989; Kovalenko, 1995); **Irkutsk Oblast** (Kutafjeva, 1983; Kovalenko, 1989; Astapenko, 1990b; Kovalenko, 1995; Muzyka, 2009; Gorbunova and Stepantsova, 2015; Muzyka and Penzina, 2017); **Krasnoyarsk Krai** (Beglyanova, 1972a; Beglyanova, 1972b; Kovalenko, 1989; Lapitskaya, 1990; Kovalenko, 1995); **Sakha Republic** (Kovalenko, 1989; Kovalenko, 1995); **Tyumen Oblast** (Kovalenko, 1989; Kovalenko, 1995).

FAR EAST: **Amur Oblast** (Kovalenko, 1989; Kovalenko, 1995; Taranina, 2005; Kochunova and Erofeeva, 2017); **Khabarovsk Krai** (Kovalenko, 1989; Kovalenko, 1995; Bulakh, Vassiljeva, and Erofeeva, 2010; Bulakh, 2013; Bogacheva, Bulakh, Bukharova, and Egorova, 2015); **Magadan Oblast** (Nazarova, 1976; Kovalenko, 1989; Kovalenko, 1995; Sazanova, 1996; Sazanova, 2005; Sazanova, 2009a; Sazanova, 2009b; Sazanova, 2011).

***Hygrophorus marzuolus* (Fr.) Bres.**

EASTERN EUROPE: **Krasnodar Krai** (Kovalenko, 1980a; Kovalenko, 1980b; Kovalenko, 1989).

SIBERIA: **Krasnoyarsk Krai** (Beglyanova, 1972a; Beglyanova, 1972b); **Tomsk Oblast** (Milovidova, 1980; Kudashova, Gashkov, and Kutafjeva, 2013; Vaishlya et al., 2017).

***Hygrophorus nemoreus* (Pers.) Fr.**

EASTERN EUROPE: **Crimea** (Zerova, 1962; Sarkina, 2001; Dudka et al., 2004; Sarkina, 2011; Sarkina and Stavishenko, 2019); **Kabardino-Balkarian Republic** (Shkhagapsoev and Krapivina, 2004); **Kaliningrad Oblast** (Kovalenko, 1989; Kovalenko, 1995; Dedkov, Volodina, and Gubareva, 2007; Volodina, 2007); **Penza Oblast** (Ivanov, 1982; Kovalenko, 1989; Kovalenko, 1995); **Smolensk Oblast** (Jaczewski, 1896); **Voronezh Oblast** (Selochnik, 2015).

SIBERIA: **Krasnoyarsk Krai** (Kovalenko, 1989; Kovalenko, 1995).

FAR EAST: **Amur Oblast** (Taranina, 2005; Bogacheva et al., 2018); **Jewish Autonomous Oblast** (Bogacheva et al., 2018); **Khabarovsk Krai** (Kovalenko, 1995; Bau, Bulakh, and Govorova, 2011; Erofeeva and Bulakh, 2016; Bogacheva et al., 2018); **Primorsky Krai** (Vassiljeva, 1972; Vassiljeva, 1973; Bunkina and Nazarova, 1978; Kovalenko, 1989; Azbukina et al., 1990; Kovalenko, 1995; Bardunov et al., 2002; Azbukina et al., 2006; Bau, Bulakh, and Govorova, 2011; Bulakh et al., 2016; Bogacheva et al., 2018).

***Hygrophorus occidentalis* A.H. Sm. & Hesler**

SIBERIA: **Irkutsk Oblast** (Kovalenko, 1989; Astapenko and Kutafjeva, 1990; Kovalenko, 1995).

FAR EAST: **Primorsky Krai** (Vassiljeva, 1973; Kovalenko and Nezdojminogo, 1989; Kovalenko, 1989; Kovalenko, 1995; Bardunov et al., 2002; Bulakh et al., 2016; Bogacheva et al., 2018).

***Hygrophorus olivaceoalbus* (Fr.) Fr.<sup>1</sup>**≡ *Agaricus olivaceoalbus* Fr.<sup>2</sup> ≡ *Limacium olivaceoalbum* (Fr.) P. Kumm.<sup>3</sup>

EASTERN EUROPE: **Belgorod Oblast** (<sup>1</sup>Bedenko, 1979a); **Bryansk Oblast** (<sup>1</sup>Kruglikov, 2007); **Crimea** (<sup>1</sup>Zerova, 1962; <sup>1</sup>Sarkina, 2001; <sup>1</sup>Dudka et al., 2004; <sup>1</sup>Sarkina, 2010b; <sup>1</sup>Sarkina, 2011; <sup>1</sup>Sarkina, 2013); **Kabardino-Balkarian Republic** (<sup>1</sup>Shkhagapsoev and Krapivina, 2003; <sup>1</sup>Shkhagapsoev and Krapivina, 2004); **Kaliningrad Oblast** (<sup>1</sup>Dedkov, Volodina, and Gubareva, 2007; <sup>1</sup>Volodina, 2007); **Kaluga Oblast** (<sup>1</sup>Sionova, 2012); **Karelia** (<sup>3</sup>Freindling, 1949; <sup>1</sup>Kovalenko, 1989; <sup>1</sup>Kovalenko, 1995; <sup>1</sup>Bondartseva et al., 2001; <sup>1</sup>Predtechenskaya and Ruokolainen, 2013; <sup>1</sup>Krutov et al., 2014; <sup>1</sup>Savelev and Kikeeva, 2020); **Kirov Oblast** (<sup>1</sup>Kirillov, 2011; <sup>1</sup>Kirillov, Perevedentseva, and Egoshina, 2011; <sup>1</sup>Stavishenko, Luginina, Kirillov, and Egoshina, 2019); **Komi Republic** (<sup>1</sup>Bobretsova, 2004; <sup>1</sup>Palamarchuk, 2012); **Leningrad Oblast** (<sup>1</sup>Thesleff, 1920; <sup>1</sup>Kovalenko, 1989; <sup>1</sup>Stolyarskaya, 1989; <sup>1</sup>Kovalenko, 1995; <sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Fomina, 2000; <sup>1</sup>Fomina, 2001; <sup>1</sup>Popov et al., 2007; <sup>1</sup>Zmitrovich et al., 2015; <sup>1</sup>Kalinina,

2018); **Lipetsk Oblast** (<sup>1</sup>Rtishcheva, 1999; <sup>1</sup>Afanasyev, Rtishcheva, and Starodubtseva, 2007; <sup>1</sup>Sarycheva et al., 2009; <sup>1</sup>Sarycheva, Starodubtseva, and Sapelnikova, 2017); **Moscow Oblast** (<sup>1</sup>Gorlenko, Sidorova, and Sidorova, 1989; <sup>1</sup>Levitskaya, 1995b; <sup>1</sup>Levitskaya, 2013; <sup>1</sup>Voronina et al., 2014); **Murmansk Oblast** (<sup>1</sup>Kovalenko, 1989; <sup>1</sup>Kovalenko, 1995); **Novgorod Oblast** (<sup>1</sup>Morozova, 2012; <sup>1</sup>Popov et al., 2013); **Penza Oblast** (<sup>1</sup>Ivanov, 1983; <sup>1</sup>Kovalenko, 1989; <sup>1</sup>Kovalenko, 1995); **Perm Krai** (<sup>1</sup>Kovalenko, 1989; <sup>1</sup>Kovalenko, 1995; <sup>1</sup>Perevedentseva, 2008; <sup>1</sup>Belkovskaya et al., 2014; <sup>1</sup>Perevedentseva and Shishigin, 2014; <sup>1</sup>Perevedentseva and Shishigin, 2015); **Saint Petersburg** (<sup>2</sup>Weinmann, 1828; <sup>2</sup>Weinmann, 1836; <sup>2</sup>Weinmann, 1837; <sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Morozova and Smirnov, 2011; <sup>1</sup>Morozova et al., 2020); **Smolensk Oblast** (<sup>1</sup>Jaczewski, 1896); **Sverdlovsk Oblast** (<sup>1</sup>Marina, 2006); **Tambov Oblast** (<sup>1</sup>Elenevskiy, 2002; <sup>1</sup>Konakov et al., 2019); **Tatarstan** (<sup>1</sup>Vassiljeva, 1977; <sup>1</sup>Kovalenko, 1989; <sup>1</sup>Kovalenko, 1995); **Tver Oblast** (<sup>1</sup>Kurochkin, 1993; <sup>1</sup>Mukhina and Garibova, 2010; <sup>1</sup>Mukhina, 2011a; <sup>1</sup>Mukhina, 2011b; <sup>1</sup>Kotkova, 2014); **Udmurt Republic** (<sup>1</sup>Tychinin, 1990; <sup>1</sup>Tychinin and Kuzmina, 2003); **Volgograd Oblast** (<sup>1</sup>Stauchan and Vedeneyev, 2015); **Vologda Oblast** (<sup>1</sup>Kirillova, 2006; <sup>1</sup>Kirillova, 2007); **Voronezh Oblast** (<sup>3</sup>Chastukhin, 1952; <sup>1</sup>Chastukhin and Nikolaevskaya, 1953; <sup>1</sup>Chastukhin and Nikolaevskaya, 1969; <sup>1</sup>Rtishcheva, 1999; <sup>1</sup>Afanasyev, Rtishcheva, and Starodubtseva, 2007; <sup>1</sup>Sarycheva, Starodubtseva, and Sapelnikova, 2017).

SIBERIA: **Irkutsk Oblast** (<sup>1</sup>Kutafjeva, 1983; <sup>1</sup>Petrov, 1984; <sup>1</sup>Kovalenko, 1989; <sup>1</sup>Petrov, 1989; <sup>1</sup>Astapenko, 1990b; <sup>1</sup>Kovalenko, 1995; <sup>1</sup>Gorbunova and Stepanova, 2015; <sup>1</sup>Muzyka and Penzina, 2017); **Khanty-Mansi Autonomous Okrug** (<sup>1</sup>Filippova, Bulyonkova, and Lapshina, 2015; <sup>1</sup>Filippova and Bulyonkova, 2017a; <sup>1</sup>Filippova and Bulyonkova, 2017b; <sup>1</sup>Zvyagina and Baykalova, 2017); **Krasnoyarsk Krai** (<sup>1</sup>Kovalenko, 1989; <sup>1</sup>Lapitskaya, 1990; <sup>1</sup>Kovalenko, 1995; <sup>1</sup>Kryuchkova, 2009; <sup>1</sup>Krom and Kapitonov, 2019).

FAR EAST: **Primorsky Krai** (<sup>1</sup>Vassiljeva, 1973; <sup>1</sup>Azbukina et al., 1984; <sup>1</sup>Kovalenko, 1989; <sup>1</sup>Kovalenko, 1995).

#### *Hygrophorus pacificus* A.H. Sm. & Hesler

FAR EAST: **Sakhalin Oblast** (Vassiljeva and Nazarova, 1972).

#### *Hygrophorus penarius* Fr.

EASTERN EUROPE: **Belgorod Oblast** (Bedenko, 1979a; Kovalenko, 1989; Kovalenko, 1995); **Chelyabinsk Oblast** (Stepanova and Sirko, 1977; Kovalenko, 1989; Kovalenko, 1995); **Crimea** (Sarkina, 2010b; Sarkina and Stavishenko, 2019); **Lipetsk Oblast** (Sarycheva et al., 2009; Sarycheva, 2011; Sarycheva, 2014a; Sarycheva, 2016); **Penza Oblast** (Ivanov, 1989; Ivanov, 2013a); **Sevastopol** (Sarkina, 2016b; Sarkina, 2020c).

#### *Hygrophorus persicolor* Ricek

EASTERN EUROPE: **Sverdlovsk Oblast** (Marina, 2006).

#### *Hygrophorus personii* Arnolds

EASTERN EUROPE: **Crimea** (Sarkina, 2014b; Sarkina, 2016a); **Lipetsk Oblast** (Sarycheva et al., 2009; Sarycheva, 2011; Sarycheva, 2014a; Sarycheva, 2016); **Moscow Oblast** (Levitskaya, 1998; Levitskaya, 2013); **Penza Oblast** (Kovalenko, 1989; Kovalenko, 1995); **Sevastopol** (Sarkina, 2020c); **Sverdlovsk Oblast** (Kovalenko, 1989; Kovalenko, 1995; Marina, 2006); **Tatarstan** (Nazirov, Gorshkov, Ivanov, and Rogova, 2016); **Tula Oblast** (Svetasheva et al., 2017; Svetasheva, Aleksandrova, Zaytseva, and Solovjova, 2017).

FAR EAST: **Khabarovsk Krai** (Erofeeva and Bulakh, 2015a; Bogacheva et al., 2018); **Primorsky Krai** (Kovalenko, 1989; Azbukina et al., 1990; Kovalenko, 1995; Bardunov et al., 2002; Bau, Bulakh, and Govorova, 2011; Bulakh et al., 2016; Bogacheva et al., 2018); **Sakhalin Oblast** (Bogacheva et al., 2018).

#### *Hygrophorus piceae* Kühner

EASTERN EUROPE: **Belgorod Oblast** (Bedenko, 1979a; Kovalenko, 1989; Kovalenko, 1995); **Kaliningrad Oblast** (Dedkov, Volodina, and Gubareva, 2007); **Karelia** (Kovalenko, 1989; Kovalenko, 1995; Bondartseva et al., 2001; Krutov et al., 2014); **Kirov Oblast** (Kirillov, 2011; Kirillov, Perevedentseva, and Egoshina, 2011); **Komi Republic** (Kovalenko, 1989; Kovalenko, 1995; Karatygin, Nezdoyminogo, Novozhilov, and Zhurbenko, 1999; Kovalenko, 1999; Palamarchuk, 2012); **Leningrad Oblast** (Kovalenko, 1989; Kovalenko, 1995; Kovalenko and Morozova, 1999a; Fomina, 2000; Fomina, 2001; Popov et al., 2007); **Murmansk Oblast** (Kovalenko, 1989; Kovalenko, 1995; Kovalenko, 1999); **Perm Krai** (Perevedentseva, 2008; Perevedentseva and Shishigin, 2015); **Sverdlovsk Oblast** (Marina, 2006); **Vologda Oblast** (Kirillova, 2006; Kirillova, 2007).

SIBERIA: **Altai Krai** (Gorbunova, 2018a); **Altai Republic** (Gorbunova, 2001a); **Buryatia** (Nezdoyminogo, 1970a; Kovalenko, 1989; Petrov, 1991; Kovalenko, 1995); **Irkutsk Oblast** (Kovalenko, 1989; Astapenko and Kutafjeva, 1990; Astapenko, 1990b; Kovalenko, 1995); **Khanty-Mansi Autonomous Okrug** (Filippova, Bulyonkova, and Lapshina,

2015; Filippova and Bulyonkova, 2017a; Filippova and Bulyonkova, 2017b; Zvyagina and Baykalova, 2017); **Krasnoyarsk Krai** (Krom and Kapitonov, 2019); **Tomsk Oblast** (Kudashova, Gashkov, and Kutafjeva, 2013).

FAR EAST: **Khabarovsk Krai** (Bulakh, 2013; Bogacheva, Bulakh, Bukharova, and Egorova, 2015).

### *Hygrophorus poetarum* R. Heim

EASTERN EUROPE: **Adygea** (Sopina, 2000; Sopina, 2001a; Zamotajlov, Sirotyuk (Kuvaeva), Akatova, and Lipka, 2012); **Krasnodar Krai** (Sopina, 2001a; Litvinskaya, 2007; Litvinskaya, 2017); **Penza Oblast** (Sopina, 2000).

### *Hygrophorus pudorinus* (Fr.) Fr.

EASTERN EUROPE: **Kabardino-Balkarian Republic** (Shkhagapsoev and Krapivina, 2003; Shkhagapsoev and Krapivina, 2004); **Krasnodar Krai** (Sopina, 2001a).

SIBERIA: **Irkutsk Oblast** (Kutafjeva, 1983; Kovalenko, 1989; Astapenko, 1990b; Kovalenko, 1995); **Krasnoyarsk Krai** (Kovalenko, 1989; Kovalenko, 1995); **Sakha Republic** (Kovalenko, 1989; Kovalenko, 1995); **Tomsk Oblast** (Milovidova, 1980; Kudashova, Gashkov, and Kutafjeva, 2013; Kudashova, Gashkov, and Vaishlya, 2016b; Vaishlya et al., 2017).

FAR EAST: **Amur Oblast** (Nazarova, 1986; Kovalenko, 1995); **Jewish Autonomous Oblast** (Bulakh, Govorova, Nazarova, and Vassiljeva, 2007; Bau, Bulakh, and Govorova, 2011); **Khabarovsk Krai** (Kovalenko, 1995; Bau, Bulakh, and Govorova, 2011); **Primorsky Krai** (Vassiljeva, 1972; Vassiljeva, 1973; Shalapugina, 1976; Bulakh, 1977; Bunkina and Nazarova, 1978; Azbukina et al., 1984; Kovalenko, 1989; Kovalenko, 1995; Azbukina et al., 2006; Bau, Bulakh, and Govorova, 2011).

### *Hygrophorus pustulatus* (Pers.) Fr.<sup>1</sup>

≡ *Agaricus pustulatus* Pers.<sup>2</sup> ≡ *Limacium pustulatum* (Pers.) P. Kumm.<sup>3</sup> = *Hygrophorus tephroleucus* (Pers.) Fr.<sup>4</sup>

EASTERN EUROPE: **Kaliningrad Oblast** (<sup>1</sup>Kovalenko, 1989; <sup>1</sup>Kovalenko, 1995; <sup>1</sup>Dedkov, Volodina, and Gubareva, 2007; <sup>1</sup>Volodina, 2007); **Komi Republic** (<sup>1</sup>Palamarchuk and Kirillov, 2017); **Leningrad Oblast** (<sup>1,4</sup>Thesleff, 1920; <sup>1,4</sup>Kovalenko, 1989; <sup>1,4</sup>Kovalenko, 1995; <sup>1,4</sup>Kovalenko and Morozova, 1999a; <sup>1,4</sup>Tzvelev, 2000; <sup>1,4</sup>Popov et al., 2007; <sup>1,4</sup>Geltman et al., 2018; <sup>1</sup>Kalinina, 2018); **Moscow Oblast** (<sup>1</sup>Levitskaya, 2006; <sup>1</sup>Levitskaya, 2013; <sup>1</sup>Voronina et al., 2014); **Novgorod Oblast** (<sup>1</sup>Morozova, 2012; <sup>1</sup>Popov et al., 2013); **Perm Krai** (<sup>1</sup>Perevedentseva, 2008); **Saint Petersburg** (<sup>2</sup>Weinmann, 1836; <sup>2</sup>Weinmann, 1837; <sup>4</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Morozova and Smirnov, 2011; <sup>1</sup>Morozova et al., 2020); **Sverdlovsk Oblast** (<sup>1</sup>Stepanova and Sirko, 1977; <sup>1</sup>Kovalenko, 1989; <sup>1</sup>Kovalenko, 1995; <sup>1</sup>Marina, 2006); **Tula Oblast** (<sup>1</sup>Svetasheva, 2001; <sup>1</sup>Svetasheva, 2004; <sup>1</sup>Shcherbakov, 2010); **Tver Oblast** (<sup>1</sup>Kurochkin, 1993); **Udmurt Republic** (<sup>1</sup>Tychinin and Kuzmina, 2003); **Vologda Oblast** (<sup>1</sup>Bolshakov et al., 2018).

SIBERIA: **Altai Krai** (<sup>1</sup>Gorbunova, 2018b); **Irkutsk Oblast** (<sup>1</sup>Petrov, 1984; <sup>1</sup>Kovalenko, 1989; <sup>1</sup>Petrov, 1991; <sup>1</sup>Kovalenko, 1995; <sup>1</sup>Petrov, 2008); **Khanty-Mansi Autonomous Okrug** (<sup>1</sup>Zvyagina and Baykalova, 2017); **Krasnoyarsk Krai** (<sup>1</sup>Thümen, 1878; <sup>3</sup>Singer, 1943; <sup>1</sup>Beglyanova, 1972a; <sup>1</sup>Beglyanova, 1972b; <sup>4</sup>Nezdojminogo, 1976a; <sup>1,4</sup>Kovalenko, 1989; <sup>1,4</sup>Kovalenko, 1995; <sup>1</sup>Zauzolkova, 2015); **Tomsk Oblast** (<sup>1</sup>Agaphonova, Kutafjeva, and Gashkov, 2009b; <sup>1</sup>Kudashova, Gashkov, and Kutafjeva, 2013; <sup>1</sup>Kudashova, Gashkov, and Vaishlya, 2016b).

### *Hygrophorus russula* (Schaeff. ex Fr.) Kauffman<sup>1</sup>

≡ *Agaricus russula* Schaeff. ex Fr.<sup>2</sup> ≡ *Limacium russula* (Schaeff. ex Fr.) Ricken<sup>3</sup>

EASTERN EUROPE: **Belgorod Oblast** (<sup>1</sup>Bedenko, 1980; <sup>1</sup>Kovalenko, 1995); **Crimea** (<sup>1</sup>Sarkina, 2001; <sup>1</sup>Dudka et al., 2004; <sup>1</sup>Sarkina, 2010b; <sup>1</sup>Sarkina and Prydiuk, 2012; <sup>1</sup>Sarkina, 2013; <sup>1</sup>Sarkina and Stavishenko, 2019); **Kaliningrad Oblast** (<sup>1</sup>Kovalenko, 1995; <sup>1</sup>Dedkov, Volodina, and Gubareva, 2007; <sup>1</sup>Dedkov and Grishanov, 2010); **Karelia** (<sup>1</sup>Krutov et al., 2014); **Krasnodar Krai** (<sup>3</sup>Vassiljeva, 1939; <sup>1</sup>Kovalenko, 1980a; <sup>1</sup>Kovalenko, 1980b; <sup>1</sup>Kovalenko, 1995); **Lipetsk Oblast** (<sup>1</sup>Afanasyev, Rtishcheva, and Starodubtseva, 2007; <sup>1</sup>Sarycheva et al., 2009; <sup>1</sup>Sarycheva, 2014a; <sup>1</sup>Sarycheva, Starodubtseva, and Sapelnikova, 2017); **Mordovia** (<sup>1</sup>Silaeva et al., 2014; <sup>1</sup>Silaeva, 2017); **Moscow** (<sup>1</sup>Burova, 1968); **Moscow Oblast** (<sup>1</sup>Gorlenko, Sidorova, and Sidorova, 1989; <sup>1</sup>Kovalenko, 1995); **Penza Oblast** (<sup>2</sup>Vet, 1943; <sup>1</sup>Ivanov, 1982; <sup>1</sup>Kovalenko, 1995; <sup>1</sup>Ivanov, 2013a); **Perm Krai** (<sup>1</sup>Perevedentseva, 2008); **Saint Petersburg** (<sup>2</sup>Weinmann, 1828; <sup>2</sup>Weinmann, 1836; <sup>2</sup>Weinmann, 1837); **Sevastopol** (<sup>1</sup>Sarkina, 2020c); **Udmurt Republic** (<sup>1</sup>Tychinin and Kuzmina, 2003); **Ulyanovsk Oblast** (<sup>1</sup>Artemyeva, Maslennikov, and Korepov, 2015); **Voronezh Oblast** (<sup>1</sup>Afanasyev, Rtishcheva, and Starodubtseva, 2007; <sup>1</sup>Sarycheva, Starodubtseva, and Sapelnikova, 2017).

SIBERIA: **Irkutsk Oblast** (<sup>1</sup>Kutafjeva, 1983).

FAR EAST: **Amur Oblast** (<sup>1</sup>Kovalenko, 1995; <sup>1</sup>Azbukina et al., 1998; <sup>1</sup>Taranina, 2005; <sup>1</sup>Bogacheva et al., 2018); **Jewish Autonomous Oblast** (<sup>1</sup>Bulakh, Govorova, Nazarova, and Vassiljeva, 2007; <sup>1</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Bogacheva et al., 2018); **Khabarovsk Krai** (<sup>1</sup>Azbukina et al., 1986; <sup>1</sup>Azbukina et al., 1989; <sup>1</sup>Kovalenko, 1995;

<sup>1</sup>Bau, Bulakh, Zhuang, and Li, 2007; <sup>1</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Erofeeva and Bulakh, 2015a; <sup>1</sup>Bogacheva et al., 2018); **Primorsky Krai** (<sup>1</sup>Vassiljeva, 1972; <sup>1</sup>Vassiljeva, 1973; <sup>1</sup>Shalapugina, 1976; <sup>1</sup>Bunkina and Nazarova, 1978; <sup>1</sup>Azbukina et al., 1984; <sup>1</sup>Azbukina et al., 1990; <sup>1</sup>Kovalenko, 1995; <sup>1</sup>Bardunov et al., 2002; <sup>1</sup>Azbukina et al., 2006; <sup>1</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Bulakh et al., 2016; <sup>1</sup>Bogacheva et al., 2018; <sup>1</sup>Bogacheva, Bulakh, Bukharova, and Egorova, 2020).

***Hygrophorus secretanii* Henning**

EASTERN EUROPE: **Sverdlovsk Oblast** (Marina, 2006).

FAR EAST: **Sakhalin Oblast** (Kovalenko, 1989; Kovalenko, 1995).

***Hygrophorus speciosus* Peck**

EASTERN EUROPE: **Komi Republic** (Kovalenko, 1989; Kovalenko, 1995; Palamarchuk, 2020a); **Leningrad Oblast** (Kovalenko, 1989; Kovalenko, 1995; Kovalenko and Morozova, 1999a; Popov et al., 2007); **Nenets Autonomous Okrug** (Matveyeva, 2006; Matveyeva, 2020); **Yamalo-Nenets Autonomous Okrug** (Karatygin, Nezdjominogo, Novozhilov, and Zhurbenko, 1999; Kovalenko, 1999).

SIBERIA: **Altai Krai** (Gorbunova, 2018a); **Buryatia** (Penzina and Petrov, 1994); **Irkutsk Oblast** (Kutafjeva, 1983; Petrov, 1984; Kovalenko, 1989; Petrov, 1989; Astapenko, 1990b; Kovalenko, 1995; Muzyka, 2002; Petrov, 2008; Gorbunova and Stepanova, 2015); **Khanty-Mansi Autonomous Okrug** (Zvyagina and Vasina, 2015; Zvyagina and Baykalova, 2017); **Krasnoyarsk Krai** (Beglyanova, 1972a; Nezdjominogo, 1976a; Kovalenko, 1989; Kovalenko, 1995); **Sakha Republic** (Kovalenko, 1989; Kovalenko, 1995).

FAR EAST: **Khabarovsk Krai** (Kovalenko, 1989; Kovalenko, 1995); **Magadan Oblast** (Nazarova, 1976; Kovalenko, 1989; Kovalenko, 1995; Sazanova, 1996; Sazanova, 2005; Sazanova, 2009a; Sazanova, 2009b; Sazanova, 2011; Sazanova and Golodnova, 2015).

***Hygrophorus spodoleucus* M.M. Moser**

EASTERN EUROPE: **Sverdlovsk Oblast** (Kovalenko, 1989).

SIBERIA: **Tomsk Oblast** (Kudashova, Gashkov, and Kutafjeva, 2013); **Yamalo-Nenets Autonomous Okrug** (Tarchevskaya, 1990).

***Hygrophorus subviscifer* (P. Karst.) Harmaja**

EASTERN EUROPE: **Karelia** (Bondartseva et al., 2001; Krutov et al., 2014).

***Hygrophorus testaceus* Lj.N. Vassiljeva**

FAR EAST: **Primorsky Krai** (Vassiljeva, 1972; Vassiljeva, 1973; Kovalenko, 1989; Kovalenko, 1995).

***Hygrophorus unicolor* Gröger**

EASTERN EUROPE: **Krasnodar Krai** (Sopina, 2001a).

***Hymenopellis amygdaliformis* (Zhu L. Yang & M. Zang) R.H. Petersen**

≡ *Xerula amygdaliformis* var. *amygdaliformis* (Zhu L. Yang & M. Zang) R.H. Petersen & Nagas.<sup>1</sup> = *Xerula amygdaliformis* var. *bispora* R.H. Petersen & Nagas.<sup>2</sup>

FAR EAST: **Sakhalin Oblast** (<sup>2</sup>Petersen and Nagasawa, 2005; <sup>1</sup>Bulakh, 2019; <sup>2</sup>Bulakh, 2019).

***Hymenopellis japonica* (Dörfelt) R.H. Petersen**

≡ *Xerula japonica* Dörfelt<sup>1</sup>

FAR EAST: **Sakhalin Oblast** (<sup>1</sup>Bulakh, 2019).

***Hymenopellis radicata* (Relhan) R.H. Petersen<sup>1</sup>**

≡ *Collybia radicata* (Relhan) Quél.<sup>2</sup> ≡ *Oudemansiella radicata* (Relhan) Singer<sup>3</sup> ≡ *Oudemansiella radicata* f. *radicata* (Relhan) Singer<sup>4</sup> ≡ *Xerula radicata* (Relhan) Dörfelt<sup>5</sup>

EASTERN EUROPE: **Adygea** (<sup>3</sup>Vassiljeva, 1939; <sup>5</sup>Vaasma, Kalamees, and Raitviir, 1986; <sup>5</sup>Psurtseva, Kiyashko, Gachkova, and Belova, 2007); **Bashkortostan** (<sup>3</sup>Stepanova and Sirko, 1977); **Belgorod Oblast** (<sup>3</sup>Bedenko, 1979a; <sup>5</sup>Psurtseva, Belova, and Ryabusheva, 2003; <sup>5</sup>Psurtseva, Kiyashko, Gachkova, and Belova, 2007); **Chechen Republic** (<sup>3</sup>Taysumov, Krapivina, and Kushalieva, 2016); **Chelyabinsk Oblast** (<sup>2</sup>Aleksandrovskaya and Lobanova, 1968); **Crimea** (<sup>2</sup>Zerova, 1962; <sup>5</sup>Moser, 1993; <sup>3</sup>Sarkina, 2001; <sup>5</sup>Dudka et al., 2004; <sup>5</sup>Sarkina, 2010b; <sup>5</sup>Sarkina, 2011; <sup>5</sup>Sarkina and Prydiuk,

2012; <sup>1</sup>Sarkina and Stavishenko, 2019); **Kabardino-Balkarian Republic** (<sup>4,5</sup>Shkhagapsoev and Krapivina, 2004); **Kaliningrad Oblast** (<sup>5</sup>Dedkov, Volodina, and Gubareva, 2007; <sup>1</sup>Atayev and Volodina, 2020); **Kaluga Oblast** (<sup>5</sup>Sionova, 2012); **Karachay-Cherkess Republic** (<sup>2</sup>Hollós, 1902; <sup>2</sup>Hollós, 1905; <sup>2</sup>Filarszky, 1907; <sup>3</sup>Vassiljeva, 1939; <sup>5</sup>Kalamees and Botashev, 2000); **Karelia** (<sup>3</sup>Czerepanova, Perfiljeva, and Tobias, 1982); **Krasnodar Krai** (<sup>3</sup>Vassiljeva, 1939; <sup>3</sup>Kovalenko, 1980a; <sup>5</sup>Vaasma, Kalamees, and Raitviir, 1986); **Kursk Oblast** (<sup>3</sup>Baranov, 2002; <sup>3</sup>Soshnina, 2005); **Leningrad Oblast** (<sup>5</sup>Morozova, 2002; <sup>5</sup>Popov et al., 2007); **Lipetsk Oblast** (<sup>3</sup>Rtishcheva, 1999; <sup>3</sup>Sarycheva, 1999; <sup>3</sup>Afanasyev, Rtishcheva, and Starodubtseva, 2007; <sup>5</sup>Sarycheva et al., 2009; <sup>5</sup>Sarycheva, 2011; <sup>5</sup>Sarycheva, 2014a; <sup>5</sup>Sarycheva, 2016; <sup>1</sup>Sarycheva, Starodubtseva, and Sapelnikova, 2017); **Mordovia** (<sup>5</sup>Ivoilov and Bolshakov, 2011a); **Moscow Oblast** (<sup>3</sup>Levitskaya, 1995b; <sup>5</sup>Vishnevsky, 1998; <sup>5</sup>Levitskaya, 2013); **Orenburg Oblast** (<sup>5</sup>Desyatova, 2008; <sup>1</sup>Safonov, 2015); **Penza Oblast** (<sup>3</sup>Ivanov, 1981a; <sup>3</sup>Ivanov, 1981b); **Perm Krai** (<sup>5</sup>Perevedentseva, 2008); **Rostov Oblast** (<sup>3</sup>Rusanov et al., 2004; <sup>3</sup>Zmitrovich et al., 2008; <sup>1</sup>Rusanov, Rebriev, and Bulgakov, 2018); **Ryazan Oblast** (<sup>3</sup>Volosnova, 1997); **Samara Oblast** (<sup>5</sup>Malysheva and Malysheva, 2004; <sup>5</sup>Psurtseva, Kiyashko, Gachkova, and Belova, 2007; <sup>5</sup>Malysheva and Malysheva, 2008); **Saratov Oblast** (<sup>2</sup>Kazakevich and Prisyazhnyuk, 1932); **Sevastopol** (<sup>1</sup>Sarkina, 2020c); **Tatarstan** (<sup>3</sup>Vassiljeva, 1977); **Tula Oblast** (<sup>5</sup>Svetasheva, 2004; <sup>5</sup>Svetasheva, 2013); **Tver Oblast** (<sup>3</sup>Kurochkin, 1993); **Ulyanovsk Oblast** (<sup>5</sup>Ilyukhin, 2009; <sup>5</sup>Ilyukhin, 2010a); **Voronezh Oblast** (<sup>3</sup>Rtishcheva, 1999; <sup>3</sup>Afanasyev, Rtishcheva, and Starodubtseva, 2007; <sup>3</sup>Selochnik, 2015); **Arid territories** (<sup>5</sup>Rebriev, Rusanov, et al., 2012); **Northern Caucasus** (<sup>3</sup>Kovalenko, 1980b).

SIBERIA: **Altai Republic** (<sup>3</sup>Gorbunova, 2001b; <sup>3</sup>Perova and Gorbunova, 2001); **Krasnoyarsk Krai** (<sup>5</sup>Zauzolkova, 2012; <sup>5</sup>Zauzolkova, 2015).

FAR EAST: **Primorsky Krai** (<sup>3</sup>Vassiljeva, 1973; <sup>3</sup>Bunkina and Nazarova, 1978; <sup>5</sup>Azbukina et al., 2006; <sup>3</sup>Bau, Bulakh, Zhuang, and Li, 2007); **Sakhalin Oblast** (<sup>3</sup>Vassiljeva and Nazarova, 1972).

***Hymenopellis rubrobrunnescens* (Redhead, Ginns & Shoemaker) R.H. Petersen**

EASTERN EUROPE: **Crimea** (Sarkina and Stavishenko, 2019).

***Hymenopellis rugosoceps* (G.F. Atk.) R.H. Petersen**

≡ *Xerula rugosoceps* (G.F. Atk.) Redhead, Ginns & Shoemaker<sup>1</sup>

FAR EAST: **Primorsky Krai** (<sup>1</sup>Bardunov et al., 2002; <sup>1</sup>Azbukina et al., 2006).

***Hymenopellis vinocontusa* (R.H. Petersen & Nagas.) R.H. Petersen**

≡ *Xerula vinocontusa* R.H. Petersen & Nagas.<sup>1</sup>

FAR EAST: **Primorsky Krai** (<sup>1</sup>Petersen and Nagasawa, 2005; <sup>1</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Bogacheva et al., 2018).

***Hypholoma capnoides* (Fr.) P. Kumm.<sup>1</sup>**

≡ *Agaricus capnoides* Fr.<sup>2</sup> ≡ *Naematoloma capnoides* (Fr.) P. Karst.<sup>3</sup>

EASTERN EUROPE: **Adygea** (<sup>1</sup>Vaasma, Kalamees, and Raitviir, 1986; <sup>1</sup>Kummer, 2007); **Bryansk Oblast** (<sup>1</sup>Kruglikov, 2007); **Crimea** (<sup>1</sup>Moser, 1993; <sup>1</sup>Sarkina, 2001; <sup>1</sup>Dudka et al., 2004; <sup>1</sup>Isikov, 2020); **Kabardino-Balkarian Republic** (<sup>1</sup>Shkhagapsoev and Krapivina, 2004); **Kaliningrad Oblast** (<sup>1</sup>Dedkov, Volodina, and Gubareva, 2007; <sup>1</sup>Volodina, 2007); **Kaluga Oblast** (<sup>1</sup>Sionova, 2003; <sup>1</sup>Sionova, 2006); **Karachay-Cherkess Republic** (<sup>1</sup>Kalamees and Botashev, 2000); **Karelia** (<sup>1</sup>Bondartseva et al., 2001; <sup>1</sup>Predtechenskaya and Ruokolainen, 2013; <sup>1</sup>Krutov et al., 2014; <sup>1</sup>Savelev and Kikeeva, 2018); **Kirov Oblast** (<sup>1</sup>Kirillov and Luginina, 2011; <sup>1</sup>Kirillov, 2011; <sup>1</sup>Kirillov, Perevedentseva, and Egoshina, 2011; <sup>1</sup>Stavishenko, Luginina, Kirillov, and Egoshina, 2019); **Komi Republic** (<sup>1</sup>Bobretsova, 2004; <sup>1</sup>Palamarchuk, 2011b; <sup>1</sup>Palamarchuk, 2012; <sup>1</sup>Palamarchuk, 2016a; <sup>1</sup>Palamarchuk, 2016b; <sup>1</sup>Palamarchuk and Kirillov, 2017); **Krasnodar Krai** (<sup>1</sup>Kovalenko, 1980a; <sup>1</sup>Kovalenko, 1980b; <sup>1</sup>Vaasma, Kalamees, and Raitviir, 1986; <sup>1</sup>Sopina, 2001a); **Leningrad Oblast** (<sup>3</sup>Thesleff, 1920; <sup>1</sup>Kalamees and Kovalenko, 1984; <sup>1</sup>Stolyarskaya, 1989; <sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Popov et al., 2007; <sup>1</sup>Zmitrovich et al., 2015; <sup>1</sup>Kalinina, 2018); **Lipetsk Oblast** (<sup>1</sup>Sarycheva et al., 2009; <sup>1</sup>Sarycheva, 2011; <sup>1</sup>Sarycheva, 2016); **Mordovia** (<sup>1</sup>Bolshakov, 2015); **Moscow Oblast** (<sup>1</sup>Gorlenko, Sidorova, and Sidorova, 1989; <sup>1</sup>Levitskaya, 1995a; <sup>1</sup>Levitskaya, 2013); **Murmansk Oblast** (<sup>1</sup>Pystina, Pavlova, and Shestakova, 1969); **Novgorod Oblast** (<sup>1</sup>Kovalenko, Morozova, Nezdoininogo, and Popov, 2005; <sup>1</sup>Malysheva, Malysheva, and Zmitrovich, 2007; <sup>1</sup>Popov et al., 2013); **Orenburg Oblast** (<sup>1</sup>Safonov, Malenkova, Rusakov, and Leneva, 2013; <sup>1</sup>Safonov, 2015); **Penza Oblast** (<sup>1</sup>Ivanov, 1981b; <sup>1</sup>Ivanov, 1982); **Perm Krai** (<sup>1</sup>Shkaraba, Perevedentseva, and Moshkina, 1990; <sup>1</sup>Perevedentseva, 2008; <sup>1</sup>Belkovskaya et al., 2014; <sup>1</sup>Perevedentseva and Shishigin, 2014; <sup>1</sup>Botalov, 2017); **Pskov Oblast** (<sup>1</sup>Popov et al., 2013); **Ryazan Oblast** (<sup>1</sup>Volosnova, 2005; <sup>1</sup>Volosnova, 2014); **Saint Petersburg** (<sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Morozova and Smirnov, 2011; <sup>1</sup>Morozova et al., 2020); **Saratov Oblast** (<sup>1</sup>Nagumanov, 2015); **Sverdlovsk Oblast** (<sup>3</sup>Stepanova and Sirko, 1977; <sup>1</sup>Marina, 2006); **Tatarstan** (<sup>3</sup>Vassiljeva, 1977; <sup>1</sup>Potapov, 2015b);

<sup>1</sup>Potapov, 2016a); **Tula Oblast** (<sup>1</sup>Svetasheva, 2001; <sup>1</sup>Svetasheva, 2004); **Tver Oblast** (<sup>1</sup>Kurochkin, 1993); **Udmurt Republic** (<sup>1</sup>Tychinin, 1990; <sup>1</sup>Tychinin and Kuzmina, 2003); **Ulyanovsk Oblast** (<sup>1</sup>Ilyukhin, 2009); **Vologda Oblast** (<sup>1</sup>Kutova, 1957; <sup>1</sup>Kirillova, 2006; <sup>1</sup>Kirillova, 2007); **Yaroslavl Oblast** (<sup>1</sup>Lazareva, 1998a; <sup>1</sup>Lazareva, 2002); **Arid territories** (<sup>1</sup>Rebriev, Rusanov, et al., 2012); **Lapland** (<sup>2</sup>Karsten, 1866).

SIBERIA: **Altai Krai** (<sup>1</sup>Gorbunova and Chubarova, 2008; <sup>1</sup>Gorbunova, Vlasenko, and Tzhubarova, 2011); **Altai Republic** (<sup>1</sup>Gorbunova, 2017a); **Buryatia** (<sup>1</sup>Nezdojminogo, 1970a; <sup>1</sup>Penzina and Petrov, 1994); **Irkutsk Oblast** (<sup>1</sup>Kutafjeva, 1983; <sup>1</sup>Petrov, 1986; <sup>1</sup>Petrov, 1989; <sup>1</sup>Astapenko, 1990a; <sup>1</sup>Muzyka, 2002; <sup>1</sup>Petrov, 2008; <sup>1</sup>Muzyka, 2009; <sup>1</sup>Muzyka and Penzina, 2017); **Khanty-Mansi Autonomous Okrug** (<sup>1</sup>Zvyagina, 2008; <sup>1</sup>Filippova and Thormann, 2014; <sup>1</sup>Filippova, 2014; <sup>1</sup>Filippova, Mourgues, and Philippe, 2014; <sup>1</sup>Shepeleva et al., 2014; <sup>1</sup>Filippova, Bulyonkova, and Lapshina, 2015; <sup>1</sup>Filippova and Bulyonkova, 2017a; <sup>1</sup>Filippova and Bulyonkova, 2017b); **Krasnoyarsk Krai** (<sup>1</sup>Beglyanova, 1972a; <sup>1</sup>Nezdojminogo, 1982a; <sup>1</sup>Lapitskaya, 1993; <sup>1</sup>Kryuchkova, 2015; <sup>1</sup>Kryuchkova and Yaskova, 2017; <sup>1</sup>Krom and Kapitonov, 2019); **Novosibirsk Oblast** (<sup>1</sup>Perova, 1977; <sup>1</sup>Perova and Gorbunova, 2001; <sup>1</sup>Koropachinskiy and Banaev, 2014); **Tomsk Oblast** (<sup>1</sup>Perova and Gorbunova, 2001; <sup>1</sup>Agaphonova, Kutafjeva, and Gashkov, 2007; <sup>1</sup>Kudashova, Gashkov, and Kutafjeva, 2013).

FAR EAST: **Amur Oblast** (<sup>1</sup>Bulakh, Govorova, and Taranina, 2003; <sup>1</sup>Taranina, 2005; <sup>1</sup>Kochunova, 2016; <sup>1</sup>Kochunova, 2019); **Jewish Autonomous Oblast** (<sup>1</sup>Bulakh, Govorova, Nazarova, and Vassiljeva, 2007; <sup>1</sup>Bau, Bulakh, and Govorova, 2011); **Khabarovsk Krai** (<sup>3</sup>Azbukina et al., 1986; <sup>1</sup>Bulakh, Vassiljeva, and Erofeeva, 2010; <sup>1</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Bulakh, 2013; <sup>1</sup>Bogacheva, Bulakh, Bukharova, and Egorova, 2015; <sup>1</sup>Erofeeva and Bulakh, 2015a); **Magadan Oblast** (<sup>1</sup>Sazanova, 2005; <sup>1</sup>Sazanova, 2009a); **Primorsky Krai** (<sup>3</sup>Vassiljeva, 1972; <sup>3</sup>Vassiljeva, 1973; <sup>3</sup>Azbukina et al., 1984; <sup>1</sup>Azbukina et al., 2006; <sup>1</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Bulakh et al., 2016); **Sakhalin Oblast** (<sup>3</sup>Vassiljeva and Nazarova, 1972).

#### *Hypholoma dispersum* Quél.

EASTERN EUROPE: **Perm Krai** (Belkovskaya et al., 2014).

FAR EAST: **Amur Oblast** (Kochunova, 2016).

#### *Hypholoma elongatum* (Pers.) Ricken<sup>1</sup>

≡ *Agaricus udus* var. *elongatus* (Pers.) Fr.<sup>2</sup>

EASTERN EUROPE: **Kaliningrad Oblast** (<sup>1</sup>Dedkov, Volodina, and Gubareva, 2007; <sup>1</sup>Volodina, 2007); **Kaluga Oblast** (<sup>1</sup>Sionova, 2012); **Kirov Oblast** (<sup>1</sup>Kirillov and Luginina, 2011; <sup>1</sup>Stavishenko, Luginina, Kirillov, and Egoshina, 2019); **Komi Republic** (<sup>1</sup>Palamarchuk, 2011b; <sup>1</sup>Palamarchuk, 2012; <sup>1</sup>Palamarchuk, 2016a; <sup>1</sup>Palamarchuk, 2016b; <sup>1</sup>Palamarchuk, 2017); **Leningrad Oblast** (<sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Morozova and Kovalenko, 2000; <sup>1</sup>Morozova, 2007; <sup>1</sup>Popov et al., 2007); **Lipetsk Oblast** (<sup>1</sup>Sarycheva et al., 2009); **Moscow Oblast** (<sup>1</sup>Levitskaya, 1995c; <sup>1</sup>Levitskaya, 2013; <sup>1</sup>Voronina et al., 2014); **Murmansk Oblast** (<sup>1</sup>Kalamees and Raitviir, 2006); **Novgorod Oblast** (<sup>1</sup>Malysheva, Malysheva, and Zmitrovich, 2007); **Perm Krai** (<sup>1</sup>Perevedentseva, 2008; <sup>1</sup>Belkovskaya et al., 2014; <sup>1</sup>Botalov, 2017); **Pskov Oblast** (<sup>1</sup>Popov, 2001a; <sup>1</sup>Popov et al., 2013); **Ryazan Oblast** (<sup>1</sup>Volosnova, 2014); **Saint Petersburg** (<sup>2</sup>Weinmann, 1836; <sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Kotkova, Morozova, and Popov, 2005; <sup>1</sup>Morozova and Smirnov, 2011; <sup>1</sup>Morozova et al., 2020); **Sverdlovsk Oblast** (<sup>1</sup>Marina, 2006); **Tula Oblast** (<sup>1</sup>Svetasheva, 2004); **Yaroslavl Oblast** (<sup>1</sup>Lazareva, 1998a; <sup>1</sup>Lazareva, 2002).

SIBERIA: **Altai Republic** (<sup>1</sup>Gorbunova, 2010; <sup>1</sup>Gorbunova, 2019); **Buryatia** (<sup>1</sup>Nezdojminogo, 1970a); **Khanty-Mansi Autonomous Okrug** (<sup>1</sup>Filippova, 2009; <sup>1</sup>Filippova and Thormann, 2014; <sup>1</sup>Filippova, 2014; <sup>1</sup>Filippova, Mourgues, and Philippe, 2014; <sup>1</sup>Filippova, Bulyonkova, and Lapshina, 2015; <sup>1</sup>Zvyagina and Baykalova, 2017); **Krasnoyarsk Krai** (<sup>1</sup>Beglyanova, 1972a; <sup>1</sup>Beglyanova, 1972c; <sup>1</sup>Gorbunova, 2016); **Tomsk Oblast** (<sup>1</sup>Kudashova, Gashkov, and Vaishlya, 2016a); **Yamalo-Nenets Autonomous Okrug** (<sup>1</sup>Nezdojminogo, 1994; <sup>1</sup>Karatygin, Nezdojminogo, Novozhilov, and Zhurbenko, 1999).

FAR EAST: **Chukotka Autonomous Okrug** (<sup>1</sup>Nezdojminogo, 1994; <sup>1</sup>Karatygin, Nezdojminogo, Novozhilov, and Zhurbenko, 1999); **Khabarovsk Krai** (<sup>1</sup>Bulakh, 2013; <sup>1</sup>Bogacheva, Bulakh, Bukharova, and Egorova, 2015); **Magadan Oblast** (<sup>1</sup>Sazanova, 2005).

#### *Hypholoma epixanthum* (Fr.) Quél.

EASTERN EUROPE: **Belgorod Oblast** (Bedenko, 1979a); **Kaliningrad Oblast** (Dedkov, Volodina, and Gubareva, 2007); **Karelia** (Krutov et al., 2014); **Leningrad Oblast** (Kovalenko and Morozova, 1999a; Popov et al., 2007); **Murmansk Oblast** (Pystina, Pavlova, and Shestakova, 1969); **Ryazan Oblast** (Volosnova, 2005); **Udmurt Republic** (Tychinin and Kuzmina, 2003).

FAR EAST: **Chukotka Autonomous Okrug** (Sazanova, 1993).



***Hypholoma ericaeoides* P.D. Orton**

EASTERN EUROPE: **Leningrad Oblast** (Morozova, 2002; Popov et al., 2007); **Moscow Oblast** (Levitskaya, 1995a; Levitskaya, 2013); **Orenburg Oblast** (Desyatova, 2007; Desyatova, 2008); **Sverdlovsk Oblast** (Marina, 2006); **Tula Oblast** (Svetasheva, 2004); **Udmurt Republic** (Tychinin, 1990).

SIBERIA: **Khanty-Mansi Autonomous Okrug** (Filippova, Bulyonkova, and Lapshina, 2015; Filippova and Bulyonkova, 2017a; Filippova and Bulyonkova, 2017b; Zvyagina and Baykalova, 2017); **Krasnoyarsk Krai** (Vassilkov, 1971b; Beglyanova, 1972a; Nezdojminogo, 1997a; Karatygin, Nezdojminogo, Novozhilov, and Zhurbenko, 1999; Gorbunova, 2016).

FAR EAST: **Magadan Oblast** (Sazanova, 2005; Sazanova, 2009a).

***Hypholoma ericaeum* (Pers.) Kühner<sup>1</sup>**

≡ *Agaricus ericaeus* Pers.<sup>2</sup> ≡ *Psilocybe ericaea* (Pers.) Quél.<sup>3</sup>

EASTERN EUROPE: **Leningrad Oblast** (<sup>3</sup>Thesleff, 1920; <sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Popov et al., 2007); **Saint Petersburg** (<sup>2</sup>Weinmann, 1828; <sup>2</sup>Weinmann, 1836; <sup>2</sup>Weinmann, 1837); **Arid territories** (<sup>1</sup>Rebriev, Rusanov, et al., 2012).

FAR EAST: **Magadan Oblast** (<sup>1</sup>Sazanova, 2005; <sup>1</sup>Sazanova, 2009a).

***Hypholoma eximium* (C. Laest.) Rald**

EASTERN EUROPE: **Karelia** (Bondartseva et al., 2001); **Yaroslavl Oblast** (Lazareva, 1998a; Lazareva, 2002).

SIBERIA: **Khanty-Mansi Autonomous Okrug** (Filippova and Thormann, 2014; Filippova, 2014; Filippova, Mourgues, and Philippe, 2014).

***Hypholoma fasciculare* (Huds.) P. Kumm.<sup>1</sup>**

≡ *Agaricus fascicularis* Huds.<sup>2</sup> ≡ *Hypholoma fasciculare* var. *fasciculare* (Huds.) P. Kumm.<sup>3</sup> ≡ *Naematoloma fasciculare* (Huds.) P. Karst.<sup>4</sup> = *Agaricus fascicularis* var. *marginatus* Fr.<sup>5</sup> = *Hypholoma elaeodes* (Fr.) Gillet<sup>6</sup> = *Naematoloma elaeodes* (Fr.) P. Karst.<sup>7</sup>

EASTERN EUROPE: **Adygea** (<sup>4</sup>Vassiljeva, 1939; <sup>1</sup>Vaasma, Kalamees, and Raitviir, 1986; <sup>1</sup>Sopina, 2001a; <sup>1</sup>Psurtseva, Kiyashko, Gachkova, and Belova, 2007); **Arkhangelsk Oblast** (<sup>1</sup>Lebedeva, 1933); **Belgorod Oblast** (<sup>1</sup>Bedenko, 1979a; <sup>1</sup>Psurtseva, Belova, and Ryabusheva, 2003); **Bryansk Oblast** (<sup>1</sup>Kruglikov, 2007); **Chechen Republic** (<sup>1</sup>Taysumov, Krapivina, Umarov, and Astamirova, 2012; <sup>1</sup>Taysumov, Krapivina, and Kushalieva, 2016); **Chelyabinsk Oblast** (<sup>4</sup>Stepanova and Sirko, 1977; <sup>1</sup>Krasutsky, 2013); **Crimea** (<sup>2</sup>Léveillé, 1842; <sup>1</sup>Sarkina, 2001; <sup>1</sup>Dudka et al., 2004; <sup>1</sup>Sarkina, 2011; <sup>1</sup>Sarkina and Prydiuk, 2012; <sup>1</sup>Sarkina and Stavishenko, 2019; <sup>1</sup>Isikov, 2020); **Kabardino-Balkarian Republic** (<sup>1</sup>Shkhagapsoev and Krapivina, 2003; <sup>1</sup>Shkhagapsoev and Krapivina, 2004); **Kaliningrad Oblast** (<sup>1</sup>Dedkov, Volodina, and Gubareva, 2007; <sup>1</sup>Volodina, 2007; <sup>1</sup>Atayev and Volodina, 2020); **Kaluga Oblast** (<sup>1</sup>Sionova, 2003; <sup>1</sup>Sionova, 2006); **Karachay-Cherkess Republic** (<sup>1</sup>Hollós, 1902; <sup>1</sup>Hollós, 1905; <sup>1</sup>Filarszky, 1907; <sup>1</sup>Kalamees and Botashev, 2000); **Karelia** (<sup>1</sup>Bondartseva et al., 2001; <sup>3</sup>Predtechenskaya and Ruokolainen, 2013; <sup>3</sup>Predtechenskaya, 2013; <sup>3</sup>Krutov et al., 2014; <sup>3</sup>Predtechenskaya and Ruokolainen, 2014; <sup>3</sup>Predtechenskaya, 2015; <sup>1</sup>Savelev and Kikeeva, 2018); **Kirov Oblast** (<sup>1</sup>Kirillov, 2011; <sup>1</sup>Kirillov, Perevedentseva, and Egoshina, 2011; <sup>1</sup>Stavishenko, Luginina, Kirillov, and Egoshina, 2019); **Komi Republic** (<sup>1</sup>Bobretsova, 2004; <sup>1</sup>Palamarchuk, 2012; <sup>1</sup>Palamarchuk and Kirillov, 2017); **Krasnodar Krai** (<sup>4</sup>Vassiljeva, 1939; <sup>1</sup>Kovalenko, 1980a; <sup>1</sup>Vaasma, Kalamees, and Raitviir, 1986; <sup>1</sup>Psurtseva, Kiyashko, Gachkova, and Belova, 2007; <sup>1</sup>Shumkova, Krivorotov, and Gayday, 2018); **Kursk Oblast** (<sup>1</sup>Ryabova and Ignatenko, 1981; <sup>1</sup>Baranov, 2002; <sup>1</sup>Soshnina, 2005); **Leningrad Oblast** (<sup>4</sup>Thesleff, 1920; <sup>1</sup>Kalamees and Kovalenko, 1984; <sup>1</sup>Stolyarskaya, 1989; <sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Morozova and Kovalenko, 2000; <sup>1</sup>Morozova, 2007; <sup>1</sup>Popov et al., 2007; <sup>1</sup>Zmitrovich et al., 2015; <sup>1</sup>Kalinina, 2018); **Lipetsk Oblast** (<sup>1</sup>Alferova, 1977; <sup>1</sup>Rtishcheva, 1999; <sup>1</sup>Sarycheva, 1999; <sup>1</sup>Afanasyev, Rtishcheva, and Starodubtseva, 2007; <sup>1</sup>Sarycheva et al., 2009; <sup>1</sup>Sarycheva, 2011; <sup>1</sup>Sarycheva, 2014a; <sup>1</sup>Sarycheva, 2016; <sup>1</sup>Sarycheva, Starodubtseva, and Sapelnikova, 2017); **Mari El Republic** (<sup>1</sup>Prokhorov, 2007); **Mordovia** (<sup>1</sup>Chastukhin, 1948a; <sup>7</sup>Kuznetsov, 1960; <sup>1</sup>Chastukhin and Nikolaevskaya, 1969; <sup>1</sup>Chastukhin, 2011; <sup>1</sup>Ivoilov and Bolshakov, 2011a); **Moscow** (<sup>1</sup>Bucholtz, 1897a; <sup>1</sup>Bucholtz, 1897b; <sup>1</sup>Bucholtz, 1897c; <sup>1</sup>Mosolov, 1906; <sup>1</sup>Burova, 1968); **Moscow Oblast** (<sup>1</sup>Gorlenko, Sidorova, and Sidorova, 1989; <sup>1</sup>Levitskaya, 1995c; <sup>1</sup>Psurtseva, Kiyashko, Gachkova, and Belova, 2007; <sup>1</sup>Voronina et al., 2012; <sup>1</sup>Levitskaya, 2013; <sup>1</sup>Voronina et al., 2014); **Murmansk Oblast** (<sup>1</sup>Pystina, Pavlova, and Shestakova, 1969); **North Ossetia** (<sup>1</sup>Nikolayev, 2001); **Novgorod Oblast** (<sup>1</sup>Kovalenko, Morozova, Nezdojminogo, and Popov, 2005; <sup>1</sup>Psurtseva, Kiyashko, Gachkova, and Belova, 2007; <sup>1</sup>Popov et al., 2013; <sup>1</sup>Baklan, 2015); **Orenburg Oblast** (<sup>1</sup>Safonov, 2002; <sup>1</sup>Desyatova, 2008; <sup>1</sup>Safonov, Malenkova, Rusakov, and Leneva, 2013; <sup>1</sup>Safonov, 2015); **Oryol Oblast** (<sup>1</sup>Volobuev and Tsutsupa, 2009; <sup>1</sup>Radygina, Derzhavina, and Tsutsupa, 2014); **Penza Oblast** (<sup>1</sup>Vet, 1943; <sup>1</sup>Ivanov, 1981b; <sup>1</sup>Ivanov, 1982; <sup>6</sup>Ivanov, 1988a; <sup>1</sup>Ivanov, 2019); **Perm**

**Krai** (<sup>1</sup>Shkaraba, Perevedentseva, and Moshkina, 1990; <sup>1,6</sup>Perevedentseva, 2008; <sup>1</sup>Belkovskaya et al., 2014; <sup>1</sup>Botalov, 2017); **Pskov Oblast** (<sup>1</sup>Kovalenko and Morozova, 1999b; <sup>1</sup>Kovalenko, Kolmakov, Morozova, and Popov, 2003; <sup>1</sup>Popov et al., 2013); **Rostov Oblast** (<sup>1</sup>Rusanov et al., 2004; <sup>1</sup>Zmitrovich et al., 2008; <sup>1</sup>Rusanov, Rebriev, and Bulgakov, 2018); **Ryazan Oblast** (<sup>1</sup>Volosnova, 1997; <sup>1</sup>Volosnova, 2014); **Saint Petersburg** (<sup>5</sup>Weinmann, 1828; <sup>2,5</sup>Weinmann, 1836; <sup>2,5</sup>Weinmann, 1837; <sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Morozova and Kovalenko, 2000; <sup>1</sup>Kotkova, Morozova, and Popov, 2005; <sup>1</sup>Kotkova, Morozova, and Popov, 2006; <sup>1</sup>Kotkova, Morozova, and Popov, 2007; <sup>1</sup>Psurtseva, Kiyashko, Gachkova, and Belova, 2007; <sup>1</sup>Morozova and Smirnov, 2011; <sup>1</sup>Morozova, Kovalenko, Rebriev, and Malysheva, 2014; <sup>1</sup>Zhukova, Morozova, Volobuev, and Bryantseva, 2017; <sup>1</sup>Morozova et al., 2020); **Samara Oblast** (<sup>1</sup>Malysheva and Malysheva, 2008); **Saratov Oblast** (<sup>1</sup>Lebedeva, 1927; <sup>1</sup>Komirnaya, 1970; <sup>1</sup>Nagumanov, 2015); **Sevastopol** (<sup>1</sup>Sarkina, 2016b; <sup>1</sup>Sarkina, 2020c); **Smolensk Oblast** (<sup>1</sup>Jaczewski, 1895); **Sverdlovsk Oblast** (<sup>4</sup>Stepanova and Sirko, 1977; <sup>1</sup>Marina, 2006); **Tatarstan** (<sup>4</sup>Vassiljeva, 1977; <sup>1</sup>Potapov, 2015b); **Tula Oblast** (<sup>1</sup>Svetasheva, 2001; <sup>1</sup>Svetasheva, 2004; <sup>1</sup>Svetasheva, 2013); **Tver Oblast** (<sup>1</sup>Chastukhin, 1948b; <sup>1</sup>Chastukhin and Nikolaevskaya, 1969; <sup>1</sup>Kurochkin, 1993; <sup>1</sup>Mukhina, 2011a; <sup>1</sup>Mukhina, 2011b; <sup>1</sup>Kotkova, 2014; <sup>1</sup>Kurochkin and Medvedev, 2015; <sup>1</sup>Kurochkin, 2016); **Udmurt Republic** (<sup>1</sup>Tychinin, 1990; <sup>1</sup>Tychinin and Kuzmina, 2003); **Ulyanovsk Oblast** (<sup>1</sup>Ilyukhin, 2009; <sup>1</sup>Ilyukhin, 2010a); **Vladimir Oblast** (<sup>1</sup>Mishulin, Blinov, and Gushchina, 2018); **Vologda Oblast** (<sup>1</sup>Kirillova, 2006; <sup>1</sup>Kirillova, 2007); **Voronezh Oblast** (<sup>1</sup>Chastukhin, 1952; <sup>1</sup>Chastukhin and Nikolaevskaya, 1953; <sup>1</sup>Chastukhin and Nikolaevskaya, 1969; <sup>1</sup>Rtishcheva, 1999; <sup>1</sup>Afanasyev, Rtishcheva, and Starodubtseva, 2007; <sup>1</sup>Selochnik, 2015; <sup>1</sup>Sarycheva, Starodubtseva, and Sapelnikova, 2017; <sup>1</sup>Kochergina and Furmenkova, 2019); **Yamalo-Nenets Autonomous Okrug** (<sup>4</sup>Kazanthseva, 1970; <sup>4</sup>Stepanova and Sirko, 1977); **Yaroslavl Oblast** (<sup>1</sup>Lazareva, 1997; <sup>1</sup>Lazareva, 1998a); **Arid territories** (<sup>1</sup>Rebriev, Rusanov, et al., 2012); **Northern Caucasus** (<sup>1</sup>Kovalenko, 1980b).

**SIBERIA: Altai Krai** (<sup>1</sup>Gorbunova and Perova, 2006; <sup>1</sup>Gorbunova and Chubarova, 2008; <sup>1</sup>Gorbunova, Vlasenko, and Tzhubarova, 2011); **Altai Republic** (<sup>1</sup>Gorbunova, 1996; <sup>1</sup>Gorbunova, 1997; <sup>1</sup>Gorbunova, 2001a; <sup>1</sup>Gorbunova, 2001b); **Buryatia** (<sup>1</sup>Nezdojminogo, 1970a); **Irkutsk Oblast** (<sup>1</sup>Kutafjeva, 1983; <sup>1</sup>Petrov, 1986; <sup>1</sup>Petrov, 1989; <sup>1</sup>Astapenko, 1990a; <sup>1</sup>Bardunov et al., 2005; <sup>1</sup>Petrov, 2008; <sup>1</sup>Muzyka, 2009); **Khakassia** (<sup>1</sup>Beglyanova, 1972a; <sup>1</sup>Zauzolkova, 2015); **Khanty-Mansi Autonomous Okrug** (<sup>1</sup>Mukhin, 1993; <sup>1</sup>Stavishenko, 2003; <sup>1</sup>Filippova, Bulyonkova, and Lapshina, 2015; <sup>1</sup>Filippova and Bulyonkova, 2017a; <sup>1</sup>Filippova and Bulyonkova, 2017b; <sup>1</sup>Zvyagina and Baykalova, 2017); **Krasnoyarsk Krai** (<sup>1</sup>Beglyanova, 1972a; <sup>1</sup>Lapitskaya, 1993; <sup>1</sup>Pavlov et al., 2007; <sup>1</sup>Kosheleva and Kutafjeva, 2008a; <sup>1</sup>Zauzolkova, 2012; <sup>1</sup>Zauzolkova, 2015; <sup>1</sup>Krom and Kapitonov, 2019); **Novosibirsk Oblast** (<sup>4</sup>Nozdrenko, 1970; <sup>1</sup>Zaytseva, 1971; <sup>4</sup>Zhukov, 1980; <sup>1</sup>Gorbunova, 2007; <sup>1</sup>Perova and Gorbunova, 2007; <sup>3</sup>Koropachinskiy and Banaev, 2014); **Sverdlovsk Oblast** (<sup>1</sup>Mukhin, 1993; <sup>1</sup>Mukhin et al., 2003); **Tomsk Oblast** (<sup>1</sup>Milovidova, 1980; <sup>1</sup>Kosheleva and Kutafjeva, 2004; <sup>1</sup>Agaphonova, Kutafjeva, and Gashkov, 2007; <sup>1,6</sup>Kudashova, Gashkov, and Kutafjeva, 2013; <sup>6</sup>Kudashova, Gashkov, and Vaishlya, 2016b); **Yamalo-Nenets Autonomous Okrug** (<sup>1</sup>Tarchevskaya, 1990; <sup>1</sup>Mukhin, 1993).

**FAR EAST: Amur Oblast** (<sup>4</sup>Gordienko, Petrova, and Tarasov, 1981; <sup>1</sup>Azbukina et al., 1998; <sup>1</sup>Kochunova, 2016); **Chukotka Autonomous Okrug** (<sup>1</sup>Sazanova, 1993); **Jewish Autonomous Oblast** (<sup>1</sup>Bulakh, Govorova, Nazarova, and Vassiljeva, 2007; <sup>1</sup>Bau, Bulakh, and Govorova, 2011); **Khabarovsk Krai** (<sup>4</sup>Azbukina et al., 1986; <sup>1</sup>Azbukina et al., 1989; <sup>1</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Erofeeva and Bulakh, 2015a); **Magadan Oblast** (<sup>1</sup>Sazanova, 1996; <sup>1</sup>Sazanova, 2005; <sup>1</sup>Sazanova, 2009a; <sup>3</sup>Sazanova, 2009b; <sup>3</sup>Sazanova, 2011); **Primorsky Krai** (<sup>4</sup>Vassiljeva, 1972; <sup>4</sup>Vassiljeva, 1973; <sup>4</sup>Bunkina and Nazarova, 1978; <sup>4</sup>Azbukina et al., 1984; <sup>1</sup>Azbukina et al., 1990; <sup>1</sup>Bardunov et al., 2002; <sup>1</sup>Azbukina et al., 2006; <sup>4</sup>Bau, Bulakh, Zhuang, and Li, 2007; <sup>1</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Bulakh et al., 2016; <sup>1</sup>Bogacheva, Bulakh, Bukharova, and Egorova, 2020); **Sakhalin Oblast** (<sup>4</sup>Vassiljeva and Nazarova, 1972; <sup>1</sup>Bulakh, Govorova, and Bogatov, 1999).

### *Hypholoma laeticolor* (F.H. Møller) P.D. Orton

**EASTERN EUROPE: Murmansk Oblast** (Kalamees and Raitviir, 2006); **Penza Oblast** (Ivanov, 1983).

**SIBERIA: Sakha Republic** (Nezdojminogo, 1994; Karatygin, Nezdojminogo, Novozhilov, and Zhurbenko, 1999).

**FAR EAST: Magadan Oblast** (Sazanova, 2005; Sazanova, 2009a; Sazanova, 2016).

### *Hypholoma lateritium* (Schaeff.) P. Kumm.<sup>1</sup>

≡ *Agaricus lateritius* Schaeff.<sup>2</sup> = *Hypholoma sublateritium* (Fr.) Quél.<sup>3</sup> = *Hypholoma sublateritium* var. *sublateritium* (Fr.) Quél.<sup>4</sup> = *Naematoloma sublateritium* (Fr.) P. Karst.<sup>5</sup>

**EASTERN EUROPE: Adygea** (<sup>3</sup>Vaasma, Kalamees, and Raitviir, 1986); **Bashkortostan** (<sup>5</sup>Stepanova and Sirko, 1977); **Belgorod Oblast** (<sup>3</sup>Bedenko, 1979a; <sup>3</sup>Ryabova and Ignatenko, 1981; <sup>3</sup>Nikolayev, 1986); **Bryansk Oblast** (<sup>3</sup>Kruglikov, 2007); **Chechen Republic** (<sup>3</sup>Taysumov, Krapivina, Umarov, and Astamirova, 2012; <sup>3</sup>Taysumov, Krapivina, and Kushaliev, 2016); **Chelyabinsk Oblast** (<sup>5</sup>Stepanova and Sirko, 1977); **Crimea** (<sup>3</sup>Zerova, 1962);

<sup>3</sup>Dudka et al., 2004; <sup>3</sup>Sarkina, 2011; <sup>3</sup>Sarkina and Prydiuk, 2012; <sup>3</sup>Sarkina and Stavishenko, 2019; <sup>1</sup>Isikov, 2020); **Kabardino-Balkarian Republic** (<sup>3</sup>Shkhagapsoev and Krapivina, 2003; <sup>3</sup>Shkhagapsoev and Krapivina, 2004); **Kaliningrad Oblast** (<sup>3</sup>Dedkov, Volodina, and Gubareva, 2007; <sup>3</sup>Volodina, 2007; <sup>1</sup>Atayev and Volodina, 2020); **Kaluga Oblast** (<sup>3</sup>Sionova, 2003; <sup>3</sup>Sionova, 2006); **Karachay-Cherkess Republic** (<sup>1</sup>Kalamees and Botashev, 2000); **Karelia** (<sup>5</sup>Freindling, 1949; <sup>1</sup>Bondartseva et al., 2001; <sup>1</sup>Predtechenskaya and Ruokolainen, 2013; <sup>1</sup>Predtechenskaya, 2013; <sup>1</sup>Krutov et al., 2014; <sup>1</sup>Predtechenskaya and Ruokolainen, 2014; <sup>1</sup>Savelev and Kikeeva, 2020); **Kirov Oblast** (<sup>1</sup>Kirillov, 2011; <sup>1</sup>Kirillov, Perevedentseva, and Egoshina, 2011; <sup>1</sup>Stavishenko, Luginina, Kirillov, and Egoshina, 2019); **Komi Republic** (<sup>1</sup>Palamarchuk, 2016a; <sup>1</sup>Palamarchuk, 2016b); **Krasnodar Krai** (<sup>5</sup>Vassiljeva, 1939; <sup>4</sup>Kovalenko, 1980a; <sup>3</sup>Vaasma, Kalamees, and Raitviir, 1986; <sup>3</sup>Sopina, 2001a); **Kursk Oblast** (<sup>3</sup>Ryabova and Ignatenko, 1981; <sup>3</sup>Soshnina, 2001; <sup>3</sup>Soshnina, 2005); **Leningrad Oblast** (<sup>3</sup>Stolyarskaya, 1993; <sup>3</sup>Kovalenko and Morozova, 1999a; <sup>3</sup>Morozova and Kovalenko, 2000; <sup>3</sup>Morozova, 2007; <sup>3</sup>Popov et al., 2007; <sup>3</sup>Psurtseva, Kiyashko, Gachkova, and Belova, 2007; <sup>1</sup>Zmitrovich et al., 2015); **Lipetsk Oblast** (<sup>3</sup>Alferova, 1977; <sup>3</sup>Rtishcheva, 1999; <sup>3</sup>Sarycheva, 1999; <sup>3</sup>Afanasyev, Rtishcheva, and Starodubtseva, 2007; <sup>3</sup>Sarycheva et al., 2009; <sup>3</sup>Sarycheva, 2011; <sup>3</sup>Sarycheva, 2014a; <sup>3</sup>Sarycheva, 2016; <sup>1</sup>Sarycheva, Starodubtseva, and Sapelnikova, 2017); **Mordovia** (<sup>3</sup>Chastukhin, 1948a; <sup>3</sup>Chastukhin and Nikolaevskaya, 1969; <sup>1</sup>Chastukhin, 2011; <sup>1</sup>Ivoilov and Bolshakov, 2011a); **Moscow** (<sup>1</sup>Bucholtz, 1897b; <sup>1</sup>Bucholtz, 1897c; <sup>1</sup>Mosolov, 1906); **Moscow Oblast** (<sup>3</sup>Gorlenko, Sidorova, and Sidorova, 1989; <sup>3</sup>Levitskaya, 1995c; <sup>3</sup>Levitskaya, 2013; <sup>1</sup>Voronina et al., 2014); **Murmansk Oblast** (<sup>3</sup>Pystina, Pavlova, and Shestakova, 1969); **Novgorod Oblast** (<sup>1</sup>Morozova, 2012; <sup>3</sup>Popov et al., 2013); **Orenburg Oblast** (<sup>1</sup>Desyatova, 2007; <sup>1,3</sup>Desyatova, 2008; <sup>3</sup>Safonov, Malenkova, Rusakov, and Leneva, 2013; <sup>1</sup>Safonov, 2015); **Oryol Oblast** (<sup>1</sup>Radygina, Derzhavina, and Tsutsupa, 2014); **Penza Oblast** (<sup>3</sup>Ivanov, 1981b; <sup>3</sup>Ivanov, 1982; <sup>1</sup>Ivanov, 2019); **Perm Krai** (<sup>1</sup>Perevedentseva, 2008; <sup>1</sup>Belkovskaya et al., 2014; <sup>1</sup>Botalov, 2017); **Pskov Oblast** (<sup>3</sup>Popov et al., 2013); **Rostov Oblast** (<sup>3</sup>Morozova et al., 2008; <sup>1</sup>Rusanov, Rebriev, and Bulgakov, 2018); **Ryazan Oblast** (<sup>3</sup>Volosnova, 1997; <sup>3</sup>Volosnova, 2014); **Saint Petersburg** (<sup>2</sup>Weinmann, 1828; <sup>2</sup>Weinmann, 1836; <sup>2</sup>Weinmann, 1837; <sup>3</sup>Kovalenko and Morozova, 1999a; <sup>3</sup>Morozova and Kovalenko, 2000; <sup>3</sup>Kotkova, Morozova, and Popov, 2006; <sup>3</sup>Morozova and Smirnov, 2011; <sup>1</sup>Morozova, Kovalenko, Rebriev, and Malysheva, 2014; <sup>3</sup>Morozova et al., 2020); **Samara Oblast** (<sup>3</sup>Malysheva and Malysheva, 2008); **Sverdlovsk Oblast** (<sup>5</sup>Stepanova and Sirko, 1977; <sup>3</sup>Marina, 2006); **Tatarstan** (<sup>5</sup>Vassiljeva, 1977); **Tula Oblast** (<sup>1</sup>Svetasheva, 2001; <sup>3</sup>Svetasheva, 2004; <sup>1</sup>Svetasheva, 2013); **Tver Oblast** (<sup>3</sup>Chastukhin and Nikolaevskaya, 1969; <sup>3</sup>Kurochkin, 1993; <sup>3</sup>Mukhina, 2011a; <sup>3</sup>Mukhina, 2011b; <sup>1</sup>Kotkova, 2014; <sup>3</sup>Kurochkin and Medvedev, 2015; <sup>3</sup>Kurochkin, 2016); **Udmurt Republic** (<sup>3</sup>Tychinin, 1990; <sup>3</sup>Tychinin and Kuzmina, 2003); **Ulyanovsk Oblast** (<sup>3</sup>Ilyukhin, 2009; <sup>1</sup>Ilyukhin, 2010a; <sup>3</sup>Ilyukhin, 2010a); **Volgograd Oblast** (<sup>3</sup>Dudka and Vedeneyev, 2014); **Vologda Oblast** (<sup>1</sup>Kirillova, 2006; <sup>1</sup>Kirillova, 2007); **Voronezh Oblast** (<sup>3</sup>Chastukhin, 1952; <sup>3</sup>Chastukhin and Nikolaevskaya, 1953; <sup>3</sup>Chastukhin and Nikolaevskaya, 1969; <sup>3</sup>Rtishcheva, 1999; <sup>3</sup>Afanasyev, Rtishcheva, and Starodubtseva, 2007; <sup>3</sup>Selochnik, 2015; <sup>1</sup>Sarycheva, Starodubtseva, and Sapelnikova, 2017); **Yamalo-Nenets Autonomous Okrug** (<sup>5</sup>Stepanova and Sirko, 1977); **Yaroslavl Oblast** (<sup>3</sup>Lazareva, 1997; <sup>3</sup>Lazareva, 1998a); **Arid territories** (<sup>1</sup>Rebriev, Rusanov, et al., 2012); **Northern Caucasus** (<sup>4</sup>Kovalenko, 1980b).

SIBERIA: **Altai Krai** (<sup>3</sup>Gorbunova and Chubarova, 2008; <sup>1</sup>Gorbunova, Vlasenko, and Tzhubarova, 2011); **Altai Republic** (<sup>3</sup>Gorbunova, 1996; <sup>3</sup>Gorbunova, 1997; <sup>3</sup>Gorbunova, 2001a; <sup>3</sup>Gorbunova, 2001b); **Irkutsk Oblast** (<sup>3</sup>Petrov, 1986; <sup>3</sup>Petrov, 1989; <sup>3</sup>Astapenko, 1990a; <sup>3</sup>Petrov, 1991; <sup>3</sup>Petrov, 2008); **Khakassia** (<sup>1</sup>Zauzolkova, 2015); **Krasnoyarsk Krai** (<sup>3</sup>Beglyanova, 1972a; <sup>3</sup>Beglyanova, 1972c; <sup>3</sup>Pavlov et al., 2007; <sup>3</sup>Kosheleva and Kutafjeva, 2008a; <sup>1</sup>Kryuchkova, 2015; <sup>1</sup>Krom and Kapitonov, 2019); **Novosibirsk Oblast** (<sup>3</sup>Perova and Gorbunova, 2007; <sup>1</sup>Koropachinskiy and Banaev, 2014); **Tomsk Oblast** (<sup>3</sup>Agaphonova, Kutafjeva, and Gashkov, 2007; <sup>1</sup>Kudashova, Gashkov, and Kutafjeva, 2013).

FAR EAST: **Magadan Oblast** (<sup>3</sup>Sazanova, 2005; <sup>3</sup>Sazanova, 2009a).

### *Hypholoma marginatum* J. Schröt.

EASTERN EUROPE: **Adygea** (Vaasma, Kalamees, and Raitviir, 1986); **Karachay-Cherkess Republic** (Kalamees and Botashev, 2000); **Karelia** (Predtechenskaya and Ruokolainen, 2013); **Komi Republic** (Palamarchuk, 2012); **Leningrad Oblast** (Kovalenko and Morozova, 1999a; Popov et al., 2007); **Perm Krai** (Perevedentseva, 2008); **Sverdlovsk Oblast** (Marina, 2006).

SIBERIA: **Khanty-Mansi Autonomous Okrug** (Filippova and Bulyonkova, 2017a; Filippova and Bulyonkova, 2017b); **Krasnoyarsk Krai** (Beglyanova, 1972a).

### *Hypholoma myosotis* (Fr.) M. Lange<sup>1</sup>

≡ *Agaricus myosotis* Fr.<sup>2</sup> ≡ *Flammula myosotis* (Fr.) Singer<sup>3</sup> ≡ *Hemipholiota myosotis* (Fr.) Bon<sup>4</sup> ≡ *Naucoria myosotis* (Fr.) P. Kumm.<sup>5</sup> ≡ *Pholiota myosotis* (Fr.) Singer<sup>6</sup> = *Flammula myosotis* f. *castanea* Singer<sup>7</sup>

EASTERN EUROPE: **Kaliningrad Oblast** (<sup>4</sup>Volodina, 2007); **Karelia** (<sup>3</sup>Freindling, 1949; <sup>3,7</sup>Singer, 1950a; <sup>1</sup>Bondartseva et al., 2001; <sup>1</sup>Krutov et al., 2014); **Komi Republic** (<sup>1</sup>Karatygin, Nezdjominog, Novozhilov, and

Zhurbenko, 1999; <sup>1</sup>Palamarchuk, 2011a; <sup>1</sup>Palamarchuk, 2012; <sup>1</sup>Palamarchuk and Kirillov, 2018a); **Leningrad Oblast** (<sup>5</sup>Thesleff, 1920; <sup>3</sup>Singer, 1950a; <sup>6</sup>Chastukhin and Nikolaevskaya, 1969; <sup>4</sup>Kovalenko and Morozova, 1999a; <sup>4</sup>Morozova and Kovalenko, 2000; <sup>1</sup>Popov et al., 2007; <sup>4</sup>Morozova, 2007); **Lipetsk Oblast** (<sup>1</sup>Sarycheva et al., 2009); **Moscow Oblast** (<sup>1</sup>Levitskaya, 1995c; <sup>4</sup>Levitskaya, 2013); **Murmansk Oblast** (<sup>1</sup>Nezdojminogo, 1997b; <sup>1</sup>Karatygin, Nezdojminogo, Novozhilov, and Zhurbenko, 1999); **Novgorod Oblast** (<sup>4</sup>Kovalenko, Morozova, Nezdojminogo, and Popov, 2005; <sup>1</sup>Popov et al., 2013); **Penza Oblast** (<sup>1</sup>Ivanov, 1985); **Perm Krai** (<sup>1</sup>Botalov, 2017); **Pskov Oblast** (<sup>1</sup>Popov, 2001a; <sup>1</sup>Popov et al., 2013); **Ryazan Oblast** (<sup>1</sup>Volosnova, 2005); **Saint Petersburg** (<sup>2</sup>Weinmann, 1836; <sup>4</sup>Kovalenko and Morozova, 1999a; <sup>4</sup>Kotkova, Morozova, and Popov, 2005; <sup>1</sup>Morozova and Smirnov, 2011; <sup>1</sup>Morozova et al., 2020); **Tatarstan** (<sup>1</sup>Vassiljeva, 1977); **Vologda Oblast** (<sup>4</sup>Kirillova, 2006; <sup>4</sup>Kirillova, 2007); **Yamalo-Nenets Autonomous Okrug** (<sup>1</sup>Nezdojminogo, 1994; <sup>1</sup>Karatygin, Nezdojminogo, Novozhilov, and Zhurbenko, 1999); **Yaroslavl Oblast** (<sup>1</sup>Lazareva, 1998a; <sup>1</sup>Lazareva, 2002).

SIBERIA: **Buryatia** (<sup>6</sup>Nezdojminogo, 1973); **Irkutsk Oblast** (<sup>1</sup>Petrov, 1986; <sup>1</sup>Petrov, 2008; <sup>1</sup>Gorbunova and Stepantsova, 2015); **Khanty-Mansi Autonomous Okrug** (<sup>1</sup>Filippova, Bulyonkova, and Lapshina, 2015; <sup>1</sup>Zvyagina and Vasina, 2015; <sup>1</sup>Zvyagina and Baykalova, 2017); **Krasnoyarsk Krai** (<sup>6</sup>Nezdojminogo, 1976a; <sup>1</sup>Nezdojminogo and Zhurbenko, 1996; <sup>1</sup>Nezdojminogo, 1997a; <sup>1</sup>Karatygin, Nezdojminogo, Novozhilov, and Zhurbenko, 1999; <sup>1</sup>Malysheva, Malysheva, Kiyashko, et al., 2017); **Sakha Republic** (<sup>4</sup>Nezdojminogo, 2003); **Tomsk Oblast** (<sup>1</sup>Perova and Gorbunova, 2001; <sup>1</sup>Kudashova, Gashkov, and Kutafjeva, 2013).

FAR EAST: **Amur Oblast** (<sup>1</sup>Nazarova, 1986); **Chukotka Autonomous Okrug** (<sup>1</sup>Nezdojminogo, 1994; <sup>1</sup>Karatygin, Nezdojminogo, Novozhilov, and Zhurbenko, 1999); **Kamchatka Krai** (<sup>1</sup>Karatygin, Nezdojminogo, Novozhilov, and Zhurbenko, 1999); **Magadan Oblast** (<sup>1</sup>Nazarova, 1976; <sup>1</sup>Sazanova, 1996; <sup>1</sup>Sazanova, 2005; <sup>1</sup>Sazanova, 2009a; <sup>1</sup>Sazanova, 2009b; <sup>1</sup>Sazanova, 2011; <sup>1</sup>Sazanova, 2012; <sup>1</sup>Sazanova, 2016).

### ***Hypholoma polytrichi* (Fr.) Ricken<sup>1</sup>**

≡ *Agaricus udus* var. *polytrichi* (Fr.) Fr.<sup>2</sup> ≡ *Naematoloma polytrichi* (Fr.) Konrad<sup>3</sup>

EASTERN EUROPE: **Kaliningrad Oblast** (<sup>1</sup>Dedkov, Volodina, and Gubareva, 2007; <sup>1</sup>Volodina, 2007); **Kaluga Oblast** (<sup>1</sup>Sionova, 2012); **Karelia** (<sup>1</sup>Bondartseva et al., 2001; <sup>1</sup>Krutov et al., 2014); **Komi Republic** (<sup>1</sup>Bobretsova, 2004; <sup>1</sup>Palamarchuk, 2011b; <sup>1</sup>Palamarchuk, 2012; <sup>1</sup>Palamarchuk, 2016a; <sup>1</sup>Palamarchuk, 2016b; <sup>1</sup>Palamarchuk and Kirillov, 2017); **Leningrad Oblast** (<sup>2</sup>Weinmann, 1836; <sup>3</sup>Thesleff, 1920; <sup>1</sup>Stolyarskaya, 1989; <sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Morozova, 2007; <sup>1</sup>Popov et al., 2007; <sup>1</sup>Zmitrovich et al., 2015); **Novgorod Oblast** (<sup>1</sup>Kovalenko, Morozova, Nezdojminogo, and Popov, 2005; <sup>1</sup>Popov et al., 2013); **Orenburg Oblast** (<sup>1</sup>Desyatova, 2008); **Perm Krai** (<sup>1</sup>Perevedentseva, 2008); **Saint Petersburg** (<sup>2</sup>Weinmann, 1828; <sup>2</sup>Weinmann, 1837; <sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Morozova and Smirnov, 2011); **Sverdlovsk Oblast** (<sup>1</sup>Marina, 2006); **Tver Oblast** (<sup>1</sup>Kurochkin, 1993; <sup>1</sup>Mukhina, 2011a; <sup>1</sup>Mukhina, 2011b; <sup>1</sup>Kotkova, 2014); **Udmurt Republic** (<sup>1</sup>Tychinin, 1990); **Vologda Oblast** (<sup>1</sup>Kutova, 1957; <sup>1</sup>Kirillova, 2006; <sup>1</sup>Kirillova, 2007).

SIBERIA: **Altai Krai** (<sup>1</sup>Gorbunova, 2018a); **Altai Republic** (<sup>1</sup>Gorbunova, 2001a; <sup>1</sup>Gorbunova, 2017a); **Buryatia** (<sup>1</sup>Nezdojminogo, 1973; <sup>1</sup>Penzina and Petrov, 1994); **Irkutsk Oblast** (<sup>1</sup>Petrov, 1986; <sup>1</sup>Kutafjeva, 1989; <sup>1</sup>Petrov, 1989; <sup>1</sup>Petrov, 2008; <sup>1</sup>Gorbunova and Stepantsova, 2015); **Khanty-Mansi Autonomous Okrug** (<sup>1</sup>Filippova and Bulyonkova, 2017a; <sup>1</sup>Filippova and Bulyonkova, 2017b); **Krasnoyarsk Krai** (<sup>1</sup>Beglyanova, 1972a; <sup>1</sup>Beglyanova, 1972c; <sup>1</sup>Nezdojminogo, 1976a; <sup>1</sup>Kryuchkova, 2009); **Novosibirsk Oblast** (<sup>1</sup>Perova and Gorbunova, 2001; <sup>1</sup>Perova and Gorbunova, 2007); **Tomsk Oblast** (<sup>1</sup>Kudashova, Gashkov, and Kutafjeva, 2013).

FAR EAST: **Chukotka Autonomous Okrug** (<sup>1</sup>Sazanova, 1993); **Magadan Oblast** (<sup>1</sup>Nazarova, 1976; <sup>1</sup>Sazanova, 2005; <sup>1</sup>Sazanova, 2009a; <sup>1</sup>Sazanova, 2011); **Sakhalin Oblast** (<sup>3</sup>Vassiljeva and Nazarova, 1972).

### ***Hypholoma radicosum* J.E. Lange**

EASTERN EUROPE: **Karachay-Cherkess Republic** (Kalamees and Botashev, 2000); **Kirov Oblast** (Kirillov, 2011; Kirillov, Perevedentseva, and Egoshina, 2011); **Komi Republic** (Palamarchuk, 2011a; Palamarchuk, 2012); **Leningrad Oblast** (Morozova, 2002; Popov et al., 2007); **Mordovia** (Bolshakov and Ivoilov, 2012a); **Novgorod Oblast** (Kovalenko, Morozova, Nezdojminogo, and Popov, 2005; Popov et al., 2013); **Penza Oblast** (Ivanov, 1988a); **Pskov Oblast** (Popov et al., 2013); **Sverdlovsk Oblast** (Marina, 2006); **Tver Oblast** (Kurochkin, 1993); **Udmurt Republic** (Tychinin and Kuzmina, 2003); **Vologda Oblast** (Kirillova, 2006; Kirillova, 2007).

SIBERIA: **Altai Krai** (Gorbunova, 2018a); **Khakassia** (Zauzolkova, 2015; Zauzolkova and Gorbunova, 2016); **Tomsk Oblast** (Perova and Gorbunova, 2001; Kudashova, Gashkov, and Kutafjeva, 2013).

***Hypholoma subericaceum* (Fr.) Kühner**

EASTERN EUROPE: **Leningrad Oblast** (Morozova, 2002; Popov et al., 2007); **Orenburg Oblast** (Desyatova, 2008); **Perm Krai** (Perevedentseva, 2008); **Rostov Oblast** (Psurtseva, Kiyashko, Gachkova, and Belova, 2007; Morozova et al., 2008); **Sverdlovsk Oblast** (Marina, 2006); **Arid territories** (Rebriev, Rusanov, et al., 2012).

***Hypsizygus marmoreus* (Peck) H.E. Bigelow**

EASTERN EUROPE: **Oryol Oblast** (Bolshakov et al., 2020; Volobuev, Bolshakov, and Shakhova, 2020).

SIBERIA: **Krasnoyarsk Krai** (Malysheva, Malysheva, Kiyashko, et al., 2017).

***Hypsizygus tessulatus* (Bull.) Singer**

EASTERN EUROPE: **Crimea** (Sarkina and Stavishenko, 2019); **Krasnodar Krai** (Kovalenko, 1980a; Kovalenko, 1980b); **Samara Oblast** (Malysheva and Malysheva, 2005b; Malysheva and Malysheva, 2008); **Udmurt Republic** (Tychinin, 1990).

SIBERIA: **Novosibirsk Oblast** (Koropachinskiy and Banaev, 2014).

FAR EAST: **Jewish Autonomous Oblast** (Shlotgauer and Rubtsova, 2006; Bulakh, Govorova, Nazarova, and Vassiljeva, 2007; Bau, Bulakh, and Govorova, 2011; Shlotgauer and Rubtsova, 2019); **Primorsky Krai** (Bulakh and Govorova, 2000; Azbukina et al., 2006; Bau, Bulakh, and Govorova, 2011).

***Hypsizygus ulmarius* (Bull.) Redhead<sup>1</sup>**

≡ *Agaricus ulmarius* Bull.<sup>2</sup> ≡ *Lyophyllum ulmarium* (Bull.) Kühner<sup>3</sup> ≡ *Pleurotus ulmarius* (Bull.) P. Kumm.<sup>4</sup> ≡ *Tricholoma ulmarium* (Bull.) P. Karst.<sup>5</sup>

EASTERN EUROPE: **Chelyabinsk Oblast** (<sup>3</sup>Stepanova and Sirko, 1977; <sup>1</sup>Krasutsky, 2013); **Kaliningrad Oblast** (<sup>1</sup>Dedkov, Volodina, and Gubareva, 2007; <sup>1</sup>Volodina, 2007); **Kaluga Oblast** (<sup>3</sup>Sionova, 2012); **Karelia** (<sup>1</sup>Kovalenko, Morozova, Fomina, and Särkisilta, 1998; <sup>1</sup>Krutov et al., 2014); **Komi Republic** (<sup>1</sup>Palamarchuk, 2016a; <sup>1</sup>Palamarchuk, 2016b; <sup>1</sup>Palamarchuk and Kirillov, 2017; <sup>1</sup>Palamarchuk, 2020a); **Kursk Oblast** (<sup>3</sup>Ryabova and Ignatenko, 1981); **Leningrad Oblast** (<sup>5</sup>Thesleff, 1920; <sup>3</sup>Singer, 1943; <sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Kalamees, 2004; <sup>1</sup>Zmitrovich, Malysheva, Malysheva, and Spirin, 2004; <sup>1</sup>Popov et al., 2007; <sup>1</sup>Psurtseva, Kiyashko, Gachkova, and Belova, 2007; <sup>1</sup>Kalinina, 2018); **Lipetsk Oblast** (<sup>1</sup>Sarycheva et al., 2009; <sup>1</sup>Shcherbakov, 2014); **Moscow** (<sup>2</sup>Bucholtz, 1897b; <sup>2</sup>Bucholtz, 1897c; <sup>2</sup>Mosolov, 1906); **Moscow Oblast** (<sup>3</sup>Levitskaya, 1995b; <sup>1</sup>Vishnevsky, 1998; <sup>1</sup>Kalamees, 2004; <sup>1</sup>Levitskaya, 2013; <sup>1</sup>Voronina et al., 2014); **Murmansk Oblast** (<sup>1</sup>Kalamees, 2004); **Novgorod Oblast** (<sup>1</sup>Malysheva, Malysheva, and Zmitrovich, 2007); **Penza Oblast** (<sup>1</sup>Kalamees, 2004); **Perm Krai** (<sup>3</sup>Perevedentseva, 2008); **Pskov Oblast** (<sup>1</sup>Popov et al., 2013); **Rostov Oblast** (<sup>1</sup>Rusanov, Rebriev, and Bulgakov, 2018); **Ryazan Oblast** (<sup>3</sup>Volosnova, 2005; <sup>1</sup>Volosnova, 2014); **Saint Petersburg** (<sup>2</sup>Weinmann, 1828; <sup>2</sup>Weinmann, 1836; <sup>2</sup>Weinmann, 1837; <sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Kalamees, 2004; <sup>1</sup>Kotkova, Morozova, and Popov, 2005; <sup>1</sup>Morozova and Smirnov, 2011; <sup>1</sup>Morozova, Kovalenko, Rebriev, and Malysheva, 2014; <sup>1</sup>Zhukova, Morozova, Volobuev, and Bryantseva, 2017; <sup>1</sup>Morozova et al., 2020); **Smolensk Oblast** (<sup>4</sup>Jaczewski, 1896); **Tatarstan** (<sup>1</sup>Kalamees, 2004; <sup>1</sup>Potapov, 2015b); **Tula Oblast** (<sup>1</sup>Svetasheva, 2004); **Udmurt Republic** (<sup>3</sup>Tychinin and Kuzmina, 2003); **Vladimir Oblast** (<sup>1</sup>Mishulin, Blinov, and Gushchina, 2018); **Vologda Oblast** (<sup>1</sup>Kirillova, 2007; <sup>1</sup>Kirillova, 2009); **Yaroslavl Oblast** (<sup>1</sup>Lazareva, 1998a); **Arid territories** (<sup>1</sup>Rebriev, Rusanov, et al., 2012).

SIBERIA: **Altai Krai** (<sup>1</sup>Gorbunova, 2018a); **Buryatia** (<sup>3</sup>Penzina and Petrov, 1994); **Irkutsk Oblast** (<sup>3</sup>Petrov, 1984; <sup>3</sup>Kutafjeva, 1989; <sup>3</sup>Astapenko, 1990a; <sup>3</sup>Petrov, 1991; <sup>1</sup>Kalamees, 2004; <sup>3</sup>Petrov, 2008; <sup>1</sup>Gorbunova and Stepantsova, 2015; <sup>1</sup>Muzyka and Penzina, 2017); **Khakassia** (<sup>1</sup>Zauzolkova and Gorbunova, 2013; <sup>1</sup>Zauzolkova, 2015); **Khanty-Mansi Autonomous Okrug** (<sup>1</sup>Mukhin, 1993; <sup>1</sup>Zvyagina and Baykalova, 2012; <sup>1</sup>Filippova, Bulyonkova, and Lapshina, 2015; <sup>1</sup>Zvyagina and Vasina, 2015; <sup>1</sup>Filippova and Bulyonkova, 2017a; <sup>1</sup>Filippova and Bulyonkova, 2017b; <sup>1</sup>Zvyagina and Baykalova, 2017); **Krasnoyarsk Krai** (<sup>3</sup>Beglyanova, 1972a; <sup>1</sup>Kalamees, 2004; <sup>3</sup>Pavlov et al., 2007; <sup>1</sup>Kryuchkova, 2015; <sup>1</sup>Malysheva, Malysheva, Kiyashko, et al., 2017; <sup>1</sup>Krom and Kapitonov, 2019); **Novosibirsk Oblast** (<sup>4</sup>Nozdrenko, 1970; <sup>1</sup>Koropachinskiy and Banaev, 2014); **Tomsk Oblast** (<sup>3</sup>Agaphonova, Kutafjeva, and Gashkov, 2007; <sup>3</sup>Agaphonova, Kutafjeva, and Gashkov, 2009b; <sup>1</sup>Kudashova, Gashkov, and Kutafjeva, 2013; <sup>1</sup>Kudashova, Gashkov, and Vaishlya, 2016b); **Tyumen Oblast** (<sup>1</sup>Mukhin, 1993); **Yamalo-Nenets Autonomous Okrug** (<sup>1</sup>Mukhin, 1993).

FAR EAST: **Amur Oblast** (<sup>1</sup>Kochunova, 2016; <sup>1</sup>Kochunova and Timchenko, 2019); **Khabarovsk Krai** (<sup>3</sup>Azbukina et al., 1986; <sup>3</sup>Azbukina et al., 1989; <sup>1</sup>Kalamees, 2004; <sup>1</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Erofeeva and Bulakh, 2015a); **Magadan Oblast** (<sup>3</sup>Nazarova, 1976; <sup>1</sup>Kalamees, 2004; <sup>3</sup>Sazanova, 2005; <sup>1</sup>Sazanova, 2009a; <sup>1</sup>Sazanova, 2009b; <sup>1</sup>Sazanova, 2011); **Primorsky Krai** (<sup>3</sup>Vassiljeva, 1973; <sup>3</sup>Shalapugina, 1976; <sup>3</sup>Bunkina and Nazarova, 1978; <sup>3</sup>Azbukina et al., 1984; <sup>3</sup>Azbukina et al., 1990; <sup>1</sup>Bardunov et al., 2002; <sup>1</sup>Kalamees, 2004; <sup>1</sup>Azbukina et al., 2006; <sup>1</sup>Psurtseva, Kiyashko, Gachkova, and Belova, 2007; <sup>1</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Bogacheva, Bulakh, Bukharova, and Egorova, 2020).

***Imleria badia* (Fr.) Vizzini<sup>1</sup>**

≡ *Boletus badius* (Fr.) Fr.<sup>2</sup> ≡ *Xerocomus badius* (Fr.) E.-J. Gilbert<sup>3</sup>

EASTERN EUROPE: **Adygea** (<sup>3</sup>Vaasma, Kalamees, and Raitviir, 1986); **Bashkortostan** (<sup>3</sup>Stepanova and Sirko, 1977); **Belgorod Oblast** (<sup>3</sup>Bedenko, 1979a); **Bryansk Oblast** (<sup>3</sup>Kruglikov, 2007); **Crimea** (<sup>3</sup>Dudka et al., 2004; <sup>2</sup>Akulov and Prydiuk, 2007; <sup>2</sup>Sarkina, 2011; <sup>2</sup>Sarkina and Prydiuk, 2012); **Ivanovo Oblast** (<sup>2</sup>Alyavdina, 1928); **Kabardino-Balkarian Republic** (<sup>3</sup>Shkhagapsoev and Krapivina, 2004); **Kaliningrad Oblast** (<sup>2</sup>Hennings, 1895; <sup>3</sup>Dedkov, Volodina, and Gubareva, 2007; <sup>3</sup>Volodina, 2007); **Kaluga Oblast** (<sup>3</sup>Sionova, 2003; <sup>3</sup>Sionova, 2006); **Karachay-Cherkess Republic** (<sup>3</sup>Vassiljeva, 1939; <sup>3</sup>Kalamees and Botashev, 2000); **Karelia** (<sup>3</sup>Bondartseva et al., 2001; <sup>3</sup>Ivanter and Kuznetsov, 2007; <sup>2</sup>Krutov et al., 2014; <sup>1</sup>Kuznetsov, 2020; <sup>1</sup>Savelev and Kikeeva, 2020); **Krasnodar Krai** (<sup>3</sup>Kovalenko, 1980a; <sup>3</sup>Kovalenko, 1980b); **Leningrad Oblast** (<sup>2</sup>Thesleff, 1920; <sup>3</sup>Kovalenko and Morozova, 1999a; <sup>3</sup>Fomina, 2000; <sup>3</sup>Morozova, 2007; <sup>3</sup>Popov et al., 2007; <sup>1</sup>Zmitrovich et al., 2015; <sup>3</sup>Bondartseva et al., 2015; <sup>1</sup>Kalinina, 2018); **Lipetsk Oblast** (<sup>3</sup>Sarycheva, 1999; <sup>3</sup>Afanasyev, Rtishcheva, and Starodubtseva, 2007; <sup>2</sup>Sarycheva et al., 2009; <sup>2</sup>Sarycheva, 2014a; <sup>2</sup>Sarycheva, 2016; <sup>2</sup>Sarycheva, Starodubtseva, and Sapelnikova, 2017); **Mordovia** (<sup>2</sup>Ivoilov and Bolshakov, 2011b; <sup>1</sup>Bolshakov, 2015; <sup>1</sup>Silaeva, 2017); **Moscow Oblast** (<sup>3</sup>Gorlenko, Sidorova, and Sidorova, 1989; <sup>3</sup>Levitskaya, 1995b; <sup>2</sup>Voronina et al., 2012; <sup>3</sup>Levitskaya, 2013; <sup>2</sup>Voronina et al., 2014; <sup>2</sup>Sidorova, Alexandrova, and Voronina, 2017); **North Ossetia** (<sup>3</sup>Nikolayev, 2001); **Novgorod Oblast** (<sup>3</sup>Yurova, 2001; <sup>3</sup>Kovalenko, Morozova, Nezdojminogo, and Popov, 2005; <sup>3</sup>Malysheva, Malysheva, and Zmitrovich, 2007; <sup>3</sup>Popov et al., 2013); **Orenburg Oblast** (<sup>2</sup>Vorontsovsky, 1921; <sup>3</sup>Korshikova, 2006; <sup>3</sup>Desyatova, 2008); **Oryol Oblast** (<sup>3</sup>Radygina, Derzhavina, and Tsutsupa, 2014); **Penza Oblast** (<sup>3</sup>Ivanov, 1981a); **Pskov Oblast** (<sup>2</sup>Popov, 2001a; <sup>3</sup>Popov et al., 2013); **Rostov Oblast** (<sup>3</sup>Rusanov et al., 2004; <sup>3</sup>Morozova et al., 2008; <sup>3</sup>Zmitrovich et al., 2008); **Ryazan Oblast** (<sup>3</sup>Volosnova, 1997; <sup>2</sup>Volosnova, 2014); **Saint Petersburg** (<sup>3</sup>Kovalenko and Morozova, 1999a; <sup>3</sup>Morozova and Smirnov, 2011; <sup>1</sup>Morozova et al., 2020); **Tatarstan** (<sup>3</sup>Shchepovskih, Bojko, Gorshkov, and Rogova, 2006; <sup>2</sup>Potapov, Galejev, and Zhukov, 2013; <sup>2</sup>Potapov, 2015b); **Tula Oblast** (<sup>2</sup>Svetasheva, 2001; <sup>3</sup>Svetasheva, 2004); **Tver Oblast** (<sup>3</sup>Kurochkin, 1993; <sup>3</sup>Mukhina, 2011a; <sup>3</sup>Mukhina, 2011b; <sup>2</sup>Kotkova, 2014); **Udmurt Republic** (<sup>3</sup>Tychinin and Kuzmina, 2003); **Voronezh Oblast** (<sup>3</sup>Rtishcheva, 1999; <sup>3</sup>Afanasyev, Rtishcheva, and Starodubtseva, 2007; <sup>2</sup>Sarycheva, Starodubtseva, and Sapelnikova, 2017); **Yaroslavl Oblast** (<sup>3</sup>Lazareva, 1997; <sup>3</sup>Lazareva, 1998a).

SIBERIA: **Altai Republic** (<sup>3</sup>Kovalenko, 1992; <sup>3</sup>Perova and Gorbunova, 2001; <sup>2</sup>Gorbunova, 2010); **Buryatia** (<sup>3</sup>Nezdojminogo, 1973; <sup>3</sup>Petrov, 1991); **Irkutsk Oblast** (<sup>3</sup>Muzyka, 2002); **Krasnoyarsk Krai** (<sup>2</sup>Thümen, 1878; <sup>3</sup>Beglyanova, 1972a; <sup>2</sup>Zauzolkova, 2015); **Sverdlovsk Oblast** (<sup>3</sup>Stepanova and Sirko, 1977); **Tomsk Oblast** (<sup>2</sup>Kudashova, Gashkov, and Kutafjeva, 2013).

FAR EAST: **Magadan Oblast** (<sup>3</sup>Nazarova, 1976; <sup>3</sup>Sazanova, 2005; <sup>2</sup>Sazanova, 2009a); **Primorsky Krai** (<sup>3</sup>Vassiljeva, 1973).

***Imperator luteocupreus* (Bertéa & Estadès) Assyov, Bellanger, Bertéa, Courtec., Koller, Loizides, G. Marques, J.A. Muñoz, Oppicelli, D. Puddu, F. Rich. & P.-A. Moreau**

EASTERN EUROPE: **Crimea** (Sarkina, 2020a); **Sevastopol** (Sarkina, 2020c).

***Imperator rhodopurpureus* (Smotl.) Assyov, Bellanger, Bertéa, Courtec., Koller, Loizides, G. Marques, J.A. Muñoz, Oppicelli, D. Puddu, F. Rich. & P.-A. Moreau<sup>1</sup>**

≡ *Boletus rhodopurpureus* Smotl.<sup>2</sup>

EASTERN EUROPE: **Crimea** (<sup>2</sup>Sarkina, 2010b; <sup>2</sup>Sarkina and Prydiuk, 2012; <sup>2</sup>Sarkina, 2013; <sup>2</sup>Sarkina and Mironova, 2015); **Karachay-Cherkess Republic** (<sup>2</sup>Onipchenko et al., 2013); **Krasnodar Krai** (<sup>2</sup>Kovalenko, 1980a; <sup>2</sup>Kovalenko, 1980b); **Lipetsk Oblast** (<sup>2</sup>Afanasyev, Rtishcheva, and Starodubtseva, 2007; <sup>2</sup>Sarycheva, Starodubtseva, and Sapelnikova, 2017); **Penza Oblast** (<sup>2</sup>Ivanov, 1981a; <sup>2</sup>Ivanov, 2013a); **Voronezh Oblast** (<sup>2</sup>Afanasyev, Rtishcheva, and Starodubtseva, 2007; <sup>2</sup>Agafonov, 2011; <sup>2</sup>Sarycheva, Starodubtseva, and Sapelnikova, 2017; <sup>1</sup>Agafonov, 2018).

***Imperator torosus* (Fr.) Assyov, Bellanger, Bertéa, Courtec., Koller, Loizides, G. Marques, J.A. Muñoz, Oppicelli, D. Puddu, F. Rich. & P.-A. Moreau<sup>1</sup>**

≡ *Boletus torosus* Fr.<sup>2</sup>

EASTERN EUROPE: **Adygea** (<sup>2</sup>Vaasma, Kalamees, and Raitviir, 1986; <sup>2</sup>Zamotajlov, Sirotjuk (Kuvaeva), Akatova, and Lipka, 2012); **Sevastopol** (<sup>1</sup>Sarkina, 2020c).

***Infundibulicybe altaica* (Singer) Harmaja**

≡ *Clitocybe altaica* Singer<sup>1</sup>

SIBERIA: **Altai Republic** (<sup>1</sup>Singer, 1943; <sup>1</sup>Harmaja, 1969).

***Infundibulicybe dryadum* (Bon) Harmaja**EASTERN EUROPE: **Komi Republic** (Palamarchuk, 2016a; Palamarchuk, 2016b).***Infundibulicybe geotropa* (Bull.) Harmaja<sup>1</sup>**≡ *Agaricus geotropus* Bull.<sup>2</sup> ≡ *Clitocybe geotropa* (Bull.) Quél.<sup>3</sup> ≡ *Clitocybe geotropa* var. *geotropa* (Bull.) Quél.<sup>4</sup>

EASTERN EUROPE: **Adygea** (<sup>3</sup>Vaasma, Kalamees, and Raitviir, 1986); **Belgorod Oblast** (<sup>3</sup>Bedenko, 1980); **Chelyabinsk Oblast** (<sup>3</sup>Aleksandrovskaya and Lobanova, 1968); **Crimea** (<sup>3</sup>Sarkina, 2001; <sup>3</sup>Dudka et al., 2004; <sup>3</sup>Sarkina, 2010b; <sup>3</sup>Sarkina, 2011; <sup>3</sup>Sarkina and Prydiuk, 2012; <sup>3</sup>Sarkina, 2014b; <sup>3</sup>Sarkina and Mironova, 2015; <sup>1</sup>Sarkina and Stavishenko, 2019); **Kabardino-Balkarian Republic** (<sup>3</sup>Shkhagapsoev and Krapivina, 2003; <sup>3</sup>Shkhagapsoev and Krapivina, 2004); **Kaliningrad Oblast** (<sup>3</sup>Dedkov, Volodina, and Gubareva, 2007; <sup>1</sup>Atayev and Volodina, 2020); **Kaluga Oblast** (<sup>3</sup>Sionova, 2012; <sup>3</sup>Antokhina et al., 2015); **Karachay-Cherkess Republic** (<sup>3</sup>Onipchenko and Kaverina, 1989; <sup>3</sup>Kalamees and Botashev, 2000); **Karelia** (<sup>1</sup>Predtechenskaya and Ruokolainen, 2013; <sup>3</sup>Predtechenskaya, 2013; <sup>1</sup>Krutov et al., 2014; <sup>1</sup>Predtechenskaya, 2015); **Komi Republic** (<sup>1</sup>Palamarchuk, 2012); **Krasnodar Krai** (<sup>3</sup>Kovalenko, 1980a; <sup>3</sup>Kovalenko, 1980b); **Leningrad Oblast** (<sup>3</sup>Kovalenko and Morozova, 1999a; <sup>3</sup>Morozova, 1999; <sup>3</sup>Popov et al., 2007); **Lipetsk Oblast** (<sup>3</sup>Sarycheva et al., 2009; <sup>3</sup>Sarycheva, 2011; <sup>3</sup>Sarycheva, 2014a; <sup>3</sup>Sarycheva, 2016); **Mordovia** (<sup>1</sup>Ivoilov and Bolshakov, 2011a); **Moscow Oblast** (<sup>3</sup>Gorlenko, Sidorova, and Sidorova, 1989; <sup>3</sup>Levitskaya, 1995b; <sup>3</sup>Vishnevsky, 1998; <sup>3</sup>Varlygina, Zubakin, and Sobolev, 2008; <sup>3</sup>Levitskaya, 2013; <sup>1</sup>Sidorova, Alexandrova, and Voronina, 2017; <sup>1</sup>Varlygina, Zubakin, Nikitsky, and Sviridov, 2018); **Orenburg Oblast** (<sup>3</sup>Desyatova, 2008); **Pskov Oblast** (<sup>3</sup>Popov et al., 2013); **Saint Petersburg** (<sup>3</sup>Kovalenko and Morozova, 1999a); **Samara Oblast** (<sup>3</sup>Malysheva and Malysheva, 2004; <sup>3</sup>Malysheva and Malysheva, 2008); **Sevastopol** (<sup>3</sup>Sarkina, 2016b); **Sverdlovsk Oblast** (<sup>3</sup>Stepanova and Sirko, 1977); **Tambov Oblast** (<sup>3</sup>Elenevskiy, 2002; <sup>1</sup>Konakov et al., 2019); **Tula Oblast** (<sup>3</sup>Svetasheva, 2004; <sup>3</sup>Svetasheva, 2005b; <sup>3</sup>Svetasheva, 2008); **Tver Oblast** (<sup>3</sup>Kurochkin, 1993); **Udmurt Republic** (<sup>3</sup>Tychinin, 1990; <sup>3</sup>Tychinin and Kuzmina, 2003); **Voronezh Oblast** (<sup>1</sup>Sarycheva, Starodubtseva, and Sapelnikova, 2017); **Arid territories** (<sup>1</sup>Rebriev, Rusanov, et al., 2012).

SIBERIA: **Altai Republic** (<sup>3</sup>Gorbunova, 1996; <sup>3</sup>Gorbunova, 1997; <sup>3</sup>Gorbunova, 2001b; <sup>3</sup>Perova and Gorbunova, 2001); **Irkutsk Oblast** (<sup>3</sup>Petrov, 1984; <sup>4</sup>Petrov, 1991; <sup>4</sup>Petrov, 2008); **Khakassia** (<sup>1</sup>Zauzolkova, 2015); **Krasnoyarsk Krai** (<sup>2</sup>Thümen, 1878; <sup>3</sup>Beglyanova, 1972a; <sup>3</sup>Kosheleva and Kutafjeva, 2008a); **Kurgan Oblast** (<sup>1</sup>Bystrushkin, 2016); **Novosibirsk Oblast** (<sup>3</sup>Zaytseva, 1971); **Sverdlovsk Oblast** (<sup>3</sup>Stepanova and Sirko, 1977); **Tomsk Oblast** (<sup>3</sup>Perova, 1972; <sup>3</sup>Perova and Gorbunova, 2001; <sup>3</sup>Kosheleva and Kutafjeva, 2004; <sup>1</sup>Kudashova, Gashkov, and Kutafjeva, 2013).

FAR EAST: **Chukotka Autonomous Okrug** (<sup>3</sup>Sazanova, 1993); **Khabarovsk Krai** (<sup>3</sup>Azbukina et al., 1986; <sup>3</sup>Bau, Bulakh, and Govorova, 2011); **Magadan Oblast** (<sup>3</sup>Sazanova, 2005; <sup>1</sup>Sazanova, 2009a; <sup>1</sup>Sazanova, 2011); **Primorsky Krai** (<sup>3</sup>Vassiljeva, 1972; <sup>3</sup>Vassiljeva, 1973; <sup>3</sup>Bunkina and Nazarova, 1978; <sup>3</sup>Azbukina et al., 2006; <sup>3</sup>Bau, Bulakh, and Govorova, 2011).

***Infundibulicybe gibba* (Pers.) Harmaja<sup>1</sup>**≡ *Agaricus gibbus* Pers.<sup>2</sup> ≡ *Clitocybe gibba* (Pers.) P. Kumm.<sup>3</sup> = *Clitocybe maxima* (P. Gaertn., G. Mey. & Scherb.) P. Kumm.<sup>4</sup>

EASTERN EUROPE: **Adygea** (<sup>3,4</sup>Vaasma, Kalamees, and Raitviir, 1986; <sup>3</sup>Psurtseva, Kiyashko, Gachkova, and Belova, 2007); **Arkhangelsk Oblast** (<sup>3</sup>Ezhov, Zmitrovich, and Ruokolainen, 2019); **Belgorod Oblast** (<sup>3,4</sup>Bedenko, 1979a; <sup>3</sup>Psurtseva, Belova, and Ryabusheva, 2003; <sup>3</sup>Psurtseva, Kiyashko, Gachkova, and Belova, 2007); **Bryansk Oblast** (<sup>3</sup>Kruglikov, 2007); **Chelyabinsk Oblast** (<sup>4</sup>Stepanova and Sirko, 1977; <sup>3</sup>Psurtseva, Kiyashko, Gachkova, and Belova, 2007); **Crimea** (<sup>4</sup>Zerova, 1962; <sup>3</sup>Moser, 1993; <sup>3</sup>Dudka et al., 2004; <sup>3</sup>Sarkina, 2010b; <sup>3</sup>Sarkina, 2011; <sup>3</sup>Sarkina and Prydiuk, 2012); **Kabardino-Balkarian Republic** (<sup>3</sup>Shkhagapsoev and Krapivina, 2003; <sup>3</sup>Shkhagapsoev and Krapivina, 2004); **Kaliningrad Oblast** (<sup>3</sup>Dedkov, Volodina, and Gubareva, 2007; <sup>3</sup>Volodina, 2007); **Kaluga Oblast** (<sup>3</sup>Sionova, 2003; <sup>3</sup>Sionova, 2006); **Karachay-Cherkess Republic** (<sup>3,4</sup>Kalamees and Botashev, 2000); **Karelia** (<sup>3</sup>Bondartseva et al., 2001; <sup>3</sup>Psurtseva, Kiyashko, Gachkova, and Belova, 2007; <sup>3</sup>Predtechenskaya and Ruokolainen, 2008; <sup>3</sup>Predtechenskaya and Ruokolainen, 2013; <sup>3</sup>Predtechenskaya, 2013; <sup>3</sup>Krutov et al., 2014; <sup>3</sup>Predtechenskaya and Ruokolainen, 2014; <sup>3</sup>Predtechenskaya, 2015; <sup>3</sup>Savelev and Kikeeva, 2018); **Kirov Oblast** (<sup>3</sup>Kirillov, 2011; <sup>3</sup>Kirillov, Perevedentseva, and Egoshina, 2011; <sup>3</sup>Stavishenko, Luginina, Kirillov, and Egoshina, 2019); **Komi Republic** (<sup>3</sup>Bobretsova, 2004; <sup>3</sup>Palamarchuk, 2011b; <sup>3</sup>Palamarchuk, 2012; <sup>3</sup>Palamarchuk, 2016a; <sup>3</sup>Palamarchuk, 2016b; <sup>3</sup>Palamarchuk and Kirillov, 2017); **Krasnodar Krai** (<sup>3</sup>Kovalenko, 1980a; <sup>3</sup>Vaasma, Kalamees, and Raitviir, 1986); **Kursk Oblast** (<sup>3,4</sup>Ryabova and Ignatenko, 1981; <sup>3,4</sup>Soshnina, 2001; <sup>3,4</sup>Baranov, 2002; <sup>3</sup>Soshnina, 2005; <sup>4</sup>Soshnina, 2014); **Leningrad Oblast** (<sup>3</sup>Harmaja, 1969; <sup>3</sup>Kalamees and Kovalenko, 1984; <sup>3</sup>Stolyarskaya, 1989; <sup>3,4</sup>Kovalenko and Morozova, 1999a; <sup>3</sup>Morozova and Kovalenko, 2000; <sup>3</sup>Morozova, 2007; <sup>3,4</sup>Popov et al., 2007; <sup>3</sup>Zmitrovich et al., 2015; <sup>3</sup>Kalinina, 2018); **Lipetsk Oblast** (<sup>3</sup>Rtishcheva, 1999; <sup>3</sup>Sarycheva, 1999; <sup>3</sup>Afanasyev, Rtishcheva, and Starodubtseva,

2007; <sup>3,4</sup>Sarycheva et al., 2009; <sup>3</sup>Sarycheva, 2011; <sup>3,4</sup>Sarycheva, 2014a; <sup>3,4</sup>Sarycheva, 2016; <sup>3</sup>Sarycheva, Starodubtseva, and Sapelnikova, 2017); **Mari El Republic** (<sup>3</sup>Prokhorov, 2007); **Moscow Oblast** (<sup>3</sup>Gorlenko, Sidorova, and Sidorova, 1989; <sup>3</sup>Levitskaya, 1995b; <sup>3</sup>Vishnevsky, 1998; <sup>3</sup>Voronina et al., 2012; <sup>3</sup>Levitskaya, 2013; <sup>3</sup>Voronina et al., 2014; <sup>3</sup>Sidorova, Alexandrova, and Voronina, 2017); **Murmansk Oblast** (<sup>3</sup>Mikhailovskii, 1975b; <sup>3</sup>Karatygin, Nezdoyminogo, Novozhilov, and Zhurbenko, 1999); **North Ossetia** (<sup>3</sup>Nikolayev, 2001); **Novgorod Oblast** (<sup>3</sup>Kovalenko, Morozova, Nezdoyminogo, and Popov, 2005; <sup>3</sup>Malysheva, Malysheva, and Zmitrovich, 2007; <sup>3</sup>Popov et al., 2013); **Orenburg Oblast** (<sup>3</sup>Korshikova, 2006; <sup>3</sup>Desyatova, 2008); **Oryol Oblast** (<sup>3</sup>Radygina, Derzhavina, and Tsutsupa, 2014); **Penza Oblast** (<sup>3</sup>Ivanov, 1981a; <sup>3</sup>Ivanov, 1981b); **Perm Krai** (<sup>3</sup>Perevedentseva, 2008; <sup>3</sup>Belkovskaya et al., 2014; <sup>3</sup>Perevedentseva and Shishigin, 2014; <sup>3</sup>Botalov, 2017; <sup>3</sup>Botalov and Perevedentseva, 2020); **Pskov Oblast** (<sup>3</sup>Kovalenko and Morozova, 1999b; <sup>3</sup>Popov, 2001a; <sup>3</sup>Popov et al., 2013); **Rostov Oblast** (<sup>3</sup>Rusanov et al., 2004; <sup>3</sup>Zmitrovich et al., 2008); **Ryazan Oblast** (<sup>3</sup>Volosnova, 1997; <sup>3</sup>Volosnova, 2014); **Saint Petersburg** (<sup>2</sup>Weinmann, 1828; <sup>3</sup>Morozova and Smirnov, 2011; <sup>3</sup>Morozova et al., 2020); **Samara Oblast** (<sup>3</sup>Malysheva and Malysheva, 2004; <sup>4</sup>Malysheva and Malysheva, 2005b; <sup>3</sup>Malysheva and Malysheva, 2008); **Saratov Oblast** (<sup>3</sup>Nagumanov, 2015); **Sverdlovsk Oblast** (<sup>3</sup>Marina, 2006); **Tula Oblast** (<sup>3</sup>Svetasheva, 2001; <sup>3</sup>Svetasheva, 2004; <sup>3</sup>Svetasheva, 2008; <sup>3</sup>Svetasheva, 2013); **Tver Oblast** (<sup>3</sup>Kurochkin, 1993); **Udmurt Republic** (<sup>3</sup>Tychinin, 1990; <sup>3</sup>Tychinin and Kuzmina, 2003); **Ulyanovsk Oblast** (<sup>3</sup>Ilyukhin, 2009; <sup>3</sup>Ilyukhin, 2010a); **Vladimir Oblast** (<sup>3</sup>Mishulin, Blinov, and Gushchina, 2018); **Vologda Oblast** (<sup>3</sup>Kirillova, 2007; <sup>3</sup>Kirillova, 2009); **Voronezh Oblast** (<sup>3</sup>Rtishcheva, 1999; <sup>3</sup>Afanasyev, Rtishcheva, and Starodubtseva, 2007; <sup>2</sup>Selochnik, 2015; <sup>3</sup>Sarycheva, Starodubtseva, and Sapelnikova, 2017); **Yamalo-Nenets Autonomous Okrug** (<sup>3</sup>Karatygin, Nezdoyminogo, Novozhilov, and Zhurbenko, 1999); **Yaroslavl Oblast** (<sup>3</sup>Lazareva, 1997; <sup>3</sup>Lazareva, 1998a); **Arid territories** (<sup>3</sup>Rebriev, Rusanov, et al., 2012); **Northern Caucasus** (<sup>3</sup>Kovalenko, 1980b).

**SIBERIA: Altai Krai** (<sup>3</sup>Gorbunova and Perova, 2006; <sup>3</sup>Gorbunova and Chubarova, 2008; <sup>3</sup>Gorbunova, Vlasenko, and Tzhubarova, 2011); **Altai Republic** (<sup>3</sup>Kovalenko, 1992; <sup>3</sup>Gorbunova, 1996; <sup>3</sup>Gorbunova, 1997; <sup>3</sup>Gorbunova, 2001a; <sup>3</sup>Gorbunova, 2001b; <sup>3</sup>Gorbunova, 2003; <sup>3</sup>Gorbunova, 2008; <sup>3</sup>Gorbunova, 2010); **Irkutsk Oblast** (<sup>3</sup>Kutafjeva, 1983; <sup>3</sup>Petrov, 1984; <sup>3</sup>Petrov, 1989; <sup>3</sup>Astapenko, 1990a; <sup>3</sup>Muzyka, 2002; <sup>3</sup>Bardunov et al., 2005; <sup>3</sup>Petrov, 2008; <sup>3</sup>Muzyka, 2009; <sup>3</sup>Muzyka and Penzina, 2017); **Khakassia** (<sup>3</sup>Beglyanova, 1972a; <sup>3</sup>Zauzolkova, 2015); **Khanty-Mansi Autonomous Okrug** (<sup>3</sup>Zvyagina, 2008; <sup>3</sup>Shepeleva et al., 2014; <sup>3</sup>Zvyagina and Vasina, 2015; <sup>1</sup>Filippova and Bulyonkova, 2017a; <sup>1</sup>Filippova and Bulyonkova, 2017b; <sup>3</sup>Zvyagina and Baykalova, 2017); **Krasnoyarsk Krai** (<sup>3,4</sup>Beglyanova, 1972a; <sup>3</sup>Nezdoyminogo, 1976a; <sup>3,4</sup>Lapitskaya, 1993; <sup>3</sup>Kutafjeva and Kosheleva, 2005; <sup>3</sup>Pavlov et al., 2007; <sup>3</sup>Kosheleva and Kutafjeva, 2008a; <sup>3</sup>Kosheleva and Kutafjeva, 2008b; <sup>3</sup>Kosheleva, 2010; <sup>3</sup>Kryuchkova, 2014a; <sup>3</sup>Krom and Kapitonov, 2019); **Novosibirsk Oblast** (<sup>3</sup>Zaytseva, 1971; <sup>3</sup>Perova, 1977; <sup>3</sup>Gorbunova, 2007; <sup>3</sup>Perova and Gorbunova, 2007; <sup>3</sup>Koropachinskiy and Banaev, 2014); **Tomsk Oblast** (<sup>3</sup>Kosheleva and Kutafjeva, 2004; <sup>3</sup>Agaphonova, Kutafjeva, and Gashkov, 2007; <sup>3,4</sup>Kudashova, Gashkov, and Kutafjeva, 2013); **Yamalo-Nenets Autonomous Okrug** (<sup>3</sup>Tarchevskaya, 1990; <sup>3</sup>Karatygin, Nezdoyminogo, Novozhilov, and Zhurbenko, 1999).

**FAR EAST: Amur Oblast** (<sup>3</sup>Nazarova, 1986; <sup>3</sup>Azbukina et al., 1998; <sup>3</sup>Bulakh, Govorova, and Taranina, 2003; <sup>3</sup>Taranina, 2005; <sup>3</sup>Kochunova, 2019); **Jewish Autonomous Oblast** (<sup>3</sup>Bulakh, Govorova, Nazarova, and Vassiljeva, 2007; <sup>3</sup>Bau, Bulakh, and Govorova, 2011); **Khabarovsk Krai** (<sup>3</sup>Azbukina et al., 1986; <sup>3</sup>Azbukina et al., 1989; <sup>3</sup>Bau, Bulakh, Zhuang, and Li, 2007; <sup>3</sup>Bau, Bulakh, and Govorova, 2011; <sup>3</sup>Bulakh, 2013; <sup>3</sup>Bogacheva, Bulakh, Bukharova, and Egorova, 2015; <sup>3</sup>Erofeeva and Bulakh, 2015a); **Magadan Oblast** (<sup>3</sup>Sazanova, 1996; <sup>3</sup>Sazanova, 2005; <sup>3</sup>Sazanova, 2009a; <sup>3</sup>Sazanova, 2011; <sup>3</sup>Sazanova and Golodnova, 2015); **Primorsky Krai** (<sup>3</sup>Vassiljeva, 1972; <sup>3</sup>Vassiljeva, 1973; <sup>4</sup>Shalapugina, 1976; <sup>4</sup>Bulakh, 1977; <sup>3</sup>Bunkina and Nazarova, 1978; <sup>3,4</sup>Azbukina et al., 1984; <sup>3</sup>Azbukina et al., 1990; <sup>3</sup>Bardunov et al., 2002; <sup>3</sup>Azbukina et al., 2006; <sup>3</sup>Bau, Bulakh, Zhuang, and Li, 2007; <sup>3</sup>Bau, Bulakh, and Govorova, 2011; <sup>3</sup>Bulakh et al., 2016; <sup>3</sup>Bogacheva, Bulakh, Bukharova, and Egorova, 2020).

### *Infundibulicybe gigas* (Harmaja) Harmaja

EASTERN EUROPE: **Komi Republic** (Palamarchuk, 2020b).

### *Infundibulicybe lapponica* (Harmaja) Harmaja

EASTERN EUROPE: **Komi Republic** (Palamarchuk, 2016a; Palamarchuk, 2016b).

SIBERIA: **Altai Republic** (Gorbunova, 2019).

### *Infundibulicybe lateritia* (J. Favre) Vizzini & Contu<sup>1</sup>

≡ *Clitocybe lateritia* J. Favre<sup>2</sup>

EASTERN EUROPE: **Yamalo-Nenets Autonomous Okrug** (<sup>2</sup>Knudsen and Mukhin, 1998; <sup>2</sup>Karatygin, Nezdoyminogo, Novozhilov, and Zhurbenko, 1999; <sup>2</sup>Nezdoyminogo, 2001).



SIBERIA: **Altai Republic** (<sup>1</sup>Gorbunova, 2019); **Krasnoyarsk Krai** (<sup>2</sup>Nezdojminogo and Zhurbenko, 1996; <sup>2</sup>Nezdojminogo, 1997a; <sup>2</sup>Karatygin, Nezdojminogo, Novozhilov, and Zhurbenko, 1999); **Sakha Republic** (<sup>2</sup>Karatygin, Nezdojminogo, Novozhilov, and Zhurbenko, 1999).

***Infundibulicybe trulliformis* (Fr.) Gminder**

≡ *Clitocybe trulliformis* (Fr.) P. Karst.<sup>1</sup>

EASTERN EUROPE: **Mordovia** (<sup>1</sup>Kuznetsov, 1960; <sup>1</sup>Ivoilov and Bolshakov, 2011a); **Novgorod Oblast** (<sup>1</sup>Arslanov, 2012); **Pskov Oblast** (<sup>1</sup>Popov et al., 2013); **Ryazan Oblast** (<sup>1</sup>Volosnova, 2014); **Samara Oblast** (<sup>1</sup>Malysheva and Malysheva, 2008); **Arid territories** (<sup>1</sup>Rebriev, Rusanov, et al., 2012).

FAR EAST: **Jewish Autonomous Oblast** (<sup>1</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Erofeeva and Bulakh, 2015b); **Khabarovsk Krai** (<sup>1</sup>Azbukina et al., 1986; <sup>1</sup>Azbukina et al., 1989; <sup>1</sup>Bau, Bulakh, and Govorova, 2011); **Primorsky Krai** (<sup>1</sup>Bulakh, 1977; <sup>1</sup>Azbukina et al., 1984; <sup>1</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Bulakh et al., 2016); **Sakhalin Oblast** (<sup>1</sup>Vassiljeva and Nazarova, 1972).

***Inocybe abietis* Kühner**

EASTERN EUROPE: **Penza Oblast** (Ivanov and Nezdojminogo, 1990).

***Inocybe acuta* Boud.<sup>1</sup>**

= *Inocybe acutella* Bon<sup>2</sup> = *Inocybe striata* Bres.<sup>3</sup>

EASTERN EUROPE: **Karelia** (<sup>1</sup>Freindling, 1949; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1</sup>Nezdojminogo, 1996; <sup>3</sup>Kovalenko, Morozova, Fomina, and Särkisilta, 1998; <sup>1</sup>Bondartseva et al., 2001; <sup>1</sup>Krutov et al., 2014; <sup>1</sup>Savelev and Kikeeva, 2020); **Komi Republic** (<sup>3</sup>Nezdojminogo, 1996; <sup>3</sup>Karatygin, Nezdojminogo, Novozhilov, and Zhurbenko, 1999; <sup>3</sup>Palamarchuk, 2012; <sup>1</sup>Palamarchuk, 2016a); **Leningrad Oblast** (<sup>3</sup>Nezdojminogo, 1996; <sup>3</sup>Kovalenko and Morozova, 1999a; <sup>3</sup>Fomina, 2000; <sup>3</sup>Morozova and Kovalenko, 2000; <sup>3</sup>Morozova, 2007; <sup>3</sup>Popov et al., 2007; <sup>1</sup>Zmitrovich et al., 2015; <sup>3</sup>Kalinina, 2018); **Lipetsk Oblast** (<sup>1</sup>Sarycheva, 1999; <sup>1</sup>Sarycheva et al., 2009; <sup>1</sup>Sarycheva, 2011; <sup>1</sup>Sarycheva, 2016); **Mordovia** (<sup>1</sup>Kuznetsov, 1960; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>3</sup>Nezdojminogo, 1996; <sup>1</sup>Ivoilov and Bolshakov, 2011a); **Murmansk Oblast** (<sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990); **Novgorod Oblast** (<sup>3</sup>Kovalenko, Morozova, Nezdojminogo, and Popov, 2005; <sup>3</sup>Popov et al., 2013); **Perm Krai** (<sup>3</sup>Perevedentseva, Mukhutdinov, and Kuznetsova, 2005; <sup>1</sup>Perevedentseva, 2008); **Pskov Oblast** (<sup>3</sup>Popov et al., 2013); **Saint Petersburg** (<sup>3</sup>Zhukova, Morozova, Volobuev, and Bryantseva, 2017); **Sverdlovsk Oblast** (<sup>1,3</sup>Marina, 2006); **Tatarstan** (<sup>1</sup>Vassiljeva, 1977; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>3</sup>Nezdojminogo, 1996); **Tula Oblast** (<sup>3</sup>Svetasheva, 2003; <sup>3</sup>Svetasheva, 2004); **Vologda Oblast** (<sup>1</sup>Kirillova, 2007).

SIBERIA: **Altai Krai** (<sup>1</sup>Gorbunova and Chubarova, 2008; <sup>1</sup>Gorbunova, Vlasenko, and Tzhubarova, 2011); **Buryatia** (<sup>1</sup>Nezdojminogo, 1973; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1</sup>Nezdojminogo, 1996); **Irkutsk Oblast** (<sup>3</sup>Nezdojminogo, 1996); **Khanty-Mansi Autonomous Okrug** (<sup>1</sup>Zvyagina, 2008; <sup>1</sup>Shepeleva et al., 2014); **Krasnoyarsk Krai** (<sup>1</sup>Beglyanova, 1972a; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>3</sup>Nezdojminogo, 1996; <sup>1</sup>Karatygin, Nezdojminogo, Novozhilov, and Zhurbenko, 1999); **Novosibirsk Oblast** (<sup>1</sup>Perova, 1977; <sup>1</sup>Perova and Gorbunova, 2001; <sup>1</sup>Perova and Gorbunova, 2007; <sup>1</sup>Koropachinskiy and Banaev, 2014).

FAR EAST: **Jewish Autonomous Oblast** (<sup>1</sup>Bulakh, Govorova, Nazarova, and Vassiljeva, 2007; <sup>1</sup>Bau, Bulakh, and Govorova, 2011); **Kamchatka Krai** (<sup>2</sup>Peintner and Horak, 2002); **Khabarovsk Krai** (<sup>1</sup>Bulakh, Vassiljeva, and Erofeeva, 2010); **Magadan Oblast** (<sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1</sup>Sazanova, 2005; <sup>1</sup>Sazanova, 2009a); **Primorsky Krai** (<sup>1</sup>Vassiljeva, 1973; <sup>1</sup>Bunkina and Nazarova, 1978; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>3</sup>Nezdojminogo, 1996; <sup>1</sup>Azbukina et al., 2006; <sup>1</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Bogacheva, Bulakh, Bukharova, and Egorova, 2020).

***Inocybe aeruginascens* Babos**

EASTERN EUROPE: **Penza Oblast** (Ivanov and Nezdojminogo, 1990).

***Inocybe albofibrillosa* Stangl & Schmid-Heckel**

EASTERN EUROPE: **Komi Republic** (Nezdojminogo, 1993b; Nezdojminogo, 1996).

FAR EAST: **Chukotka Autonomous Okrug** (Nezdojminogo, 1993b; Nezdojminogo, 1996; Karatygin, Nezdojminogo, Novozhilov, and Zhurbenko, 1999); **Magadan Oblast** (Nezdojminogo, 1993b).

***Inocybe albovelutipes* Stangl**

EASTERN EUROPE: **Adygea** (Sopina, 2001a); **Komi Republic** (Nezdojminogo, 1996; Karatygin, Nezdojminogo, Novozhilov, and Zhurbenko, 1999; Palamarchuk (Bobretsova), 2009; Palamarchuk, 2012); **Murmansk Oblast** (Nezdojminogo, 1997b; Karatygin, Nezdojminogo, Novozhilov, and Zhurbenko, 1999); **Orenburg Oblast** (Desyatova, 2008); **Penza Oblast** (Ivanov and Nezdojminogo, 1990; Nezdojminogo, 1996); **Perm Krai** (Perevedentseva, 2008); **Ryazan Oblast** (Volosnova, 2005; Volosnova, 2014); **Sverdlovsk Oblast** (Nezdojminogo, 1996); **Tatarstan** (Nezdojminogo, 1996).

SIBERIA: **Altai Republic** (Gorbunova, 2019); **Irkutsk Oblast** (Nezdojminogo, 1996; Petrov, 2013; Gorbunova and Stepanтова, 2015); **Khakassia** (Zauzolkova, 2015; Zauzolkova and Gorbunova, 2016); **Khanty-Mansi Autonomous Okrug** (Filippova and Bulyonkova, 2017a; Filippova and Bulyonkova, 2017b); **Sakha Republic** (Nezdojminogo, 2003); **Yamalo-Nenets Autonomous Okrug** (Nezdojminogo, 1996; Karatygin, Nezdojminogo, Novozhilov, and Zhurbenko, 1999).

***Inocybe alnea* Stangl**

EASTERN EUROPE: **Komi Republic** (Palamarchuk, 2012).

SIBERIA: **Irkutsk Oblast** (Nezdojminogo, 1996; Petrov, 2013).

FAR EAST: **Kamchatka Krai** (Peintner and Horak, 2002); **Primorsky Krai** (Azbukina et al., 1990; Bardunov et al., 2002).

***Inocybe alpigenes* (E. Horak) Bon**

SIBERIA: **Buryatia** (Nezdojminogo and Petrov, 1999).

***Inocybe amblyospora* Kühner**

EASTERN EUROPE: **Adygea** (Vaasma, Kalamees, and Raitviir, 1986).

***Inocybe amethystina* Kuyper**

EASTERN EUROPE: **Crimea** (Sarkina, 2010b; Sarkina, 2013); **Sverdlovsk Oblast** (Shiryaeva and Palamarchuk, 2019); **Tula Oblast** (Svetasheva, 2003; Svetasheva, 2004; Shcherbakov, 2010).

SIBERIA: **Khanty-Mansi Autonomous Okrug** (Filippova and Bulyonkova, 2017a; Filippova and Bulyonkova, 2017b).

FAR EAST: **Amur Oblast** (Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; Nezdojminogo, 1996); **Primorsky Krai** (Azbukina et al., 2006; Bau, Bulakh, and Govorova, 2011).

***Inocybe appendiculata* Kühner**

EASTERN EUROPE: **Leningrad Oblast** (Kovalenko and Morozova, 1999a; Morozova and Kovalenko, 2000; Tzvelev, 2000; Popov et al., 2007; Geltman et al., 2018; Geltman, 2018b); **Pskov Oblast** (Kolmakov and Popov, 2005; Popov et al., 2013).

SIBERIA: **Altai Republic** (Gorbunova, 2019); **Buryatia** (Nezdojminogo and Petrov, 1999); **Irkutsk Oblast** (Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; Nezdojminogo, 1996; Nezdojminogo and Petrov, 1999; Petrov, 2013).

FAR EAST: **Amur Oblast** (Kochunova, 2019); **Primorsky Krai** (Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; Nezdojminogo, 1996; Azbukina et al., 2006; Bau, Bulakh, and Govorova, 2011).

***Inocybe argenteolutea* Vauras**

EASTERN EUROPE: **Komi Republic** (Palamarchuk, 2016a; Palamarchuk, 2016b).

***Inocybe assimilata* Britzelm.<sup>1</sup>**

= *Astrosporina umbrina* (Bres.) Rea<sup>2</sup> = *Inocybe umbrina* Bres.<sup>3</sup>

EASTERN EUROPE: **Belgorod Oblast** (<sup>3</sup>Bedenko, 1980); **Bryansk Oblast** (<sup>3</sup>Kruglikov, 2007); **Chelyabinsk Oblast** (<sup>3</sup>Sirko and Stepanova, 1977; <sup>3</sup>Stepanova and Sirko, 1977); **Crimea** (<sup>2</sup>Sarkina, 2001; <sup>3</sup>Dudka et al., 2004); **Krasnodar Krai** (<sup>3</sup>Vassiljeva, 1939; <sup>1</sup>Nezdojminogo, 1996); **Leningrad Oblast** (<sup>3</sup>Nezdojminogo, 1967; <sup>3</sup>Chastukhin and Nikolaevskaya, 1969; <sup>1</sup>Nezdojminogo, 1996; <sup>1,3</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Fomina, 2000; <sup>1,3</sup>Popov et al., 2007); **Moscow** (<sup>3</sup>Burova, 1968); **Murmansk Oblast** (<sup>1</sup>Nezdojminogo, 1996); **Penza Oblast** (<sup>3</sup>Ivanov, 1982; <sup>1</sup>Nezdojminogo, 1996); **Perm Krai** (<sup>3</sup>Perevedentseva, Nezdojminogo, and Kovalenko, 1990; <sup>1</sup>Nezdojminogo, 1996; <sup>1</sup>Perevedentseva, Mukhutdinov, and Kuznetsova, 2005; <sup>1</sup>Perevedentseva, 2008; <sup>1</sup>Perevedentseva and Shishigin, 2015);

**Ryazan Oblast** (<sup>1</sup>Volosnova, 1997; <sup>1</sup>Volosnova, 2014); **Sevastopol** (<sup>3</sup>Sarkina, 2016b; <sup>1</sup>Sarkina, 2020c); **Sverdlovsk Oblast** (<sup>1</sup>Marina, 2006); **Tatarstan** (<sup>1</sup>Nezdojminogo, 1996); **Tula Oblast** (<sup>1</sup>Svetasheva, 2004; <sup>1</sup>Svetasheva, 2005a; <sup>1</sup>Svetasheva, 2013); **Voronezh Oblast** (<sup>3</sup>Chastukhin, 1952; <sup>3</sup>Chastukhin and Nikolaevskaya, 1953; <sup>3</sup>Chastukhin and Nikolaevskaya, 1969).

SIBERIA: **Altai Republic** (<sup>1</sup>Gorbunova, 2001a; <sup>1</sup>Gorbunova, 2001b; <sup>1</sup>Perova and Gorbunova, 2001; <sup>1</sup>Gorbunova, 2008); **Buryatia** (<sup>1</sup>Nezdojminogo, 1996); **Khakassia** (<sup>3</sup>Beglyanova, 1972a; <sup>1</sup>Zauzolkova, 2015); **Krasnoyarsk Krai** (<sup>3</sup>Beglyanova, 1972a; <sup>3</sup>Beglyanova, 1972c; <sup>1</sup>Karatygin, Nezdojminogo, Novozhilov, and Zhurbenko, 1999; <sup>1</sup>Kosheleva and Kutafjeva, 2008a); **Novosibirsk Oblast** (<sup>1</sup>Perova and Gorbunova, 2001; <sup>1</sup>Perova and Gorbunova, 2007; <sup>1</sup>Koropachinskiy and Banaev, 2014); **Tomsk Oblast** (<sup>3</sup>Perova, 1972; <sup>1</sup>Perova and Gorbunova, 2001; <sup>1</sup>Kudashova, Gashkov, and Kutafjeva, 2013).

FAR EAST: **Amur Oblast** (<sup>1</sup>Nezdojminogo, 1996); **Kamchatka Krai** (<sup>1</sup>Peintner and Horak, 2002); **Magadan Oblast** (<sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1</sup>Nezdojminogo, 1996; <sup>1</sup>Sazanova, 2005; <sup>1</sup>Sazanova, 2009a); **Primorsky Krai** (<sup>3</sup>Vassiljeva, 1973; <sup>3</sup>Bulakh, 1977; <sup>3</sup>Azbukina et al., 1984; <sup>1</sup>Kovalenko and Nezdojminogo, 1989; <sup>1</sup>Azbukina et al., 1990; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1</sup>Nezdojminogo, 1996; <sup>1</sup>Bardunov et al., 2002; <sup>1</sup>Bau, Bulakh, and Govorova, 2011).

### *Inocybe asterospora* Quél.

EASTERN EUROPE: **Adygea** (Sopina, 2001a); **Belgorod Oblast** (Bedenko, 1980); **Bryansk Oblast** (Kruglikov, 2007); **Kaliningrad Oblast** (Dedkov, Volodina, and Gubareva, 2007; Volodina, 2007); **Karelia** (Freindling, 1949; Bondartseva et al., 2001; Krutov et al., 2014); **Komi Republic** (Palamarchuk, 2011a; Palamarchuk, 2012); **Krasnodar Krai** (Vassiljeva, 1939; Kovalenko, 1980a; Kovalenko, 1980b; Sopina, 2001a); **Leningrad Oblast** (Kovalenko and Morozova, 1999a; Popov et al., 2007); **Lipetsk Oblast** (Alferova, 1977; Sarycheva, 1999; Sarycheva et al., 2009; Sarycheva, 2011; Sarycheva, 2014a; Sarycheva, 2016); **Moscow** (Burova, 1968; Muchnik et al., 2020); **Penza Oblast** (Ivanov and Nezdojminogo, 1990); **Perm Krai** (Perevedentseva, Mukhutdinov, and Kuznetsova, 2005; Perevedentseva, 2008; Botalov, 2017); **Ryazan Oblast** (Volosnova, 1997; Volosnova, 2014); **Sverdlovsk Oblast** (Marina, 2006); **Tatarstan** (Vassiljeva, 1977); **Tula Oblast** (Svetasheva, 2003; Svetasheva, 2004); **Tver Oblast** (Kurochkin, 1993); **Udmurt Republic** (Tychinin and Kuzmina, 2003); **Ulyanovsk Oblast** (Ilyukhin, 2009; Ilyukhin, 2010a); **Yaroslavl Oblast** (Lazareva, 1998a; Lazareva, 2002); **Arid territories** (Rebriev, Rusanov, et al., 2012).

SIBERIA: **Altai Krai** (Gorbunova, 2018a); **Altai Republic** (Gorbunova, 2001b; Perova and Gorbunova, 2001; Gorbunova, 2008; Gorbunova, 2010; Gorbunova, 2017b); **Buryatia** (Nezdojminogo, 1996); **Khanty-Mansi Autonomous Okrug** (Zvyagina and Baykalova, 2017); **Krasnoyarsk Krai** (Beglyanova, 1972a; Kosheleva and Kutafjeva, 2008a; Kryuchkova, 2009; Kryuchkova, 2014a); **Novosibirsk Oblast** (Perova and Gorbunova, 2001; Perova and Gorbunova, 2007; Koropachinskiy and Banaev, 2014); **Tomsk Oblast** (Perova, 1972; Milovidova, 1980; Perova and Gorbunova, 2001; Kudashova, Gashkov, and Kutafjeva, 2013; Vaishlya et al., 2017).

FAR EAST: **Jewish Autonomous Oblast** (Bulakh, Govorova, Nazarova, and Vassiljeva, 2007; Bau, Bulakh, and Govorova, 2011; Erofeeva, Bukharova, and Bulakh, 2019); **Khabarovsk Krai** (Azbukina et al., 1986; Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; Nezdojminogo, 1996; Bau, Bulakh, and Govorova, 2011; Erofeeva and Bulakh, 2015a); **Primorsky Krai** (Vassiljeva, 1972; Vassiljeva, 1973; Bunkina and Nazarova, 1978; Azbukina et al., 1984; Azbukina et al., 1990; Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; Nezdojminogo, 1996; Bardunov et al., 2002; Azbukina et al., 2006; Bau, Bulakh, and Govorova, 2011; Bulakh et al., 2016; Bogacheva, Bulakh, Bukharova, and Egorova, 2020).

### *Inocybe aurea* Huijsman

EASTERN EUROPE: **Penza Oblast** (Ivanov and Nezdojminogo, 1990; Nezdojminogo, 1996).

### *Inocybe auricoma* (Batsch) Sacc.

EASTERN EUROPE: **Leningrad Oblast** (Kovalenko and Morozova, 1999a; Popov et al., 2007); **Novgorod Oblast** (Kovalenko, Morozova, Nezdojminogo, and Popov, 2005; Popov et al., 2013); **Saint Petersburg** (Zhukova, Morozova, Volobuev, and Bryantseva, 2017); **Arid territories** (Rebriev, Rusanov, et al., 2012).

SIBERIA: **Krasnoyarsk Krai** (Beglyanova, 1972a; Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990); **Tomsk Oblast** (Perova, 1972; Perova and Gorbunova, 2001; Kudashova, Gashkov, and Kutafjeva, 2013).

FAR EAST: **Primorsky Krai** (Bunkina and Nazarova, 1978; Azbukina et al., 1990; Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; Nezdojminogo, 1996; Bardunov et al., 2002; Azbukina et al., 2006; Bau, Bulakh, and Govorova, 2011).

*Inocybe bresadolae* Masseur

EASTERN EUROPE: **Penza Oblast** (Ivanov and Nezdoyminogo, 1990; Nezdoyminogo, 1996); **Tula Oblast** (Svetasheva, 2003; Svetasheva, 2004; Svetasheva, 2005b; Shcherbakov, 2010; Svetasheva, 2013); **Arid territories** (Rebriev, Rusanov, et al., 2012).

*Inocybe brunnea* QuéL.

EASTERN EUROPE: **Belgorod Oblast** (Bedenko, 1980; Bulakh, Wasser, Nazarova, and Nezdoyminogo, 1990); **Tatarstan** (Vassiljeva, 1977; Bulakh, Wasser, Nazarova, and Nezdoyminogo, 1990).

SIBERIA: **Altai Republic** (Gorbunova, 1997); **Krasnoyarsk Krai** (Beglyanova, 1972a; Bulakh, Wasser, Nazarova, and Nezdoyminogo, 1990; Kosheleva and Kutafjeva, 2008a); **Novosibirsk Oblast** (Perova, 1977; Perova and Gorbunova, 2007).

FAR EAST: **Amur Oblast** (Bulakh, Wasser, Nazarova, and Nezdoyminogo, 1990); **Primorsky Krai** (Vassiljeva, 1973; Bunkina and Nazarova, 1978; Bulakh, Wasser, Nazarova, and Nezdoyminogo, 1990; Bau, Bulakh, and Govorova, 2011).

*Inocybe brunneotomentosa* Huijsman

EASTERN EUROPE: **Penza Oblast** (Ivanov and Nezdoyminogo, 1990; Nezdoyminogo, 1996); **Pskov Oblast** (Popov et al., 2013); **Samara Oblast** (Malysheva and Malysheva, 2005b; Malysheva and Malysheva, 2008).

SIBERIA: **Khakassia** (Zauzolkova and Gorbunova, 2013; Zauzolkova, 2015); **Novosibirsk Oblast** (Koropachinskiy and Banaev, 2014).

FAR EAST: **Amur Oblast** (Kochunova, 2019); **Primorsky Krai** (Bulakh, Wasser, Nazarova, and Nezdoyminogo, 1990; Bau, Bulakh, and Govorova, 2011).

*Inocybe caesariata* (Fr.) P. Karst.

EASTERN EUROPE: **Kaliningrad Oblast** (Dedkov, Volodina, and Gubareva, 2007); **Tatarstan** (Vassiljeva, 1977).

*Inocybe calida* Velen.

= *Inocybe brunneorufa* Stangl & J. Veselský<sup>1</sup>

EASTERN EUROPE: **Krasnodar Krai** (<sup>1</sup>Vaasma, Kalamees, and Raitviir, 1986).

FAR EAST: **Kamchatka Krai** (<sup>1</sup>Peintner and Horak, 2002); **Primorsky Krai** (<sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdoyminogo, 1990).

*Inocybe calospora* QuéL.

EASTERN EUROPE: **Belgorod Oblast** (Bedenko, 1980; Bulakh, Wasser, Nazarova, and Nezdoyminogo, 1990; Nezdoyminogo, 1996); **Komi Republic** (Palamarchuk, 2016a; Palamarchuk, 2016b); **Kursk Oblast** (Baranov, 2002); **Leningrad Oblast** (Nezdoyminogo, 1996; Kovalenko and Morozova, 1999a; Popov et al., 2007); **Lipetsk Oblast** (Sarycheva et al., 2009; Sarycheva, 2011; Shcherbakov, 2014; Sarycheva, 2016); **Moscow Oblast** (Levitskaya, 1998; Levitskaya, 2013); **Orenburg Oblast** (Desyatova, 2008); **Perm Krai** (Bulakh, Wasser, Nazarova, and Nezdoyminogo, 1990; Nezdoyminogo, 1996; Perevedentseva, Mukhutdinov, and Kuznetsova, 2005; Perevedentseva, 2008); **Pskov Oblast** (Popov et al., 2013); **Tatarstan** (Vassiljeva, 1977; Bulakh, Wasser, Nazarova, and Nezdoyminogo, 1990; Nezdoyminogo, 1996); **Udmurt Republic** (Tychinin and Kuzmina, 2003); **Yaroslavl Oblast** (Lazareva, 1998a; Lazareva, 2002).

SIBERIA: **Altai Republic** (Gorbunova, 2017a); **Buryatia** (Nezdoyminogo, 1973; Nezdoyminogo, 1996); **Irkutsk Oblast** (Petrov, Nezdoyminogo, and Bulakh, 1987; Petrov, 1989; Bulakh, Wasser, Nazarova, and Nezdoyminogo, 1990; Nezdoyminogo, 1996); **Khakassia** (Beglyanova, 1972a); **Krasnoyarsk Krai** (Beglyanova, 1972a; Bulakh, Wasser, Nazarova, and Nezdoyminogo, 1990; Nezdoyminogo, 1996); **Novosibirsk Oblast** (Perova, 1977; Perova and Gorbunova, 2001; Perova and Gorbunova, 2007; Koropachinskiy and Banaev, 2014).

FAR EAST: **Amur Oblast** (Nazarova, 1986; Bulakh, Wasser, Nazarova, and Nezdoyminogo, 1990; Nezdoyminogo, 1996); **Jewish Autonomous Oblast** (Bulakh, Govorova, Nazarova, and Vassiljeva, 2007; Bau, Bulakh, and Govorova, 2011); **Kamchatka Krai** (Peintner and Horak, 2002); **Khabarovsk Krai** (Azbukina et al., 1986; Bulakh, Wasser, Nazarova, and Nezdoyminogo, 1990; Nezdoyminogo, 1996; Bau, Bulakh, and Govorova, 2011); **Primorsky Krai** (Vassiljeva, 1972; Vassiljeva, 1973; Bunkina and Nazarova, 1978; Azbukina et al., 1984; Azbukina et al., 1990; Bulakh, Wasser, Nazarova, and Nezdoyminogo, 1990; Nezdoyminogo, 1996; Bardunov et al., 2002; Azbukina et al., 2006; Bau, Bulakh, and Govorova, 2011; Bulakh et al., 2016); **Sakhalin Oblast** (Bulakh, Wasser, Nazarova, and Nezdoyminogo, 1990; Nezdoyminogo, 1996).

***Inocybe carelica* Singer**EASTERN EUROPE: **Karelia** (Singer, 1938b; Freindling, 1949; Krutov et al., 2014).***Inocybe castanea* Peck**SIBERIA: **Altai Republic** (Gorbunova, 2019).***Inocybe catalaunica* Singer<sup>1</sup>**= *Inocybe leiocephala* D.E. Stuntz<sup>2</sup>EASTERN EUROPE: **Perm Krai** (<sup>2</sup>Perevedentseva, Mukhutdinov, and Kuznetsova, 2005; <sup>1</sup>Perevedentseva, 2008); **Yamalo-Nenets Autonomous Okrug** (<sup>2</sup>Karatygin, Nezdoyminogo, Novozhilov, and Zhurbenko, 1999; <sup>2</sup>Nezdoyminogo, 2001); **Yaroslavl Oblast** (<sup>2</sup>Lazareva, 1998a; <sup>2</sup>Lazareva, 2002).SIBERIA: **Altai Krai** (<sup>1</sup>Gorbunova, 2018a); **Altai Republic** (<sup>1</sup>Gorbunova, 2017a); **Buryatia** (<sup>2</sup>Petrov, 1991; <sup>2</sup>Nezdoyminogo, 1996); **Irkutsk Oblast** (<sup>2</sup>Petrov, 1991; <sup>2</sup>Nezdoyminogo, 1996; <sup>2</sup>Petrov, 2008); **Krasnoyarsk Krai** (<sup>2</sup>Gorbunova, 2016).***Inocybe caucasica* Singer**EASTERN EUROPE: **Krasnodar Krai** (Singer, 1937; Vassiljeva, 1939).***Inocybe cincinnata* (Fr.) Quél.<sup>1</sup>**≡ *Inocybe cincinnata* var. *cincinnata* (Fr.) Quél.<sup>2</sup> = *Inocybe phaeocomis* (Pers.) Kuyper<sup>3</sup> = *Inocybe phaeocomis* var. *major* (S. Petersen) Kuyper<sup>4</sup>EASTERN EUROPE: **Crimea** (<sup>1</sup>Sarkina, 2010b); **Kaliningrad Oblast** (<sup>1</sup>Dedkov, Volodina, and Gubareva, 2007; <sup>1</sup>Volodina, 2007; <sup>1</sup>Atayev and Volodina, 2020); **Komi Republic** (<sup>2</sup>Palamarchuk, 2011a; <sup>2</sup>Palamarchuk, 2012); **Krasnodar Krai** (<sup>1</sup>Nezdoyminogo, 1996); **Leningrad Oblast** (<sup>1</sup>Nezdoyminogo, 1996; <sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Morozova and Kovalenko, 2000; <sup>1</sup>Tzvelev, 2000; <sup>1</sup>Popov et al., 2007; <sup>1</sup>Geltman et al., 2018; <sup>1</sup>Kalinina, 2018); **Murmansk Oblast** (<sup>1</sup>Nezdoyminogo, 1996); **Penza Oblast** (<sup>1</sup>Ivanov, 1983; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdoyminogo, 1990; <sup>1</sup>Nezdoyminogo, 1996; <sup>1</sup>Ivanov, 1999); **Perm Krai** (<sup>1</sup>Perevedentseva, Mukhutdinov, and Kuznetsova, 2005; <sup>2</sup>Perevedentseva, 2008; <sup>1</sup>Belkovskaya et al., 2014); **Pskov Oblast** (<sup>1</sup>Popov et al., 2013); **Saint Petersburg** (<sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Morozova and Kovalenko, 2000; <sup>1</sup>Noskov, 2004; <sup>1</sup>Kotkova, Morozova, and Popov, 2006; <sup>1</sup>Morozova and Smirnov, 2011; <sup>3</sup>Morozova, Kovalenko, Rebriev, and Malysheva, 2014); **Samara Oblast** (<sup>1</sup>Malysheva and Malysheva, 2005b; <sup>1</sup>Malysheva and Malysheva, 2008); **Sverdlovsk Oblast** (<sup>1</sup>Marina, 2006; <sup>1</sup>Shiryayeva, 2015a); **Tatarstan** (<sup>1</sup>Nezdoyminogo, 1996); **Tula Oblast** (<sup>1</sup>Svetasheva, 2003; <sup>1</sup>Svetasheva, 2004); **Udmurt Republic** (<sup>2</sup>Kapitonov, 2013).SIBERIA: **Altai Krai** (<sup>1</sup>Gorbunova and Perova, 2006; <sup>1</sup>Gorbunova, 2018a); **Altai Republic** (<sup>1</sup>Gorbunova, 2001a; <sup>1</sup>Gorbunova, 2001b; <sup>1</sup>Perova and Gorbunova, 2001; <sup>1</sup>Gorbunova, 2003; <sup>1</sup>Gorbunova, 2008); **Krasnoyarsk Krai** (<sup>1</sup>Beglyanova, 1972a; <sup>1</sup>Beglyanova, 1972b; <sup>1</sup>Beglyanova, 1972c; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdoyminogo, 1990; <sup>1</sup>Nezdoyminogo, 1996); **Novosibirsk Oblast** (<sup>1</sup>Perova and Gorbunova, 2001; <sup>2</sup>Gorbunova, 2007; <sup>2</sup>Perova and Gorbunova, 2007); **Tomsk Oblast** (<sup>1</sup>Perova and Gorbunova, 2001; <sup>2</sup>Kudashova, Gashkov, and Kutafjeva, 2013).FAR EAST: **Amur Oblast** (<sup>1</sup>Nezdoyminogo, 1996); **Kamchatka Krai** (<sup>4</sup>Peintner and Horak, 2002); **Primorsky Krai** (<sup>1</sup>Kovalenko and Nezdoyminogo, 1989; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdoyminogo, 1990; <sup>1</sup>Nezdoyminogo, 1996; <sup>1</sup>Bau, Bulakh, and Govorova, 2011).***Inocybe concinnula* J. Favre**SIBERIA: **Altai Republic** (Gorbunova, 2019); **Krasnoyarsk Krai** (Karatygin, Nezdoyminogo, Novozhilov, and Zhurbenko, 1999).***Inocybe confusa* P. Karst.**FAR EAST: **Primorsky Krai** (Vassiljeva, 1973).***Inocybe corrubescens* Singer**EASTERN EUROPE: **Krasnodar Krai** (Vassiljeva, 1939).***Inocybe corydalina* Quél.<sup>1</sup>**≡ *Inocybe corydalina* var. *corydalina* Quél.<sup>2</sup>EASTERN EUROPE: **Krasnodar Krai** (<sup>1</sup>Vassiljeva, 1939; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdoyminogo, 1990; <sup>1</sup>Nezdoyminogo, 1996); **Leningrad Oblast** (<sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdoyminogo, 1990; <sup>1</sup>Nezdoyminogo,

1996; <sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Popov et al., 2007); **Moscow Oblast** (<sup>1</sup>Levitskaya, 1998; <sup>1</sup>Levitskaya, 2013); **Penza Oblast** (<sup>1</sup>Ivanov, 1982; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1</sup>Nezdojminogo, 1996); **Samara Oblast** (<sup>1</sup>Malysheva and Malysheva, 2005b; <sup>1</sup>Malysheva and Malysheva, 2008); **Tula Oblast** (<sup>1</sup>Svetasheva, 2004; <sup>1</sup>Svetasheva, 2005a; <sup>1</sup>Svetasheva, 2005b; <sup>1</sup>Shcherbakov, 2010).

SIBERIA: **Altai Republic** (<sup>1</sup>Perova and Gorbunova, 2001); **Krasnoyarsk Krai** (<sup>1</sup>Nezdojminogo, 1996).

FAR EAST: **Amur Oblast** (<sup>1</sup>Nazarova, 1986; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1</sup>Nezdojminogo, 1996); **Khabarovsk Krai** (<sup>1</sup>Azbukina et al., 1989); **Magadan Oblast** (<sup>1</sup>Sazanova, 2005; <sup>2</sup>Sazanova, 2009a); **Primorsky Krai** (<sup>1</sup>Vassiljeva, 1973; <sup>1</sup>Bunkina and Nazarova, 1978; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1</sup>Nezdojminogo, 1996; <sup>1</sup>Azbukina et al., 2006; <sup>1</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Bulakh et al., 2016).

### *Inocybe cryptocystis* D.E. Stuntz

EASTERN EUROPE: **Crimea** (Prydiuk, 2002; Dudka et al., 2004; Sarkina, 2011); **Tula Oblast** (Svetasheva, 2003; Svetasheva, 2004; Shcherbakov, 2010).

SIBERIA: **Altai Republic** (Nezdojminogo, 1996); **Irkutsk Oblast** (Nezdojminogo and Petrov, 1999).

FAR EAST: **Primorsky Krai** (Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; Nezdojminogo, 1996; Bulakh et al., 2016).

### *Inocybe curvipes* P. Karst.<sup>1</sup>

= *Inocybe boltonii* R. Heim<sup>2</sup> = *Inocybe lanuginella* (J. Schröt.) Konrad & Maubl.<sup>3</sup>

EASTERN EUROPE: **Belgorod Oblast** (<sup>2</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990); **Komi Republic** (<sup>1</sup>Nezdojminogo, 1996); **Moscow Oblast** (<sup>2</sup>Levitskaya, 1995c; <sup>2</sup>Levitskaya, 2013); **Murmansk Oblast** (<sup>3</sup>Mikhailovskii, 1975b; <sup>3</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1</sup>Nezdojminogo, 1996); **Penza Oblast** (<sup>2,3</sup>Ivanov and Nezdojminogo, 1990; <sup>1</sup>Nezdojminogo, 1996); **Perm Krai** (<sup>1</sup>Nezdojminogo, 1996; <sup>1</sup>Perevedentseva, Mukhutdinov, and Kuznetsova, 2005; <sup>1</sup>Perevedentseva, 2008); **Pskov Oblast** (<sup>1</sup>Kolmakov and Popov, 2005; <sup>1</sup>Popov et al., 2013); **Ryazan Oblast** (<sup>3</sup>Volosnova, 1997); **Tatarstan** (<sup>2</sup>Vassiljeva, 1977; <sup>2</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>3</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1</sup>Nezdojminogo, 1996); **Tula Oblast** (<sup>1</sup>Svetasheva, 2004; <sup>1</sup>Svetasheva, 2005a).

SIBERIA: **Irkutsk Oblast** (<sup>2</sup>Kutafjeva, 1989); **Krasnoyarsk Krai** (<sup>3</sup>Beglyanova, 1972a; <sup>3</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>3</sup>Nezdojminogo and Zhurbenko, 1996; <sup>3</sup>Nezdojminogo, 1997a); **Novosibirsk Oblast** (<sup>3</sup>Perova, 1977; <sup>1</sup>Perova and Gorbunova, 2001; <sup>2</sup>Perova and Gorbunova, 2007).

FAR EAST: **Amur Oblast** (<sup>2</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990); **Khabarovsk Krai** (<sup>2</sup>Azbukina et al., 1986; <sup>1</sup>Erofeeva and Bulakh, 2015a); **Magadan Oblast** (<sup>2</sup>Nazarova, 1976; <sup>2</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990); **Primorsky Krai** (<sup>2</sup>Vassiljeva, 1973; <sup>2</sup>Bulakh, 1977; <sup>2</sup>Azbukina et al., 1984; <sup>3</sup>Kovalenko and Nezdojminogo, 1989; <sup>2</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>3</sup>Azbukina et al., 1990; <sup>3</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1</sup>Nezdojminogo, 1996; <sup>1</sup>Bardunov et al., 2002; <sup>3</sup>Bau, Bulakh, Zhuang, and Li, 2007; <sup>1</sup>Bau, Bulakh, and Govorova, 2011).

### *Inocybe cylindrocystis* G.F. Atk.

EASTERN EUROPE: **Krasnodar Krai** (Vassiljeva, 1939).

### *Inocybe decipiens* Bres.

EASTERN EUROPE: **Leningrad Oblast** (Nezdojminogo, 1996; Popov et al., 2007); **Perm Krai** (Perevedentseva, Mukhutdinov, and Kuznetsova, 2005; Perevedentseva, 2008); **Saint Petersburg** (Kovalenko and Morozova, 1999a; Morozova, Kovalenko, Rebriev, and Malysheva, 2014).

SIBERIA: **Buryatia** (Nezdojminogo, 1973; Petrov, 1991; Nezdojminogo and Petrov, 1999); **Irkutsk Oblast** (Nezdojminogo, 1996; Nezdojminogo and Petrov, 1999; Petrov, 2008); **Khakassia** (Zauzolkova, 2015; Zauzolkova and Gorbunova, 2016); **Novosibirsk Oblast** (Koropachinskiy and Banaev, 2014).

FAR EAST: **Chukotka Autonomous Okrug** (Karatygin, Nezdojminogo, Novozhilov, and Zhurbenko, 1999); **Magadan Oblast** (Nezdojminogo, 1996; Sazanova, 2005; Sazanova, 2009a); **Primorsky Krai** (Vassiljeva, 1973; Bulakh et al., 2016).

### *Inocybe dulcamara* (Pers.) P. Kumm.<sup>1</sup>

≡ *Inocybe dulcamara* f. *dulcamara* (Pers.) P. Kumm.<sup>2</sup> ≡ *Inocybe dulcamara* var. *dulcamara* (Pers.) P. Kumm.<sup>3</sup> = *Inocybe dulcamara* f. *solida* J. Favre<sup>4</sup>

EASTERN EUROPE: **Adygea** (<sup>3</sup>Sopina, 2001a); **Kaliningrad Oblast** (<sup>1</sup>Volodina, 2007); **Karelia** (<sup>3</sup>Kovalenko, Morozova, Fomina, and Särkisilta, 1998; <sup>1,3</sup>Krutov et al., 2014); **Komi Republic** (<sup>3</sup>Palamarchuk (Bobretsova), 2009; <sup>1</sup>Palamarchuk, 2012; <sup>1</sup>Palamarchuk, 2016a; <sup>1</sup>Palamarchuk, 2016b; <sup>1</sup>Palamarchuk and Kirillov, 2017); **Krasnodar Krai** (<sup>1</sup>Vassiljeva, 1939); **Leningrad Oblast** (<sup>3</sup>Kovalenko and Morozova, 1999a; <sup>3</sup>Popov et al., 2007); **Lipetsk Oblast** (<sup>1</sup>Sarycheva et al., 2009); **Mordovia** (<sup>1</sup>Chastukhin, 1948a; <sup>1</sup>Chastukhin and Nikolaevskaya, 1969; <sup>1</sup>Chastukhin, 2011; <sup>1</sup>Ivoilov and Bolshakov, 2011a); **Moscow Oblast** (<sup>1</sup>Levitskaya, 1998; <sup>3</sup>Levitskaya, 2013); **Novgorod Oblast** (<sup>1</sup>Malysheva, Malysheva, and Zmitrovich, 2007); **Orenburg Oblast** (<sup>3</sup>Desyatova, 2008); **Penza Oblast** (<sup>1</sup>Ivanov and Nezdojminogo, 1990); **Perm Krai** (<sup>1</sup>Perevedentseva, Mukhutdinov, and Kuznetsova, 2005; <sup>1</sup>Perevedentseva, 2008); **Pskov Oblast** (<sup>3</sup>Kovalenko and Morozova, 1999b; <sup>1</sup>Kolmakov and Popov, 2005; <sup>1</sup>Popov et al., 2013); **Ryazan Oblast** (<sup>1</sup>Volosnova, 2005; <sup>1</sup>Volosnova, 2014); **Saint Petersburg** (<sup>1</sup>Morozova and Smirnov, 2011); **Samara Oblast** (<sup>1</sup>Malysheva and Malysheva, 2008); **Sverdlovsk Oblast** (<sup>1</sup>Marina, 2006); **Tatarstan** (<sup>1</sup>Vassiljeva, 1977); **Tula Oblast** (<sup>1</sup>Svetasheva, 2004); **Vologda Oblast** (<sup>1</sup>Kirillova, 2007); **Yamalo-Nenets Autonomous Okrug** (<sup>1</sup>Nezdojminogo, 2001); **Yaroslavl Oblast** (<sup>3</sup>Lazareva, 1998a; <sup>1</sup>Lazareva, 2002).

SIBERIA: **Altai Republic** (<sup>1</sup>Gorbunova, 2001b; <sup>1</sup>Perova and Gorbunova, 2001; <sup>1</sup>Gorbunova, 2003; <sup>1</sup>Gorbunova, 2010); **Buryatia** (<sup>1</sup>Nezdojminogo, 1973; <sup>1</sup>Petrov, 1991); **Irkutsk Oblast** (<sup>1</sup>Kutafjeva, 1984; <sup>1</sup>Petrov, Nezdojminogo, and Bulakh, 1987; <sup>1</sup>Kutafjeva and Astapenko, 1989; <sup>1</sup>Petrov, 1989; <sup>1</sup>Astapenko, 1990a; <sup>1</sup>Astapenko, 1990b; <sup>1</sup>Petrov, 1991; <sup>1</sup>Bardunov et al., 2005; <sup>1</sup>Petrov, 2008; <sup>1</sup>Gorbunova and Stepanova, 2015); **Khakassia** (<sup>1</sup>Zauzolkova and Gorbunova, 2013; <sup>1</sup>Zauzolkova, 2015); **Krasnoyarsk Krai** (<sup>1</sup>Vassilkov, 1971b; <sup>1</sup>Beglyanova, 1972a; <sup>1</sup>Stepanova and Tomilin, 1973; <sup>3</sup>Nezdojminogo, 1993b; <sup>1</sup>Nezdojminogo and Zhurbenko, 1996; <sup>3</sup>Nezdojminogo, 1997a; <sup>2</sup>Karatygin, Nezdojminogo, Novozhilov, and Zhurbenko, 1999; <sup>3</sup>Nezdojminogo, 2003); **Novosibirsk Oblast** (<sup>1</sup>Zaytseva, 1971; <sup>1</sup>Perova, 1977; <sup>1</sup>Perova and Gorbunova, 2001; <sup>1</sup>Perova and Gorbunova, 2007; <sup>1</sup>Koropachinskiy and Banaev, 2014); **Sakha Republic** (<sup>4</sup>Karatygin, Nezdojminogo, Novozhilov, and Zhurbenko, 1999; <sup>3,4</sup>Nezdojminogo, 2003).

FAR EAST: **Amur Oblast** (<sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1</sup>Taranina, 2005); **Chukotka Autonomous Okrug** (<sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1</sup>Sazanova, 1993); **Khabarovsk Krai** (<sup>1</sup>Azbukina et al., 1986; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1</sup>Bau, Bulakh, and Govorova, 2011); **Magadan Oblast** (<sup>1</sup>Sazanova, 2005; <sup>1</sup>Sazanova, 2009a; <sup>1</sup>Sazanova, 2011); **Primorsky Krai** (<sup>1</sup>Vassiljeva, 1972; <sup>1</sup>Vassiljeva, 1973; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1</sup>Bau, Bulakh, and Govorova, 2011).

### *Inocybe dunensis* P.D. Orton

EASTERN EUROPE: **Krasnodar Krai** (Kiyashko, 2011).

### *Inocybe egenula* J. Favre

SIBERIA: **Altai Republic** (Gorbunova, 2019); **Krasnoyarsk Krai** (Gorbunova, 2016).

FAR EAST: **Kamchatka Krai** (Peintner and Horak, 2002).

### *Inocybe eutheles* (Fr.) Quél.

EASTERN EUROPE: **Belgorod Oblast** (Bedenko, 1979a; Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990); **Karelia** (Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990); **Penza Oblast** (Ivanov and Nezdojminogo, 1990); **Sverdlovsk Oblast** (Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990); **Udmurt Republic** (Tychinin and Kuzmina, 2003).

SIBERIA: **Buryatia** (Nezdojminogo, 1973; Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990); **Irkutsk Oblast** (Kutafjeva, 1984; Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990); **Krasnoyarsk Krai** (Perova, 1970; Beglyanova, 1972a; Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990); **Yamalo-Nenets Autonomous Okrug** (Tarchevskaya, 1990).

FAR EAST: **Primorsky Krai** (Azbukina et al., 1990; Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990); **Sakhalin Oblast** (Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990).

### *Inocybe euviolacea* E. Ludw.

= *Inocybe geophylla* var. *violacea* (Pat.) Sacc.<sup>1</sup>

EASTERN EUROPE: **Krasnodar Krai** (<sup>1</sup>Kovalenko, 1980a; <sup>1</sup>Kovalenko, 1980b); **Moscow** (<sup>1</sup>Bucholtz, 1897b); **Moscow Oblast** (<sup>1</sup>Levitskaya, 1995c); **Penza Oblast** (<sup>1</sup>Ivanov, 1982); **Perm Krai** (<sup>1</sup>Perevedentseva, Mukhutdinov, and Kuznetsova, 2005); **Ryazan Oblast** (<sup>1</sup>Volosnova, 1997).

SIBERIA: **Altai Republic** (<sup>1</sup>Gorbunova, 1997).

FAR EAST: **Kamchatka Krai** (<sup>1</sup>Kalamees and Vaasma, 1981).

***Inocybe excoriata* Peck**

FAR EAST: **Primorsky Krai** (Vassiljeva, 1973; Bunkina and Nazarova, 1978).

***Inocybe favrei* Bon**

SIBERIA: **Krasnoyarsk Krai** (Nezdojminogo, 2003; Gorbunova, 2016).

***Inocybe fibrosa* (Sowerby) Gillet**

EASTERN EUROPE: **Leningrad Oblast** (Thesleff, 1920; Kovalenko and Morozova, 1999a; Popov et al., 2007); **Smolensk Oblast** (Jaczewski, 1898).

***Inocybe fibrosoides* Kühner**

EASTERN EUROPE: **Adygea** (Sopina, 2001a); **Komi Republic** (Palamarchuk, 2012); **Leningrad Oblast** (Nezdojminogo, 1996; Kovalenko and Morozova, 1999a; Morozova, 2007; Popov et al., 2007); **Murmansk Oblast** (Nezdojminogo, 1996); **Perm Krai** (Perevedentseva, Nezdojminogo, and Kovalenko, 1990; Nezdojminogo, 1996; Perevedentseva, Mukhutdinov, and Kuznetsova, 2005; Perevedentseva, 2008); **Ryazan Oblast** (Volosnova, 1997; Volosnova, 2014); **Saint Petersburg** (Morozova, Kovalenko, Rebriev, and Malysheva, 2014).

SIBERIA: **Irkutsk Oblast** (Nezdojminogo, 1996; Petrov, 2008); **Krasnoyarsk Krai** (Beglyanova, 1972a; Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990).

FAR EAST: **Primorsky Krai** (Vassiljeva, 1973; Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; Nezdojminogo, 1996).

***Inocybe flocculosa* Sacc.<sup>1</sup>**

≡ *Inocybe flocculosa* var. *flocculosa* Sacc.<sup>2</sup> = *Inocybe flocculosa* var. *crocifolia* (Herink) Kuyper<sup>3</sup> = *Inocybe gausapata* Kühner<sup>4</sup>

EASTERN EUROPE: **Adygea** (<sup>4</sup>Vaasma, Kalamees, and Raitviir, 1986); **Belgorod Oblast** (<sup>4</sup>Bedenko, 1979a; <sup>1</sup>Bedenko, 1980); **Chelyabinsk Oblast** (<sup>1</sup>Sirko and Stepanova, 1977; <sup>4</sup>Stepanova and Sirko, 1977; <sup>4</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990); **Crimea** (<sup>1</sup>Dudka et al., 2004; <sup>1</sup>Sarkina and Mironova, 2015); **Kaliningrad Oblast** (<sup>1</sup>Volodina, 2007); **Karelia** (<sup>1</sup>Krutov et al., 2014); **Kirov Oblast** (<sup>1</sup>Kirillov, 2011; <sup>1</sup>Kirillov, Perevedentseva, and Egoshina, 2011); **Komi Republic** (<sup>1</sup>Palamarchuk, 2012); **Krasnodar Krai** (<sup>1</sup>Sopina, 2001a); **Kursk Oblast** (<sup>1</sup>Baranov, 2002); **Leningrad Oblast** (<sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Fomina, 2000; <sup>1</sup>Morozova, 2007; <sup>1</sup>Popov et al., 2007; <sup>1</sup>Zmitrovich et al., 2015); **Lipetsk Oblast** (<sup>1</sup>Alferova, 1977; <sup>1</sup>Sarycheva, 1999; <sup>1</sup>Sarycheva et al., 2009; <sup>1</sup>Sarycheva, 2014a; <sup>1</sup>Sarycheva, 2016); **Moscow Oblast** (<sup>1</sup>Levitskaya, 1995c; <sup>1</sup>Levitskaya, 2013); **Murmansk Oblast** (<sup>4</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1</sup>Nezdojminogo, 1997b; <sup>1</sup>Karatygin, Nezdojminogo, Novozhilov, and Zhurbenko, 1999); **Nizhny Novgorod Oblast** (<sup>1</sup>Murashkinsky, 1911); **Novgorod Oblast** (<sup>1</sup>Kovalenko, Morozova, Nezdojminogo, and Popov, 2005; <sup>1</sup>Popov et al., 2013); **Penza Oblast** (<sup>1</sup>Ivanov and Nezdojminogo, 1990); **Perm Krai** (<sup>4</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1</sup>Perevedentseva, Mukhutdinov, and Kuznetsova, 2005; <sup>1</sup>Perevedentseva, 2008); **Pskov Oblast** (<sup>1</sup>Kovalenko and Morozova, 1999b; <sup>1</sup>Popov et al., 2013); **Ryazan Oblast** (<sup>1</sup>Volosnova, 1997; <sup>1</sup>Volosnova, 2014); **Saint Petersburg** (<sup>1</sup>Morozova and Kovalenko, 2000; <sup>1</sup>Kotkova, Morozova, and Popov, 2006; <sup>1</sup>Kotkova, Morozova, and Popov, 2007; <sup>1</sup>Morozova, Kovalenko, Rebriev, and Malysheva, 2014); **Samara Oblast** (<sup>1,3</sup>Malysheva and Malysheva, 2005b; <sup>2,3</sup>Malysheva and Malysheva, 2008); **Sevastopol** (<sup>1</sup>Sarkina, 2016b); **Sverdlovsk Oblast** (<sup>1</sup>Marina, 2006); **Tula Oblast** (<sup>1</sup>Svetasheva, 2003; <sup>1</sup>Svetasheva, 2004); **Ulyanovsk Oblast** (<sup>1</sup>Ilyukhin, 2010a; <sup>1</sup>Ilyukhin, 2010b); **Vologda Oblast** (<sup>1</sup>Kirillova, 2007); **Yaroslavl Oblast** (<sup>1</sup>Lazareva, 1998a; <sup>1</sup>Lazareva, 2002).

SIBERIA: **Altai Krai** (<sup>1</sup>Gorbunova and Perova, 2006; <sup>1</sup>Gorbunova and Chubarova, 2008; <sup>1</sup>Gorbunova, Vlasenko, and Tzhubarova, 2011); **Altai Republic** (<sup>1</sup>Gorbunova, 2003; <sup>1</sup>Gorbunova, 2010); **Irkutsk Oblast** (<sup>4</sup>Petrov, Nezdojminogo, and Bulakh, 1987; <sup>4</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1</sup>Petrov, 2008); **Khakassia** (<sup>1</sup>Zauzolkova, 2015); **Khanty-Mansi Autonomous Okrug** (<sup>1</sup>Zvyagina, 2008; <sup>1</sup>Shepeleva et al., 2014); **Krasnoyarsk Krai** (<sup>1</sup>Beglyanova, 1972a; <sup>1</sup>Karatygin, Nezdojminogo, Novozhilov, and Zhurbenko, 1999; <sup>1</sup>Zauzolkova, 2015; <sup>1</sup>Malysheva, Malysheva, Kiyashko, et al., 2017); **Novosibirsk Oblast** (<sup>4</sup>Perova, 1977; <sup>1</sup>Perova and Gorbunova, 2001; <sup>1</sup>Perova and Gorbunova, 2007; <sup>1</sup>Koropachinskiy and Banaev, 2014); **Sakha Republic** (<sup>1</sup>Nezdojminogo, 2003).

FAR EAST: **Amur Oblast** (<sup>1</sup>Bulakh, Govorova, and Taranina, 2003); **Jewish Autonomous Oblast** (<sup>1</sup>Bulakh, Govorova, Nazarova, and Vassiljeva, 2007; <sup>1</sup>Bau, Bulakh, and Govorova, 2011); **Kamchatka Krai** (<sup>3</sup>Peintner and Horak, 2002); **Khabarovsk Krai** (<sup>1</sup>Azbukina et al., 1986; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Bulakh, 2013; <sup>1</sup>Bogacheva, Bulakh, Bukharova, and Egorova, 2015; <sup>1</sup>Erofeeva and Bulakh, 2015a); **Magadan Oblast** (<sup>1</sup>Sazanova, 2009a); **Primorsky Krai** (<sup>1</sup>Vassiljeva, 1973; <sup>1</sup>Bunkina and Nazarova,



1978; <sup>1</sup>Azbukina et al., 1990; <sup>1,4</sup>Bulakh, Wasser, Nazarova, and Nezdoininogo, 1990; <sup>1</sup>Bardunov et al., 2002; <sup>1</sup>Azbukina et al., 2006; <sup>1</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Bulakh et al., 2016).

***Inocybe fraudans* (Britzelm.) Sacc.**

EASTERN EUROPE: **Crimea** (Moser, 1993; Sarkina, 2001; Dudka et al., 2004; Sarkina and Prydiuk, 2012; Sarkina, 2014b; Sarkina, 2016a); **Krasnodar Krai** (Nezdoininogo, 1996; Sopina, 2001a); **Leningrad Oblast** (Popov et al., 2007); **Moscow Oblast** (Levitskaya, 1998; Levitskaya, 2013); **Novgorod Oblast** (Kovalenko, Morozova, Nezdoininogo, and Popov, 2005; Popov et al., 2013); **Penza Oblast** (Nezdoininogo, 1996); **Saint Petersburg** (Kovalenko and Morozova, 1999a; Morozova and Kovalenko, 2000; Kotkova, Morozova, and Popov, 2006); **Samara Oblast** (Malysheva and Malysheva, 2005b; Malysheva and Malysheva, 2008); **Tatarstan** (Nezdoininogo, 1996); **Tula Oblast** (Svetasheva, 2013).

SIBERIA: **Krasnoyarsk Krai** (Nezdoininogo, 1996); **Novosibirsk Oblast** (Perova and Gorbunova, 2001); **Tomsk Oblast** (Kudashova, Gashkov, and Vaishlya, 2016a; Kudashova, Gashkov, and Vaishlya, 2016b; Vaishlya et al., 2017).

FAR EAST: **Khabarovsk Krai** (Nezdoininogo, 1996; Bau, Bulakh, and Govorova, 2011); **Primorsky Krai** (Nezdoininogo, 1996; Azbukina et al., 2006; Bau, Bulakh, and Govorova, 2011; Bulakh et al., 2016).

***Inocybe fuligineoatra* Huijsman**

EASTERN EUROPE: **Leningrad Oblast** (Popov et al., 2007); **Saint Petersburg** (Nezdoininogo, 1996; Kovalenko and Morozova, 1999a); **Tula Oblast** (Svetasheva, 2004; Svetasheva, 2005a; Shcherbakov, 2010).

SIBERIA: **Khanty-Mansi Autonomous Okrug** (Zvyagina and Baykalova, 2012).

***Inocybe fulvella* Bres.**

EASTERN EUROPE: **Lipetsk Oblast** (Sarycheva et al., 2009; Sarycheva, 2011).

SIBERIA: **Altai Krai** (Gorbunova and Perova, 2006); **Khanty-Mansi Autonomous Okrug** (Zvyagina, 2008; Shepeleva et al., 2014); **Krasnoyarsk Krai** (Beglyanova, 1972a; Beglyanova, 1972c; Nezdoininogo, 1996).

***Inocybe furfurea* Kühner**

EASTERN EUROPE: **Crimea** (Dudka et al., 2004).

***Inocybe fuscidula* Velen.<sup>1</sup>**

≡ *Inocybe fuscidula* var. *fuscidula* Velen.<sup>2</sup> = *Inocybe brunneoatra* (R. Heim) P.D. Orton<sup>3</sup> = *Inocybe descissa* var. *brunneoatra* R. Heim<sup>4</sup> = *Inocybe virgatula* Kühner<sup>5</sup>

EASTERN EUROPE: **Adygea** (<sup>1</sup>Sopina, 2001a); **Karachay-Cherkess Republic** (<sup>1</sup>Kalamees and Botashev, 2000); **Karelia** (<sup>1</sup>Nezdoininogo, 1996); **Komi Republic** (<sup>1</sup>Palamarchuk, 2011a; <sup>1</sup>Palamarchuk, 2012); **Leningrad Oblast** (<sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Popov et al., 2007); **Lipetsk Oblast** (<sup>4</sup>Alferova, 1977; <sup>1</sup>Sarycheva, 1999; <sup>1</sup>Sarycheva et al., 2009; <sup>1</sup>Sarycheva, 2011; <sup>1</sup>Sarycheva, 2014a; <sup>1</sup>Sarycheva, 2016); **Moscow Oblast** (<sup>1</sup>Levitskaya, 1995c; <sup>1</sup>Levitskaya, 2013); **Novgorod Oblast** (<sup>1</sup>Kovalenko, Morozova, Nezdoininogo, and Popov, 2005; <sup>2</sup>Popov et al., 2013); **Orenburg Oblast** (<sup>1</sup>Desyatova, 2008); **Penza Oblast** (<sup>1</sup>Ivanov and Nezdoininogo, 1990; <sup>1</sup>Nezdoininogo, 1996); **Perm Krai** (<sup>1</sup>Perevedentseva, Mukhutdinov, and Kuznetsova, 2005; <sup>2</sup>Perevedentseva, 2008); **Pskov Oblast** (<sup>2</sup>Kovalenko and Morozova, 1999b; <sup>2</sup>Popov et al., 2013); **Saint Petersburg** (<sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Morozova and Kovalenko, 2000; <sup>1</sup>Kotkova, Morozova, and Popov, 2006); **Samara Oblast** (<sup>2</sup>Malysheva and Malysheva, 2005b; <sup>2</sup>Malysheva and Malysheva, 2008); **Sverdlovsk Oblast** (<sup>1</sup>Marina, 2006); **Tula Oblast** (<sup>1</sup>Svetasheva, 2003; <sup>1</sup>Svetasheva, 2004; <sup>1</sup>Svetasheva, 2013); **Vologda Oblast** (<sup>1</sup>Kirillova, 2007); **Yaroslavl Oblast** (<sup>1</sup>Lazareva, 1998a; <sup>1</sup>Lazareva, 2002); **Arid territories** (<sup>1</sup>Rebriev, Rusanov, et al., 2012).

SIBERIA: **Irkutsk Oblast** (<sup>1</sup>Nezdoininogo, 1996; <sup>1</sup>Petrov, 2008); **Krasnoyarsk Krai** (<sup>3</sup>Beglyanova, 1972a; <sup>3</sup>Nezdoininogo, 1982a; <sup>1</sup>Nezdoininogo, 1996; <sup>1</sup>Karatygin, Nezdoininogo, Novozhilov, and Zhurbenko, 1999); **Tomsk Oblast** (<sup>2</sup>Kudashova, Gashkov, and Kutafjeva, 2013; <sup>2</sup>Vaishlya et al., 2017).

FAR EAST: **Jewish Autonomous Oblast** (<sup>1</sup>Bulakh, Govorova, Nazarova, and Vassiljeva, 2007; <sup>1</sup>Bau, Bulakh, and Govorova, 2011); **Kamchatka Krai** (<sup>1</sup>Peintner and Horak, 2002); **Khabarovsk Krai** (<sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdoininogo, 1990; <sup>1</sup>Nezdoininogo, 1996; <sup>1</sup>Bau, Bulakh, and Govorova, 2011); **Primorsky Krai** (<sup>1,5</sup>Bulakh, Wasser, Nazarova, and Nezdoininogo, 1990; <sup>1</sup>Nezdoininogo, 1996; <sup>1</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Bulakh et al., 2016); **Sakhalin Oblast** (<sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdoininogo, 1990; <sup>1</sup>Nezdoininogo, 1996).

***Inocybe geophylla* (Bull.) P. Kumm.<sup>1</sup>**

≡ *Agaricus geophyllus* Bull.<sup>2</sup> ≡ *Agaricus geophyllus* Sowerby<sup>3</sup> ≡ *Inocybe geophylla* f. *geophylla* (Bull.) P. Kumm.<sup>4</sup>  
 ≡ *Inocybe geophylla* var. *geophylla* (Bull.) P. Kumm.<sup>5</sup> = *Agaricus geophyllus* var. *candidus* Fr.<sup>6</sup> = *Inocybe geophylla*  
 var. *alba* Gillet<sup>7</sup> = *Inocybe geophylla* var. *fulva* (Pat.) Sacc.<sup>8</sup> = *Inocybe geophylla* var. *lilacina* (Peck) Gillet<sup>9</sup> = *Inocybe*  
*geophylla* var. *reflexa* (Gillet) Boud.<sup>10</sup> = *Inocybe lilacina* (Peck) Kauffman<sup>11</sup>

EASTERN EUROPE: **Adygea** (<sup>5,9</sup>Vaasma, Kalamees, and Raitviir, 1986; <sup>9</sup>Sopina, 2001a); **Belgorod Oblast** (<sup>1</sup>Bedenko, 1979a); **Bryansk Oblast** (<sup>1</sup>Kruglikov, 2007); **Chelyabinsk Oblast** (<sup>1</sup>Stepanova and Sirko, 1977); **Crimea** (<sup>1</sup>Sarkina and Prydiuk, 2012; <sup>1</sup>Sarkina and Stavishenko, 2019; <sup>9</sup>Sarkina and Stavishenko, 2019); **Kabardino-Balkarian Republic** (<sup>1</sup>Shkhagapsoev and Krapivina, 2003; <sup>5</sup>Shkhagapsoev and Krapivina, 2004); **Kaliningrad Oblast** (<sup>1</sup>Hennings, 1895; <sup>5,9</sup>Dedkov, Volodina, and Gubareva, 2007; <sup>5,9</sup>Volodina, 2007; <sup>1</sup>Atayev and Volodina, 2020); **Kaluga Oblast** (<sup>1,9</sup>Sionova, 2003); **Karachay-Cherkess Republic** (<sup>5,9</sup>Kalamees and Botashev, 2000); **Karelia** (<sup>5</sup>Kovalenko, Morozova, Fomina, and Särkisilta, 1998; <sup>1</sup>Bondartseva et al., 2001; <sup>5</sup>Krutov et al., 2014; <sup>9</sup>Savelev and Kikeeva, 2018); **Kirov Oblast** (<sup>5,9</sup>Kirillov, 2011; <sup>5,9</sup>Kirillov, Perevedentseva, and Egoshina, 2011; <sup>5,11</sup>Stavishenko, Luginina, Kirillov, and Egoshina, 2019); **Komi Republic** (<sup>5</sup>Palamarchuk, 2011b; <sup>1</sup>Palamarchuk, 2012; <sup>1</sup>Palamarchuk, 2016a; <sup>5</sup>Palamarchuk, 2016b); **Krasnodar Krai** (<sup>1,9</sup>Vassiljeva, 1939; <sup>4,10</sup>Kovalenko, 1980a; <sup>5,10</sup>Kovalenko, 1980b; <sup>5</sup>Vaasma, Kalamees, and Raitviir, 1986; <sup>5,9</sup>Sopina, 2001a); **Leningrad Oblast** (<sup>1</sup>Thesleff, 1920; <sup>1</sup>Nezdojminogo, 1967; <sup>5</sup>Kalamees and Kovalenko, 1984; <sup>5</sup>Stolyarskaya, 1993; <sup>5</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Morozova and Kovalenko, 2000; <sup>5</sup>Fomina, 2000; <sup>1</sup>Morozova, 2007; <sup>5,9</sup>Popov et al., 2007; <sup>1</sup>Zmitrovich et al., 2015; <sup>1</sup>Kalinina, 2018); **Lipetsk Oblast** (<sup>1</sup>Alferova, 1977; <sup>5</sup>Sarycheva, 1999; <sup>5</sup>Sarycheva et al., 2009; <sup>1</sup>Sarycheva, 2011; <sup>1</sup>Sarycheva, 2014a; <sup>5</sup>Sarycheva, 2016); **Mordovia** (<sup>1</sup>Chastukhin, 1948a; <sup>1</sup>Chastukhin, 2011; <sup>1</sup>Ivoilov and Bolshakov, 2011a; <sup>8</sup>Chastukhin, 2011); **Moscow** (<sup>1</sup>Bucholtz, 1897c; <sup>7</sup>Bucholtz, 1897b; <sup>1</sup>Mosolov, 1906; <sup>1</sup>Burova, 1968); **Moscow Oblast** (<sup>1</sup>Gorlenko, Sidorova, and Sidorova, 1989; <sup>5</sup>Levitskaya, 1995c; <sup>5</sup>Voronina et al., 2012; <sup>5,9</sup>Levitskaya, 2013; <sup>1</sup>Voronina et al., 2014; <sup>1</sup>Sidorova, Alexandrova, and Voronina, 2017); **Murmansk Oblast** (<sup>1</sup>Pystina, Pavlova, and Shestakova, 1969); **Novgorod Oblast** (<sup>1</sup>Kovalenko, Morozova, Nezdojminogo, and Popov, 2005; <sup>5</sup>Popov et al., 2013); **Orenburg Oblast** (<sup>5,9</sup>Desyatova, 2008); **Penza Oblast** (<sup>1</sup>Ivanov, 2019); **Perm Krai** (<sup>5</sup>Perevedentseva, Mukhutdinov, and Kuznetsova, 2005; <sup>5,9</sup>Perevedentseva, 2008; <sup>1</sup>Belkovskaya et al., 2014; <sup>1</sup>Perevedentseva and Shishigin, 2015); **Pskov Oblast** (<sup>5</sup>Kovalenko and Morozova, 1999b; <sup>5</sup>Kovalenko, Kolmakov, Morozova, and Popov, 2003; <sup>9</sup>Kolmakov and Popov, 2005; <sup>5,9</sup>Popov et al., 2013); **Ryazan Oblast** (<sup>1</sup>Volosnova, 1997; <sup>1,9</sup>Volosnova, 2014); **Saint Petersburg** (<sup>2</sup>Weinmann, 1828; <sup>3,6</sup>Weinmann, 1836; <sup>2</sup>Weinmann, 1837; <sup>5,9</sup>Kovalenko and Morozova, 1999a; <sup>5,9</sup>Kotkova, Morozova, and Popov, 2006; <sup>1</sup>Kotkova, Morozova, and Popov, 2007; <sup>5,9</sup>Morozova and Smirnov, 2011; <sup>1</sup>Morozova, Kovalenko, Rebriev, and Malysheva, 2014; <sup>1</sup>Zhukova, Morozova, Volobuev, and Bryantseva, 2017; <sup>5,9</sup>Morozova et al., 2020); **Samara Oblast** (<sup>9</sup>Malysheva and Malysheva, 2005b; <sup>5</sup>Malysheva and Malysheva, 2006; <sup>5,9</sup>Malysheva and Malysheva, 2008); **Smolensk Oblast** (<sup>1</sup>Jaczewski, 1896); **Sverdlovsk Oblast** (<sup>1</sup>Stepanova and Sirko, 1977; <sup>5,9</sup>Marina, 2006); **Tatarstan** (<sup>1</sup>Vassiljeva, 1977; <sup>9</sup>Potapov, Galejev, and Zhukov, 2013; <sup>1,11</sup>Potapov, 2015b); **Tula Oblast** (<sup>1</sup>Svetasheva, 2001; <sup>5,9</sup>Svetasheva, 2003; <sup>5,9</sup>Svetasheva, 2004; <sup>5</sup>Svetasheva, 2013); **Tver Oblast** (<sup>1</sup>Chastukhin, 1948b; <sup>1</sup>Chastukhin and Nikolaevskaya, 1969; <sup>5</sup>Kurochkin, 1993; <sup>1</sup>Mukhina, 2011a; <sup>1</sup>Mukhina, 2011b; <sup>1</sup>Kotkova, 2014); **Udmurt Republic** (<sup>1</sup>Tychinin, 1990; <sup>1</sup>Tychinin and Kuzmina, 2003); **Ulyanovsk Oblast** (<sup>5,9</sup>Ilyukhin, 2009; <sup>5,9</sup>Ilyukhin, 2010a); **Vologda Oblast** (<sup>5,9</sup>Kirillova, 2007); **Voronezh Oblast** (<sup>1</sup>Chastukhin, 1952; <sup>1</sup>Chastukhin and Nikolaevskaya, 1953; <sup>1</sup>Chastukhin and Nikolaevskaya, 1969; <sup>9</sup>Sarycheva, Starodubtseva, and Sapelnikova, 2017); **Yamalo-Nenets Autonomous Okrug** (<sup>5</sup>Karatygin, Nezdojminogo, Novozhilov, and Zhurbenko, 1999; <sup>1</sup>Nezdojminogo, 2001); **Yaroslavl Oblast** (<sup>5,9</sup>Lazareva, 1998a; <sup>5,9</sup>Lazareva, 2002); **Arid territories** (<sup>5,9</sup>Rebriev, Rusanov, et al., 2012).

SIBERIA: **Altai Krai** (<sup>5,9</sup>Gorbunova and Perova, 2006; <sup>1</sup>Gorbunova, 2018a); **Altai Republic** (<sup>1</sup>Kovalenko, 1992; <sup>1</sup>Gorbunova, 1996; <sup>5</sup>Gorbunova, 1997; <sup>9</sup>Gorbunova, 2001a; <sup>5,9</sup>Gorbunova, 2001b; <sup>9</sup>Perova and Gorbunova, 2001; <sup>5</sup>Gorbunova, 2008; <sup>5,9</sup>Gorbunova, 2010); **Buryatia** (<sup>1</sup>Nezdojminogo, 1970a; <sup>1</sup>Penzina and Petrov, 1994); **Irkutsk Oblast** (<sup>1</sup>Petrov, Nezdojminogo, and Bulakh, 1987; <sup>1</sup>Kutafjeva, 1989; <sup>1</sup>Petrov, 1989; <sup>1</sup>Astapenko, 1990b; <sup>1</sup>Muzyka, 2002; <sup>1</sup>Bardunov et al., 2005; <sup>1</sup>Petrov, 2008); **Khakassia** (<sup>1</sup>Beglyanova, 1972a; <sup>5</sup>Gorbunova and Majnagasheva, 2013; <sup>1</sup>Zauzolkova, 2015); **Khanty-Mansi Autonomous Okrug** (<sup>1</sup>Filippova, Bulyonkova, and Lapshina, 2015; <sup>1</sup>Filippova and Bulyonkova, 2017a; <sup>1</sup>Filippova and Bulyonkova, 2017b; <sup>1</sup>Zvyagina and Baykalova, 2017); **Krasnoyarsk Krai** (<sup>3</sup>Thümen, 1878; <sup>1</sup>Beglyanova, 1972a; <sup>5</sup>Nezdojminogo and Zhurbenko, 1996; <sup>5</sup>Nezdojminogo, 1997a; <sup>5</sup>Karatygin, Nezdojminogo, Novozhilov, and Zhurbenko, 1999; <sup>1</sup>Kosheleva and Kutafjeva, 2008a; <sup>5</sup>Zauzolkova, 2012; <sup>1</sup>Zauzolkova, 2015; <sup>1</sup>Malysheva, Malysheva, Kiyashko, et al., 2017; <sup>1</sup>Krom and Kapitonov, 2019); **Novosibirsk Oblast** (<sup>5</sup>Perova and Gorbunova, 2007; <sup>1</sup>Koropachinskiy and Banaev, 2014); **Sakha Republic** (<sup>5</sup>Nezdojminogo, 2003); **Tomsk Oblast** (<sup>9</sup>Perova, 1972; <sup>9</sup>Perova and Gorbunova, 2001; <sup>5,9</sup>Kudashova, Gashkov, and Kutafjeva, 2013; <sup>1</sup>Vaishlya et al., 2017).

FAR EAST: **Amur Oblast** (<sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1</sup>Azbukina et al., 1998; <sup>1</sup>Taranina, 2005); **Chukotka Autonomous Okrug** (<sup>3</sup>Berkeley and Curtis, 1978); **Jewish Autonomous Oblast**

(<sup>1</sup>Bulakh, Govorova, Nazarova, and Vassiljeva, 2007; <sup>1</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Erofeeva, Bukharova, and Bulakh, 2019); **Kamchatka Krai** (<sup>5</sup>Kalamees and Vaasma, 1981; <sup>1</sup>Peintner and Horak, 2002); **Khabarovsk Krai** (<sup>1</sup>Azbukina et al., 1986; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Erofeeva and Bulakh, 2015a); **Magadan Oblast** (<sup>1</sup>Nazarova, 1976; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>5</sup>Sazanova, 2005; <sup>5</sup>Sazanova, 2009a; <sup>1,5</sup>Sazanova, 2011); **Primorsky Krai** (<sup>8</sup>Naoumoff, 1914; <sup>1</sup>Vassiljeva, 1972; <sup>1</sup>Vassiljeva, 1973; <sup>1</sup>Bunkina and Nazarova, 1978; <sup>1</sup>Azbukina et al., 1984; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>5</sup>Azbukina et al., 1990; <sup>5</sup>Bardunov et al., 2002; <sup>1</sup>Azbukina et al., 2006; <sup>1</sup>Bau, Bulakh, Zhuang, and Li, 2007; <sup>1</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Malysheva et al., 2014; <sup>1</sup>Bulakh et al., 2016; <sup>1</sup>Malysheva et al., 2016; <sup>1</sup>Bogacheva, Bulakh, Bukharova, and Egorova, 2020); **Sakhalin Oblast** (<sup>1</sup>Vassiljeva and Nazarova, 1972; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990).

### *Inocybe glabrescens* Velen.

EASTERN EUROPE: **Samara Oblast** (Malysheva and Malysheva, 2005b; Malysheva and Malysheva, 2008).

FAR EAST: **Kamchatka Krai** (Peintner and Horak, 2002).

### *Inocybe glabripes* Ricken<sup>1</sup>

= *Inocybe descissa* var. *microspora* (J.E. Lange) R. Heim<sup>2</sup> = *Inocybe microspora* J.E. Lange<sup>3</sup>

EASTERN EUROPE: **Crimea** (<sup>2</sup>Zerova, 1962); **Komi Republic** (<sup>1</sup>Palamarchuk, 2020b); **Lipetsk Oblast** (<sup>1</sup>Sarycheva, 1999; <sup>1</sup>Sarycheva et al., 2009; <sup>1</sup>Sarycheva, 2011; <sup>1</sup>Sarycheva, 2014a; <sup>1</sup>Sarycheva, 2016); **Novgorod Oblast** (<sup>1</sup>Kovalenko, Morozova, Nezdojminogo, and Popov, 2005; <sup>1</sup>Popov et al., 2013); **Penza Oblast** (<sup>3</sup>Ivanov and Nezdojminogo, 1990; <sup>1</sup>Nezdojminogo, 1996; <sup>1</sup>Ivanov, 2019); **Perm Krai** (<sup>1</sup>Perevedentseva, Mukhutdinov, and Kuznetsova, 2005; <sup>1</sup>Perevedentseva, 2008); **Samara Oblast** (<sup>1</sup>Malysheva and Malysheva, 2005b; <sup>1</sup>Malysheva and Malysheva, 2008); **Tula Oblast** (<sup>1</sup>Svetasheva, 2003; <sup>1</sup>Svetasheva, 2004); **Vologda Oblast** (<sup>1</sup>Kirillova, 2007); **Yaroslavl Oblast** (<sup>1</sup>Lazareva, 1998a; <sup>1</sup>Lazareva, 2002).

SIBERIA: **Krasnoyarsk Krai** (<sup>3</sup>Beglyanova, 1972a; <sup>3</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990); **Tomsk Oblast** (<sup>1</sup>Agaphonova, Kutafjeva, and Gashkov, 2009a; <sup>1</sup>Kudashova, Gashkov, and Kutafjeva, 2013).

FAR EAST: **Jewish Autonomous Oblast** (<sup>1</sup>Bulakh, Govorova, Nazarova, and Vassiljeva, 2007; <sup>1</sup>Bau, Bulakh, and Govorova, 2011); **Primorsky Krai** (<sup>3</sup>Azbukina et al., 1990; <sup>3</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1</sup>Nezdojminogo, 1996; <sup>1</sup>Bardunov et al., 2002; <sup>1</sup>Bulakh et al., 2016).

### *Inocybe glabrodisca* P.D. Orton

EASTERN EUROPE: **Penza Oblast** (Ivanov and Nezdojminogo, 1990; Nezdojminogo, 1996).

FAR EAST: **Primorsky Krai** (Nezdojminogo, 1996).

### *Inocybe godeyi* Gillet

EASTERN EUROPE: **Adygea** (Vaasma, Kalamees, and Raitviir, 1986); **Belgorod Oblast** (Bedenko, 1980; Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; Nezdojminogo, 1996); **Chelyabinsk Oblast** (Sirko and Stepanova, 1977; Stepanova and Sirko, 1977); **Leningrad Oblast** (Kovalenko and Morozova, 1999a; Popov et al., 2007); **Lipetsk Oblast** (Sarycheva et al., 2009; Sarycheva, 2014a; Shcherbakov, 2014; Sarycheva, 2016); **Moscow Oblast** (Levitskaya, 1998; Levitskaya, 2013); **Penza Oblast** (Nezdojminogo, 1996; Ivanov, 2019); **Samara Oblast** (Malysheva and Malysheva, 2005b; Malysheva and Malysheva, 2008); **Tula Oblast** (Svetasheva, 2004; Svetasheva, 2005a; Svetasheva, 2005b; Shcherbakov, 2010; Svetasheva, Sheremetyeva, and Lakomov, 2019); **Ulyanovsk Oblast** (Ilyukhin, 2010a); **Arid territories** (Rebriev, Rusanov, et al., 2012).

SIBERIA: **Altai Krai** (Gorbunova and Perova, 2006; Gorbunova and Chubarova, 2008; Gorbunova, Vlasenko, and Tzhubarova, 2011); **Altai Republic** (Gorbunova, 2019); **Yamalo-Nenets Autonomous Okrug** (Tarchevskaya, 1990).

FAR EAST: **Amur Oblast** (Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; Nezdojminogo, 1996; Azbukina et al., 1998); **Khabarovsk Krai** (Azbukina et al., 1986); **Magadan Oblast** (Sazanova, 2009a); **Primorsky Krai** (Bunkina and Nazarova, 1978; Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; Nezdojminogo, 1996; Azbukina et al., 2006; Bau, Bulakh, and Govorova, 2011).

### *Inocybe goniopusio* Stangl

EASTERN EUROPE: **Moscow Oblast** (Levitskaya, 1998; Levitskaya, 2013).

***Inocybe grammata* Quél.**

EASTERN EUROPE: **Karelia** (Kovalenko, Morozova, Fomina, and Särkisilta, 1998; Krutov et al., 2014); **Krasnodar Krai** (Vaasma, Kalamees, and Raitviir, 1986); **Leningrad Oblast** (Stolyarskaya, 1989; Kovalenko and Morozova, 1999a; Popov et al., 2007; Zmitrovich et al., 2015); **Lipetsk Oblast** (Sarycheva, 1999; Sarycheva et al., 2009; Sarycheva, 2011; Sarycheva, 2014a; Sarycheva, 2016); **Mordovia** (Kuznetsov, 1960; Nezdojminogo, 1996; Ivoilov and Bolshakov, 2011a); **Murmansk Oblast** (Nezdojminogo, 1996); **Penza Oblast** (Ivanov and Nezdojminogo, 1990; Nezdojminogo, 1996); **Perm Krai** (Nezdojminogo, 1996; Perevedentseva, Mukhutdinov, and Kuznetsova, 2005; Perevedentseva, 2008; Belkovskaya et al., 2014; Botalov, 2017); **Pskov Oblast** (Kovalenko and Morozova, 1999b; Popov et al., 2013); **Saint Petersburg** (Morozova et al., 2020); **Sverdlovsk Oblast** (Marina, 2006); **Tatarstan** (Vassiljeva, 1977; Nezdojminogo, 1996); **Vologda Oblast** (Kutova, 1957).

SIBERIA: **Altai Republic** (Gorbunova, 1996; Gorbunova, 1997; Gorbunova, 2001b; Perova and Gorbunova, 2001); **Buryatia** (Nezdojminogo, 1970a; Petrov, 1991; Nezdojminogo, 1996); **Irkutsk Oblast** (Petrov, Nezdojminogo, and Bulakh, 1987; Petrov, 1991; Nezdojminogo, 1996; Petrov, 2008); **Krasnoyarsk Krai** (Beglyanova, 1972a; Nezdojminogo, 1976a; Nezdojminogo, 1996); **Novosibirsk Oblast** (Perova and Gorbunova, 2001; Perova and Gorbunova, 2007); **Tomsk Oblast** (Kudashova, Gashkov, and Vaishlya, 2016a; Vaishlya et al., 2017).

FAR EAST: **Jewish Autonomous Oblast** (Erofeeva, Bukharova, and Bulakh, 2019); **Kamchatka Krai** (Peintner and Horak, 2002); **Khabarovsk Krai** (Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; Nezdojminogo, 1996; Bau, Bulakh, and Govorova, 2011); **Primorsky Krai** (Vassiljeva, 1973; Bunkina and Nazarova, 1978; Azbukina et al., 1984; Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; Nezdojminogo, 1996; Azbukina et al., 2006; Bau, Bulakh, and Govorova, 2011).

***Inocybe griseolilacina* J.E. Lange**

EASTERN EUROPE: **Saint Petersburg** (Morozova et al., 2020); **Tula Oblast** (Svetasheva, 2004; Svetasheva, 2005a).

SIBERIA: **Altai Republic** (Gorbunova, 2019); **Khakassia** (Zauzolkova and Gorbunova, 2013; Zauzolkova, 2015); **Khanty-Mansi Autonomous Okrug** (Filippova and Bulyonkova, 2017a; Filippova and Bulyonkova, 2017b); **Krasnoyarsk Krai** (Beglyanova, 1972a; Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; Nezdojminogo, 1996); **Novosibirsk Oblast** (Koropachinskiy and Banaev, 2014).

FAR EAST: **Amur Oblast** (Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; Nezdojminogo, 1996); **Jewish Autonomous Oblast** (Bulakh, Govorova, Nazarova, and Vassiljeva, 2007; Bau, Bulakh, and Govorova, 2011); **Primorsky Krai** (Bunkina and Nazarova, 1978; Azbukina et al., 1990; Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; Nezdojminogo, 1996; Bardunov et al., 2002; Azbukina et al., 2006; Bau, Bulakh, and Govorova, 2011; Bogacheva, Bulakh, Bukharova, and Egorova, 2020).

***Inocybe griseoscabrosa* (Peck) Earle**

SIBERIA: **Altai Republic** (Gorbunova, 2019).

***Inocybe griseovelata* Kühner**

EASTERN EUROPE: **Kursk Oblast** (Baranov, 2002); **Novgorod Oblast** (Kovalenko, Morozova, Nezdojminogo, and Popov, 2005; Popov et al., 2013); **Perm Krai** (Perevedentseva, Mukhutdinov, and Kuznetsova, 2005; Perevedentseva, 2008); **Samara Oblast** (Malysheva and Malysheva, 2005b; Malysheva and Malysheva, 2008); **Tula Oblast** (Svetasheva, 2003; Svetasheva, 2004; Svetasheva, 2005b; Shcherbakov, 2010).

FAR EAST: **Primorsky Krai** (Kovalenko and Nezdojminogo, 1989; Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; Nezdojminogo, 1996).

***Inocybe helobia* (Kuyper) Bandini, B. Oertel & U. Eberh.**

≡ *Inocybe lacera* var. *helobia* Kuyper<sup>1</sup>

EASTERN EUROPE: **Karelia** (<sup>1</sup>Krutov et al., 2014); **Komi Republic** (<sup>1</sup>Palamarchuk, 2012); **Leningrad Oblast** (<sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Popov et al., 2007; <sup>1</sup>Zmitrovich et al., 2015); **Penza Oblast** (<sup>1</sup>Ivanov and Nezdojminogo, 1990); **Pskov Oblast** (<sup>1</sup>Kovalenko, Kolmakov, Morozova, and Popov, 2003; <sup>1</sup>Popov et al., 2013); **Saint Petersburg** (<sup>1</sup>Kotkova, Morozova, and Popov, 2005); **Sverdlovsk Oblast** (<sup>1</sup>Marina, 2006); **Yaroslavl Oblast** (<sup>1</sup>Lazareva, 1998a).

SIBERIA: **Krasnoyarsk Krai** (<sup>1</sup>Nezdojminogo, 1993b; <sup>1</sup>Karatygin, Nezdojminogo, Novozhilov, and Zhurbenko, 1999); **Sakha Republic** (<sup>1</sup>Nezdojminogo, 2003).

FAR EAST: **Chukotka Autonomous Okrug** (<sup>1</sup>Nezdojminogo, 1993b; <sup>1</sup>Karatygin, Nezdojminogo, Novozhilov, and Zhurbenko, 1999); **Kamchatka Krai** (<sup>1</sup>Peintner and Horak, 2002).

***Inocybe hirtella* Bres.<sup>1</sup>**≡ *Inocybe hirtella* var. *hirtella* Bres.<sup>2</sup>

EASTERN EUROPE: **Krasnodar Krai** (<sup>1</sup>Kovalenko, 1980a; <sup>1</sup>Kovalenko, 1980b; <sup>1</sup>Nezdojminogo, 1996); **Penza Oblast** (<sup>1</sup>Ivanov and Nezdojminogo, 1990; <sup>1</sup>Nezdojminogo, 1996); **Perm Krai** (<sup>2</sup>Perevedentseva, 2008; <sup>1</sup>Perevedentseva and Shishigin, 2014; <sup>1</sup>Perevedentseva and Shishigin, 2015); **Pskov Oblast** (<sup>2</sup>Kolmakov and Popov, 2005; <sup>2</sup>Popov et al., 2013); **Samara Oblast** (<sup>2</sup>Malysheva and Malysheva, 2005b; <sup>2</sup>Malysheva and Malysheva, 2008); **Tula Oblast** (<sup>1</sup>Svetasheva, 2004; <sup>2</sup>Svetasheva, 2005a); **Ulyanovsk Oblast** (<sup>1</sup>Ilyukhin, 2009; <sup>1</sup>Ilyukhin, 2010a); **Yaroslavl Oblast** (<sup>1</sup>Lazareva, 1998a; <sup>1</sup>Lazareva, 2002); **Arid territories** (<sup>1</sup>Rebriev, Rusanov, et al., 2012).

SIBERIA: **Altai Krai** (<sup>1</sup>Gorbunova, 2018a); **Krasnoyarsk Krai** (<sup>1</sup>Beglyanova, 1972a); **Novosibirsk Oblast** (<sup>1</sup>Perova, 1977; <sup>1</sup>Perova, 1982; <sup>2</sup>Perova and Gorbunova, 2007).

FAR EAST: **Primorsky Krai** (<sup>1</sup>Bau, Bulakh, Zhuang, and Li, 2007; <sup>1</sup>Bau, Bulakh, and Govorova, 2011).

***Inocybe hypophaea* Furrer-Ziogas**

SIBERIA: **Krasnoyarsk Krai** (Beglyanova, 1972a).

***Inocybe hystrix* (Fr.) P. Karst.**

EASTERN EUROPE: **Kaliningrad Oblast** (Dedkov, Volodina, and Gubareva, 2007; Volodina, 2007; Atayev and Volodina, 2020); **Leningrad Oblast** (Thesleff, 1920; Kovalenko and Morozova, 1999a; Popov et al., 2007; Kalinina, 2018); **Lipetsk Oblast** (Sarycheva et al., 2009); **Saint Petersburg** (Zhukova, Morozova, Volobuev, and Bryantseva, 2017).

SIBERIA: **Altai Republic** (Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; Nezdojminogo, 1996); **Novosibirsk Oblast** (Koropachinskiy and Banaev, 2014).

FAR EAST: **Primorsky Krai** (Kovalenko and Nezdojminogo, 1989; Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; Nezdojminogo, 1996).

***Inocybe impexa* (Lasch) Kuyper<sup>1</sup>**= *Agaricus maritimus* Fr.<sup>2</sup> = *Inocybe maritima* P. Karst.<sup>3</sup>

EASTERN EUROPE: **Kaliningrad Oblast** (<sup>1</sup>Dedkov, Volodina, and Gubareva, 2007; <sup>1</sup>Volodina, 2007); **Karelia** (<sup>1</sup>Krutov et al., 2014); **Komi Republic** (<sup>1</sup>Palamarchuk, 2016a; <sup>1</sup>Palamarchuk, 2016b); **Leningrad Oblast** (<sup>3</sup>Thesleff, 1920; <sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Popov et al., 2007).

FAR EAST: **Chukotka Autonomous Okrug** (<sup>2</sup>Berkeley and Curtis, 1978); **Primorsky Krai** (<sup>3</sup>Vassiljeva, 1973; <sup>1</sup>Bulakh et al., 2016).

***Inocybe incarnata* Bres.**

EASTERN EUROPE: **Murmansk Oblast** (Pystina, Pavlova, and Shestakova, 1969); **Rostov Oblast** (Rusanov et al., 2004; Zmitrovich et al., 2008); **Arid territories** (Rebriev, Rusanov, et al., 2012).

SIBERIA: **Krasnoyarsk Krai** (Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990).

***Inocybe inodora* Velen.**

EASTERN EUROPE: **Moscow Oblast** (Levitskaya, 1998; Levitskaya, 2013); **Ryazan Oblast** (Volosnova, 2005; Volosnova, 2014).

SIBERIA: **Krasnoyarsk Krai** (Nezdojminogo, 1993b; Karatygin, Nezdojminogo, Novozhilov, and Zhurbenko, 1999).

FAR EAST: **Chukotka Autonomous Okrug** (Karatygin, Nezdojminogo, Novozhilov, and Zhurbenko, 1999).

***Inocybe intricata* Peck<sup>1</sup>**= *Inocybe intricata* var. *pallidistipitata* Grund & D.E. Stuntz<sup>2</sup>

EASTERN EUROPE: **Komi Republic** (<sup>1</sup>Palamarchuk, 2011a).

FAR EAST: **Primorsky Krai** (<sup>1</sup>Nezdojminogo, 1996); **Sakhalin Oblast** (<sup>2</sup>Kobayashi and Terashima, 2014).

***Inocybe lacera* (Fr.) P. Kumm.<sup>1</sup>**

≡ *Agaricus lacerus* Fr.<sup>2</sup> ≡ *Inocybe lacera* var. *lacera* (Fr.) P. Kumm.<sup>3</sup> = *Inocybe lacera* var. *regularis* Kuyper<sup>4</sup> = *Inocybe lacera* var. *rhacodes* (J. Favre) Kuyper<sup>5</sup>

EASTERN EUROPE: **Bryansk Oblast** (<sup>1</sup>Kruglikov, 2007); **Chelyabinsk Oblast** (<sup>1</sup>Sirko and Stepanova, 1977; <sup>1</sup>Stepanova and Sirko, 1977); **Crimea** (<sup>1</sup>Sarkina, 2014b; <sup>1</sup>Sarkina, 2016a); **Kaliningrad Oblast** (<sup>1</sup>Dedkov, Volodina, and Gubareva, 2007; <sup>1</sup>Volodina, 2007); **Kaluga Oblast** (<sup>1</sup>Sionova, 2003; <sup>1</sup>Sionova, 2006); **Karelia** (<sup>1</sup>Freindling, 1949;

<sup>3</sup>Kovalenko, Morozova, Fomina, and Särkisilta, 1998; <sup>1</sup>Bondartseva et al., 2001; <sup>3</sup>Predtechenskaya and Ruokolainen, 2013; <sup>3</sup>Predtechenskaya, 2013; <sup>3</sup>Krutov et al., 2014; <sup>3</sup>Predtechenskaya and Ruokolainen, 2014; <sup>3</sup>Predtechenskaya, 2015); **Kirov Oblast** (<sup>1</sup>Kirillov, 2011; <sup>1</sup>Kirillov, Perevedentseva, and Egoshina, 2011); **Komi Republic** (<sup>3</sup>Karatygin, Nezdoyminogo, Novozhilov, and Zhurbenko, 1999; <sup>3,5</sup>Palamarchuk, 2011b; <sup>3</sup>Palamarchuk, 2012; <sup>1,5</sup>Palamarchuk, 2016a; <sup>3,5</sup>Palamarchuk, 2016b; <sup>1</sup>Palamarchuk and Kirillov, 2017; <sup>1</sup>Palamarchuk, 2017); **Kostroma Oblast** (<sup>1</sup>Burova, 1982); **Krasnodar Krai** (<sup>1</sup>Vassiljeva, 1939); **Leningrad Oblast** (<sup>1</sup>Thesleff, 1920; <sup>1</sup>Kalamees and Kovalenko, 1984; <sup>1</sup>Stolyarskaya, 1989; <sup>3</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Morozova and Kovalenko, 2000; <sup>3</sup>Morozova, 2007; <sup>3</sup>Popov et al., 2007; <sup>5</sup>Morozova, 2007; <sup>1</sup>Zmitrovich et al., 2015; <sup>1</sup>Malysheva, Malysheva, Shchepin, and Novozhilov, 2018); **Mordovia** (<sup>1</sup>Kuznetsov, 1960; <sup>1</sup>Ivoilov and Bolshakov, 2011a); **Moscow Oblast** (<sup>1</sup>Levitskaya, 1998; <sup>1</sup>Levitskaya, 2013); **Murmansk Oblast** (<sup>2</sup>Karsten, 1866; <sup>1</sup>Pystina, Pavlova, and Shestakova, 1969; <sup>1</sup>Mikhailovskii, 1975b; <sup>3</sup>Nezdoyminogo, 1993b; <sup>3</sup>Karatygin, Nezdoyminogo, Novozhilov, and Zhurbenko, 1999); **Novgorod Oblast** (<sup>3</sup>Kovalenko, Morozova, Nezdoyminogo, and Popov, 2005; <sup>3</sup>Popov et al., 2013); **Perm Krai** (<sup>1</sup>Perevedentseva, Mukhutdinov, and Kuznetsova, 2005; <sup>1</sup>Perevedentseva, 2008; <sup>1</sup>Botalov, 2017); **Pskov Oblast** (<sup>3</sup>Kovalenko and Morozova, 1999b; <sup>1</sup>Popov, 2001a; <sup>3</sup>Popov et al., 2013); **Rostov Oblast** (<sup>1</sup>Vyshchepan, 1992); **Ryazan Oblast** (<sup>1</sup>Volosnova, 1997; <sup>1</sup>Volosnova, 2014); **Saint Petersburg** (<sup>2</sup>Weinmann, 1828; <sup>2</sup>Weinmann, 1836; <sup>2</sup>Weinmann, 1837; <sup>3</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Morozova and Smirnov, 2011; <sup>1</sup>Morozova, Kovalenko, Rebriev, and Malysheva, 2014); **Samara Oblast** (<sup>3</sup>Malysheva and Malysheva, 2005b; <sup>3</sup>Malysheva and Malysheva, 2008); **Smolensk Oblast** (<sup>1</sup>Jaczewski, 1898); **Sverdlovsk Oblast** (<sup>1</sup>Stepanova and Sirko, 1977); **Tatarstan** (<sup>1</sup>Vassiljeva, 1977); **Tula Oblast** (<sup>1</sup>Svetasheva, 2003; <sup>1</sup>Svetasheva, 2004); **Tver Oblast** (<sup>1</sup>Kurochkin, 1993; <sup>1</sup>Mukhina, 2011a; <sup>1</sup>Mukhina, 2011b; <sup>1</sup>Kotkova, 2014); **Udmurt Republic** (<sup>1</sup>Tychinin and Kuzmina, 2003); **Ulyanovsk Oblast** (<sup>1</sup>Ilyukhin, 2010a; <sup>1</sup>Ilyukhin, 2010b); **Vologda Oblast** (<sup>1</sup>Kutova, 1957; <sup>1</sup>Kirillova, 2007); **Yamalo-Nenets Autonomous Okrug** (<sup>1</sup>Kazantseva, 1966; <sup>1</sup>Stepanova and Sirko, 1977; <sup>1</sup>Nezdoyminogo, 2001); **Yaroslavl Oblast** (<sup>1</sup>Lazareva, 1997; <sup>3</sup>Lazareva, 1998a); **Arid territories** (<sup>1</sup>Rebriev, Rusanov, et al., 2012); **Lapland** (<sup>2</sup>Karsten, 1876).

**SIBERIA: Altai Krai** (<sup>1</sup>Gorbunova, 2018a); **Altai Republic** (<sup>1</sup>Gorbunova, 2001a; <sup>1</sup>Gorbunova, 2001b; <sup>1</sup>Perova and Gorbunova, 2001; <sup>1</sup>Gorbunova, 2003; <sup>3</sup>Gorbunova, 2008; <sup>3</sup>Gorbunova, 2010); **Buryatia** (<sup>1</sup>Nezdoyminogo, 1970a; <sup>3</sup>Petrov, 1991); **Irkutsk Oblast** (<sup>1</sup>Petrov, Nezdoyminogo, and Bulakh, 1987; <sup>1</sup>Kutafjeva, 1989; <sup>3</sup>Petrov, 1991; <sup>1</sup>Muzyka, 2002; <sup>1</sup>Bardunov et al., 2005; <sup>1</sup>Petrov, 2008); **Khakassia** (<sup>1</sup>Beglyanova, 1972a; <sup>4</sup>Zauzolkova and Gorbunova, 2013; <sup>4</sup>Zauzolkova, 2015); **Khanty-Mansi Autonomous Okrug** (<sup>1</sup>Filippova and Bulyonkova, 2017a; <sup>1</sup>Filippova and Bulyonkova, 2017b); **Krasnoyarsk Krai** (<sup>1</sup>Beglyanova, 1972a; <sup>1</sup>Stepanova and Tomilin, 1973; <sup>1</sup>Nezdoyminogo, 1976a; <sup>3,4</sup>Nezdoyminogo, 1993b; <sup>1</sup>Nezdoyminogo and Zhurbenko, 1996; <sup>3</sup>Nezdoyminogo, 1997a; <sup>3,4</sup>Karatygin, Nezdoyminogo, Novozhilov, and Zhurbenko, 1999; <sup>1</sup>Kosheleva and Kutafjeva, 2008a; <sup>3,5</sup>Gorbunova, 2016); **Novosibirsk Oblast** (<sup>1</sup>Zaytseva, 1971); **Sakha Republic** (<sup>1</sup>Birkenhof, 1936; <sup>3</sup>Nezdoyminogo, 1993b; <sup>3,5</sup>Nezdoyminogo, 1997a; <sup>3</sup>Karatygin, Nezdoyminogo, Novozhilov, and Zhurbenko, 1999; <sup>3</sup>Nezdoyminogo, 2003); **Tomsk Oblast** (<sup>1</sup>Milovidova, 1980; <sup>1</sup>Perova and Gorbunova, 2001; <sup>1</sup>Kudashova, Gashkov, and Kutafjeva, 2013; <sup>1</sup>Vaishlya et al., 2017).

**FAR EAST: Amur Oblast** (<sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdoyminogo, 1990; <sup>1</sup>Azbukina et al., 1998); **Chukotka Autonomous Okrug** (<sup>2</sup>Berkeley and Curtis, 1978; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdoyminogo, 1990; <sup>1</sup>Sazanova, 1993; <sup>3,4</sup>Nezdoyminogo, 1993b; <sup>3,4</sup>Karatygin, Nezdoyminogo, Novozhilov, and Zhurbenko, 1999); **Jewish Autonomous Oblast** (<sup>1</sup>Bau, Bulakh, Zhuang, and Li, 2007; <sup>1</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Erofeeva, Bukharova, and Bulakh, 2019); **Kamchatka Krai** (<sup>1</sup>Kalamees and Vaasma, 1981; <sup>5</sup>Peintner and Horak, 2002); **Khabarovsk Krai** (<sup>1</sup>Azbukina et al., 1989; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdoyminogo, 1990; <sup>1</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Bulakh, 2013; <sup>1</sup>Bogacheva, Bulakh, Bukharova, and Egorova, 2015; <sup>1</sup>Erofeeva and Bulakh, 2015a); **Magadan Oblast** (<sup>1</sup>Nazarova, 1976; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdoyminogo, 1990; <sup>1</sup>Sazanova, 2005; <sup>1</sup>Sazanova, 2009a; <sup>3</sup>Sazanova, 2012; <sup>1</sup>Sazanova and Golodnova, 2015; <sup>1</sup>Sazanova, 2016); **Primorsky Krai** (<sup>1</sup>Vassiljeva, 1973; <sup>1</sup>Bulakh, 1977; <sup>1</sup>Bunkina and Nazarova, 1978; <sup>1</sup>Azbukina et al., 1984; <sup>1</sup>Azbukina et al., 1990; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdoyminogo, 1990; <sup>1</sup>Bardunov et al., 2002; <sup>1</sup>Azbukina et al., 2006; <sup>1</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Bulakh et al., 2016); **Sakhalin Oblast** (<sup>1</sup>Bulakh, Govorova, and Bogatov, 1999).

### ***Inocybe langei* R. Heim<sup>1</sup>**

= *Inocybe langei* f. *major* J.E. Lange<sup>2</sup> = *Inocybe langei* var. *major* Singer<sup>3</sup>

**EASTERN EUROPE: Karelia** (<sup>3</sup>Singer, 1936a; <sup>2</sup>Freindling, 1949; <sup>1</sup>Nezdoyminogo, 1996; <sup>2</sup>Bondartseva et al., 2001; <sup>1</sup>Krutov et al., 2014; <sup>2</sup>Krutov et al., 2014); **Kirov Oblast** (<sup>1</sup>Kirillov, 2011; <sup>1</sup>Kirillov, Perevedentseva, and Egoshina, 2011); **Lipetsk Oblast** (<sup>1</sup>Sarycheva et al., 2009; <sup>1</sup>Shcherbakov, 2014; <sup>1</sup>Sarycheva, 2016); **Perm Krai** (<sup>1</sup>Perevedentseva, Mukhutdinov, and Kuznetsova, 2005; <sup>1</sup>Perevedentseva, 2008).

**SIBERIA: Krasnoyarsk Krai** (<sup>1</sup>Beglyanova, 1972a); **Tomsk Oblast** (<sup>1</sup>Kudashova, Gashkov, and Vaishlya, 2016a; <sup>1</sup>Vaishlya et al., 2017).

**FAR EAST: Amur Oblast** (<sup>1</sup>Kochunova, 2019); **Primorsky Krai** (<sup>1</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Malysheva et al., 2016).

***Inocybe lanuginosa* (Bull.) P. Kumm.<sup>1</sup>**

≡ *Agaricus lanuginosus* Bull.<sup>2</sup> ≡ *Inocybe lanuginosa* var. *lanuginosa* (Bull.) P. Kumm.<sup>3</sup>

EASTERN EUROPE: **Adygea** (<sup>1</sup>Sopina, 2001a); **Chelyabinsk Oblast** (<sup>1</sup>Sirko and Stepanova, 1977; <sup>1</sup>Stepanova and Sirko, 1977; <sup>1</sup>Nezdojminogo, 1996); **Kaliningrad Oblast** (<sup>1</sup>Dedkov, Volodina, and Gubareva, 2007; <sup>1</sup>Volodina, 2007); **Karelia** (<sup>1</sup>Freindling, 1949; <sup>1</sup>Nezdojminogo, 1996; <sup>1</sup>Bondartseva et al., 2001; <sup>3</sup>Predtechenskaya and Ruokolainen, 2013; <sup>3</sup>Predtechenskaya, 2013; <sup>3</sup>Krutov et al., 2014; <sup>3</sup>Predtechenskaya and Ruokolainen, 2014); **Kirov Oblast** (<sup>1</sup>Kirillov and Luginina, 2011; <sup>1</sup>Stavishenko, Luginina, Kirillov, and Egoshina, 2019); **Komi Republic** (<sup>1</sup>Nezdojminogo, 1996; <sup>1</sup>Bobretsova, 2004; <sup>1</sup>Palamarchuk, 2012; <sup>1</sup>Palamarchuk, 2016a; <sup>1</sup>Palamarchuk, 2016b); **Kostroma Oblast** (<sup>1</sup>Burova, 1982); **Krasnodar Krai** (<sup>1</sup>Kovalenko, 1980a; <sup>1</sup>Kovalenko, 1980b; <sup>1</sup>Nezdojminogo, 1996; <sup>1</sup>Sopina, 2001a); **Leningrad Oblast** (<sup>1</sup>Nezdojminogo, 1967; <sup>1</sup>Chastukhin and Nikolaevskaya, 1969; <sup>1</sup>Nezdojminogo, 1996; <sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Fomina, 2000; <sup>1</sup>Morozova, 2007; <sup>1</sup>Popov et al., 2007; <sup>1</sup>Zmitrovich et al., 2015); **Lipetsk Oblast** (<sup>1</sup>Sarycheva et al., 2009; <sup>1</sup>Sarycheva, 2011); **Moscow Oblast** (<sup>3</sup>Levitskaya, 1998; <sup>1</sup>Levitskaya, 2013; <sup>1</sup>Voronina et al., 2014); **Murmansk Oblast** (<sup>1</sup>Nezdojminogo, 1996); **Perm Krai** (<sup>1</sup>Nezdojminogo, 1996; <sup>1</sup>Perevedentseva, Mukhutdinov, and Kuznetsova, 2005; <sup>1</sup>Perevedentseva, 2008; <sup>1</sup>Belkovskaya et al., 2014; <sup>1</sup>Botalov, 2017); **Pskov Oblast** (<sup>1</sup>Popov et al., 2013); **Ryazan Oblast** (<sup>1</sup>Volosnova, 1997; <sup>1</sup>Volosnova, 2014); **Saint Petersburg** (<sup>2</sup>Weinmann, 1828; <sup>2</sup>Weinmann, 1836; <sup>2</sup>Weinmann, 1837; <sup>1</sup>Morozova, Kovalenko, Rebriev, and Malysheva, 2014); **Sverdlovsk Oblast** (<sup>1</sup>Marina, 2006); **Tatarstan** (<sup>1</sup>Vassiljeva, 1977; <sup>1</sup>Nezdojminogo, 1996); **Vologda Oblast** (<sup>1</sup>Kirillova, 2007); **Yaroslavl Oblast** (<sup>1</sup>Nezdojminogo, 1996; <sup>1</sup>Lazareva, 1998a; <sup>1</sup>Lazareva, 2002).

SIBERIA: **Altai Krai** (<sup>1</sup>Gorbunova and Perova, 2006; <sup>3</sup>Gorbunova and Chubarova, 2008; <sup>1</sup>Gorbunova, Vlasenko, and Tzhubarova, 2011; <sup>1</sup>Gorbunova, 2018a); **Altai Republic** (<sup>1</sup>Gorbunova, 2008; <sup>3</sup>Gorbunova, 2010); **Buryatia** (<sup>1</sup>Nezdojminogo, 1970a; <sup>1</sup>Petrov, 1991; <sup>1</sup>Nezdojminogo, 1996); **Irkutsk Oblast** (<sup>1</sup>Kutafjeva, 1984; <sup>1</sup>Petrov, Nezdojminogo, and Bulakh, 1987; <sup>1</sup>Astapenko, 1990a; <sup>1</sup>Petrov, 1991; <sup>1</sup>Nezdojminogo, 1996; <sup>1</sup>Bardunov et al., 2005; <sup>1</sup>Petrov, 2008); **Khanty-Mansi Autonomous Okrug** (<sup>1</sup>Filippova, Bulyonkova, and Lapshina, 2015; <sup>1</sup>Filippova and Bulyonkova, 2017a; <sup>1</sup>Filippova and Bulyonkova, 2017b); **Krasnoyarsk Krai** (<sup>1</sup>Beglyanova, 1972a; <sup>1</sup>Nezdojminogo, 1982a; <sup>1</sup>Nezdojminogo, 1996; <sup>1</sup>Gorbunova, 2016; <sup>1</sup>Malysheva, Malysheva, Kiyashko, et al., 2017); **Kurgan Oblast** (<sup>1</sup>Stepanova and Sirko, 1977; <sup>1</sup>Nezdojminogo, 1996); **Novosibirsk Oblast** (<sup>1</sup>Perova and Gorbunova, 2001; <sup>3</sup>Gorbunova, 2007; <sup>3</sup>Perova and Gorbunova, 2007; <sup>1</sup>Koropachinskiy and Banaev, 2014); **Tomsk Oblast** (<sup>1</sup>Perova, 1972; <sup>1</sup>Perova and Gorbunova, 2001; <sup>1</sup>Kudashova, Gashkov, and Kutafjeva, 2013; <sup>1</sup>Vaishlya et al., 2017); **Yamalo-Nenets Autonomous Okrug** (<sup>1</sup>Kapitonov, 2015).

FAR EAST: **Amur Oblast** (<sup>1</sup>Nazarova, 1986; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1</sup>Nezdojminogo, 1996; <sup>1</sup>Taranina, 2005); **Chukotka Autonomous Okrug** (<sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1</sup>Sazanova, 1993); **Jewish Autonomous Oblast** (<sup>1</sup>Bulakh, Govorova, Nazarova, and Vassiljeva, 2007; <sup>1</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Erofeeva, Bukharova, and Bulakh, 2019); **Khбаровsk Krai** (<sup>1</sup>Azbukina et al., 1986; <sup>1</sup>Azbukina et al., 1989; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1</sup>Nezdojminogo, 1996; <sup>1</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Bulakh, 2013; <sup>1</sup>Bogacheva, Bulakh, Bukharova, and Egorova, 2015; <sup>1</sup>Erofeeva and Bulakh, 2015a); **Magadan Oblast** (<sup>1</sup>Nezdojminogo, 1996; <sup>1</sup>Sazanova, 2005; <sup>1</sup>Sazanova, 2009a; <sup>1</sup>Sazanova and Golodnova, 2015; <sup>1</sup>Sazanova, 2016); **Primorsky Krai** (<sup>1</sup>Vassiljeva, 1973; <sup>1</sup>Bunkina and Nazarova, 1978; <sup>1</sup>Azbukina et al., 1984; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1</sup>Nezdojminogo, 1996; <sup>1</sup>Azbukina et al., 2006; <sup>1</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Bulakh et al., 2016).

***Inocybe leptocystis* G.F. Atk.**

EASTERN EUROPE: **Kursk Oblast** (Baranov, 2002); **Lipetsk Oblast** (Sarycheva et al., 2009; Sarycheva, 2016); **Penza Oblast** (Nezdojminogo, 1996); **Pskov Oblast** (Kolmakov and Popov, 2005; Popov et al., 2013); **Yaroslavl Oblast** (Lazareva, 1998a; Lazareva, 2002).

SIBERIA: **Irkutsk Oblast** (Kutafjeva, 1989; Astapenko, 1990a; Petrov, 1991; Nezdojminogo, 1996); **Khakassia** (Zauzolkova, 2015; Zauzolkova and Gorbunova, 2016).

***Inocybe leptophylla* G.F. Atk.<sup>1</sup>**

= *Inocybe casimirii* Velen.<sup>2</sup>

EASTERN EUROPE: **Komi Republic** (<sup>1</sup>Palamarchuk, 2012); **Krasnodar Krai** (<sup>1</sup>Sopina, 2001a); **Perm Krai** (<sup>1</sup>Perevedentseva, Mukhutdinov, and Kuznetsova, 2005; <sup>1</sup>Perevedentseva, 2008).

SIBERIA: **Khanty-Mansi Autonomous Okrug** (<sup>1</sup>Zvyagina and Baykalova, 2012); **Krasnoyarsk Krai** (<sup>1</sup>Malysheva, Malysheva, Kiyashko, et al., 2017).

FAR EAST: **Jewish Autonomous Oblast** (<sup>1</sup>Bulakh, Govorova, Nazarova, and Vassiljeva, 2007; <sup>1</sup>Bau, Bulakh, and Govorova, 2011); **Primorsky Krai** (<sup>2</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1</sup>Nezdojminogo, 1996).

***Inocybe luteipes* J. Favre**

SIBERIA: **Krasnoyarsk Krai** (Vassilkov, 1971b [as *Inocybe lacera* (Fr.) P. Kumm., redet. in Nezdojminogo, 1993b]; Nezdojminogo, 1993b; Karatygin, Nezdojminogo, Novozhilov, and Zhurbenko, 1999).

***Inocybe lutescens* Velen.**

EASTERN EUROPE: **Penza Oblast** (Ivanov, 1982).

***Inocybe maculipes* J. Favre**

FAR EAST: **Sakhalin Oblast** (Kobayashi and Terashima, 2014).

***Inocybe margaritispora* (Berk.) Sacc.<sup>1</sup>**

= *Inocybe phaeosticta* Furrer-Ziogas<sup>2</sup>

EASTERN EUROPE: **Karelia** (<sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1</sup>Nezdojminogo, 1996; <sup>1</sup>Krutov et al., 2014); **Moscow Oblast** (<sup>1</sup>Levitskaya, 1998; <sup>1</sup>Levitskaya, 2013); **Perm Krai** (<sup>1</sup>Botalov, Perevedentseva, and Denisov, 2015; <sup>1</sup>Botalov, 2017); **Sverdlovsk Oblast** (<sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1</sup>Nezdojminogo, 1996); **Tula Oblast** (<sup>1</sup>Svetasheva, 2004; <sup>1</sup>Shcherbakov, 2010).

SIBERIA: **Yamalo-Nenets Autonomous Okrug** (<sup>1</sup>Tarchevskaya, 1990).

FAR EAST: **Jewish Autonomous Oblast** (<sup>1</sup>Erofeeva, Bukharova, and Bulakh, 2019); **Primorsky Krai** (<sup>1</sup>Vassiljeva, 1973; <sup>1</sup>Bunkina and Nazarova, 1978; <sup>1,2</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1</sup>Nezdojminogo, 1996; <sup>1</sup>Azbukina et al., 2006; <sup>1</sup>Bau, Bulakh, and Govorova, 2011).

***Inocybe melanopoda* D.E. Stuntz**

SIBERIA: **Khakassia** (Zauzolkova and Gorbunova, 2013; Zauzolkova, 2015).

FAR EAST: **Primorsky Krai** (Nezdojminogo, 1996).

***Inocybe minuta* P. Karst.**

EASTERN EUROPE: **Bashkortostan** (Karsten, 1905).

***Inocybe mixtilis* (Britzelm.) Sacc.**

EASTERN EUROPE: **Belgorod Oblast** (Bedenko, 1979a; Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990); **Crimea** (Dudka et al., 2004; Sarkina, 2011); **Kaliningrad Oblast** (Volodina, 2007); **Karelia** (Nezdojminogo, 1996); **Komi Republic** (Palamarchuk, 2012; Palamarchuk and Kirillov, 2017); **Krasnodar Krai** (Vassiljeva, 1939; Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; Nezdojminogo, 1996); **Leningrad Oblast** (Kovalenko and Morozova, 1999a; Morozova and Kovalenko, 2000; Tzvelev, 2000; Morozova, 2007; Popov et al., 2007; Geltman et al., 2018; Kalinina, 2018); **Lipetsk Oblast** (Sarycheva et al., 2009; Sarycheva, 2016); **Murmansk Oblast** (Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; Nezdojminogo, 1996); **Novgorod Oblast** (Kovalenko, Morozova, Nezdojminogo, and Popov, 2005; Popov et al., 2013); **Penza Oblast** (Ivanov and Nezdojminogo, 1990; Nezdojminogo, 1996); **Perm Krai** (Perevedentseva, Nezdojminogo, and Kovalenko, 1990; Nezdojminogo, 1996; Perevedentseva, Mukhutdinov, and Kuznetsova, 2005; Perevedentseva, 2008; Belkovskaya et al., 2014; Botalov, 2017); **Pskov Oblast** (Kovalenko, Kolmakov, Morozova, and Popov, 2003; Popov et al., 2013); **Ryazan Oblast** (Volosnova, 2005; Volosnova, 2014); **Saint Petersburg** (Morozova and Smirnov, 2011); **Tula Oblast** (Svetasheva, 2004; Svetasheva, 2005a); **Vologda Oblast** (Nezdojminogo, 1996; Kirillova, 2007).

SIBERIA: **Altai Krai** (Gorbunova, 2018b); **Altai Republic** (Gorbunova, 2017a); **Buryatia** (Nezdojminogo, 1996); **Irkutsk Oblast** (Petrov, Nezdojminogo, and Bulakh, 1987; Petrov, 1991; Nezdojminogo, 1996; Petrov, 2008); **Khanty-Mansi Autonomous Okrug** (Zvyagina, 2008; Shepeleva et al., 2014; Filippova and Bulyonkova, 2017a; Filippova and Bulyonkova, 2017b; Zvyagina and Baykalova, 2017); **Krasnoyarsk Krai** (Nezdojminogo, 1996; Zauzolkova, 2015); **Novosibirsk Oblast** (Perova and Gorbunova, 2001).

FAR EAST: **Kamchatka Krai** (Peintner and Horak, 2002); **Khabarovsk Krai** (Azbukina et al., 1986; Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; Nezdojminogo, 1996; Bau, Bulakh, and Govorova, 2011); **Primorsky Krai** (Bunkina and Nazarova, 1978; Azbukina et al., 1990; Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; Nezdojminogo, 1996; Bardunov et al., 2002; Azbukina et al., 2006; Bau, Bulakh, and Govorova, 2011).

***Inocybe moelleri* Eyssart. & A. Delannoy**

SIBERIA: **Khakassia** (Zauzolkova and Gorbunova, 2013; Zauzolkova, 2015).



***Inocybe monochroa* J. Favre**

SIBERIA: **Buryatia** (Nezdojminogo and Petrov, 1999).

***Inocybe muricellata* Bres.**

EASTERN EUROPE: **Komi Republic** (Palamarchuk, 2012); **Krasnodar Krai** (Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; Nezdojminogo, 1996); **Leningrad Oblast** (Kovalenko and Morozova, 1999a; Popov et al., 2007; Zmitrovich et al., 2015); **Lipetsk Oblast** (Sarycheva, 1999; Sarycheva et al., 2009; Sarycheva, 2014a; Sarycheva, 2016); **Moscow Oblast** (Levitskaya, 1998; Levitskaya, 2013); **Penza Oblast** (Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; Ivanov and Nezdojminogo, 1990; Nezdojminogo, 1996); **Perm Krai** (Perevedentseva, Mukhutdinov, and Kuznetsova, 2005; Perevedentseva, 2008); **Saint Petersburg** (Kotkova, Morozova, and Popov, 2007; Zhukova, Morozova, Volobuev, and Bryantseva, 2017; Dudka, Malysheva, Malysheva, and Zhukova, 2018); **Samara Oblast** (Malysheva and Malysheva, 2005b; Malysheva and Malysheva, 2008); **Sverdlovsk Oblast** (Shiryaeva, 2015a); **Tula Oblast** (Svetasheva, 2003; Svetasheva, 2004; Svetasheva, 2013); **Vologda Oblast** (Suslova et al., 2013).

SIBERIA: **Altai Krai** (Gorbunova and Perova, 2006); **Altai Republic** (Nezdojminogo, 1996; Gorbunova, 2003; Gorbunova, 2010); **Krasnoyarsk Krai** (Zauzolkova, 2012; Zauzolkova, 2015); **Novosibirsk Oblast** (Perova and Gorbunova, 2001).

FAR EAST: **Amur Oblast** (Taranina, 2005; Kochunova, 2019); **Primorsky Krai** (Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; Nezdojminogo, 1996; Azbukina et al., 2006; Bau, Bulakh, and Govorova, 2011).

***Inocybe napipes* J.E. Lange**

EASTERN EUROPE: **Belgorod Oblast** (Bedenko, 1979a); **Komi Republic** (Palamarchuk (Bobretsova), 2009; Palamarchuk, 2012; Palamarchuk, 2016a; Palamarchuk, 2016b); **Leningrad Oblast** (Nezdojminogo, 1996; Kovalenko and Morozova, 1999a; Popov et al., 2007); **Murmansk Oblast** (Mikhailovskii, 1975b; Nezdojminogo, 1996); **Novgorod Oblast** (Kovalenko, Morozova, Nezdojminogo, and Popov, 2005; Popov et al., 2013); **Perm Krai** (Perevedentseva, Mukhutdinov, and Kuznetsova, 2005; Perevedentseva, 2008); **Saint Petersburg** (Kovalenko and Morozova, 1999a; Kotkova, Morozova, and Popov, 2005); **Tatarstan** (Vassiljeva, 1977; Nezdojminogo, 1996); **Tula Oblast** (Svetasheva, 2004; Shcherbakov, 2010); **Tver Oblast** (Nezdojminogo, 1996; Mukhina, 2011a; Kotkova, 2014); **Vologda Oblast** (Kirillova, 2007).

SIBERIA: **Altai Republic** (Gorbunova, 2001b; Perova and Gorbunova, 2001); **Irkutsk Oblast** (Nezdojminogo, 1996); **Khakassia** (Beglyanova, 1972a; Zauzolkova, 2015); **Khanty-Mansi Autonomous Okrug** (Zvyagina, 2008; Shepeleva et al., 2014; Zvyagina and Baykalova, 2017); **Krasnoyarsk Krai** (Beglyanova, 1972a; Kosheleva and Kutafjeva, 2008a); **Novosibirsk Oblast** (Perova and Gorbunova, 2001; Perova and Gorbunova, 2007); **Tomsk Oblast** (Kosheleva and Kutafjeva, 2004; Kudashova, Gashkov, and Kutafjeva, 2013; Vaishlya et al., 2017).

FAR EAST: **Amur Oblast** (Kochunova, 2019).

***Inocybe nematoloma* Joss.**

EASTERN EUROPE: **Komi Republic** (Palamarchuk and Kirillov, 2018b).

***Inocybe nitidiuscula* (Britzelm.) Lapl.<sup>1</sup>**

= *Inocybe friesii* R. Heim<sup>2</sup>

EASTERN EUROPE: **Crimea** (<sup>1</sup>Prydiuk, 2002; <sup>1</sup>Dudka et al., 2004; <sup>1</sup>Sarkina and Prydiuk, 2012); **Karachay-Cherkess Republic** (<sup>1</sup>Kalamees and Botashev, 2000); **Krasnodar Krai** (<sup>2</sup>Kovalenko, 1980a; <sup>2</sup>Kovalenko, 1980b; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1</sup>Nezdojminogo, 1996); **Leningrad Oblast** (<sup>1</sup>Nezdojminogo, 1996; <sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Morozova and Kovalenko, 2000; <sup>1</sup>Morozova, 2007; <sup>1</sup>Popov et al., 2007); **Murmansk Oblast** (<sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990); **Penza Oblast** (<sup>1</sup>Nezdojminogo, 1996); **Perm Krai** (<sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1</sup>Nezdojminogo, 1996; <sup>1</sup>Perevedentseva, Mukhutdinov, and Kuznetsova, 2005; <sup>1</sup>Perevedentseva, 2008); **Pskov Oblast** (<sup>1</sup>Popov et al., 2013); **Saint Petersburg** (<sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Morozova, Kovalenko, Rebriev, and Malysheva, 2014); **Sverdlovsk Oblast** (<sup>1</sup>Marina, 2006); **Tula Oblast** (<sup>1</sup>Svetasheva, 2003; <sup>1</sup>Svetasheva, 2004); **Udmurt Republic** (<sup>1</sup>Kapitonov, 2013); **Yamalo-Nenets Autonomous Okrug** (<sup>1</sup>Karatygin, Nezdojminogo, Novozhilov, and Zhurbenko, 1999; <sup>1</sup>Nezdojminogo, 2001).

SIBERIA: **Buryatia** (<sup>1</sup>Nezdojminogo, 1996); **Khakassia** (<sup>2</sup>Beglyanova, 1972a; <sup>1</sup>Zauzolkova, 2015); **Krasnoyarsk Krai** (<sup>2</sup>Beglyanova, 1972a; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1</sup>Nezdojminogo, 1993b; <sup>1</sup>Nezdojminogo and Zhurbenko, 1996; <sup>1</sup>Nezdojminogo, 1996; <sup>1</sup>Nezdojminogo, 1997a; <sup>1</sup>Karatygin, Nezdojminogo, Novozhilov, and Zhurbenko, 1999); **Sakha Republic** (<sup>1</sup>Nezdojminogo, 2003); **Tomsk Oblast** (<sup>1</sup>Kudashova, Gashkov, and Vaishlya, 2016a; <sup>1</sup>Vaishlya et al., 2017); **Yamalo-Nenets Autonomous Okrug** (<sup>1</sup>Nezdojminogo, 1996).

FAR EAST: **Amur Oblast** (<sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdoininogo, 1990; <sup>1</sup>Nezdoininogo, 1996; <sup>1</sup>Azbukina et al., 1998); **Chukotka Autonomous Okrug** (<sup>1</sup>Nezdoininogo, 1993b; <sup>1</sup>Nezdoininogo, 1996; <sup>1</sup>Karatygin, Nezdoininogo, Novozhilov, and Zhurbenko, 1999); **Jewish Autonomous Oblast** (<sup>1</sup>Bulakh, Govorova, Nazarova, and Vassiljeva, 2007; <sup>1</sup>Bau, Bulakh, and Govorova, 2011); **Kamchatka Krai** (<sup>1</sup>Peintner and Horak, 2002); **Khabarovsk Krai** (<sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdoininogo, 1990; <sup>1</sup>Bau, Bulakh, and Govorova, 2011); **Primorsky Krai** (<sup>2</sup>Vassiljeva, 1973; <sup>2</sup>Bunkina and Nazarova, 1978; <sup>2</sup>Azbukina et al., 1984; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdoininogo, 1990; <sup>2</sup>Azbukina et al., 1990; <sup>1</sup>Nezdoininogo, 1996; <sup>1</sup>Bardunov et al., 2002; <sup>1</sup>Azbukina et al., 2006; <sup>1</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Malysheva et al., 2014; <sup>1</sup>Bulakh et al., 2016; <sup>1</sup>Malysheva et al., 2016); **Sakhalin Oblast** (<sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdoininogo, 1990).

***Inocybe oblectabilis* (Britzelm.) Sacc.**

EASTERN EUROPE: **Perm Krai** (Perevedentseva, Mukhutdinov, and Kuznetsova, 2005; Perevedentseva, 2008; Botalov, 2017).

SIBERIA: **Khanty-Mansi Autonomous Okrug** (Zvyagina and Baykalova, 2012).

***Inocybe obscurobadia* (J. Favre) Grund & D.E. Stuntz**

EASTERN EUROPE: **Komi Republic** (Palamarchuk, 2012; Palamarchuk, 2016a; Palamarchuk, 2016b); **Krasnodar Krai** (Nezdoininogo, 1996); **Leningrad Oblast** (Popov et al., 2007); **Lipetsk Oblast** (Sarycheva et al., 2009; Sarycheva, 2011; Sarycheva, 2014a; Sarycheva, 2016; Sarycheva, Starodubtseva, and Sapelnikova, 2017); **Penza Oblast** (Bulakh, Wasser, Nazarova, and Nezdoininogo, 1990; Ivanov and Nezdoininogo, 1990; Nezdoininogo, 1996); **Perm Krai** (Perevedentseva, Mukhutdinov, and Kuznetsova, 2005; Perevedentseva, 2008); **Pskov Oblast** (Kovalenko, Kolmakov, Morozova, and Popov, 2003; Popov et al., 2013); **Ryazan Oblast** (Volosnova, 2014); **Saint Petersburg** (Kovalenko and Morozova, 1999a; Morozova and Kovalenko, 2000; Kotkova, Morozova, and Popov, 2006); **Samara Oblast** (Malysheva and Malysheva, 2005b; Malysheva and Malysheva, 2008); **Sverdlovsk Oblast** (Marina, 2006); **Ulyanovsk Oblast** (Ilyukhin, 2010a); **Vologda Oblast** (Kirillova, 2007); **Yamalo-Nenets Autonomous Okrug** (Karatygin, Nezdoininogo, Novozhilov, and Zhurbenko, 1999).

SIBERIA: **Buryatia** (Nezdoininogo and Petrov, 1999); **Irkutsk Oblast** (Bulakh, Wasser, Nazarova, and Nezdoininogo, 1990; Petrov, 1991; Nezdoininogo, 1996; Petrov, 2008); **Khanty-Mansi Autonomous Okrug** (Zvyagina, 2008; Shepeleva et al., 2014); **Novosibirsk Oblast** (Koropachinskiy and Banaev, 2014); **Sakha Republic** (Nezdoininogo, 2003); **Tomsk Oblast** (Kudashova, Gashkov, and Kutafjeva, 2013).

FAR EAST: **Amur Oblast** (Taranina, 2005); **Jewish Autonomous Oblast** (Bulakh, Govorova, Nazarova, and Vassiljeva, 2007; Bau, Bulakh, and Govorova, 2011); **Khabarovsk Krai** (Erofeeva and Bulakh, 2015a); **Primorsky Krai** (Bulakh, Wasser, Nazarova, and Nezdoininogo, 1990; Nezdoininogo, 1996; Azbukina et al., 2006; Bau, Bulakh, and Govorova, 2011).

***Inocybe ochracea* Stangl**

FAR EAST: **Primorsky Krai** (Azbukina et al., 1990).

***Inocybe ochroalba* Bruyl.**

EASTERN EUROPE: **Lipetsk Oblast** (Sarycheva et al., 2009; Sarycheva, 2011; Sarycheva, 2014a; Sarycheva, 2016); **Ryazan Oblast** (Volosnova, 2005; Volosnova, 2014); **Samara Oblast** (Malysheva and Malysheva, 2006; Malysheva and Malysheva, 2008); **Tula Oblast** (Svetasheva, 2004; Svetasheva, 2005a; Shcherbakov, 2010).

SIBERIA: **Altai Krai** (Gorbunova, 2018a); **Altai Republic** (Gorbunova, 2019); **Khakassia** (Zauzolkova, 2015; Zauzolkova and Gorbunova, 2016).

FAR EAST: **Kamchatka Krai** (Peintner and Horak, 2002); **Khabarovsk Krai** (Bulakh, Wasser, Nazarova, and Nezdoininogo, 1990; Nezdoininogo, 1996; Bau, Bulakh, and Govorova, 2011); **Primorsky Krai** (Bulakh, Wasser, Nazarova, and Nezdoininogo, 1990; Nezdoininogo, 1996).

***Inocybe olida* Maire**

EASTERN EUROPE: **Volgograd Oblast** (Burova and Nezdoininogo, 1980; Burova and Nezdoininogo, 1982).

***Inocybe oreina* J. Favre**

EASTERN EUROPE: **Komi Republic** (Nezdoininogo, 1996; Karatygin, Nezdoininogo, Novozhilov, and Zhurbenko, 1999).

SIBERIA: **Altai Republic** (Gorbunova, 2003).

***Inocybe ovatocystis* Boursier & Kühner<sup>1</sup>**

≡ *Inocybe lanuginosa* var. *ovatocystis* (Boursier & Kühner) Stangl<sup>2</sup>

EASTERN EUROPE: **Komi Republic** (<sup>2</sup>Karatygin, Nezdoininogo, Novozhilov, and Zhurbenko, 1999); **Krasnodar Krai** (<sup>1</sup>Vaasma, Kalamees, and Raitviir, 1986); **Moscow Oblast** (<sup>2</sup>Levitskaya, 1998); **Murmansk Oblast** (<sup>2</sup>Nezdoininogo, 1993b; <sup>2</sup>Nezdoininogo, 1997b; <sup>2</sup>Karatygin, Nezdoininogo, Novozhilov, and Zhurbenko, 1999).

***Inocybe paludinella* (Peck) Sacc.**

EASTERN EUROPE: **Belgorod Oblast** (Bedenko, 1979a); **Kaliningrad Oblast** (Dedkov, Volodina, and Gubareva, 2007; Volodina, 2007); **Leningrad Oblast** (Nezdoininogo, 1996; Kovalenko and Morozova, 1999a; Popov et al., 2007); **Murmansk Oblast** (Mikhailovskii, 1975b; Nezdoininogo, 1996; Karatygin, Nezdoininogo, Novozhilov, and Zhurbenko, 1999); **Perm Krai** (Nezdoininogo, 1996; Perevedentseva, Mukhutdinov, and Kuznetsova, 2005; Perevedentseva, 2008); **Pskov Oblast** (Kovalenko, Kolmakov, Morozova, and Popov, 2003; Popov et al., 2013); **Sverdlovsk Oblast** (Marina, 2006); **Tatarstan** (Vassiljeva, 1977; Nezdoininogo, 1996); **Vologda Oblast** (Nezdoininogo, 1996); **Yaroslavl Oblast** (Lazareva, 1998a; Lazareva, 2002).

SIBERIA: **Irkutsk Oblast** (Kutafjeva, 1989); **Krasnoyarsk Krai** (Beglyanova, 1972a; Kosheleva and Kutafjeva, 2008a); **Novosibirsk Oblast** (Perova, 1977; Perova and Gorbunova, 2001); **Tomsk Oblast** (Perova and Gorbunova, 2001; Kudashova, Gashkov, and Kutafjeva, 2013; Vaishlya et al., 2017).

FAR EAST: **Khabarovsk Krai** (Erofeeva and Bulakh, 2015a); **Primorsky Krai** (Bunkina and Nazarova, 1978; Nezdoininogo, 1996).

***Inocybe pelargonium* Kühner**

EASTERN EUROPE: **Penza Oblast** (Ivanov and Nezdoininogo, 1990; Nezdoininogo, 1996); **Pskov Oblast** (Popov et al., 2013); **Ulyanovsk Oblast** (Ilyukhin, 2009; Ilyukhin, 2010a).

FAR EAST: **Amur Oblast** (Kochunova, 2019).

***Inocybe petiginosa* (Fr.) Gillet<sup>1</sup>**

≡ *Hebeloma petiginosum* (Fr.) P. Kumm.<sup>2</sup>

EASTERN EUROPE: **Kaliningrad Oblast** (<sup>1</sup>Volodina, 2007); **Karelia** (<sup>1</sup>Kovalenko, Morozova, Fomina, and Särkisilta, 1998; <sup>1</sup>Krutov et al., 2014); **Komi Republic** (<sup>1</sup>Palamarchuk (Bobretsova), 2009; <sup>1</sup>Palamarchuk, 2012); **Krasnodar Krai** (<sup>1</sup>Vassiljeva, 1939; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdoininogo, 1990; <sup>1</sup>Nezdoininogo, 1996; <sup>1</sup>Sopina, 2001a); **Leningrad Oblast** (<sup>1</sup>Morozova, 2007; <sup>1</sup>Popov et al., 2007); **Lipetsk Oblast** (<sup>1</sup>Sarycheva et al., 2009); **Moscow Oblast** (<sup>1</sup>Levitskaya, 1998; <sup>1</sup>Levitskaya, 2013); **Nizhny Novgorod Oblast** (<sup>1</sup>Murashkinsky, 1911); **Ryazan Oblast** (<sup>1</sup>Volosnova, 1997; <sup>1</sup>Volosnova, 2014); **Saint Petersburg** (<sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Morozova, Kovalenko, Rebriev, and Malysheva, 2014); **Samara Oblast** (<sup>1</sup>Malysheva and Malysheva, 2005b; <sup>1</sup>Malysheva and Malysheva, 2008); **Saratov Oblast** (<sup>2</sup>Lebedeva, 1927); **Smolensk Oblast** (<sup>2</sup>Jaczewski, 1898); **Sverdlovsk Oblast** (<sup>1</sup>Stepanova and Sirko, 1977; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdoininogo, 1990; <sup>1</sup>Nezdoininogo, 1996); **Tatarstan** (<sup>1</sup>Vassiljeva, 1977; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdoininogo, 1990).

SIBERIA: **Altai Krai** (<sup>1</sup>Gorbunova and Perova, 2006); **Altai Republic** (<sup>1</sup>Gorbunova, 2003; <sup>1</sup>Gorbunova, 2010); **Buryatia** (<sup>1</sup>Petrov, 1991); **Irkutsk Oblast** (<sup>1</sup>Kutafjeva, 1984; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdoininogo, 1990; <sup>1</sup>Petrov, 1991; <sup>1</sup>Petrov, 2008); **Krasnoyarsk Krai** (<sup>1</sup>Beglyanova, 1972a; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdoininogo, 1990; <sup>1</sup>Kosheleva and Kutafjeva, 2008a; <sup>1</sup>Zauzolkova, 2012; <sup>1</sup>Zauzolkova, 2015); **Novosibirsk Oblast** (<sup>1</sup>Perova and Gorbunova, 2001; <sup>1</sup>Perova and Gorbunova, 2007).

FAR EAST: **Kamchatka Krai** (<sup>1</sup>Peintner and Horak, 2002); **Khabarovsk Krai** (<sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdoininogo, 1990; <sup>1</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Bogacheva et al., 2018); **Magadan Oblast** (<sup>1</sup>Nazarova, 1976; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdoininogo, 1990; <sup>1</sup>Sazanova, 2005; <sup>1</sup>Sazanova, 2009a); **Primorsky Krai** (<sup>1</sup>Vassiljeva, 1972; <sup>1</sup>Vassiljeva, 1973; <sup>1</sup>Azbukina et al., 1990; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdoininogo, 1990; <sup>1</sup>Bardunov et al., 2002; <sup>1</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Bulakh et al., 2016; <sup>1</sup>Bogacheva et al., 2018).

***Inocybe phaeodisca* Kühner**

EASTERN EUROPE: **Crimea** (Dudka et al., 2004; Sarkina, 2011; Sarkina, 2014b; Sarkina, 2016a); **Karelia** (Nezdoininogo, 1996; Bondartseva et al., 2001; Krutov et al., 2014); **Komi Republic** (Palamarchuk, 2020b); **Penza Oblast** (Nezdoininogo, 1996; Ivanov, 2019); **Perm Krai** (Perevedentseva, Mukhutdinov, and Kuznetsova, 2005); **Ryazan Oblast** (Volosnova, 2005; Volosnova, 2014).

SIBERIA: **Irkutsk Oblast** (Nezdoininogo and Petrov, 1999); **Khanty-Mansi Autonomous Okrug** (Filippova and Bulyonkova, 2017a; Filippova and Bulyonkova, 2017b).

***Inocybe phaeoleuca* Kühner**

≡ *Inocybe splendens* var. *phaeoleuca* (Kühner) Kuyper<sup>1</sup>

EASTERN EUROPE: **Novgorod Oblast** (<sup>1</sup>Kovalenko, Morozova, Nezdoininogo, and Popov, 2005; <sup>1</sup>Popov et al., 2013).

SIBERIA: **Sakha Republic** (<sup>1</sup>Nezdoininogo, 2003).

***Inocybe posterula* (Britzelm.) Sacc.**

EASTERN EUROPE: **Kaliningrad Oblast** (Volodina, 2007); **Karelia** (Freindling, 1949; Bulakh, Wasser, Nazarova, and Nezdoininogo, 1990; Nezdoininogo, 1996; Bondartseva et al., 2001; Krutov et al., 2014); **Krasnodar Krai** (Vassiljeva, 1939; Bulakh, Wasser, Nazarova, and Nezdoininogo, 1990; Nezdoininogo, 1996; Sopina, 2001a); **Kursk Oblast** (Baranov, 2002); **Leningrad Oblast** (Nezdoininogo, 1996; Popov et al., 2007); **Murmansk Oblast** (Nezdoininogo, 1996); **Perm Krai** (Bulakh, Wasser, Nazarova, and Nezdoininogo, 1990; Nezdoininogo, 1996; Perevedentseva, Mukhutdinov, and Kuznetsova, 2005; Perevedentseva, 2008); **Saint Petersburg** (Kovalenko and Morozova, 1999a; Morozova, Kovalenko, Rebriev, and Malysheva, 2014); **Sverdlovsk Oblast** (Marina, 2006).

SIBERIA: **Irkutsk Oblast** (Gorbunova and Stepanova, 2015); **Krasnoyarsk Krai** (Beglyanova, 1972a; Bulakh, Wasser, Nazarova, and Nezdoininogo, 1990).

FAR EAST: **Primorsky Krai** (Vassiljeva, 1972; Vassiljeva, 1973; Bunkina and Nazarova, 1978; Bulakh, Wasser, Nazarova, and Nezdoininogo, 1990; Nezdoininogo, 1996; Azbukina et al., 2006; Bau, Bulakh, and Govorova, 2011; Bulakh et al., 2016).

***Inocybe praetervisa* Quél.<sup>1</sup>**

≡ *Astrosporina praetervisa* (Quél.) J. Schröt.<sup>2</sup>

EASTERN EUROPE: **Belgorod Oblast** (<sup>1</sup>Bedenko, 1979a; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdoininogo, 1990); **Crimea** (<sup>2</sup>Sarkina, 2001; <sup>1</sup>Dudka et al., 2004); **Kaliningrad Oblast** (<sup>1</sup>Volodina, 2007); **Komi Republic** (<sup>1</sup>Palamarchuk, 2012); **Lipetsk Oblast** (<sup>1</sup>Sarycheva, 1999; <sup>1</sup>Sarycheva et al., 2009; <sup>1</sup>Sarycheva, 2011; <sup>1</sup>Sarycheva, 2014a; <sup>1</sup>Sarycheva, 2016); **Murmansk Oblast** (<sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdoininogo, 1990); **Penza Oblast** (<sup>1</sup>Nezdoininogo, 1996; <sup>1</sup>Ivanov, 2019); **Pskov Oblast** (<sup>1</sup>Popov et al., 2013); **Ryazan Oblast** (<sup>1</sup>Volosnova, 2005; <sup>1</sup>Volosnova, 2014); **Sevastopol** (<sup>1</sup>Sarkina, 2016b; <sup>1</sup>Sarkina, 2020c); **Sverdlovsk Oblast** (<sup>1</sup>Marina, 2006).

SIBERIA: **Altai Krai** (<sup>1</sup>Gorbunova and Chubarova, 2008; <sup>1</sup>Gorbunova, Vlasenko, and Tzhubarova, 2011); **Altai Republic** (<sup>1</sup>Gorbunova, 2001b; <sup>1</sup>Gorbunova, 2008; <sup>1</sup>Gorbunova, 2017b); **Buryatia** (<sup>1</sup>Nezdoininogo, 1970a; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdoininogo, 1990; <sup>1</sup>Petrov, 1991; <sup>1</sup>Nezdoininogo, 1996); **Irkutsk Oblast** (<sup>1</sup>Kutafjeva, 1984; <sup>1</sup>Astapenko, 1990b; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdoininogo, 1990; <sup>1</sup>Petrov, 1991; <sup>1</sup>Petrov, 2008); **Krasnoyarsk Krai** (<sup>1</sup>Beglyanova, 1972a; <sup>1</sup>Stepanova and Tomilin, 1973; <sup>1</sup>Nezdoininogo, 1976a; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdoininogo, 1990; <sup>1</sup>Nezdoininogo and Zhurbenko, 1996; <sup>1</sup>Nezdoininogo, 1996; <sup>1</sup>Nezdoininogo, 1997a; <sup>1</sup>Karatygin, Nezdoininogo, Novozhilov, and Zhurbenko, 1999; <sup>1</sup>Zauzolkova, 2012; <sup>1</sup>Zauzolkova, 2015; <sup>1</sup>Gorbunova, 2016); **Novosibirsk Oblast** (<sup>1</sup>Perova, 1977; <sup>1</sup>Perova and Gorbunova, 2007); **Tomsk Oblast** (<sup>1</sup>Perova, 1972; <sup>1</sup>Kudashova, Gashkov, and Kutafjeva, 2013); **Tyva Republic** (<sup>1</sup>Gorbunova, 2015).

FAR EAST: **Chukotka Autonomous Okrug** (<sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdoininogo, 1990; <sup>1</sup>Sazanova, 1993); **Magadan Oblast** (<sup>1</sup>Sazanova, 2009a); **Primorsky Krai** (<sup>1</sup>Vassiljeva, 1973; <sup>1</sup>Bunkina and Nazarova, 1978; <sup>1</sup>Azbukina et al., 1984; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdoininogo, 1990; <sup>1</sup>Nezdoininogo, 1996; <sup>1</sup>Azbukina et al., 2006; <sup>1</sup>Bau, Bulakh, and Govorova, 2011).

***Inocybe proximella* P. Karst.**

EASTERN EUROPE: **Karelia** (Krutov et al., 2014); **Leningrad Oblast** (Kovalenko and Morozova, 1999a; Popov et al., 2007; Zmitrovich et al., 2015); **Yamalo-Nenets Autonomous Okrug** (Karatygin, Nezdoininogo, Novozhilov, and Zhurbenko, 1999).

SIBERIA: **Krasnoyarsk Krai** (Vassilkov, 1971b [as *Inocybe acuta* Boud., redet. in Nezdoininogo, 1993b]; Nezdoininogo, 1993b; Nezdoininogo, 1996; Karatygin, Nezdoininogo, Novozhilov, and Zhurbenko, 1999); **Yamalo-Nenets Autonomous Okrug** (Nezdoininogo, 1996).

FAR EAST: **Primorsky Krai** (Nezdoininogo, 1996).

***Inocybe pseudoasterospora* Kühner & Boursier<sup>1</sup>**

= *Inocybe pseudoasterospora* var. *microsperma* Weholt<sup>2</sup>

EASTERN EUROPE: **Moscow Oblast** (<sup>1</sup>Levitskaya, 1998; <sup>1</sup>Levitskaya, 2013); **Volgograd Oblast** (<sup>2</sup>Svetasheva, 2015).

FAR EAST: **Amur Oblast** (<sup>1</sup>Kochunova, 2019).

***Inocybe pseudodestructa* Stangl & J. Veselský**

EASTERN EUROPE: **Leningrad Oblast** (Morozova, 2007; Popov et al., 2007); **Moscow Oblast** (Levitskaya, 1998; Levitskaya, 2013); **Orenburg Oblast** (Desyatova, 2008); **Perm Krai** (Perevedentseva, Nezdojminogo, and Kovalenko, 1990; Nezdojminogo, 1996; Perevedentseva, Mukhutdinov, and Kuznetsova, 2005; Perevedentseva, 2008); **Rostov Oblast** (Rusanov, Rebriev, and Bulgakov, 2018); **Samara Oblast** (Malysheva and Malysheva, 2005b; Malysheva and Malysheva, 2008); **Sverdlovsk Oblast** (Marina, 2006); **Vologda Oblast** (Kirillova, 2007); **Arid territories** (Rebriev, Rusanov, et al., 2012).

SIBERIA: **Krasnoyarsk Krai** (Nezdojminogo, 1996).

FAR EAST: **Primorsky Krai** (Azbukina et al., 1990; Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; Nezdojminogo, 1996; Bardunov et al., 2002).

***Inocybe pseudohiulca* Kühner**

EASTERN EUROPE: **Karelia** (Nezdojminogo, 1996); **Murmansk Oblast** (Nezdojminogo, 1996).

SIBERIA: **Irkutsk Oblast** (Nezdojminogo, 1996; Petrov, 2013); **Krasnoyarsk Krai** (Beglyanova, 1972a; Nezdojminogo, 1993b; Nezdojminogo, 1996; Karatygin, Nezdojminogo, Novozhilov, and Zhurbenko, 1999); **Sakha Republic** (Nezdojminogo, 1996).

FAR EAST: **Chukotka Autonomous Okrug** (Nezdojminogo, 1993b; Nezdojminogo, 1996; Karatygin, Nezdojminogo, Novozhilov, and Zhurbenko, 1999).

***Inocybe pseudoreducta* Stangl & Glowinski**

EASTERN EUROPE: **Karelia** (Nezdojminogo, 1996); **Krasnodar Krai** (Nezdojminogo, 1996); **Perm Krai** (Perevedentseva, 2008); **Sverdlovsk Oblast** (Marina, 2006).

***Inocybe pseudoumbrina* Stangl**

FAR EAST: **Primorsky Krai** (Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; Bulakh et al., 2016).

***Inocybe pusio* P. Karst.**

EASTERN EUROPE: **Karelia** (Kovalenko, Morozova, Fomina, and Särkisilta, 1998; Krutov et al., 2014); **Leningrad Oblast** (Popov et al., 2007); **Penza Oblast** (Ivanov and Nezdojminogo, 1990; Nezdojminogo, 1996); **Pskov Oblast** (Popov et al., 2013); **Rostov Oblast** (Rusanov, Rebriev, and Bulgakov, 2018); **Saint Petersburg** (Kotkova, Morozova, and Popov, 2005); **Samara Oblast** (Malysheva and Malysheva, 2005b; Malysheva and Malysheva, 2008); **Tula Oblast** (Svetasheva, 2003; Svetasheva, 2004; Svetasheva, 2013); **Ulyanovsk Oblast** (Ilyukhin, 2010a; Ilyukhin, 2010b); **Arid territories** (Rebriev, Rusanov, et al., 2012).

SIBERIA: **Krasnoyarsk Krai** (Beglyanova, 1972a).

FAR EAST: **Amur Oblast** (Nezdojminogo, 1996).

***Inocybe putilla* Bres.**

EASTERN EUROPE: **Karelia** (Krutov et al., 2014); **Leningrad Oblast** (Nezdojminogo, 1967; Stolyarskaya, 1993; Nezdojminogo, 1996; Kovalenko and Morozova, 1999a; Fomina, 2000; Popov et al., 2007; Zmitrovich et al., 2015); **Yaroslavl Oblast** (Lazareva, 1998a; Lazareva, 2002).

SIBERIA: **Buryatia** (Nezdojminogo, 1996); **Irkutsk Oblast** (Petrov, 2013); **Khanty-Mansi Autonomous Okrug** (Zvyagina, 2008; Shepeleva et al., 2014; Filippova and Bulyonkova, 2017a; Filippova and Bulyonkova, 2017b); **Krasnoyarsk Krai** (Beglyanova, 1972a; Beglyanova, 1972c); **Tyumen Oblast** (Nezdojminogo, 1996).

***Inocybe pyriodora* (Pers.) P. Kumm.<sup>1</sup>**

≡ *Agaricus pyriodorus* Pers.<sup>2</sup>

EASTERN EUROPE: **Adygea** (<sup>1</sup>Vaasma, Kalamees, and Raitviir, 1986); **Krasnodar Krai** (<sup>1</sup>Kovalenko, 1980a; <sup>1</sup>Kovalenko, 1980b); **Penza Oblast** (<sup>1</sup>Ivanov, 1982; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990); **Saint Petersburg** (<sup>2</sup>Weinmann, 1836; <sup>1</sup>Morozova, Kovalenko, Rebriev, and Malysheva, 2014).

SIBERIA: **Irkutsk Oblast** (<sup>1</sup>Kutafjeva, 1984; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990); **Krasnoyarsk Krai** (<sup>1</sup>Beglyanova, 1972a; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990); **Novosibirsk Oblast** (<sup>1</sup>Perova, 1977).

FAR EAST: **Chukotka Autonomous Okrug** (<sup>2</sup>Berkeley and Curtis, 1978); **Khabarovsk Krai** (<sup>1</sup>Azbukina et al., 1986; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990); **Primorsky Krai** (<sup>1</sup>Vassiljeva, 1973; <sup>1</sup>Bunkina and Nazarova, 1978; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990); **Sakhalin Oblast** (<sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990).

***Inocybe queletii* Konrad**

EASTERN EUROPE: **Crimea** (Sarkina, 2001; Dudka et al., 2004; Sarkina, 2010b; Sarkina and Prydiuk, 2012; Sarkina and Stavishenko, 2019); **Kaluga Oblast** (Sionova, 2003).

SIBERIA: **Krasnoyarsk Krai** (Beglyanova, 1972a; Nezdojminogo, 1996); **Novosibirsk Oblast** (Perova and Gorbunova, 2001; Perova and Gorbunova, 2007); **Tomsk Oblast** (Perova and Gorbunova, 2001; Kudashova, Gashkov, and Kutafjeva, 2013; Vaishlya et al., 2017).

***Inocybe radiata* Peck**

EASTERN EUROPE: **Karelia** (Singer, 1938b; Freindling, 1949; Bondartseva et al., 2001; Krutov et al., 2014).

***Inocybe ravaensis* Kalamees & Shchukin**

FAR EAST: **Primorsky Krai** (Azbukina et al., 1990; Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990).

***Inocybe relicina* (Fr.) Quél.**

EASTERN EUROPE: **Karelia** (Krutov et al., 2014); **Leningrad Oblast** (Nezdojminogo, 1996; Kovalenko and Morozova, 1999a; Fomina, 2000; Fomina, 2001; Popov et al., 2007); **Lipetsk Oblast** (Sarycheva et al., 2009; Sarycheva, 2011; Sarycheva, 2014a; Sarycheva, 2016).

SIBERIA: **Tomsk Oblast** (Perova, 1972; Kudashova, Gashkov, and Kutafjeva, 2013).

***Inocybe rennyi* (Berk. & Broome) Sacc.**

EASTERN EUROPE: **Komi Republic** (Palamarchuk, 2016a; Palamarchuk, 2016b).

***Inocybe rufoalba* Sacc.<sup>1</sup>**

= *Inocybe jacobii* Kühner<sup>2</sup>

EASTERN EUROPE: **Karelia** (<sup>2</sup>Krutov et al., 2014); **Leningrad Oblast** (<sup>2</sup>Nezdojminogo, 1996; <sup>2</sup>Kovalenko and Morozova, 1999a; <sup>2</sup>Popov et al., 2007; <sup>1</sup>Zmitrovich et al., 2015); **Perm Krai** (<sup>2</sup>Perevedentseva, Mukhutdinov, and Kuznetsova, 2005; <sup>2</sup>Perevedentseva, 2008; <sup>2</sup>Belkovskaya et al., 2014); **Tatarstan** (<sup>2</sup>Nezdojminogo, 1996); **Yaroslavl Oblast** (<sup>2</sup>Lazareva, 1998a; <sup>2</sup>Lazareva, 2002).

SIBERIA: **Buryatia** (<sup>2</sup>Nezdojminogo, 1996); **Irkutsk Oblast** (<sup>2</sup>Petrov, 2013); **Khanty-Mansi Autonomous Okrug** (<sup>2</sup>Filippova and Bulyonkova, 2017a; <sup>2</sup>Filippova and Bulyonkova, 2017b); **Krasnoyarsk Krai** (<sup>2</sup>Beglyanova, 1972a; <sup>2</sup>Nezdojminogo, 1996; <sup>2</sup>Kosheleva and Kutafjeva, 2008a).

FAR EAST: **Chukotka Autonomous Okrug** (<sup>2</sup>Karatygin, Nezdojminogo, Novozhilov, and Zhurbenko, 1999); **Kamchatka Krai** (<sup>1</sup>Peintner and Horak, 2002); **Magadan Oblast** (<sup>2</sup>Nezdojminogo, 1996; <sup>2</sup>Sazanova, 2009a; <sup>2</sup>Sazanova and Golodnova, 2015).

***Inocybe rufuloides* Bon**

SIBERIA: **Sakha Republic** (Nezdojminogo, 2003).

***Inocybe rupestris* J. Favre**

SIBERIA: **Buryatia** (Nezdojminogo and Petrov, 1999).

***Inocybe salicis-herbaceae* Kühner**

EASTERN EUROPE: **Komi Republic** (Palamarchuk, 2016a; Palamarchuk, 2016b).

SIBERIA: **Sakha Republic** (Nezdojminogo, 1993b; Nezdojminogo, 1997a; Karatygin, Nezdojminogo, Novozhilov, and Zhurbenko, 1999).

FAR EAST: **Chukotka Autonomous Okrug** (Nezdojminogo, 1993b; Karatygin, Nezdojminogo, Novozhilov, and Zhurbenko, 1999).

***Inocybe sambucina* (Fr.) Quél.<sup>1</sup>**

≡ *Agaricus sambucinus* Fr.<sup>2</sup>

EASTERN EUROPE: **Kaliningrad Oblast** (<sup>1</sup>Neuhoff, 1922; <sup>1</sup>Dedkov, Volodina, and Gubareva, 2007; <sup>1</sup>Volodina, 2007); **Komi Republic** (<sup>1</sup>Palamarchuk and Kirillov, 2017); **Leningrad Oblast** (<sup>2</sup>Weinmann, 1836; <sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Morozova, 2007; <sup>1</sup>Popov et al., 2007; <sup>1</sup>Malysheva, Malysheva, Shchepin, and Novozhilov, 2018); **Perm Krai** (<sup>1</sup>Perevedentseva, Mukhutdinov, and Kuznetsova, 2005; <sup>1</sup>Perevedentseva, 2008; <sup>1</sup>Botalov, 2017); **Saint**

**Petersburg** (<sup>2</sup>Weinmann, 1837); **Tatarstan** (<sup>1</sup>Vassiljeva, 1977; <sup>1</sup>Nezdojminogo, 1996); **Tver Oblast** (<sup>1</sup>Kurochkin, 1993); **Udmurt Republic** (<sup>1</sup>Tychinin and Kuzmina, 2003).

SIBERIA: **Krasnoyarsk Krai** (<sup>1</sup>Beglyanova, 1972a; <sup>1</sup>Nezdojminogo, 1996).

#### *Inocybe sapinea* Velen.

EASTERN EUROPE: **Karelia** (Nezdojminogo, 1996); **Komi Republic** (Palamarchuk (Bobretsova), 2009; Palamarchuk, 2012; Palamarchuk and Kirillov, 2018a); **Orenburg Oblast** (Korshikova, 2006; Desyatova, 2008); **Sverdlovsk Oblast** (Marina, 2006); **Tula Oblast** (Svetasheva, 2004; Svetasheva, 2005a).

SIBERIA: **Altai Republic** (Nezdojminogo, 1996); **Irkutsk Oblast** (Nezdojminogo, 1996; Petrov, 2008); **Krasnoyarsk Krai** (Nezdojminogo, 1996); **Tomsk Oblast** (Kudashova, Gashkov, and Vaishlya, 2016a; Vaishlya et al., 2017).

FAR EAST: **Primorsky Krai** (Nezdojminogo, 1996).

#### *Inocybe serotina* Peck

EASTERN EUROPE: **Kaliningrad Oblast** (Volodina, 2007); **Penza Oblast** (Ivanov, 1982; Nezdojminogo, 1996); **Arid territories** (Rebriev, Rusanov, et al., 2012).

SIBERIA: **Krasnoyarsk Krai** (Beglyanova, 1972a; Nezdojminogo, 1996).

#### *Inocybe similis* Bres.

EASTERN EUROPE: **Novgorod Oblast** (Kovalenko, Morozova, Nezdojminogo, and Popov, 2005; Popov et al., 2013).

FAR EAST: **Primorsky Krai** (Vassiljeva, 1973).

#### *Inocybe sindonia* (Fr.) P. Karst.<sup>1</sup>

= *Inocybe kuehneri* Stangl & J. Veselský<sup>2</sup>

EASTERN EUROPE: **Kaliningrad Oblast** (<sup>1</sup>Dedkov, Volodina, and Gubareva, 2007; <sup>1</sup>Volodina, 2007); **Karelia** (<sup>1</sup>Bondartseva et al., 2001; <sup>1</sup>Krutov et al., 2014); **Leningrad Oblast** (<sup>1</sup>Nezdojminogo, 1996; <sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Fomina, 2000; <sup>1</sup>Morozova and Kovalenko, 2000; <sup>1</sup>Popov et al., 2007); **Moscow** (<sup>1</sup>Burova, 1968); **Moscow Oblast** (<sup>2</sup>Gorlenko, Sidorova, and Sidorova, 1989; <sup>1</sup>Levitskaya, 1998; <sup>1</sup>Levitskaya, 2013); **Penza Oblast** (<sup>1</sup>Nezdojminogo, 1996); **Perm Krai** (<sup>1</sup>Perevedentseva, Mukhutdinov, and Kuznetsova, 2005; <sup>1</sup>Perevedentseva, 2008); **Sverdlovsk Oblast** (<sup>1</sup>Marina, 2006); **Tatarstan** (<sup>1</sup>Nezdojminogo, 1996); **Tula Oblast** (<sup>1</sup>Svetasheva, 2003; <sup>1</sup>Svetasheva, 2004; <sup>1</sup>Svetasheva, 2005b).

SIBERIA: **Altai Republic** (<sup>1</sup>Gorbunova, 2001b; <sup>1</sup>Perova and Gorbunova, 2001); **Buryatia** (<sup>1</sup>Nezdojminogo, 1996); **Khakassia** (<sup>1</sup>Zauzolkova, 2015); **Krasnoyarsk Krai** (<sup>1</sup>Nezdojminogo, 1996; <sup>1</sup>Zauzolkova, 2015); **Novosibirsk Oblast** (<sup>1</sup>Perova and Gorbunova, 2001; <sup>1</sup>Perova and Gorbunova, 2007); **Sakha Republic** (<sup>1</sup>Nezdojminogo, 2003).

FAR EAST: **Jewish Autonomous Oblast** (<sup>1</sup>Bau, Bulakh, and Govorova, 2011); **Primorsky Krai** (<sup>2</sup>Kovalenko and Nezdojminogo, 1989; <sup>1</sup>Nezdojminogo, 1996; <sup>1</sup>Bardunov et al., 2002; <sup>1</sup>Bau, Bulakh, and Govorova, 2011); **Sakhalin Oblast** (<sup>1</sup>Nezdojminogo, 1996).

#### *Inocybe soluta* Velen.<sup>1</sup>

= *Inocybe brevispora* Huijsman<sup>2</sup>

EASTERN EUROPE: **Komi Republic** (<sup>1</sup>Nezdojminogo, 1996; <sup>1</sup>Palamarchuk, 2012; <sup>1</sup>Palamarchuk, 2016a; <sup>1</sup>Palamarchuk, 2016b; <sup>1</sup>Palamarchuk and Kirillov, 2017); **Leningrad Oblast** (<sup>1</sup>Nezdojminogo, 1996; <sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Popov et al., 2007); **Moscow Oblast** (<sup>1</sup>Levitskaya, 1998; <sup>1</sup>Levitskaya, 2013); **Pskov Oblast** (<sup>1</sup>Kovalenko and Morozova, 1999b); **Ryazan Oblast** (<sup>1</sup>Volosnova, 2005; <sup>1</sup>Volosnova, 2014); **Sverdlovsk Oblast** (<sup>1</sup>Marina, 2006); **Vologda Oblast** (<sup>1</sup>Kirillova, 2007); **Yaroslavl Oblast** (<sup>1</sup>Nezdojminogo, 1996; <sup>1</sup>Lazareva, 1998a; <sup>1</sup>Lazareva, 2002).

SIBERIA: **Buryatia** (<sup>2</sup>Nezdojminogo, 1973; <sup>1</sup>Nezdojminogo, 1996); **Krasnoyarsk Krai** (<sup>1</sup>Gorbunova, 2016).

FAR EAST: **Magadan Oblast** (<sup>1</sup>Nezdojminogo, 1996; <sup>1</sup>Sazanova, 2005; <sup>1</sup>Sazanova, 2009a).

#### *Inocybe splendens* R. Heim<sup>1</sup>

≡ *Inocybe splendens* var. *splendens* R. Heim<sup>2</sup> = *Inocybe phaeoleuca* var. *phaeoleuca* Kühner<sup>3</sup>

EASTERN EUROPE: **Komi Republic** (<sup>2</sup>Palamarchuk, 2012; <sup>1</sup>Palamarchuk and Kirillov, 2018a); **Krasnodar Krai** (<sup>1</sup>Nezdojminogo, 1996); **Lipetsk Oblast** (<sup>1</sup>Sarycheva, 1999; <sup>1</sup>Sarycheva et al., 2009; <sup>1</sup>Sarycheva, 2011; <sup>1</sup>Sarycheva, 2014a; <sup>1</sup>Sarycheva, 2016); **Murmansk Oblast** (<sup>1</sup>Nezdojminogo, 1996); **Orenburg Oblast** (<sup>1</sup>Korshikova, 2005);

<sup>1</sup>Desyatova, 2008); **Penza Oblast** (<sup>1</sup>Nezdojminogo, 1996); **Perm Krai** (<sup>3</sup>Perevedentseva, 2008; <sup>2</sup>Perevedentseva, Shilkova, and Botalov, 2011); **Samara Oblast** (<sup>1</sup>Malysheva and Malysheva, 2005b; <sup>1</sup>Malysheva and Malysheva, 2008); **Ulyanovsk Oblast** (<sup>1</sup>Ilyukhin, 2010a); **Vologda Oblast** (<sup>1</sup>Suslova et al., 2013).

SIBERIA: **Altai Krai** (<sup>1</sup>Gorbunova, 2018a); **Altai Republic** (<sup>1</sup>Gorbunova, 2001b; <sup>1</sup>Perova and Gorbunova, 2001); **Irkutsk Oblast** (<sup>1</sup>Nezdojminogo, 1996); **Krasnoyarsk Krai** (<sup>1</sup>Kosheleva and Kutafjeva, 2008a); **Novosibirsk Oblast** (<sup>1</sup>Perova and Gorbunova, 2001; <sup>1</sup>Koropachinskiy and Banaev, 2014); **Sakha Republic** (<sup>2</sup>Nezdojminogo, 2003); **Tomsk Oblast** (<sup>1</sup>Perova and Gorbunova, 2001; <sup>2</sup>Kudashova, Gashkov, and Kutafjeva, 2013); **Tyva Republic** (<sup>1</sup>Gorbunova, 2015).

FAR EAST: **Amur Oblast** (<sup>1</sup>Taranina, 2005); **Primorsky Krai** (<sup>1</sup>Azbukina et al., 2006; <sup>1</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Bogacheva, Bulakh, Bukharova, and Egorova, 2020); **Sakhalin Oblast** (<sup>1</sup>Kobayashi and Terashima, 2014).

### *Inocybe squarrosa* Rea

SIBERIA: **Krasnoyarsk Krai** (Karatygin, Nezdojminogo, Novozhilov, and Zhurbenko, 1999).

### *Inocybe squarrosoamethystina* Singer

EASTERN EUROPE: **Saint Petersburg** (Singer, 1938b).

### *Inocybe subargentea* Singer

EASTERN EUROPE: **Leningrad Oblast** (Popov et al., 2007); **Saint Petersburg** (Singer, 1938b; Kovalenko and Morozova, 1999a).

### *Inocybe subcarpta* Kühner & Boursier

EASTERN EUROPE: **Leningrad Oblast** (Morozova, 2007); **Murmansk Oblast** (Nezdojminogo, 1996).

SIBERIA: **Altai Krai** (Gorbunova, 2018b); **Altai Republic** (Gorbunova, 2008; Gorbunova, 2019); **Khanty-Mansi Autonomous Okrug** (Filippova and Bulyonkova, 2017a; Filippova and Bulyonkova, 2017b); **Krasnoyarsk Krai** (Gorbunova, 2016); **Novosibirsk Oblast** (Perova and Gorbunova, 2001; Gorbunova, 2007).

FAR EAST: **Amur Oblast** (Nezdojminogo, 1996); **Magadan Oblast** (Nezdojminogo, 1996; Sazanova, 2005; Sazanova, 2009a); **Primorsky Krai** (Nezdojminogo, 1996; Azbukina et al., 2006; Bau, Bulakh, and Govorova, 2011).

### *Inocybe subnudipes* Kühner

SIBERIA: **Khanty-Mansi Autonomous Okrug** (Filippova and Bulyonkova, 2017a; Filippova and Bulyonkova, 2017b).

### *Inocybe subochracea* (Peck) Earle

FAR EAST: **Primorsky Krai** (Vassiljeva, 1973; Bulakh, 1977; Bunkina and Nazarova, 1978; Azbukina et al., 1984).

### *Inocybe tabacina* Furrer-Ziogas

EASTERN EUROPE: **Leningrad Oblast** (Nezdojminogo, 1996; Kovalenko and Morozova, 1999a; Morozova and Kovalenko, 2000; Tzvelev, 2000; Popov et al., 2007; Geltman et al., 2018; Kalinina, 2018); **Moscow Oblast** (Levitskaya, 2013); **Murmansk Oblast** (Nezdojminogo, 1996).

### *Inocybe tarda* Kühner

SIBERIA: **Irkutsk Oblast** (Kutafjeva and Astapenko, 1988).

### *Inocybe taxocystis* (J. Favre & E. Horak) Senn-Irlet

FAR EAST: **Sakhalin Oblast** (Kobayashi and Terashima, 2014).

### *Inocybe tenebrosa* Quél.<sup>1</sup>

= *Inocybe atripes* G.F. Atk.<sup>2</sup>

EASTERN EUROPE: **Udmurt Republic** (<sup>2</sup>Tychinin, 1990); **Arid territories** (<sup>1</sup>Rebriev, Rusanov, et al., 2012).

SIBERIA: **Buryatia** (<sup>1</sup>Nezdojminogo and Petrov, 1999); **Novosibirsk Oblast** (<sup>1</sup>Koropachinskiy and Banaev, 2014).

FAR EAST: **Amur Oblast** (<sup>2</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1</sup>Nezdojminogo, 1996; <sup>1</sup>Taranina, 2005); **Jewish Autonomous Oblast** (<sup>1</sup>Erofeeva, Bukharova, and Bulakh, 2019); **Khabarovsk Krai** (<sup>2</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1</sup>Nezdojminogo, 1996; <sup>1</sup>Bau, Bulakh, and Govorova, 2011).



***Inocybe terrifera* Kühner**EASTERN EUROPE: **Adygea** (Vaasma, Kalamees, and Raitviir, 1986).***Inocybe tigrina* R. Heim**EASTERN EUROPE: **Crimea** (Sarkina and Stavishenko, 2019).***Inocybe tjallingiorum* Kuyper**EASTERN EUROPE: **Murmansk Oblast** (Nezdojminogo, 1996).SIBERIA: **Buryatia** (Nezdojminogo, 1996); **Irkutsk Oblast** (Nezdojminogo, 1996); **Krasnoyarsk Krai** (Nezdojminogo, 1996).***Inocybe umbratica* Quél.**EASTERN EUROPE: **Adygea** (Sopina, 2001a); **Karelia** (Kovalenko, Morozova, Fomina, and Särkisilta, 1998; Krutov et al., 2014); **Komi Republic** (Palamarchuk, 2012; Palamarchuk, 2016a; Palamarchuk, 2016b); **Krasnodar Krai** (Vassiljeva, 1939; Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; Nezdojminogo, 1996); **Lipetsk Oblast** (Sarycheva, 1999; Sarycheva et al., 2009; Sarycheva, 2014a; Sarycheva, 2016); **Murmansk Oblast** (Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; Nezdojminogo, 1996); **Novgorod Oblast** (Kovalenko, Morozova, Nezdojminogo, and Popov, 2005; Popov et al., 2013); **Penza Oblast** (Ivanov, 1982; Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; Nezdojminogo, 1996); **Perm Krai** (Perevedentseva, Mukhutdinov, and Kuznetsova, 2005; Perevedentseva, 2008; Belkovskaya et al., 2014); **Sverdlovsk Oblast** (Marina, 2006); **Tatarstan** (Vassiljeva, 1977; Nezdojminogo, 1996); **Udmurt Republic** (Kapitonov, 2013).SIBERIA: **Altai Krai** (Gorbunova and Chubarova, 2008; Gorbunova, Vlasenko, and Tzhubarova, 2011); **Altai Republic** (Gorbunova, 2001b; Perova and Gorbunova, 2001; Gorbunova, 2008); **Irkutsk Oblast** (Nezdojminogo, 1996); **Khanty-Mansi Autonomous Okrug** (Zvyagina, 2008; Zvyagina and Baykalova, 2012; Shepeleva et al., 2014); **Krasnoyarsk Krai** (Beglyanova, 1972a; Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; Nezdojminogo, 1996); **Novosibirsk Oblast** (Perova, 1982; Perova and Gorbunova, 2001; Perova and Gorbunova, 2007); **Tomsk Oblast** (Kudashova, Gashkov, and Vaishlya, 2016a; Vaishlya et al., 2017).FAR EAST: **Jewish Autonomous Oblast** (Bulakh, Govorova, Nazarova, and Vassiljeva, 2007; Bau, Bulakh, and Govorova, 2011); **Khabarovsk Krai** (Azbukina et al., 1986; Azbukina et al., 1989; Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; Nezdojminogo, 1996; Bau, Bulakh, and Govorova, 2011); **Primorsky Krai** (Vassiljeva, 1972; Vassiljeva, 1973; Bunkina and Nazarova, 1978; Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; Nezdojminogo, 1996; Azbukina et al., 2006); **Sakhalin Oblast** (Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990).***Inocybe urceolicystis* Stangl & Vauras**SIBERIA: **Khanty-Mansi Autonomous Okrug** (Filippova and Bulyonkova, 2017a; Filippova and Bulyonkova, 2017b).***Inocybe ventricosa* G.F. Atk.**FAR EAST: **Primorsky Krai** (Nezdojminogo, 1996).***Inocybe vulpinella* Bruyl.**EASTERN EUROPE: **Novgorod Oblast** (Kovalenko, Morozova, Nezdojminogo, and Popov, 2005; Popov et al., 2013).***Inocybe whitei* (Berk. & Broome) Sacc.<sup>1</sup>**= *Inocybe geophylla* var. *lateritia* (Berk. & Broome) W.G. Sm.<sup>2</sup> = *Inocybe pudica* Kühner<sup>3</sup>EASTERN EUROPE: **Adygea** (<sup>3</sup>Vaasma, Kalamees, and Raitviir, 1986); **Kaliningrad Oblast** (<sup>1</sup>Dedkov, Volodina, and Gubareva, 2007; <sup>1</sup>Volodina, 2007); **Karachay-Cherkess Republic** (<sup>1</sup>Kalamees and Botashev, 2000); **Kirov Oblast** (<sup>1</sup>Kirillov, 2011; <sup>1</sup>Kirillov, Perevedentseva, and Egoshina, 2011); **Komi Republic** (<sup>1</sup>Shiryaeva and Palamarchuk, 2019); **Krasnodar Krai** (<sup>2</sup>Kovalenko, 1980b); **Leningrad Oblast** (<sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Popov et al., 2007); **Moscow Oblast** (<sup>3</sup>Gorlenko, Sidorova, and Sidorova, 1989); **Murmansk Oblast** (<sup>1</sup>Nezdojminogo, 1996); **Penza Oblast** (<sup>2,3</sup>Ivanov, 1982; <sup>1</sup>Nezdojminogo, 1996); **Perm Krai** (<sup>1</sup>Perevedentseva, Mukhutdinov, and Kuznetsova, 2005; <sup>1</sup>Perevedentseva, 2008; <sup>1</sup>Perevedentseva and Shishigin, 2015); **Pskov Oblast** (<sup>1</sup>Popov, 2001a; <sup>1</sup>Popov et al., 2013).

SIBERIA: **Altai Krai** (<sup>1</sup>Gorbunova, 2018a); **Altai Republic** (<sup>1</sup>Gorbunova, 2019); **Novosibirsk Oblast** (<sup>1</sup>Perova and Gorbunova, 2001; <sup>1</sup>Perova and Gorbunova, 2007); **Tomsk Oblast** (<sup>1</sup>Perova and Gorbunova, 2001; <sup>1</sup>Kudashova, Gashkov, and Kutafjeva, 2013; <sup>1</sup>Vaishlya et al., 2017).

FAR EAST: **Amur Oblast** (<sup>1</sup>Bulakh, Govorova, and Taranina, 2003); **Jewish Autonomous Oblast** (<sup>1</sup>Bulakh, Govorova, Nazarova, and Vassiljeva, 2007; <sup>1</sup>Bau, Bulakh, and Govorova, 2011); **Kamchatka Krai** (<sup>2</sup>Kalamees and Vaasma, 1981).

***Inocybe xantholeuca* Kuyper**

EASTERN EUROPE: **Leningrad Oblast** (Kovalenko and Morozova, 1999a; Popov et al., 2007).

***Inocybe xanthomelas* Boursier & Kühner**

EASTERN EUROPE: **Karelia** (Kovalenko, Morozova, Fomina, and Särkisilta, 1998; Krutov et al., 2014); **Komi Republic** (Shiryayeva and Palamarchuk, 2019); **Krasnodar Krai** (Vassiljeva, 1939; Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; Nezdojminogo, 1996); **Leningrad Oblast** (Kovalenko and Morozova, 1999a; Morozova, 2007; Popov et al., 2007; Zmitrovich et al., 2015); **Rostov Oblast** (Rusanov, Rebriev, and Bulgakov, 2018); **Samara Oblast** (Malysheva and Malysheva, 2005b; Malysheva and Malysheva, 2008); **Arid territories** (Rebriev, Rusanov, et al., 2012).

SIBERIA: **Altai Republic** (Nezdojminogo, 1996); **Krasnoyarsk Krai** (Beglyanova, 1972a; Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990); **Tomsk Oblast** (Kudashova, Gashkov, and Vaishlya, 2016a; Vaishlya et al., 2017).

FAR EAST: **Primorsky Krai** (Kovalenko and Nezdojminogo, 1989; Azbukina et al., 1990; Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; Nezdojminogo, 1996; Bardunov et al., 2002).

***Inosperma adaequatum* (Britzelm.) Matheny & Esteve-Rav.**

≡ *Inocybe adaequata* (Britzelm.) Sacc.<sup>1</sup> = *Inocybe jurana* (Pat.) Sacc.<sup>2</sup>

EASTERN EUROPE: **Lipetsk Oblast** (<sup>2</sup>Alferova, 1977; <sup>1</sup>Sarycheva, 1999; <sup>1</sup>Sarycheva et al., 2009; <sup>1</sup>Sarycheva, 2011; <sup>1</sup>Sarycheva, 2014a; <sup>1</sup>Sarycheva, 2016); **Orenburg Oblast** (<sup>1</sup>Desyatova, 2008); **Penza Oblast** (<sup>2</sup>Ivanov, 1982; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990); **Rostov Oblast** (<sup>1</sup>Morozova et al., 2008); **Tula Oblast** (<sup>1</sup>Svetasheva, 2003; <sup>1</sup>Svetasheva, 2004; <sup>1</sup>Shcherbakov, 2010); **Arid territories** (<sup>1</sup>Rebriev, Rusanov, et al., 2012).

SIBERIA: **Altai Republic** (<sup>1</sup>Gorbunova, 2001b; <sup>1</sup>Perova and Gorbunova, 2001); **Krasnoyarsk Krai** (<sup>2</sup>Beglyanova, 1972a; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990); **Novosibirsk Oblast** (<sup>1</sup>Perova and Gorbunova, 2001; <sup>1</sup>Perova and Gorbunova, 2007; <sup>1</sup>Koropachinskiy and Banaev, 2014); **Tomsk Oblast** (<sup>2</sup>Perova, 1972; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1</sup>Perova and Gorbunova, 2001; <sup>1</sup>Kudashova, Gashkov, and Kutafjeva, 2013).

FAR EAST: **Jewish Autonomous Oblast** (<sup>1</sup>Bau, Bulakh, and Govorova, 2011); **Primorsky Krai** (<sup>2</sup>Vassiljeva, 1973; <sup>1</sup>Kovalenko and Nezdojminogo, 1989; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>2</sup>Azbukina et al., 1990; <sup>1</sup>Nezdojminogo, 1996; <sup>1</sup>Bardunov et al., 2002; <sup>1</sup>Bau, Bulakh, and Govorova, 2011).

***Inosperma bongardii* (Weinm.) Matheny & Esteve-Rav.**

≡ *Agaricus bongardii* Weinm.<sup>1</sup> ≡ *Inocybe bongardii* (Weinm.) Quél.<sup>2</sup> ≡ *Inocybe bongardii* var. *bongardii* (Weinm.) Quél.<sup>3</sup> = *Agaricus gratus* Weinm.<sup>4</sup>

EASTERN EUROPE: **Belgorod Oblast** (<sup>2</sup>Bedenko, 1980; <sup>2</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>2</sup>Nezdojminogo, 1996); **Crimea** (<sup>2</sup>Sarkina and Mironova, 2015; <sup>2</sup>Sarkina and Stavishenko, 2019); **Krasnodar Krai** (<sup>2</sup>Kovalenko, 1980a; <sup>2</sup>Kovalenko, 1980b; <sup>2</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>2</sup>Nezdojminogo, 1996); **Leningrad Oblast** (<sup>1</sup>Weinmann, 1836; <sup>2</sup>Kovalenko and Morozova, 1999a; <sup>2</sup>Morozova and Kovalenko, 2000; <sup>2</sup>Popov et al., 2007; <sup>2</sup>Kalinina, 2018); **Moscow Oblast** (<sup>2</sup>Levitskaya, 1998; <sup>2</sup>Levitskaya, 2013); **Penza Oblast** (<sup>2</sup>Ivanov, 1982; <sup>2</sup>Nezdojminogo, 1996); **Perm Krai** (<sup>2</sup>Perevedentseva, Mukhutdinov, and Kuznetsova, 2005; <sup>3</sup>Perevedentseva, 2008; <sup>2</sup>Perevedentseva and Shishigin, 2015); **Saint Petersburg** (<sup>1,4</sup>Weinmann, 1836); **Samara Oblast** (<sup>2</sup>Malysheva and Malysheva, 2008); **Tula Oblast** (<sup>2</sup>Svetasheva, 2004; <sup>2</sup>Svetasheva, 2005a; <sup>2</sup>Svetasheva, 2005b); **Ulyanovsk Oblast** (<sup>2</sup>Ilyukhin, 2010a); **Arid territories** (<sup>2</sup>Rebriev, Rusanov, et al., 2012).

SIBERIA: **Khakassia** (<sup>2</sup>Zauzolkova, 2015; <sup>2</sup>Zauzolkova and Gorbunova, 2016); **Krasnoyarsk Krai** (<sup>2</sup>Perova, 1970; <sup>2</sup>Beglyanova, 1972a; <sup>2</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990).

FAR EAST: **Primorsky Krai** (<sup>2</sup>Vassiljeva, 1973; <sup>2</sup>Bunkina and Nazarova, 1978; <sup>2</sup>Azbukina et al., 1990; <sup>2</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>2</sup>Nezdojminogo, 1996; <sup>2</sup>Bardunov et al., 2002; <sup>2</sup>Azbukina et al., 2006; <sup>2</sup>Bau, Bulakh, and Govorova, 2011).

***Inosperma calamistratum* (Fr.) Matheny & Esteve-Rav.**

≡ *Agaricus calamistratus* Fr.<sup>1</sup> ≡ *Inocybe calamistrata* (Fr.) Gillet<sup>2</sup>

EASTERN EUROPE: **Karachay-Cherkess Republic** (<sup>2</sup>Malysheva and Svetasheva, 2011; <sup>2</sup>Onipchenko et al., 2013); **Leningrad Oblast** (<sup>2</sup>Kovalenko and Morozova, 1999a; <sup>2</sup>Popov et al., 2007); **Murmansk Oblast** (<sup>2</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>2</sup>Nezdojminogo, 1996; <sup>2</sup>Nezdojminogo, 1997b; <sup>2</sup>Karatygin, Nezdojminogo, Novozhilov, and Zhurbenko, 1999); **Pskov Oblast** (<sup>2</sup>Kovalenko, Kolmakov, Morozova, and Popov, 2003; <sup>2</sup>Popov et al., 2013); **Saint Petersburg** (<sup>1</sup>Weinmann, 1836; <sup>1</sup>Weinmann, 1837); **Yamalo-Nenets Autonomous Okrug** (<sup>2</sup>Nezdojminogo, 2001).

SIBERIA: **Altai Republic** (<sup>2</sup>Gorbunova, 2003; <sup>2</sup>Gorbunova, 2010); **Irkutsk Oblast** (<sup>2</sup>Kutafjeva, 1989); **Krasnoyarsk Krai** (<sup>2</sup>Beglyanova, 1972a; <sup>2</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>2</sup>Nezdojminogo, 1996; <sup>2</sup>Karatygin, Nezdojminogo, Novozhilov, and Zhurbenko, 1999); **Novosibirsk Oblast** (<sup>2</sup>Perova and Gorbunova, 2001; <sup>2</sup>Perova and Gorbunova, 2007; <sup>2</sup>Koropachinskiy and Banaev, 2014); **Sakha Republic** (<sup>2</sup>Karatygin, Nezdojminogo, Novozhilov, and Zhurbenko, 1999; <sup>2</sup>Nezdojminogo, 2003).

FAR EAST: **Amur Oblast** (<sup>2</sup>Nazarova, 1986; <sup>2</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990); **Khabarovsk Krai** (<sup>2</sup>Azbukina et al., 1986); **Primorsky Krai** (<sup>2</sup>Vassiljeva, 1972; <sup>2</sup>Vassiljeva, 1973; <sup>2</sup>Bunkina and Nazarova, 1978; <sup>2</sup>Azbukina et al., 1990; <sup>2</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>2</sup>Nezdojminogo, 1996; <sup>2</sup>Bardunov et al., 2002; <sup>2</sup>Azbukina et al., 2006; <sup>2</sup>Bau, Bulakh, and Govorova, 2011).

***Inosperma cervicolor* (Pers.) Matheny & Esteve-Rav.**

≡ *Inocybe cervicolor* (Pers.) Quél.<sup>2</sup>

EASTERN EUROPE: **Adygea** (<sup>2</sup>Sopina, 2001a); **Belgorod Oblast** (<sup>2</sup>Bedenko, 1980; <sup>2</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>2</sup>Nezdojminogo, 1996); **Crimea** (<sup>2</sup>Sarkina, 2001; <sup>2</sup>Dudka et al., 2004; <sup>2</sup>Sarkina, 2010b; <sup>2</sup>Sarkina, 2011; <sup>2</sup>Sarkina and Prydiuk, 2012; <sup>2</sup>Sarkina and Mironova, 2015; <sup>2</sup>Sarkina and Stavishenko, 2019); **Kaliningrad Oblast** (<sup>2</sup>Volodina, 2007); **Krasnodar Krai** (<sup>2</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>2</sup>Nezdojminogo, 1996); **Leningrad Oblast** (<sup>2</sup>Kovalenko and Morozova, 1999a; <sup>2</sup>Fomina, 2000; <sup>2</sup>Morozova and Kovalenko, 2000; <sup>2</sup>Tzvelev, 2000; <sup>2</sup>Popov et al., 2007; <sup>2</sup>Geltman et al., 2018; <sup>2</sup>Geltman, 2018b); **Lipetsk Oblast** (<sup>2</sup>Alferova, 1977; <sup>2</sup>Sarycheva, 1999; <sup>2</sup>Sarycheva et al., 2009; <sup>2</sup>Sarycheva, 2011; <sup>2</sup>Sarycheva, 2014a; <sup>2</sup>Sarycheva, 2016); **Moscow Oblast** (<sup>2</sup>Levitskaya, 1998; <sup>2</sup>Levitskaya, 2013); **Penza Oblast** (<sup>2</sup>Nezdojminogo, 1996); **Perm Krai** (<sup>2</sup>Perevedentseva, Mukhutdinov, and Kuznetsova, 2005; <sup>2</sup>Perevedentseva, 2008); **Saint Petersburg** (<sup>2</sup>Kovalenko and Morozova, 1999a); **Sevastopol** (<sup>2</sup>Sarkina, 2016b; <sup>1</sup>Sarkina, 2020c); **Vologda Oblast** (<sup>2</sup>Kirillova, 2007; <sup>2</sup>Suslova et al., 2013).

SIBERIA: **Altai Republic** (<sup>2</sup>Nezdojminogo, 1996; <sup>2</sup>Gorbunova, 2003; <sup>2</sup>Gorbunova, 2010); **Irkutsk Oblast** (<sup>2</sup>Petrov, 2013); **Krasnoyarsk Krai** (<sup>2</sup>Beglyanova, 1972a; <sup>2</sup>Nezdojminogo, 1996); **Tomsk Oblast** (<sup>2</sup>Kudashova, Gashkov, and Vaishlya, 2016a; <sup>2</sup>Vaishlya et al., 2017).

FAR EAST: **Amur Oblast** (<sup>2</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>2</sup>Nezdojminogo, 1996); **Primorsky Krai** (<sup>2</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>2</sup>Nezdojminogo, 1996; <sup>2</sup>Bau, Bulakh, and Govorova, 2011).

***Inosperma cookei* (Bres.) Matheny & Esteve-Rav.**

≡ *Inocybe cookei* Bres.<sup>1</sup> ≡ *Inocybe cookei* var. *cookei* Bres.<sup>2</sup>

EASTERN EUROPE: **Belgorod Oblast** (<sup>1</sup>Bedenko, 1980; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1</sup>Nezdojminogo, 1996); **Chelyabinsk Oblast** (<sup>1</sup>Stepanova and Sirko, 1977; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990); **Crimea** (<sup>1</sup>Sarkina and Mironova, 2015); **Kirov Oblast** (<sup>1</sup>Stavishenko, Luginina, Kirillov, and Egoshina, 2019); **Krasnodar Krai** (<sup>1</sup>Vaasma, Kalamees, and Raitviir, 1986); **Lipetsk Oblast** (<sup>2</sup>Sarycheva et al., 2009; <sup>2</sup>Sarycheva, 2011; <sup>1</sup>Sarycheva, 2014a; <sup>2</sup>Sarycheva, 2016); **Moscow Oblast** (<sup>1</sup>Gorlenko, Sidorova, and Sidorova, 1989); **Novgorod Oblast** (<sup>1</sup>Kovalenko, Morozova, Nezdojminogo, and Popov, 2005; <sup>1</sup>Popov et al., 2013); **Penza Oblast** (<sup>1</sup>Ivanov and Nezdojminogo, 1990; <sup>1</sup>Nezdojminogo, 1996); **Pskov Oblast** (<sup>1</sup>Kolmakov and Popov, 2005; <sup>1</sup>Popov et al., 2013); **Samara Oblast** (<sup>2</sup>Malysheva and Malysheva, 2005b; <sup>2</sup>Malysheva and Malysheva, 2008); **Tatarstan** (<sup>1</sup>Nezdojminogo, 1996); **Tula Oblast** (<sup>1</sup>Svetasheva, 2003; <sup>1</sup>Svetasheva, 2004); **Ulyanovsk Oblast** (<sup>1</sup>Ilyukhin, 2010a; <sup>1</sup>Ilyukhin, 2010b); **Arid territories** (<sup>1</sup>Rebriev, Rusanov, et al., 2012).

SIBERIA: **Altai Krai** (<sup>1</sup>Gorbunova, 2018a); **Altai Republic** (<sup>1</sup>Gorbunova, 1997; <sup>1</sup>Perova and Gorbunova, 2001); **Khanty-Mansi Autonomous Okrug** (<sup>1</sup>Filippova and Bulyonkova, 2017a; <sup>1</sup>Filippova and Bulyonkova, 2017b); **Krasnoyarsk Krai** (<sup>1</sup>Beglyanova, 1972a; <sup>1</sup>Kosheleva and Kutafjeva, 2008a); **Novosibirsk Oblast** (<sup>1</sup>Perova and Gorbunova, 2001; <sup>1</sup>Perova and Gorbunova, 2007); **Tomsk Oblast** (<sup>1</sup>Kudashova, Gashkov, and Vaishlya, 2016a; <sup>1</sup>Vaishlya et al., 2017).

FAR EAST: **Khabarovsk Krai** (<sup>1</sup>Azbukina et al., 1986; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1</sup>Nezdojminogo, 1996; <sup>1</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Erofeeva and Bulakh, 2015a; <sup>1</sup>Bogacheva et al., 2018); **Primorsky Krai** (<sup>1</sup>Vassiljeva, 1973; <sup>1</sup>Kovalenko and Nezdojminogo, 1989; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1</sup>Nezdojminogo, 1996; <sup>1</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Bogacheva et al., 2018).

***Inosperma erubescens* (A. Blytt) Matheny & Esteve-Rav.<sup>1</sup>**

≡ *Inocybe erubescens* A. Blytt<sup>2</sup> = *Inocybe patouillardii* Bres.<sup>3</sup>

EASTERN EUROPE: **Belgorod Oblast** (<sup>3</sup>Bedenko, 1980); **Crimea** (<sup>3</sup>Sarkina, 2001; <sup>3</sup>Dudka et al., 2004; <sup>3</sup>Sarkina, 2011; <sup>1</sup>Sarkina, 2020a); **Kabardino-Balkarian Republic** (<sup>3</sup>Shkhagapsoev and Krapivina, 2003; <sup>2</sup>Shkhagapsoev and Krapivina, 2004); **Kaliningrad Oblast** (<sup>2</sup>Atayev and Volodina, 2020); **Karelia** (<sup>2</sup>Krutov et al., 2014); **Krasnodar Krai** (<sup>3</sup>Kovalenko, 1980a; <sup>3</sup>Kovalenko, 1980b; <sup>2</sup>Nezdojminogo, 1996); **Leningrad Oblast** (<sup>2</sup>Nezdojminogo, 1996; <sup>2</sup>Popov et al., 2007); **Lipetsk Oblast** (<sup>3</sup>Alferova, 1977; <sup>2</sup>Sarycheva, 1999; <sup>2</sup>Sarycheva et al., 2009; <sup>2</sup>Sarycheva, 2011; <sup>2</sup>Sarycheva, 2014a; <sup>2</sup>Sarycheva, 2016; <sup>2</sup>Sarycheva, Starodubtseva, and Sapelnikova, 2017); **Moscow Oblast** (<sup>3</sup>Gorlenko, Sidorova, and Sidorova, 1989); **Murmansk Oblast** (<sup>3</sup>Pystina, Pavlova, and Shestakova, 1969); **North Ossetia** (<sup>3</sup>Nikolayev, 2001); **Rostov Oblast** (<sup>2</sup>Morozova et al., 2008); **Saint Petersburg** (<sup>2</sup>Kovalenko and Morozova, 1999a; <sup>2</sup>Morozova, Kovalenko, Rebriev, and Malysheva, 2014; <sup>2</sup>Zhukova, Morozova, Volobuev, and Bryantseva, 2017; <sup>2</sup>Morozova et al., 2020); **Samara Oblast** (<sup>2</sup>Malysheva and Malysheva, 2005b; <sup>2</sup>Malysheva and Malysheva, 2008); **Saratov Oblast** (<sup>2</sup>Nezdojminogo, 1996); **Tula Oblast** (<sup>2</sup>Svetasheva, 2004; <sup>2</sup>Svetasheva, 2005a; <sup>2</sup>Svetasheva, 2005b; <sup>2</sup>Svetasheva, 2013); **Volgograd Oblast** (<sup>3</sup>Burova and Nezdojminogo, 1982); **Arid territories** (<sup>2</sup>Rebriev, Rusanov, et al., 2012).

SIBERIA: **Altai Republic** (<sup>3</sup>Gorbunova, 1997; <sup>2</sup>Gorbunova, 2001b; <sup>2</sup>Perova and Gorbunova, 2001); **Krasnoyarsk Krai** (<sup>3</sup>Beglyanova, 1972a); **Novosibirsk Oblast** (<sup>3</sup>Perova, 1977; <sup>2</sup>Perova and Gorbunova, 2001; <sup>2</sup>Koropachinskiy and Banaev, 2014); **Tomsk Oblast** (<sup>2</sup>Kudashova, Gashkov, and Kutafjeva, 2013; <sup>2</sup>Vaishlya et al., 2017).

***Inosperma fastigiellum* (G.F. Atk.) Matheny & Esteve-Rav.**

≡ *Inocybe fastigiella* G.F. Atk.<sup>1</sup>

FAR EAST: **Kamchatka Krai** (<sup>1</sup>Peintner and Horak, 2002).

***Inosperma geraniodorum* (J. Favre) Matheny & Esteve-Rav.**

≡ *Inocybe geraniodora* J. Favre<sup>1</sup>

SIBERIA: **Sakha Republic** (<sup>1</sup>Nezdojminogo, 2003).

***Inosperma hirsutum* (Lasch) Matheny & Esteve-Rav.**

≡ *Inocybe hirsuta* (Lasch) Quél.<sup>1</sup>

SIBERIA: **Krasnoyarsk Krai** (<sup>1</sup>Beglyanova, 1972a); **Novosibirsk Oblast** (<sup>1</sup>Zaytseva, 1971).

FAR EAST: **Primorsky Krai** (<sup>1</sup>Bulakh, 1977; <sup>1</sup>Azbukina et al., 1984).

***Inosperma kuthanii* (Stangl & J. Veselský) Matheny & Esteve-Rav.**

≡ *Inocybe cookei* var. *kuthanii* (Stangl & J. Veselský) Kuyper<sup>1</sup>

EASTERN EUROPE: **Lipetsk Oblast** (<sup>1</sup>Sarycheva et al., 2009; <sup>1</sup>Sarycheva, 2016); **Samara Oblast** (<sup>1</sup>Malysheva and Malysheva, 2005b; <sup>1</sup>Malysheva and Malysheva, 2008).

FAR EAST: **Kamchatka Krai** (<sup>1</sup>Peintner and Horak, 2002).

***Inosperma maculatum* (Boud.) Matheny & Esteve-Rav.**

≡ *Inocybe maculata* Boud.<sup>1</sup>

EASTERN EUROPE: **Belgorod Oblast** (<sup>1</sup>Bedenko, 1979a; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1</sup>Nezdojminogo, 1996); **Crimea** (<sup>1</sup>Sarkina, 2001; <sup>1</sup>Dudka et al., 2004; <sup>1</sup>Sarkina, 2010b; <sup>1</sup>Sarkina and Prydiuk, 2012); **Kaliningrad Oblast** (<sup>1</sup>Volodina, 2007); **Karelia** (<sup>1</sup>Kovalenko, Morozova, Fomina, and Särkisilta, 1998; <sup>1</sup>Krutov et al., 2014; <sup>1</sup>Savelev and Kikeeva, 2018); **Kirov Oblast** (<sup>1</sup>Kirillov, 2011; <sup>1</sup>Kirillov, Perevedentseva, and Egoshina, 2011); **Komi Republic** (<sup>1</sup>Palamarchuk (Bobretsova), 2009; <sup>1</sup>Palamarchuk, 2012; <sup>1</sup>Palamarchuk, 2016a; <sup>1</sup>Palamarchuk, 2016b); **Krasnodar Krai** (<sup>1</sup>Sopina, 2001a); **Lipetsk Oblast** (<sup>1</sup>Sarycheva, 1999; <sup>1</sup>Sarycheva et al., 2009; <sup>1</sup>Sarycheva, 2011; <sup>1</sup>Sarycheva, 2014a; <sup>1</sup>Sarycheva, 2016); **Moscow Oblast** (<sup>1</sup>Levitskaya, 1995c; <sup>1</sup>Levitskaya, 2013); **Murmansk Oblast** (<sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990); **Novgorod Oblast** (<sup>1</sup>Kovalenko, Morozova, Nezdojminogo, and Popov, 2005; <sup>1</sup>Popov et al., 2013); **Orenburg Oblast** (<sup>1</sup>Desyatova, 2008); **Penza Oblast** (<sup>1</sup>Ivanov and Nezdojminogo, 1990; <sup>1</sup>Nezdojminogo, 1996; <sup>1</sup>Ivanov, 2019); **Perm Krai** (<sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1</sup>Nezdojminogo, 1996; <sup>1</sup>Perevedentseva, Mukhutdinov, and Kuznetsova, 2005; <sup>1</sup>Perevedentseva,

2008); **Samara Oblast** (<sup>1</sup>Malysheva and Malysheva, 2005b; <sup>1</sup>Malysheva and Malysheva, 2008); **Sverdlovsk Oblast** (<sup>1</sup>Marina, 2006); **Tula Oblast** (<sup>1</sup>Svetasheva, 2003; <sup>1</sup>Svetasheva, 2004); **Ulyanovsk Oblast** (<sup>1</sup>Ilyukhin, 2010a; <sup>1</sup>Ilyukhin, 2010b); **Vologda Oblast** (<sup>1</sup>Kirillova, 2007); **Yaroslavl Oblast** (<sup>1</sup>Lazareva, 1998a; <sup>1</sup>Lazareva, 2002); **Arid territories** (<sup>1</sup>Rebriev, Rusanov, et al., 2012).

SIBERIA: **Altai Krai** (<sup>1</sup>Gorbunova and Perova, 2006; <sup>1</sup>Gorbunova and Chubarova, 2008; <sup>1</sup>Gorbunova, Vlasenko, and Tzhubarova, 2011); **Altai Republic** (<sup>1</sup>Nezdojminogo, 1996; <sup>1</sup>Gorbunova, 2001b; <sup>1</sup>Perova and Gorbunova, 2001; <sup>1</sup>Gorbunova, 2003; <sup>1</sup>Gorbunova, 2008; <sup>1</sup>Gorbunova, 2010); **Irkutsk Oblast** (<sup>1</sup>Kutafjeva and Astapenko, 1987; <sup>1</sup>Petrov, Nezdojminogo, and Bulakh, 1987; <sup>1</sup>Petrov, 1989; <sup>1</sup>Petrov, 1991; <sup>1</sup>Nezdojminogo, 1996; <sup>1</sup>Petrov, 2008); **Khakassia** (<sup>1</sup>Zauzolkova, 2015); **Khanty-Mansi Autonomous Okrug** (<sup>1</sup>Filippova and Bulyonkova, 2017a; <sup>1</sup>Filippova and Bulyonkova, 2017b); **Krasnoyarsk Krai** (<sup>1</sup>Beglyanova, 1972a; <sup>1</sup>Nezdojminogo, 1996; <sup>1</sup>Karatygin, Nezdojminogo, Novozhilov, and Zhurbenko, 1999; <sup>1</sup>Kryuchkova, 2009; <sup>1</sup>Kryuchkova, 2014a); **Novosibirsk Oblast** (<sup>1</sup>Koropachinskiy and Banaev, 2014); **Tomsk Oblast** (<sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1</sup>Perova and Gorbunova, 2001; <sup>1</sup>Kosheleva and Kutafjeva, 2004; <sup>1</sup>Kudashova, Gashkov, and Kutafjeva, 2013; <sup>1</sup>Vaishlya et al., 2017).

FAR EAST: **Amur Oblast** (<sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1</sup>Nezdojminogo, 1996; <sup>1</sup>Kochunova, 2019); **Jewish Autonomous Oblast** (<sup>1</sup>Bulakh, Govorova, Nazarova, and Vassiljeva, 2007; <sup>1</sup>Bau, Bulakh, and Govorova, 2011); **Khabarovsk Krai** (<sup>1</sup>Erofeeva and Bulakh, 2015a); **Primorsky Krai** (<sup>1</sup>Vassiljeva, 1973; <sup>1</sup>Kovalenko and Nezdojminogo, 1989; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1</sup>Nezdojminogo, 1996; <sup>1</sup>Bau, Bulakh, Zhuang, and Li, 2007; <sup>1</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Malysheva et al., 2016).

***Inosperma quietiodor* (Bon) Matheny & Esteve-Rav.**

≡ *Inocybe quietiodor* Bon<sup>1</sup>

EASTERN EUROPE: **Komi Republic** (<sup>1</sup>Palamarchuk (Bobretsova), 2009; <sup>1</sup>Palamarchuk, 2012); **Moscow Oblast** (<sup>1</sup>Levitskaya, 1998; <sup>1</sup>Levitskaya, 2013); **Penza Oblast** (<sup>1</sup>Nezdojminogo, 1996); **Samara Oblast** (<sup>1</sup>Malysheva and Malysheva, 2004; <sup>1</sup>Malysheva and Malysheva, 2007; <sup>1</sup>Malysheva and Malysheva, 2008).

FAR EAST: **Amur Oblast** (<sup>1</sup>Kochunova, 2019).

***Inosperma reisneri* (Velen.) Matheny & Esteve-Rav.**

≡ *Inocybe reisneri* Velen.<sup>1</sup>

EASTERN EUROPE: **Moscow Oblast** (<sup>1</sup>Levitskaya, 1998; <sup>1</sup>Levitskaya, 2013).

FAR EAST: **Primorsky Krai** (<sup>1</sup>Nezdojminogo, 1996; <sup>1</sup>Bardunov et al., 2002).

***Inosperma rimosoides* (Peck) Matheny & Esteve-Rav.**

≡ *Inocybe rimosoides* Peck<sup>1</sup>

EASTERN EUROPE: **Krasnodar Krai** (<sup>1</sup>Vassiljeva, 1939); **Tatarstan** (<sup>1</sup>Vassiljeva, 1977).

FAR EAST: **Primorsky Krai** (<sup>1</sup>Azbukina et al., 1990).

***Inosperma subhirsutum* (Kühner) Matheny & Esteve-Rav.**

≡ *Inocybe subhirsuta* Kühner<sup>1</sup>

EASTERN EUROPE: **Komi Republic** (<sup>1</sup>Palamarchuk, 2016a; <sup>1</sup>Palamarchuk, 2016b).

***Kauffmania larga* (Kauffman) Örstadius & E. Larss.**

≡ *Psathyrella larga* (Kauffman) A.H. Sm.<sup>1</sup>

SIBERIA: **Khanty-Mansi Autonomous Okrug** (<sup>1</sup>Filippova and Bulyonkova, 2017a; <sup>1</sup>Filippova and Bulyonkova, 2017b).

***Kuehneromyces lignicola* (Peck) Redhead<sup>1</sup>**

= *Kuehneromyces myriadophyllus* (P.D. Orton) Pegler & T.W.K. Young<sup>2</sup> = *Kuehneromyces vernalis* (Sacc.) Singer & A.H. Sm.<sup>3</sup> = *Deconica acutiusscula* Singer<sup>4</sup>

According to Singer and Smith (1946) specimens identified as *Deconica acutiusscula* proved to be *Kuehneromyces vernalis* that is synonymized with *Kuehneromyces lignicola* (Tian and Matheny, 2020) that is a good independent species.

EASTERN EUROPE: **Kabardino-Balkarian Republic** (<sup>3</sup>Shkhagapsoev and Krapivina, 2004); **Kaluga Oblast** (<sup>3</sup>Sionova, 2003); **Karelia** (<sup>4</sup>Singer, 1941; <sup>3</sup>Singer and Smith, 1946; <sup>4</sup>Freindling, 1949; <sup>1,4</sup>Bondartseva et al., 2001; <sup>1,4</sup>Krutov et al., 2014); **Kirov Oblast** (<sup>1</sup>Kirillov, 2011; <sup>1</sup>Kirillov, Perevedentseva, and Egoshina, 2011); **Komi Republic** (<sup>1</sup>Bobretsova, 2004; <sup>1</sup>Palamarchuk, 2011b; <sup>1</sup>Palamarchuk, 2012; <sup>1</sup>Palamarchuk, 2016a; <sup>1</sup>Palamarchuk, 2016b);

<sup>1</sup>Palamarchuk and Kirillov, 2017); **Krasnodar Krai** (Vassiljeva, 1939 [as *Pholiota marginella* Peck, redet. in Singer and Smith, 1946]; <sup>3</sup>Singer and Smith, 1946); **Leningrad Oblast** (<sup>3</sup>Stolyarskaya, 1989; <sup>3</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Morozova, 2007; <sup>1</sup>Popov et al., 2007; <sup>3</sup>Zmitrovich et al., 2015); **Murmansk Oblast** (<sup>3</sup>Singer and Smith, 1946); **Novgorod Oblast** (<sup>1</sup>Kovalenko, Morozova, Nezdojminogo, and Popov, 2005; <sup>1</sup>Psurtseva, Kiyashko, Gachkova, and Belova, 2007; <sup>1</sup>Popov et al., 2013); **Perm Krai** (<sup>1</sup>Perevedentseva, 2008); **Pskov Oblast** (<sup>1</sup>Kolmakov and Popov, 2005; <sup>1</sup>Popov et al., 2013); **Ryazan Oblast** (<sup>2</sup>Volosnova, 1997; <sup>1</sup>Volosnova, 2014); **Saint Petersburg** (<sup>1</sup>Morozova and Smirnov, 2011; <sup>1</sup>Morozova et al., 2020); **Sverdlovsk Oblast** (<sup>1</sup>Marina, 2006); **Vologda Oblast** (<sup>1</sup>Kirillova, 2007).

SIBERIA: **Irkutsk Oblast** (<sup>3</sup>Petrov, 1986; <sup>3</sup>Astapenko, 1990a; <sup>3</sup>Petrov, 1991; <sup>3</sup>Bardunov et al., 2005; <sup>3</sup>Petrov, 2008); **Khanty-Mansi Autonomous Okrug** (<sup>3</sup>Shepeleva et al., 2014; <sup>1</sup>Filippova, Bulyonkova, and Lapshina, 2015; <sup>1</sup>Filippova and Bulyonkova, 2017a; <sup>1</sup>Filippova and Bulyonkova, 2017b; <sup>3</sup>Zvyagina and Baykalova, 2017); **Krasnoyarsk Krai** (<sup>3</sup>Nezdojminogo, 1982a; <sup>1</sup>Gorbunova, 2016; <sup>1</sup>Krom and Kapitonov, 2019); **Novosibirsk Oblast** (<sup>2</sup>Perova and Gorbunova, 2001; <sup>1</sup>Perova and Gorbunova, 2007); **Tomsk Oblast** (<sup>1</sup>Kudashova, Gashkov, and Kutafjeva, 2013).

FAR EAST: **Amur Oblast** (<sup>3</sup>Nazarova, 1986); **Chukotka Autonomous Okrug** (<sup>3</sup>Sazanova, 1993); **Khabarovsk Krai** (<sup>3</sup>Azbukina et al., 1989; <sup>3</sup>Bulakh, 2013; <sup>3</sup>Bogacheva, Bulakh, Bukharova, and Egorova, 2015; <sup>3</sup>Erofeeva and Bulakh, 2015a); **Magadan Oblast** (<sup>1</sup>Sazanova, 2005; <sup>3</sup>Sazanova, 2009a; <sup>3</sup>Sazanova, 2009b; <sup>3</sup>Sazanova, 2011; <sup>3</sup>Sazanova, 2016); **Primorsky Krai** (<sup>3</sup>Bulakh, 1977; <sup>3</sup>Azbukina et al., 1984; <sup>3</sup>Azbukina et al., 1990; <sup>3</sup>Bardunov et al., 2002; <sup>3</sup>Azbukina et al., 2006; <sup>3</sup>Bau, Bulakh, and Govorova, 2011).

#### ***Kuehneromyces mutabilis* (Schaeff.) Singer & A.H. Sm.<sup>1</sup>**

≡ *Agaricus mutabilis* Schaeff.<sup>2</sup> ≡ *Galerina mutabilis* (Schaeff.) P.D. Orton<sup>3</sup> ≡ *Pholiota mutabilis* (Schaeff.) P. Kumm.<sup>4</sup>

EASTERN EUROPE: **Adygea** (<sup>4</sup>Vassiljeva, 1939; <sup>1</sup>Singer and Smith, 1946; <sup>1</sup>Vaasma, Kalamees, and Raitviir, 1986; <sup>1</sup>Sopina, 2001a); **Arkhangelsk Oblast** (<sup>4</sup>Lebedeva, 1933; <sup>1</sup>Ezhov, Ershov, Ruokolainen, and Zmitrovich, 2011; <sup>1</sup>Ezhov, 2014; <sup>1</sup>Ezhov, Zmitrovich, and Ruokolainen, 2019); **Bashkortostan** (<sup>1</sup>Stepanova and Sirko, 1977); **Belgorod Oblast** (<sup>1</sup>Bedenko, 1979a; <sup>1</sup>Psurtseva, Belova, and Ryabusheva, 2003; <sup>1</sup>Psurtseva, Kiyashko, Gachkova, and Belova, 2007); **Bryansk Oblast** (<sup>1</sup>Kruglikov, 2007); **Chechen Republic** (<sup>4</sup>Taysumov, Krapivina, Umarov, and Astamirova, 2012; <sup>1,4</sup>Taysumov, Krapivina, and Kushalieva, 2016); **Chelyabinsk Oblast** (<sup>4</sup>Aleksandrovskaya and Lobanova, 1968; <sup>1</sup>Stepanova and Sirko, 1977; <sup>1</sup>Psurtseva, Kiyashko, Gachkova, and Belova, 2007; <sup>1</sup>Krasutsky, 2013); **Chuvash Republic** (<sup>1</sup>Marfin, 2001); **Crimea** (<sup>4</sup>Zerova, 1962; <sup>1</sup>Sarkina, 2001; <sup>1</sup>Dudka et al., 2004; <sup>1</sup>Sarkina, 2011; <sup>1</sup>Sarkina and Prydiuk, 2012); **Kabardino-Balkarian Republic** (<sup>1,4</sup>Shkhagapsoev and Krapivina, 2004); **Kaliningrad Oblast** (<sup>4</sup>Hennings, 1895; <sup>1</sup>Dedkov, Volodina, and Gubareva, 2007; <sup>1</sup>Volodina, 2007; <sup>1</sup>Atayev and Volodina, 2020); **Kaluga Oblast** (<sup>1</sup>Sionova, 2003; <sup>1</sup>Sionova, 2006); **Karachay-Cherkess Republic** (<sup>4</sup>Vassiljeva, 1939; <sup>1</sup>Kalamees and Botashev, 2000); **Karelia** (<sup>2</sup>Karsten, 1866; <sup>2</sup>Karsten, 1876; <sup>4</sup>Freindling, 1949; <sup>4</sup>Czerepanova, Perfiljeva, and Tobias, 1982; <sup>1</sup>Bondartseva et al., 2001; <sup>1</sup>Psurtseva, Kiyashko, Gachkova, and Belova, 2007; <sup>1</sup>Predtechenskaya and Ruokolainen, 2008; <sup>1</sup>Predtechenskaya and Ruokolainen, 2013; <sup>1</sup>Predtechenskaya, 2013; <sup>1</sup>Krutov et al., 2014; <sup>1</sup>Predtechenskaya and Ruokolainen, 2014; <sup>1</sup>Savelev and Kikeeva, 2018); **Kirov Oblast** (<sup>1</sup>Kirillov and Luginina, 2011; <sup>1</sup>Kirillov, 2011; <sup>1</sup>Kirillov, Perevedentseva, and Egoshina, 2011; <sup>1</sup>Stavishenko, Luginina, Kirillov, and Egoshina, 2019); **Komi Republic** (<sup>1</sup>Palamarchuk, 2012; <sup>1</sup>Palamarchuk and Kirillov, 2017; <sup>1</sup>Palamarchuk and Kirillov, 2018a); **Krasnodar Krai** (<sup>4</sup>Vassiljeva, 1939; <sup>1</sup>Kovalenko, 1980a; <sup>1</sup>Vaasma, Kalamees, and Raitviir, 1986; <sup>1</sup>Sopina, 2001a); **Leningrad Oblast** (<sup>4</sup>Thesleff, 1920; <sup>1</sup>Kalamees and Kovalenko, 1984; <sup>1</sup>Stolyarskaya, 1989; <sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Morozova and Kovalenko, 2000; <sup>1</sup>Morozova, 2007; <sup>1</sup>Popov et al., 2007; <sup>1</sup>Psurtseva, Kiyashko, Gachkova, and Belova, 2007; <sup>1</sup>Zmitrovich et al., 2015; <sup>1</sup>Kalinina, 2018); **Lipetsk Oblast** (<sup>1</sup>Alferova, 1977; <sup>1</sup>Rtishcheva, 1999; <sup>1</sup>Sarycheva, 1999; <sup>1</sup>Afanasyev, Rtishcheva, and Starodubtseva, 2007; <sup>1</sup>Sarycheva et al., 2009; <sup>1</sup>Sarycheva, 2011; <sup>1</sup>Sarycheva, 2014a; <sup>1</sup>Sarycheva, 2016; <sup>1</sup>Sarycheva, Starodubtseva, and Sapelnikova, 2017); **Mari El Republic** (<sup>1</sup>Prokhorov, 2007); **Mordovia** (<sup>4</sup>Chastukhin, 1948a; <sup>3</sup>Chastukhin and Nikolaevskaya, 1969; <sup>1</sup>Ivoilov and Bolshakov, 2011a; <sup>4</sup>Chastukhin, 2011); **Moscow** (<sup>2</sup>Weinmann, 1836; <sup>4</sup>Bucholtz, 1897a; <sup>4</sup>Bucholtz, 1897b; <sup>4</sup>Bucholtz, 1897c; <sup>4</sup>Heyden, 1899; <sup>4</sup>Hennings, 1905; <sup>4</sup>Mosolov, 1906; <sup>4</sup>Burova, 1968); **Moscow Oblast** (<sup>1</sup>Gorlenko, Sidorova, and Sidorova, 1989; <sup>1</sup>Levitskaya, 1995c; <sup>1</sup>Voronina et al., 2012; <sup>1</sup>Voronina et al., 2014); **Murmansk Oblast** (<sup>3</sup>Pystina, Pavlova, and Shestakova, 1969); **North Ossetia** (<sup>1</sup>Nikolayev, 2001); **Novgorod Oblast** (<sup>1</sup>Kovalenko, Morozova, Nezdojminogo, and Popov, 2005; <sup>1</sup>Popov et al., 2013; <sup>1</sup>Baklan, 2015); **Orenburg Oblast** (<sup>1</sup>Desyatova, 2008; <sup>1</sup>Safonov, Malenkova, Rusakov, and Leneva, 2013; <sup>1</sup>Safonov, 2015); **Penza Oblast** (<sup>4</sup>Vet, 1943; <sup>1</sup>Ivanov, 1981b; <sup>1</sup>Ivanov, 1982; <sup>1</sup>Ivanov, 2019); **Perm Krai** (<sup>1</sup>Shkaraba, Perevedentseva, and Moshkina, 1990; <sup>1</sup>Perevedentseva, 2008; <sup>1</sup>Belkovskaya et al., 2014); **Pskov Oblast** (<sup>1</sup>Kovalenko and Morozova, 1999b; <sup>1</sup>Kovalenko, Kolmakov, Morozova, and Popov, 2003; <sup>1</sup>Psurtseva, Kiyashko, Gachkova, and Belova, 2007; <sup>1</sup>Popov et al., 2013); **Ryazan Oblast** (<sup>1</sup>Volosnova, 1997; <sup>1</sup>Volosnova, 2014); **Saint Petersburg** (<sup>2</sup>Weinmann, 1828; <sup>2</sup>Weinmann, 1836; <sup>2</sup>Weinmann, 1837; <sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Morozova and

Kovalenko, 2000; <sup>1</sup>Kotkova, Morozova, and Popov, 2005; <sup>1</sup>Kotkova, Morozova, and Popov, 2006; <sup>1</sup>Kotkova, Morozova, and Popov, 2007; <sup>1</sup>Psurtseva, Kiyashko, Gachkova, and Belova, 2007; <sup>1</sup>Morozova and Smirnov, 2011; <sup>1</sup>Morozova, Kovalenko, Rebriev, and Malysheva, 2014; <sup>1</sup>Morozova et al., 2020); **Samara Oblast** (<sup>1</sup>Malysheva and Malysheva, 2005b; <sup>1</sup>Malysheva and Malysheva, 2008); **Saratov Oblast** (<sup>4</sup>Lebedeva, 1927); **Smolensk Oblast** (<sup>4</sup>Jaczewski, 1896); **Sverdlovsk Oblast** (<sup>1</sup>Stepanova and Sirko, 1977; <sup>1</sup>Marina, 2006); **Tatarstan** (<sup>4</sup>Vassiljeva, 1977; <sup>1</sup>Potapov, 2015b); **Tula Oblast** (<sup>1</sup>Svetasheva, 2001; <sup>1</sup>Svetasheva, 2004; <sup>1</sup>Svetasheva, 2013); **Tver Oblast** (<sup>4</sup>Chastukhin, 1948b; <sup>4</sup>Chastukhin and Nikolaevskaya, 1969; <sup>1</sup>Kurochkin, 1993; <sup>1</sup>Mukhina and Garibova, 2010; <sup>1</sup>Mukhina, 2011a; <sup>1</sup>Mukhina, 2011b; <sup>1</sup>Kotkova, 2014; <sup>1</sup>Kurochkin and Medvedev, 2015; <sup>1</sup>Kurochkin, 2016); **Udmurt Republic** (<sup>1</sup>Tychinin, 1990); **Ulyanovsk Oblast** (<sup>1</sup>Ilyukhin, 2009; <sup>1</sup>Ilyukhin, 2010a); **Vladimir Oblast** (<sup>1</sup>Mishulin, Blinov, and Gushchina, 2018); **Vologda Oblast** (<sup>4</sup>Kutova, 1957; <sup>1</sup>Kirillova, 2006; <sup>1</sup>Kirillova, 2007); **Voronezh Oblast** (<sup>1</sup>Rtishcheva, 1999; <sup>1</sup>Afanasyev, Rtishcheva, and Starodubtseva, 2007; <sup>4</sup>Selochnik, 2015; <sup>1</sup>Sarycheva, Starodubtseva, and Sapelnikova, 2017); **Yaroslavl Oblast** (<sup>1</sup>Lazareva, 1997; <sup>1</sup>Lazareva, 1998a); **Arid territories** (<sup>1</sup>Rebriev, Rusanov, et al., 2012); **Northern Caucasus** (<sup>1</sup>Kovalenko, 1980b).

**SIBERIA: Altai Krai** (<sup>1</sup>Gorbunova and Perova, 2006; <sup>1</sup>Gorbunova and Chubarova, 2008; <sup>1</sup>Gorbunova, Vlasenko, and Tzhubarova, 2011); **Altai Republic** (<sup>1</sup>Singer and Smith, 1946; <sup>1</sup>Kovalenko, 1992; <sup>1</sup>Gorbunova, 1996; <sup>1</sup>Gorbunova, 1997; <sup>1</sup>Gorbunova, 2001a; <sup>1</sup>Gorbunova, 2001b; <sup>1</sup>Gorbunova, 2008); **Buryatia** (<sup>1</sup>Nezdojminogo, 1970a; <sup>1</sup>Penzina and Petrov, 1994; <sup>1</sup>Psurtseva, Kiyashko, Gachkova, and Belova, 2007; <sup>1</sup>Heklau and Dörfelt, 2017); **Irkutsk Oblast** (<sup>1</sup>Kutafjeva, 1983; <sup>1</sup>Petrov, 1986; <sup>1</sup>Kutafjeva, 1989; <sup>1</sup>Petrov, 1989; <sup>1</sup>Astapenko, 1990a; <sup>1</sup>Muzyka, 2002; <sup>1</sup>Bardunov et al., 2005; <sup>1</sup>Petrov, 2008; <sup>1</sup>Muzyka and Penzina, 2017); **Khakassia** (<sup>4</sup>Murashkinsky and Sieling, 1928; <sup>1</sup>Zauzolkova, 2015); **Khanty-Mansi Autonomous Okrug** (<sup>1</sup>Mukhin, 1993; <sup>1</sup>Zvyagina, 2008; <sup>1</sup>Zvyagina and Baykalova, 2012; <sup>1</sup>Shepeleva et al., 2014; <sup>1</sup>Filippova, Bulyonkova, and Lapshina, 2015; <sup>1</sup>Filippova and Bulyonkova, 2017a; <sup>1</sup>Filippova and Bulyonkova, 2017b; <sup>1</sup>Zvyagina and Baykalova, 2017); **Krasnoyarsk Krai** (<sup>2</sup>Thümen, 1877; <sup>4</sup>Kalchbrenner, 1878; <sup>1</sup>Perova, 1970; <sup>1</sup>Beglyanova, 1972a; <sup>1</sup>Nezdojminogo, 1976a; <sup>1</sup>Lapitskaya, 1993; <sup>1</sup>Kutafjeva and Kosheleva, 2005; <sup>1</sup>Psurtseva, Kiyashko, Gachkova, and Belova, 2007; <sup>1</sup>Kosheleva and Kutafjeva, 2008a; <sup>1</sup>Kosheleva and Kutafjeva, 2008b; <sup>1</sup>Kosheleva, 2010; <sup>1</sup>Zauzolkova, 2012; <sup>1</sup>Kryuchkova, 2014a; <sup>1</sup>Zauzolkova, 2015; <sup>1</sup>Malysheva, Malysheva, Kiyashko, et al., 2017; <sup>1</sup>Krom and Kapitonov, 2019); **Kurgan Oblast** (<sup>1</sup>Mukhin, 1993); **Novosibirsk Oblast** (<sup>1</sup>Nozdrenko, 1970; <sup>1</sup>Zaytseva, 1971; <sup>1</sup>Perova, 1977; <sup>1</sup>Zhukov, 1980; <sup>1</sup>Gorbunova, 2007; <sup>1</sup>Perova and Gorbunova, 2007; <sup>1</sup>Koropachinskiy and Banaev, 2014); **Sverdlovsk Oblast** (<sup>1</sup>Stepanova and Sirko, 1977; <sup>1</sup>Mukhin, 1993; <sup>1</sup>Mukhin et al., 2003); **Tomsk Oblast** (<sup>3</sup>Perova, 1972; <sup>1</sup>Kosheleva and Kutafjeva, 2004; <sup>1</sup>Agaphonova, Kutafjeva, and Gashkov, 2007; <sup>1</sup>Kudashova, Gashkov, and Kutafjeva, 2013); **Tyumen Oblast** (<sup>1</sup>Mukhin, 1993); **Zabaykalsky Krai** (<sup>4</sup>Karsten, 1911).

**FAR EAST: Amur Oblast** (<sup>1</sup>Nazarova, 1986; <sup>1</sup>Kochunova, 2016; <sup>1</sup>Kochunova and Timchenko, 2019); **Chukotka Autonomous Okrug** (<sup>1</sup>Sazanova, 1993); **Jewish Autonomous Oblast** (<sup>1</sup>Bulakh, Govorova, Nazarova, and Vassiljeva, 2007; <sup>1</sup>Bau, Bulakh, and Govorova, 2011); **Kamchatka Krai** (<sup>1</sup>Psurtseva, Kiyashko, Gachkova, and Belova, 2007); **Khabarovsk Krai** (<sup>1</sup>Azbukina et al., 1986; <sup>1</sup>Azbukina et al., 1989; <sup>4</sup>Bau, Bulakh, Zhuang, and Li, 2007; <sup>1</sup>Bulakh, Vassiljeva, and Erofeeva, 2010; <sup>1</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Erofeeva and Bulakh, 2015a); **Magadan Oblast** (<sup>1</sup>Nazarova, 1976; <sup>1</sup>Sazanova, 1996; <sup>1</sup>Sazanova, 2005; <sup>1</sup>Sazanova, 2009a; <sup>1</sup>Sazanova, 2011); **Primorsky Krai** (<sup>4</sup>Vassiljeva, 1972; <sup>4</sup>Vassiljeva, 1973; <sup>4</sup>Bunkina and Nazarova, 1978; <sup>1</sup>Azbukina et al., 1984; <sup>1</sup>Azbukina et al., 1990; <sup>1</sup>Bardunov et al., 2002; <sup>1</sup>Azbukina et al., 2006; <sup>1</sup>Psurtseva, Kiyashko, Gachkova, and Belova, 2007; <sup>1</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Bulakh et al., 2016).

### ***Laccaria amethysteo-occidentalis* G.M. Muell.**

SIBERIA: **Altai Krai** (Gorbunova and Chubarova, 2008).

### ***Laccaria amethystina* Cooke**

**EASTERN EUROPE: Adygea** (Vaasma, Kalamees, and Raitviir, 1986; Kummer, 2007); **Belgorod Oblast** (Bedenko, 1980; Soshnina, 1995); **Bryansk Oblast** (Kruglikov, 2007); **Chechen Republic** (Taysumov, Krapivina, and Kushaliev, 2016); **Crimea** (Sarkina, 2010b; Sarkina and Prydiuk, 2012; Sarkina, 2013); **Kaluga Oblast** (Antokhina et al., 2015); **Karelia** (Bondartseva et al., 2001; Psurtseva, Kiyashko, Gachkova, and Belova, 2007; Krutov et al., 2014; Predtechenskaya and Ruokolainen, 2014; Savelev and Kikeeva, 2018; Kuznetsov, 2020); **Krasnodar Krai** (Vaasma, Kalamees, and Raitviir, 1986; Shumkova, Krivorotov, and Gayday, 2018); **Kursk Oblast** (Bedenko, 1987; Soshnina, 2005; Soshnina, 2014); **Leningrad Oblast** (Kovalenko and Morozova, 1999a; Zmitrovich et al., 2015; Kalinina, 2018); **Lipetsk Oblast** (Afanasyev, Rtishcheva, and Starodubtseva, 2007; Sarycheva et al., 2009; Shcherbakov, 2014; Sarycheva, Starodubtseva, and Sapelnikova, 2017); **Mari El Republic** (Prokhorov, 2007); **Moscow Oblast** (Vishnevsky, 1998; Levitskaya, 2013); **Murmansk Oblast** (Konstantinova, Koryakin, Makarova, and Bianki, 2014); **Novgorod Oblast** (Morozova, 2012; Popov et al., 2013); **Orenburg Oblast** (Desyatova, 2008); **Penza Oblast** (Ivanov, 1981a);

**Ryazan Oblast** (Volosnova, 1997; Volosnova, 2014); **Saint Petersburg** (Morozova and Smirnov, 2011); **Sevastopol** (Sarkina, 2016b; Sarkina, 2020c); **Tula Oblast** (Shcherbakov, 2010); **Tver Oblast** (Kurochkin, 1993; Mukhina, 2011a; Mukhina, 2011b; Kotkova, 2014); **Udmurt Republic** (Tychinin and Kuzmina, 2003); **Voronezh Oblast** (Bedenko, 1987; Afanasyev, Rtshcheva, and Starodubtseva, 2007; Sarycheva, Starodubtseva, and Sapelnikova, 2017).

SIBERIA: **Altai Republic** (Perova and Gorbunova, 2001); **Irkutsk Oblast** (Petrov, 1984; Petrov, 1989; Petrov, 1991; Bardunov et al., 2005; Petrov, 2008); **Krasnoyarsk Krai** (Beglyanova, 1972a; Beglyanova, 1972b; Kryuchkova, 2009; Zauzolkova, 2012; Zauzolkova, 2015); **Tomsk Oblast** (Agaphonova, Kutafjeva, and Gashkov, 2007).

FAR EAST: **Amur Oblast** (Taranina, 2005; Kochunova and Erofeeva, 2017); **Jewish Autonomous Oblast** (Bau, Bulakh, and Govorova, 2011; Bogacheva et al., 2018; Erofeeva, Bukharova, and Bulakh, 2019); **Khabarovsk Krai** (Bulakh, Vassiljeva, and Erofeeva, 2010; Bau, Bulakh, and Govorova, 2011; Erofeeva and Bulakh, 2015a; Bogacheva et al., 2018); **Magadan Oblast** (Sazanova, 2009a; Sazanova, 2011); **Primorsky Krai** (Vassiljeva, 1973; Azbukina et al., 1990; Bardunov et al., 2002; Azbukina et al., 2006; Bau, Bulakh, and Govorova, 2011; Bulakh et al., 2016; Bogacheva et al., 2018; Bogacheva, Bulakh, Bukharova, and Egorova, 2020).

### ***Laccaria bicolor* (Maire) P.D. Orton**

EASTERN EUROPE: **Kabardino-Balkarian Republic** (Shkhagapsoev and Krapivina, 2004); **Kaliningrad Oblast** (Dedkov, Volodina, and Gubareva, 2007); **Kaluga Oblast** (Sionova, 2012); **Karachay-Cherkess Republic** (Kalamees and Botashev, 2000); **Karelia** (Kovalenko, Morozova, Fomina, and Särkisilta, 1998; Bondartseva et al., 2001; Predtechenskaya and Ruokolainen, 2013; Predtechenskaya, 2013; Krutov et al., 2014; Predtechenskaya and Ruokolainen, 2014; Predtechenskaya, 2015; Savelev and Kikeeva, 2020); **Kirov Oblast** (Kirillov, 2011; Kirillov, Perevedentseva, and Egoshina, 2011; Stavishenko, Luginina, Kirillov, and Egoshina, 2019); **Komi Republic** (Bobretsova, 2004; Palamarchuk, 2012); **Leningrad Oblast** (Stolyarskaya, 1993; Kovalenko and Morozova, 1999a; Fomina, 2000; Fomina, 2001; Popov et al., 2007; Psurtseva, Kiyashko, Gachkova, and Belova, 2007; Zmitrovich et al., 2015); **Lipetsk Oblast** (Sarycheva et al., 2009; Sarycheva, 2011); **Moscow Oblast** (Gorlenko, Sidorova, and Sidorova, 1989; Levitskaya, 1995b; Vishnevsky, 1998; Voronina et al., 2012; Levitskaya, 2013; Voronina et al., 2014); **Novgorod Oblast** (Kovalenko, Morozova, Nezdjominogo, and Popov, 2005; Popov et al., 2013); **Penza Oblast** (Ivanov, 1983); **Perm Krai** (Perevedentseva, 2008; Belkovskaya et al., 2014; Perevedentseva and Shishigin, 2014; Perevedentseva and Shishigin, 2015; Botalov, 2017); **Ryazan Oblast** (Volosnova, 1997; Volosnova, 2014); **Saint Petersburg** (Morozova and Smirnov, 2011; Morozova et al., 2020); **Tula Oblast** (Svetasheva, 2004; Svetasheva, 2005b; Shcherbakov, 2010); **Vologda Oblast** (Kirillova, 2007; Kirillova, 2009); **Yaroslavl Oblast** (Lazareva, 1998a); **Arid territories** (Rebriev, Rusanov, et al., 2012).

SIBERIA: **Altai Krai** (Gorbunova, Vlasenko, and Tzhubarova, 2011); **Altai Republic** (Gorbunova, 1997; Perova and Gorbunova, 2001; Gorbunova, 2008; Gorbunova, 2010); **Buryatia** (Nezdjominogo, 1970a); **Irkutsk Oblast** (Astapenko, 1990b; Bardunov et al., 2005; Petrov, 2008; Gorbunova and Stepantsova, 2015; Muzyka and Penzina, 2017); **Khanty-Mansi Autonomous Okrug** (Zvyagina, 2008; Shepeleva et al., 2014; Filippova, Bulyonkova, and Lapshina, 2015; Zvyagina and Vasina, 2015; Filippova and Bulyonkova, 2017a; Filippova and Bulyonkova, 2017b; Zvyagina and Baykalova, 2017); **Krasnoyarsk Krai** (Gorbunova, 2016; Krom and Kapitonov, 2019); **Tomsk Oblast** (Agaphonova, Kutafjeva, and Gashkov, 2009b; Kudashova, Gashkov, and Kutafjeva, 2013; Vaishlya et al., 2017).

FAR EAST: **Chukotka Autonomous Okrug** (Sazanova, 1993); **Kamchatka Krai** (Kalamees and Vaasma, 1981); **Magadan Oblast** (Sazanova, 2005; Sazanova, 2009a; Sazanova and Golodnova, 2015).

### ***Laccaria chibinensis* Mikhailovskii**

EASTERN EUROPE: **Murmansk Oblast** (Mikhailovskii, 1974; Mikhailovskii, 1975a).

SIBERIA: **Irkutsk Oblast** (Petrov, 1991; Petrov, 2008).

### ***Laccaria echinospora* (Speg.) Singer**

EASTERN EUROPE: **Lipetsk Oblast** (Sarycheva, 1999; Sarycheva et al., 2009; Sarycheva, 2014a; Sarycheva, 2016).

SIBERIA: **Krasnoyarsk Krai** (Kosheleva and Kutafjeva, 2008a).

FAR EAST: **Primorsky Krai** (Vassiljeva, 1973; Bunkina and Nazarova, 1978; Azbukina et al., 1984; Azbukina et al., 2006).

### ***Laccaria fraterna* (Sacc.) Pegler**

EASTERN EUROPE: **Samara Oblast** (Malysheva and Malysheva, 2004; Malysheva and Malysheva, 2008).

SIBERIA: **Irkutsk Oblast** (Petrov, 2013; Gorbunova and Stepantsova, 2015); **Khanty-Mansi Autonomous Okrug** (Zvyagina and Baykalova, 2012).



***Laccaria laccata* (Scop.) Cooke<sup>1</sup>**

≡ *Agaricus laccatus* Scop.<sup>2</sup> ≡ *Clitocybe laccata* (Scop.) P. Kumm.<sup>3</sup> ≡ *Laccaria laccata* var. *laccata* (Scop.) Cooke<sup>4</sup> ≡ *Russuliopsis laccata* (Scop.) J. Schröt.<sup>5</sup> = *Agaricus farinaceus* Huds.<sup>6</sup> = *Laccaria amethystea* (Bull.) Murrill<sup>7</sup> = *Laccaria laccata* var. *crispa* Thesleff<sup>8</sup> = *Laccaria laccata* var. *pallidifolia* (Peck) Peck<sup>9</sup> = *Laccaria laccata* var. *rosella* (Batsch) Singer<sup>10</sup>

EASTERN EUROPE: **Adygea** (<sup>1</sup>Vassiljeva, 1939; <sup>7</sup>Kovalenko, 1979a; <sup>1</sup>Vaasma, Kalamees, and Raitviir, 1986; <sup>1</sup>Sopina, 2004b); **Arkhangelsk Oblast** (<sup>1</sup>Ezhov, Zmitrovich, and Ruokolainen, 2019); **Bashkortostan** (<sup>1</sup>Stepanova and Sirko, 1977); **Belgorod Oblast** (<sup>1</sup>Bedenko, 1980); **Bryansk Oblast** (<sup>1</sup>Kruglikov, 2007); **Chechen Republic** (<sup>1</sup>Taysumov, Krapivina, and Kushalieva, 2016); **Chelyabinsk Oblast** (<sup>1</sup>Aleksandrovskaya and Lobanova, 1968; <sup>1</sup>Sirko and Stepanova, 1977; <sup>1</sup>Stepanova and Sirko, 1977); **Chuvash Republic** (<sup>1</sup>Marfin, 2001); **Crimea** (<sup>1,7</sup>Sarkina, 2001; <sup>1,7</sup>Dudka et al., 2004; <sup>1,7</sup>Sarkina, 2011; <sup>1</sup>Sarkina and Prydiuk, 2012; <sup>1</sup>Sarkina and Mironova, 2015; <sup>1</sup>Sarkina and Stavishenko, 2019); **Kabardino-Balkarian Republic** (<sup>1</sup>Singer, 1929; <sup>1,7</sup>Shkhagapsoev and Krapivina, 2003; <sup>1,7</sup>Shkhagapsoev and Krapivina, 2004); **Kaliningrad Oblast** (<sup>1,7</sup>Dedkov, Volodina, and Gubareva, 2007; <sup>1,7</sup>Volodina, 2007; <sup>1</sup>Atayev and Volodina, 2020); **Kaluga Oblast** (<sup>1,7</sup>Sionova, 2003; <sup>1</sup>Sionova, 2006); **Karachay-Cherkess Republic** (<sup>1,7</sup>Kalamees and Botashev, 2000); **Karelia** (<sup>1</sup>Freindling, 1949; <sup>1</sup>Czerepanova, Perfiljeva, and Tobias, 1982; <sup>1</sup>Kovalenko, Morozova, Fomina, and Särkisilta, 1998; <sup>1,4,10</sup>Bondartseva et al., 2001; <sup>7</sup>Ivanter and Kuznetsov, 2007; <sup>1</sup>Predtechenskaya and Ruokolainen, 2008; <sup>1</sup>Predtechenskaya and Ruokolainen, 2013; <sup>1</sup>Predtechenskaya, 2013; <sup>1,4,10</sup>Krutov et al., 2014; <sup>1</sup>Predtechenskaya and Ruokolainen, 2014; <sup>1</sup>Predtechenskaya, 2015; <sup>1</sup>Savelev and Kikeeva, 2018); **Kirov Oblast** (<sup>1</sup>Kirillov and Luginina, 2011; <sup>1</sup>Kirillov, 2011; <sup>1</sup>Kirillov, Perevedentseva, and Egoshina, 2011; <sup>1</sup>Stavishenko, Luginina, Kirillov, and Egoshina, 2019); **Komi Republic** (<sup>1</sup>Bobretsova, 2004; <sup>1</sup>Palamarchuk, 2011b; <sup>1</sup>Palamarchuk, 2012; <sup>1</sup>Palamarchuk, 2016a; <sup>1</sup>Palamarchuk, 2016b; <sup>1</sup>Palamarchuk and Kirillov, 2017; <sup>1</sup>Palamarchuk, 2017); **Kostroma Oblast** (<sup>1</sup>Burova, 1982); **Krasnodar Krai** (<sup>1,7</sup>Vassiljeva, 1939; <sup>1,7</sup>Kovalenko, 1980a; <sup>7</sup>Kovalenko, 1980b; <sup>1</sup>Vaasma, Kalamees, and Raitviir, 1986; <sup>1</sup>Shumkova, Krivorotov, and Gayday, 2018); **Kursk Oblast** (<sup>1,7</sup>Ryabova and Ignatenko, 1981; <sup>1</sup>Bedenko, 1987); **Leningrad Oblast** (<sup>1,8</sup>Thesleff, 1920; <sup>10</sup>Singer, 1943; <sup>1</sup>Nezdojminogo, 1967; <sup>1</sup>Chastukhin and Nikolaevskaya, 1969; <sup>1</sup>Kalamees and Kovalenko, 1984; <sup>1</sup>Stolyarskaya, 1989; <sup>7</sup>Stolyarskaya, 1993; <sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Fomina, 2000; <sup>1,7</sup>Morozova and Kovalenko, 2000; <sup>1</sup>Fomina, 2001; <sup>1</sup>Morozova, 2007; <sup>1,7</sup>Popov et al., 2007; <sup>1</sup>Zmitrovich et al., 2015; <sup>1</sup>Kalinina, 2018); **Lipetsk Oblast** (<sup>1</sup>Alferova, 1977; <sup>1</sup>Rtishcheva, 1999; <sup>1</sup>Sarycheva, 1999; <sup>1</sup>Afanasyev, Rtishcheva, and Starodubtseva, 2007; <sup>1</sup>Sarycheva et al., 2009; <sup>1</sup>Sarycheva, 2011; <sup>1</sup>Sarycheva, 2014a; <sup>1</sup>Sarycheva, 2016; <sup>1</sup>Sarycheva, Starodubtseva, and Sapelnikova, 2017); **Mari El Republic** (<sup>1</sup>Prokhorov, 2007); **Mordovia** (<sup>1</sup>Chastukhin, 1948a; <sup>1</sup>Kuznetsov, 1960; <sup>1</sup>Chastukhin and Nikolaevskaya, 1969; <sup>1</sup>Chastukhin, 2011; <sup>1</sup>Ivoilov and Bolshakov, 2011a); **Moscow** (<sup>5</sup>Bucholtz, 1897b; <sup>5</sup>Bucholtz, 1897c; <sup>1</sup>Hennings, 1903; <sup>2</sup>Mosolov, 1906; <sup>3</sup>Petroff, 1911; <sup>1</sup>Burova, 1968); **Moscow Oblast** (<sup>1</sup>Gorlenko, Sidorova, and Sidorova, 1989; <sup>7</sup>Levitskaya, 1995a; <sup>1</sup>Levitskaya, 1995b; <sup>1</sup>Vishnevsky, 1998; <sup>1</sup>Voronina et al., 2012; <sup>1</sup>Levitskaya, 2013; <sup>1</sup>Voronina et al., 2014; <sup>1</sup>Sidorova, Alexandrova, and Voronina, 2017); **Murmansk Oblast** (<sup>1</sup>Pystina, Pavlova, and Shestakova, 1969; <sup>1</sup>Mikhailovskii, 1975b; <sup>1</sup>Karatygin, Nezdojminogo, Novozhilov, and Zhurbenko, 1999; <sup>7</sup>Berlina, 2005); **North Ossetia** (<sup>1,7</sup>Nikolayev, 2001); **Novgorod Oblast** (<sup>1</sup>Kovalenko and Morozova, 1999b; <sup>1</sup>Kovalenko, Morozova, Nezdojminogo, and Popov, 2005; <sup>1</sup>Malysheva, Malysheva, and Zmitrovich, 2007; <sup>1</sup>Popov et al., 2013); **Orenburg Oblast** (<sup>1</sup>Desyatova, 2008); **Oryol Oblast** (<sup>1,7</sup>Radygina, Derzhavina, and Tsutsupa, 2014); **Penza Oblast** (<sup>1</sup>Ivanov, 1981a; <sup>1</sup>Ivanov, 1999); **Perm Krai** (<sup>1,7</sup>Perevedentseva, 2008; <sup>1</sup>Belkovskaya et al., 2014; <sup>1</sup>Perevedentseva and Shishigin, 2014; <sup>1</sup>Perevedentseva and Shishigin, 2015; <sup>1</sup>Botalov, 2017; <sup>1</sup>Botalov and Perevedentseva, 2018; <sup>1</sup>Botalov, Perevedentseva, and Shishigin, 2020); **Pskov Oblast** (<sup>1</sup>Kovalenko and Morozova, 1999b; <sup>1</sup>Popov, 2001a; <sup>1</sup>Popov et al., 2013); **Rostov Oblast** (<sup>1</sup>Vyshchepan, 1992; <sup>1</sup>Rusanov et al., 2004; <sup>1</sup>Zmitrovich et al., 2008); **Ryazan Oblast** (<sup>1</sup>Volosnova, 1997; <sup>1</sup>Volosnova, 2014); **Saint Petersburg** (<sup>2</sup>Weinmann, 1828; <sup>6</sup>Weinmann, 1836; <sup>6</sup>Weinmann, 1837; <sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Morozova and Kovalenko, 2000; <sup>9</sup>Kotkova, Morozova, and Popov, 2005; <sup>1</sup>Kotkova, Morozova, and Popov, 2006; <sup>9</sup>Kotkova, Morozova, and Popov, 2007; <sup>1</sup>Morozova and Smirnov, 2011; <sup>1</sup>Morozova, Kovalenko, Rebriev, and Malysheva, 2014; <sup>1</sup>Zhukova, Morozova, Volobuev, and Bryantseva, 2017; <sup>1</sup>Morozova et al., 2020); **Samara Oblast** (<sup>1</sup>Malysheva and Malysheva, 2005b; <sup>1</sup>Malysheva and Malysheva, 2008); **Saratov Oblast** (<sup>1</sup>Nagumanov, 2015); **Sevastopol** (<sup>1</sup>Sarkina, 2016b; <sup>1</sup>Sarkina, 2020c); **Smolensk Oblast** (<sup>1</sup>Burova, 1969); **Sverdlovsk Oblast** (<sup>1</sup>Tomilin, 1965; <sup>1</sup>Stepanova and Sirko, 1977; <sup>1</sup>Marina, 2006); **Tatarstan** (<sup>1</sup>Vassiljeva, 1977; <sup>1</sup>Potapov, 2015b); **Tula Oblast** (<sup>1</sup>Svetasheva, 2001; <sup>1,7</sup>Svetasheva, 2004; <sup>1</sup>Svetasheva, 2013); **Tver Oblast** (<sup>1</sup>Chastukhin, 1948b; <sup>1</sup>Chastukhin and Nikolaevskaya, 1969; <sup>1</sup>Kurochkin, 1993; <sup>1</sup>Mukhina and Garibova, 2010; <sup>1</sup>Mukhina, 2011a; <sup>1</sup>Mukhina, 2011b; <sup>1</sup>Kotkova, 2014; <sup>1</sup>Kurochkin, 2016); **Udmurt Republic** (<sup>1,7</sup>Tychinin, 1990; <sup>1</sup>Tychinin and Kuzmina, 2003); **Ulyanovsk Oblast** (<sup>1</sup>Ilyukhin, 2009; <sup>1</sup>Ilyukhin, 2010a); **Volgograd Oblast** (<sup>1</sup>Dudka and Vedeneyev, 2014); **Vologda Oblast** (<sup>10</sup>Kutova, 1957; <sup>1</sup>Kirillova, 2007; <sup>1</sup>Kirillova, 2009); **Voronezh Oblast** (<sup>1</sup>Chastukhin, 1952; <sup>1</sup>Chastukhin and Nikolaevskaya, 1953; <sup>1</sup>Chastukhin and Nikolaevskaya, 1969; <sup>1</sup>Bedenko, 1987; <sup>1,7</sup>Rtishcheva, 1999; <sup>1</sup>Afanasyev, Rtishcheva, and Starodubtseva, 2007; <sup>1</sup>Sarycheva, Starodubtseva,

and Sapelnikova, 2017; <sup>1</sup>Kochergina and Furmenkova, 2019); **Yamalo-Nenets Autonomous Okrug** (<sup>1</sup>Kazantseva, 1966; <sup>1</sup>Stepanova and Sirko, 1970; <sup>1</sup>Kazantseva, 1972; <sup>1</sup>Stepanova and Sirko, 1977; <sup>1</sup>Nezdojminogo, 2001); **Yaroslavl Oblast** (<sup>1</sup>Lazareva, 1997; <sup>1</sup>Lazareva, 1998a); **Arid territories** (<sup>1</sup>Rebriev, Rusanov, et al., 2012); **Lapland** (<sup>2</sup>Karsten, 1866); **Northern Caucasus** (<sup>1</sup>Kovalenko, 1980b).

SIBERIA: **Altai Krai** (<sup>1</sup>Gorbunova and Perova, 2006; <sup>1</sup>Gorbunova and Chubarova, 2008; <sup>1</sup>Gorbunova, Vlasenko, and Tzhubarova, 2011); **Altai Republic** (<sup>1</sup>Kovalenko, 1992; <sup>1</sup>Gorbunova, 1996; <sup>1</sup>Gorbunova, 1997; <sup>1</sup>Gorbunova, 2001a; <sup>7</sup>Gorbunova, 2001b; <sup>1</sup>Gorbunova, 2008; <sup>1</sup>Gorbunova, 2010); **Buryatia** (<sup>1</sup>Nezdojminogo, 1970a; <sup>1</sup>Penzina and Petrov, 1994; <sup>9</sup>Petrov, 2013); **Irkutsk Oblast** (<sup>1</sup>Kutafjeva, 1983; <sup>1</sup>Petrov, 1984; <sup>1</sup>Petrov, 1989; <sup>1</sup>Astapenko, 1990a; <sup>1</sup>Astapenko, 1990b; <sup>1</sup>Muzyka, 2002; <sup>1</sup>Bardunov et al., 2005; <sup>1</sup>Petrov, 2008; <sup>1</sup>Muzyka, 2009; <sup>1,9</sup>Gorbunova and Stepantsova, 2015; <sup>1</sup>Muzyka and Penzina, 2017); **Khakassia** (<sup>1</sup>Beglyanova, 1972a; <sup>1</sup>Zauzolkova, 2015); **Khanty-Mansi Autonomous Okrug** (<sup>1</sup>Zvyagina, Baykalova, and Gorbunova, 2007; <sup>1,9</sup>Zvyagina, 2008; <sup>1</sup>Filippova, 2009; <sup>1</sup>Zvyagina and Baykalova, 2012; <sup>1,9</sup>Shepeleva et al., 2014; <sup>1</sup>Filippova, Bulyonkova, and Lapshina, 2015; <sup>1</sup>Zvyagina and Vasina, 2015); **Krasnoyarsk Krai** (<sup>1</sup>Perova, 1970; <sup>1</sup>Vassilkov, 1971b; <sup>1</sup>Beglyanova, 1972a; <sup>1</sup>Beglyanova, 1972c; <sup>1,7</sup>Lapitskaya, 1993; <sup>1</sup>Nezdojminogo and Zhurbenko, 1996; <sup>1</sup>Nezdojminogo, 1997a; <sup>1</sup>Karatygin, Nezdojminogo, Novozhilov, and Zhurbenko, 1999; <sup>1</sup>Nezdojminogo, 2003; <sup>1</sup>Pavlov et al., 2007; <sup>1</sup>Kosheleva and Kutafjeva, 2008a; <sup>1</sup>Kosheleva and Kutafjeva, 2008b; <sup>1</sup>Kryuchkova, 2009; <sup>1</sup>Kosheleva, 2010; <sup>1</sup>Zauzolkova, 2012; <sup>1</sup>Zauzolkova, 2015; <sup>1</sup>Malysheva, Malysheva, Kiyashko, et al., 2017; <sup>9</sup>Krom and Kapitonov, 2019); **Novosibirsk Oblast** (<sup>1,7</sup>Zaytseva, 1971; <sup>1</sup>Zhukov, 1972; <sup>1</sup>Perova, 1977; <sup>1</sup>Zhukov, 1980; <sup>1</sup>Gorbunova, 2007; <sup>1</sup>Perova and Gorbunova, 2007; <sup>1</sup>Koropachinskiy and Banaev, 2014); **Sakha Republic** (<sup>1</sup>Karatygin, Nezdojminogo, Novozhilov, and Zhurbenko, 1999; <sup>1</sup>Nezdojminogo, 2003); **Sverdlovsk Oblast** (<sup>1</sup>Stepanova and Sirko, 1977); **Tomsk Oblast** (<sup>1</sup>Milovidova, 1980; <sup>1</sup>Kosheleva and Kutafjeva, 2004; <sup>1</sup>Agaphonova, Kutafjeva, and Gashkov, 2007; <sup>1</sup>Kudashova, Gashkov, and Kutafjeva, 2013; <sup>1</sup>Vaishlya et al., 2017); **Yamalo-Nenets Autonomous Okrug** (<sup>1</sup>Tarchevskaya, 1990; <sup>1</sup>Karatygin, Nezdojminogo, Novozhilov, and Zhurbenko, 1999); **Zabaykalsky Krai** (<sup>1</sup>Karsten, 1911); **Altai** (<sup>1</sup>Zhukov, 1979).

FAR EAST: **Amur Oblast** (<sup>1</sup>Gordienko, Petrova, and Tarasov, 1981; <sup>1,7</sup>Nazarova, 1986; <sup>1</sup>Azbukina et al., 1998; <sup>1</sup>Bulakh, Govorova, and Taranina, 2003; <sup>1</sup>Taranina, 2005; <sup>1</sup>Kochunova, 2019); **Chukotka Autonomous Okrug** (<sup>1,7</sup>Sazanova, 1993); **Jewish Autonomous Oblast** (<sup>1,7</sup>Bulakh, Govorova, Nazarova, and Vassiljeva, 2007; <sup>1</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Erofeeva, Bukharova, and Bulakh, 2019); **Kamchatka Krai** (<sup>1</sup>Kalamees and Vaasma, 1981); **Khabarovsk Krai** (<sup>1,7</sup>Azbukina et al., 1986; <sup>1</sup>Azbukina et al., 1989; <sup>1</sup>Bau, Bulakh, Zhuang, and Li, 2007; <sup>1</sup>Bulakh, Vassiljeva, and Erofeeva, 2010; <sup>1</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Erofeeva and Bulakh, 2015a); **Magadan Oblast** (<sup>1</sup>Nazarova, 1976; <sup>1,7</sup>Sazanova, 1996; <sup>1,7</sup>Sazanova, 2005; <sup>1</sup>Sazanova, 2009a; <sup>1</sup>Sazanova, 2011; <sup>1</sup>Sazanova, 2012; <sup>1</sup>Sazanova and Golodnova, 2015; <sup>1</sup>Sazanova, 2016); **Primorsky Krai** (<sup>1,7</sup>Vassiljeva, 1972; <sup>1</sup>Vassiljeva, 1973; <sup>1</sup>Shalapugina, 1976; <sup>1</sup>Bunkina and Nazarova, 1978; <sup>1</sup>Azbukina et al., 1984; <sup>1</sup>Azbukina et al., 1990; <sup>1</sup>Bardunov et al., 2002; <sup>1</sup>Azbukina et al., 2006; <sup>1</sup>Bau, Bulakh, Zhuang, and Li, 2007; <sup>1</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Bulakh et al., 2016; <sup>9</sup>Malysheva et al., 2016; <sup>1</sup>Bogacheva, Bulakh, Bukharova, and Egorova, 2020); **Sakhalin Oblast** (<sup>1</sup>Vassiljeva and Nazarova, 1972; <sup>1</sup>Bulakh, Govorova, and Bogatov, 1999).

### *Laccaria lateritia* Malençon

EASTERN EUROPE: **Perm Krai** (Perevedentseva, 2008).

### *Laccaria maritima* (Theodor.) Singer ex Huhtinen<sup>1</sup>

≡ *Laccaria maritima* (Theodor.) Singer<sup>2</sup>

EASTERN EUROPE: **Kaliningrad Oblast** (<sup>1</sup>Volodina, 2007).

SIBERIA: **Irkutsk Oblast** (<sup>2</sup>Bardunov et al., 2005); **Yamalo-Nenets Autonomous Okrug** (<sup>1</sup>Kapitonov, 2015).

### *Laccaria montana* Singer

EASTERN EUROPE: **Karachay-Cherkess Republic** (Kalamees and Botashev, 2000); **Komi Republic** (Palamarchuk, 2011b; Palamarchuk, 2016a; Palamarchuk, 2016b); **Murmansk Oblast** (Kalamees and Raitviir, 2006).

SIBERIA: **Buryatia** (Petrov, 1991); **Irkutsk Oblast** (Petrov, 1991; Bardunov et al., 2005; Petrov, 2008); **Krasnoyarsk Krai** (Gorbunova, 2016); **Sakha Republic** (Karatygin, Nezdojminogo, Novozhilov, and Zhurbenko, 1999; Nezdojminogo, 2003); **Yamalo-Nenets Autonomous Okrug** (Kapitonov, 2015).

FAR EAST: **Chukotka Autonomous Okrug** (Sazanova, 1993); **Kamchatka Krai** (Kalamees and Vaasma, 1981).

### *Laccaria ohiensis* (Mont.) Singer

SIBERIA: **Buryatia** (Petrov, 1991); **Irkutsk Oblast** (Petrov, 1984; Kutafjeva, 1989; Petrov, 1991; Petrov, 2008).

***Laccaria proxima* (Boud.) Pat.<sup>1</sup>**≡ *Laccaria laccata* var. *proxima* (Boud.) Maire<sup>2</sup>

EASTERN EUROPE: **Belgorod Oblast** (<sup>1</sup>Bedenko, 1980); **Kaliningrad Oblast** (<sup>1</sup>Dedkov, Volodina, and Gubareva, 2007; <sup>1</sup>Volodina, 2007); **Kaluga Oblast** (<sup>1</sup>Sionova, 2003; <sup>1</sup>Sionova, 2006); **Karelia** (<sup>1</sup>Predtechenskaya and Ruokolainen, 2013; <sup>1</sup>Krutov et al., 2014; <sup>1</sup>Predtechenskaya and Ruokolainen, 2014; <sup>1</sup>Predtechenskaya, 2015); **Kirov Oblast** (<sup>1</sup>Stavishenko, Luginina, Kirillov, and Egoshina, 2019); **Komi Republic** (<sup>1</sup>Palamarchuk, 2016a; <sup>1</sup>Palamarchuk, 2016b); **Leningrad Oblast** (<sup>1</sup>Kalamees and Kovalenko, 1984; <sup>1</sup>Stolyarskaya, 1993; <sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Fomina, 2000; <sup>1</sup>Fomina, 2001; <sup>1</sup>Morozova, 2007; <sup>1</sup>Popov et al., 2007; <sup>1</sup>Zmitrovich et al., 2015); **Lipetsk Oblast** (<sup>1</sup>Sarycheva et al., 2009; <sup>1</sup>Sarycheva, 2016); **Moscow Oblast** (<sup>1</sup>Levitskaya, 1995b; <sup>1</sup>Vishnevsky, 1998; <sup>1</sup>Voronina et al., 2012; <sup>1</sup>Levitskaya, 2013; <sup>1</sup>Voronina et al., 2014; <sup>1</sup>Malysheva, Malysheva, Voronina, et al., 2017; <sup>1</sup>Malysheva, Malysheva, Voronina, and Kovalenko, 2018); **Novgorod Oblast** (<sup>1</sup>Morozova, 2012; <sup>1</sup>Popov et al., 2013); **Orenburg Oblast** (<sup>1</sup>Korshikova, 2006; <sup>1</sup>Desyatova, 2007; <sup>1</sup>Desyatova, 2008); **Penza Oblast** (<sup>1</sup>Ivanov, 1988a; <sup>1</sup>Ivanov, 2019); **Perm Krai** (<sup>1</sup>Perevedentseva, 2008; <sup>1</sup>Perevedentseva and Shishigin, 2014; <sup>1</sup>Perevedentseva and Shishigin, 2015; <sup>1</sup>Botalov, 2017; <sup>1</sup>Botalov and Perevedentseva, 2018); **Pskov Oblast** (<sup>1</sup>Kovalenko and Morozova, 1999b; <sup>1</sup>Kovalenko, Kolmakov, Morozova, and Popov, 2003; <sup>1</sup>Psurtseva, Kiyashko, Gachkova, and Belova, 2007; <sup>1</sup>Popov et al., 2013); **Saint Petersburg** (<sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Kotkova, Morozova, and Popov, 2005; <sup>1</sup>Morozova and Smirnov, 2011; <sup>1</sup>Morozova, Kovalenko, Rebriev, and Malysheva, 2014; <sup>1</sup>Morozova et al., 2020); **Sverdlovsk Oblast** (<sup>2</sup>Stepanova and Sirko, 1977; <sup>1</sup>Marina, 2006); **Tula Oblast** (<sup>1</sup>Svetasheva, 2004); **Tver Oblast** (<sup>1</sup>Kurochkin, 1993); **Ulyanovsk Oblast** (<sup>1</sup>Ilyukhin, 2010a; <sup>1</sup>Ilyukhin, 2010b); **Vologda Oblast** (<sup>2</sup>Kutova, 1957; <sup>1</sup>Kirillova, 2007; <sup>1</sup>Kirillova, 2009); **Yaroslavl Oblast** (<sup>1</sup>Lazareva, 1997; <sup>1</sup>Lazareva, 1998a); **Arid territories** (<sup>1</sup>Rebriev, Rusanov, et al., 2012).

SIBERIA: **Altai Krai** (<sup>1</sup>Gorbunova and Perova, 2006); **Khanty-Mansi Autonomous Okrug** (<sup>1</sup>Zvyagina, Baykalova, and Gorbunova, 2007; <sup>1</sup>Zvyagina, 2008; <sup>1</sup>Filippova, 2009; <sup>1</sup>Zvyagina and Baykalova, 2012; <sup>1</sup>Filippova and Thormann, 2014; <sup>1</sup>Filippova, 2014; <sup>1</sup>Filippova, Mourgues, and Philippe, 2014; <sup>1</sup>Shepeleva et al., 2014; <sup>1</sup>Filippova and Bulyonkova, 2017a; <sup>1</sup>Filippova and Bulyonkova, 2017b); **Krasnoyarsk Krai** (<sup>1</sup>Krom and Kapitonov, 2019); **Novosibirsk Oblast** (<sup>1</sup>Koropachinskiy and Banaev, 2014); **Tomsk Oblast** (<sup>1</sup>Kosheleva and Kutafjeva, 2004; <sup>1</sup>Agaphonova, Kutafjeva, and Gashkov, 2007; <sup>1</sup>Kudashova, Gashkov, and Kutafjeva, 2013; <sup>1</sup>Vaishlya et al., 2017).

FAR EAST: **Jewish Autonomous Oblast** (<sup>1</sup>Bulakh, Govorova, Nazarova, and Vassiljeva, 2007; <sup>1</sup>Bau, Bulakh, and Govorova, 2011); **Kamchatka Krai** (<sup>1</sup>Psurtseva, Kiyashko, Gachkova, and Belova, 2007); **Khabarovsk Krai** (<sup>1</sup>Bulakh, Vassiljeva, and Erofeeva, 2010; <sup>1</sup>Bulakh, 2013; <sup>1</sup>Bogacheva, Bulakh, Bukharova, and Egorova, 2015; <sup>1</sup>Erofeeva and Bulakh, 2015a); **Magadan Oblast** (<sup>1</sup>Sazanova, 2005; <sup>1</sup>Sazanova, 2009a; <sup>1</sup>Sazanova, 2012); **Primorsky Krai** (<sup>1</sup>Bardunov et al., 2002; <sup>1</sup>Bulakh et al., 2016).

***Laccaria pumila* Fayod<sup>1</sup>**= *Laccaria altaica* Singer<sup>2</sup>

EASTERN EUROPE: **Kaliningrad Oblast** (<sup>1</sup>Dedkov, Volodina, and Gubareva, 2007); **Karachay-Cherkess Republic** (<sup>1</sup>Kalamees and Botashev, 2000); **Karelia** (<sup>1</sup>Singer, 1943); **Komi Republic** (<sup>1</sup>Palamarchuk, 2011b; <sup>1</sup>Palamarchuk, 2016a; <sup>1</sup>Palamarchuk, 2016b; <sup>1</sup>Palamarchuk, 2020a); **Murmansk Oblast** (<sup>1</sup>Karatygin, Nezdjminogo, Novozhilov, and Zhurbenko, 1999); **Nenets Autonomous Okrug** (<sup>1</sup>Karatygin, Nezdjminogo, Novozhilov, and Zhurbenko, 1999); **Tatarstan** (<sup>1</sup>Singer, 1943); **Yamalo-Nenets Autonomous Okrug** (<sup>1</sup>Karatygin, Nezdjminogo, Novozhilov, and Zhurbenko, 1999; <sup>1</sup>Nezdjminogo, 2001).

SIBERIA: **Altai Republic** (<sup>1</sup>Gorbunova, 2003; <sup>1</sup>Gorbunova, 2008; <sup>1</sup>Gorbunova, 2010; <sup>1</sup>Gorbunova, 2017b); **Irkutsk Oblast** (<sup>1</sup>Gorbunova and Stepantsova, 2015); **Khanty-Mansi Autonomous Okrug** (<sup>1</sup>Zvyagina and Baykalova, 2012); **Krasnoyarsk Krai** (<sup>2</sup>Vassilkov, 1971b; <sup>1</sup>Beglyanova, 1972b; <sup>2</sup>Stepanova and Tomilin, 1973; <sup>1</sup>Nezdjminogo and Zhurbenko, 1996; <sup>1</sup>Nezdjminogo, 1997a; <sup>1</sup>Karatygin, Nezdjminogo, Novozhilov, and Zhurbenko, 1999; <sup>1</sup>Nezdjminogo, 2002; <sup>1</sup>Zmitrovich and Ezhov, 2015; <sup>1</sup>Gorbunova, 2016; <sup>1</sup>Shiryayev, Zmitrovich, and Ezhov, 2018); **Novosibirsk Oblast** (<sup>1</sup>Koropachinskiy and Banaev, 2014); **Sakha Republic** (<sup>1</sup>Karatygin, Nezdjminogo, Novozhilov, and Zhurbenko, 1999; <sup>1</sup>Nezdjminogo, 2003); **Tuva Republic** (<sup>1</sup>Gorbunova, 2015).

FAR EAST: **Chukotka Autonomous Okrug** (<sup>1</sup>Karatygin, Nezdjminogo, Novozhilov, and Zhurbenko, 1999); **Magadan Oblast** (<sup>1</sup>Sazanova, 2015).

***Laccaria purpureobadia* D.A. Reid**EASTERN EUROPE: **Moscow Oblast** (Vishnevsky, 1998).

SIBERIA: **Buryatia** (Penzina and Petrov, 1994); **Irkutsk Oblast** (Petrov, 1991; Petrov, 2008); **Krasnoyarsk Krai** (Nezdjminogo and Zhurbenko, 1996; Nezdjminogo, 1997a; Karatygin, Nezdjminogo, Novozhilov, and Zhurbenko, 1999).

***Laccaria striatula* (Peck) Peck**SIBERIA: **Altai Republic** (Singer, 1943).***Laccaria tetraspora* Singer**FAR EAST: **Chukotka Autonomous Okrug** (Sazanova, 1993); **Magadan Oblast** (Nazarova, 1976; Sazanova, 2009a).***Laccaria tortilis* (Bolton) Cooke**EASTERN EUROPE: **Belgorod Oblast** (Bedenko, 1980); **Kaluga Oblast** (Sionova, 2012); **Karachay-Cherkess Republic** (Onipchenko and Kaverina, 1989; Kalamees and Botashev, 2000); **Karelia** (Savelev and Kikeeva, 2020); **Komi Republic** (Palamarchuk (Bobretsova), 2009; Palamarchuk, 2012); **Kursk Oblast** (Bedenko, 1987); **Leningrad Oblast** (Zmitrovich et al., 2015); **Lipetsk Oblast** (Alferova, 1977); **Moscow Oblast** (Vishnevsky, 1998); **Novgorod Oblast** (Kovalenko, Morozova, Nezdojminogo, and Popov, 2005; Popov et al., 2013); **Penza Oblast** (Ivanov, 1983; Ivanov, 2019); **Perm Krai** (Perevedentseva, 2008); **Pskov Oblast** (Kovalenko, Kolmakov, Morozova, and Popov, 2003; Popov et al., 2013); **Ryazan Oblast** (Volosnova, 1997; Volosnova, 2014); **Saint Petersburg** (Morozova, Kovalenko, Rebriev, and Malysheva, 2014; Morozova et al., 2020); **Sverdlovsk Oblast** (Marina, 2006); **Tatarstan** (Vassiljeva, 1977); **Tula Oblast** (Svetasheva, 2004); **Tver Oblast** (Kurochkin, 1993); **Volograd Oblast** (Dudka and Vedeneyev, 2014); **Voronezh Oblast** (Bedenko, 1987); **Arid territories** (Rebriev, Rusanov, et al., 2012).SIBERIA: **Altai Krai** (Gorbunova, 2018a); **Altai Republic** (Gorbunova, 1997; Perova and Gorbunova, 2001; Gorbunova, 2008; Gorbunova, 2010; Gorbunova, 2017b); **Buryatia** (Nezdojminogo, 1973; Petrov, 1991); **Irkutsk Oblast** (Kutafjeva and Astapenko, 1987); **Khakassia** (Beglyanova, 1972a; Zauzolkova, 2015); **Krasnoyarsk Krai** (Vassilkov, 1971b; Beglyanova, 1972a); **Novosibirsk Oblast** (Zaytseva, 1971; Koropachinskiy and Banaev, 2014).FAR EAST: **Amur Oblast** (Kochunova, 2019); **Jewish Autonomous Oblast** (Erofeeva, Bukharova, and Bulakh, 2019); **Kamchatka Krai** (Kalamees and Vaasma, 1981); **Khabarovsk Krai** (Erofeeva and Bulakh, 2015a); **Magadan Oblast** (Sazanova, 2005; Sazanova, 2009a); **Primorsky Krai** (Bau, Bulakh, and Govorova, 2011).***Lacrymaria glareosa* (J. Favre) Watling<sup>1</sup>**≡ *Psathyrella glareosa* (J. Favre) M.M. Moser<sup>2</sup>EASTERN EUROPE: **Pskov Oblast** (<sup>1</sup>Kalinina, Bolshakov, and Bulyonkova, 2020); **Saint Petersburg** (<sup>2</sup>Morozova, Kovalenko, Rebriev, and Malysheva, 2014); **Tula Oblast** (<sup>1</sup>Svetasheva, 2004; <sup>1</sup>Svetasheva, 2005b; <sup>1</sup>Shcherbakov, 2010).SIBERIA: **Khanty-Mansi Autonomous Okrug** (<sup>1</sup>Filippova, Bulyonkova, and Lapshina, 2015).***Lacrymaria lacrymabunda* (Bull.) Pat.<sup>1</sup>**≡ *Agaricus lacrymabundus* Bull.<sup>2</sup> ≡ *Hypholoma lacrymabundum* (Bull.) Sacc.<sup>3</sup> ≡ *Psathyrella lacrymabunda* (Bull.) M.M. Moser<sup>4</sup> = *Agaricus velutinus* Pers.<sup>5</sup> = *Hypholoma velutinum* (Pers.) P. Kumm.<sup>6</sup> = *Lacrymaria velutina* (Pers.) Konrad & Maubl.<sup>7</sup> = *Psathyrella velutina* (Pers.) Singer<sup>8</sup>EASTERN EUROPE: **Adygea** (<sup>1</sup>Sopina, 2001a; <sup>1</sup>Kummer, 2007); **Crimea** (<sup>1</sup>Moser, 1993; <sup>7</sup>Sarkina, 2001; <sup>1</sup>Dudka et al., 2004; <sup>1</sup>Sarkina, 2010b; <sup>1</sup>Sarkina, 2011; <sup>1</sup>Sarkina and Prydiuk, 2012; <sup>1</sup>Sarkina, 2014b); **Kaliningrad Oblast** (<sup>1</sup>Atayev and Volodina, 2020); **Kaluga Oblast** (<sup>8</sup>Sionova, 2003); **Karelia** (<sup>7</sup>Freindling, 1949; <sup>4</sup>Bondartseva et al., 2001; <sup>1</sup>Predtechenskaya and Ruokolainen, 2013; <sup>1</sup>Krutov et al., 2014); **Kirov Oblast** (<sup>1</sup>Kirillov, 2011; <sup>1</sup>Kirillov, Perevedentseva, and Egoshina, 2011; <sup>1</sup>Stavishenko, Luginina, Kirillov, and Egoshina, 2019); **Komi Republic** (<sup>1</sup>Palamarchuk, 2011b; <sup>1</sup>Palamarchuk, 2012; <sup>1</sup>Palamarchuk, 2016a; <sup>1</sup>Palamarchuk, 2016b; <sup>1</sup>Palamarchuk and Kirillov, 2017); **Krasnodar Krai** (<sup>8</sup>Kovalenko, 1980a; <sup>8</sup>Kovalenko, 1980b; <sup>1</sup>Sopina, 2001a; <sup>1</sup>Shumkova, Krivorotov, and Gayday, 2018); **Leningrad Oblast** (<sup>6</sup>Thesleff, 1920; <sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Morozova and Kovalenko, 2000; <sup>1</sup>Popov et al., 2007); **Mordovia** (<sup>7</sup>Kuznetsov, 1960; <sup>1</sup>Ivoilov and Bolshakov, 2011a); **Moscow** (<sup>3</sup>Mosolov, 1906); **Moscow Oblast** (<sup>8</sup>Gorlenko, Sidorova, and Sidorova, 1989); **Murmansk Oblast** (<sup>8</sup>Mikhailovskii, 1975b); **Novgorod Oblast** (<sup>1</sup>Kalinina, 2019); **Penza Oblast** (<sup>8</sup>Ivanov, 1981b; <sup>8</sup>Ivanov, 1982); **Perm Krai** (<sup>1</sup>Perevedentseva, 2008); **Pskov Oblast** (<sup>4</sup>Popov, 2001a; <sup>1</sup>Popov et al., 2013); **Saint Petersburg** (<sup>2</sup>Weinmann, 1836; <sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Morozova and Smirnov, 2011; <sup>1</sup>Morozova, Kovalenko, Rebriev, and Malysheva, 2014; <sup>1</sup>Morozova et al., 2020); **Samara Oblast** (<sup>1</sup>Malysheva and Malysheva, 2008); **Sevastopol** (<sup>1</sup>Sarkina, 2016b); **Sverdlovsk Oblast** (<sup>1</sup>Marina, 2006); **Tatarstan** (<sup>8</sup>Vassiljeva, 1977); **Tula Oblast** (<sup>1</sup>Svetasheva, 2004); **Tver Oblast** (<sup>8</sup>Kurochkin, 1993); **Ulyanovsk Oblast** (<sup>1</sup>Ilyukhin, 2010a; <sup>1</sup>Ilyukhin, 2010b); **Vologda Oblast** (<sup>1</sup>Kirillova, 2006; <sup>1</sup>Kirillova, 2007); **Yaroslavl Oblast** (<sup>1</sup>Lazareva, 1998a; <sup>1</sup>Lazareva, 1998b).SIBERIA: **Altai Krai** (<sup>1</sup>Gorbunova, 2018b); **Irkutsk Oblast** (<sup>8</sup>Petrov, 1986; <sup>8</sup>Petrov, 1991; <sup>8</sup>Petrov, 2008); **Khanty-Mansi Autonomous Okrug** (<sup>1</sup>Filippova, Bulyonkova, and Lapshina, 2015); **Krasnoyarsk Krai** (<sup>1</sup>Krom and

Kapitonov, 2019); **Novosibirsk Oblast** (<sup>8</sup>Perova, 1982; <sup>8</sup>Perova and Gorbunova, 2001; <sup>1</sup>Perova and Gorbunova, 2007; <sup>1</sup>Koropachinskiy and Banaev, 2014); **Tomsk Oblast** (<sup>8</sup>Agaphonova, Kutafjeva, and Gashkov, 2009b; <sup>1</sup>Kudashova, Gashkov, and Kutafjeva, 2013).

FAR EAST: **Amur Oblast** (<sup>1</sup>Kochunova and Erofeeva, 2017; <sup>1</sup>Kochunova, 2019); **Jewish Autonomous Oblast** (<sup>8</sup>Bulakh, Govorova, Nazarova, and Vassiljeva, 2007); **Kamchatka Krai** (<sup>5</sup>Berkeley and Curtis, 1978); **Khabarovsk Krai** (<sup>8</sup>Azbukina et al., 1986; <sup>1</sup>Bau, Bulakh, and Govorova, 2011); **Magadan Oblast** (<sup>1</sup>Sazanova, 2009a); **Primorsky Krai** (<sup>8</sup>Vassiljeva, 1973; <sup>8</sup>Bulakh, 1977; <sup>8</sup>Bunkina and Nazarova, 1978; <sup>8</sup>Azbukina et al., 1984; <sup>8</sup>Azbukina et al., 1990; <sup>8</sup>Bardunov et al., 2002; <sup>8</sup>Azbukina et al., 2006; <sup>1</sup>Bau, Bulakh, and Govorova, 2011).

***Lacrymaria pyrotricha* (Holmsk.) Konrad & Maubl.<sup>1</sup>**

≡ *Psathyrella pyrotricha* (Holmsk.) M.M. Moser<sup>2</sup>

EASTERN EUROPE: **Krasnodar Krai** (<sup>1</sup>Sopina, 2001a); **Leningrad Oblast** (<sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Morozova, 1999; <sup>1</sup>Morozova and Kovalenko, 2000; <sup>1</sup>Popov et al., 2007; <sup>1</sup>Kalinina, 2018); **Penza Oblast** (<sup>2</sup>Ivanov, 1988a); **Perm Krai** (<sup>1</sup>Perevedentseva, 2008); **Tula Oblast** (<sup>1</sup>Svetasheva, 2004).

***Lactarius acerrimus* Britzelm.**

EASTERN EUROPE: **Belgorod Oblast** (Bedenko, 1980; Bulakh, Wasser, Nazarova, and Nezdjminogo, 1990); **Penza Oblast** (Ivanov, 1986; Bulakh, Wasser, Nazarova, and Nezdjminogo, 1990); **Rostov Oblast** (Rusanov, Rebriev, and Bulgakov, 2018); **Samara Oblast** (Malysheva and Malysheva, 2008); **Tula Oblast** (Svetasheva, 2004; Svetasheva, 2005b; Shcherbakov, 2010; Svetasheva, 2013; Svetasheva, Sheremetyeva, and Lakomov, 2019); **Arid territories** (Rebriev, Rusanov, et al., 2012).

FAR EAST: **Jewish Autonomous Oblast** (Bau, Bulakh, and Govorova, 2011); **Primorsky Krai** (Bulakh, 1986; Bulakh, Wasser, Nazarova, and Nezdjminogo, 1990; Bau, Bulakh, and Govorova, 2011; Bulakh et al., 2016; Bogacheva et al., 2018).

***Lactarius acris* (Bolton) Gray<sup>1</sup>**

≡ *Agaricus acris* Bolton<sup>2</sup> = *Lactarius pudibundus* (Scop.) J. Schröt.<sup>3</sup>

EASTERN EUROPE: **Belgorod Oblast** (<sup>1</sup>Bedenko, 1980; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdjminogo, 1990); **Crimea** (<sup>1</sup>Sarkina, 2001; <sup>1</sup>Dudka et al., 2004; <sup>1</sup>Sarkina, 2010a; <sup>1</sup>Sarkina, 2010b; <sup>1</sup>Sarkina, 2011; <sup>1</sup>Sarkina and Prydiuk, 2012; <sup>1</sup>Sarkina, 2013; <sup>1</sup>Sarkina and Stavishenko, 2019); **Kaluga Oblast** (<sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdjminogo, 1990); **Karelia** (<sup>1</sup>Krutov et al., 2014); **Krasnodar Krai** (<sup>1</sup>Vassiljeva, 1939); **Leningrad Oblast** (<sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdjminogo, 1990; <sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Popov et al., 2007); **Lipetsk Oblast** (<sup>1</sup>Alferova, 1977; <sup>1</sup>Sarycheva, 1999; <sup>1</sup>Sarycheva et al., 2009; <sup>1</sup>Shcherbakov, 2014; <sup>1</sup>Sarycheva, 2016); **Moscow** (<sup>3</sup>Bucholtz, 1897b; <sup>3</sup>Bucholtz, 1897c; <sup>3</sup>Mosolov, 1906); **Moscow Oblast** (<sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdjminogo, 1990; <sup>1</sup>Vishnevsky and Sidorova, 1997); **Murmansk Oblast** (<sup>1</sup>Pystina, Pavlova, and Shestakova, 1969); **Orenburg Oblast** (<sup>1</sup>Desyatova, 2008); **Saint Petersburg** (<sup>2</sup>Weinmann, 1828; <sup>2</sup>Weinmann, 1836; <sup>2</sup>Weinmann, 1837); **Sevastopol** (<sup>1</sup>Sarkina, 2016b; <sup>1</sup>Sarkina, 2020c).

FAR EAST: **Primorsky Krai** (<sup>1</sup>Vassiljeva, 1973; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdjminogo, 1990; <sup>1</sup>Bau, Bulakh, and Govorova, 2011).

***Lactarius albocarneus* Britzelm.<sup>1</sup>**

= *Lactarius glutinopallens* F.H. Møller & J.E. Lange<sup>2</sup>

EASTERN EUROPE: **Komi Republic** (<sup>1</sup>Palamarchuk (Bobretsova), 2009; <sup>1</sup>Palamarchuk, 2012).

SIBERIA: **Irkutsk Oblast** (<sup>2</sup>Petrov, Nezdjminogo, and Bulakh, 1987; <sup>2</sup>Petrov, 1989; <sup>2</sup>Petrov, 1991; <sup>2</sup>Muzyka, 2002; <sup>2</sup>Bardunov et al., 2005; <sup>2</sup>Petrov, 2008).

FAR EAST: **Jewish Autonomous Oblast** (<sup>2</sup>Bau, Bulakh, and Govorova, 2011); **Khabarovsk Krai** (<sup>2</sup>Bulakh, Vassiljeva, and Erofeeva, 2010); **Primorsky Krai** (<sup>2</sup>Shalapugina, 1976; <sup>2</sup>Bulakh, 1977; <sup>2</sup>Azbukina et al., 1984; <sup>2</sup>Azbukina et al., 2006; <sup>2</sup>Bau, Bulakh, and Govorova, 2011).

***Lactarius alpinus* Peck**

EASTERN EUROPE: **Karelia** (Bulakh, Wasser, Nazarova, and Nezdjminogo, 1990); **Komi Republic** (Palamarchuk and Kirillov, 2018a; Dyogteva, 2019; Palamarchuk et al., 2019); **Murmansk Oblast** (Bulakh, Wasser, Nazarova, and Nezdjminogo, 1990); **Yamalo-Nenets Autonomous Okrug** (Knudsen and Mukhin, 1998; Karatygin, Nezdjminogo, Novozhilov, and Zhurbenko, 1999; Nezdjminogo, 2001).

SIBERIA: **Altai Republic** (Svetasheva et al., 2019); **Buryatia** (Pronin, 2013); **Irkutsk Oblast** (Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990); **Krasnoyarsk Krai** (Karatygin, Nezdojminogo, Novozhilov, and Zhurbenko, 1999; Malysheva, Malysheva, Kiyashko, et al., 2017); **Sakha Republic** (Karatygin, Nezdojminogo, Novozhilov, and Zhurbenko, 1999); **Yamalo-Nenets Autonomous Okrug** (Tarchevskaya, 1990; Karatygin, Nezdojminogo, Novozhilov, and Zhurbenko, 1999).

FAR EAST: **Magadan Oblast** (Bulakh, 1986; Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; Sazanova, 2005; Sazanova, 2009a); **Sakhalin Oblast** (Bulakh, Govorova, and Bogatov, 1999).

### *Lactarius aquizonatus* Kytöv.

EASTERN EUROPE: **Karelia** (Krutov et al., 2014); **Leningrad Oblast** (Kovalenko and Morozova, 1999a; Morozova, 2007; Popov et al., 2007; Zmitrovich et al., 2015); **Moscow Oblast** (Levitskaya, 1995a; Levitskaya, 2013); **Penza Oblast** (Ivanov, 2019); **Perm Krai** (Perevedentseva, 2008); **Pskov Oblast** (Kalinina, Bolshakov, and Bulyonkova, 2020); **Saint Petersburg** (Morozova and Smirnov, 2011); **Tatarstan** (Potapov, 2015b); **Udmurt Republic** (Kapitonov, 2013).

SIBERIA: **Krasnoyarsk Krai** (Malysheva, Malysheva, Kiyashko, et al., 2017; Krom and Kapitonov, 2019).

FAR EAST: **Magadan Oblast** (Rebriev, Bulakh, Sazanova, and Shiryaev, 2020).

### *Lactarius aspideus* (Fr.) Fr.<sup>1</sup>

≡ *Agaricus aspideus* Fr.<sup>2</sup>

EASTERN EUROPE: **Karelia** (<sup>1</sup>Kovalenko, Morozova, Fomina, and Särkisilta, 1998; <sup>1</sup>Bondartseva et al., 2001; <sup>1</sup>Krutov et al., 2014); **Krasnodar Krai** (<sup>1</sup>Kovalenko, 1980a; <sup>1</sup>Kovalenko, 1980b); **Leningrad Oblast** (<sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Popov et al., 2007); **Moscow Oblast** (<sup>1</sup>Levitskaya, 2006; <sup>1</sup>Levitskaya, 2013); **Novgorod Oblast** (<sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990); **Saint Petersburg** (<sup>2</sup>Weinmann, 1828; <sup>2</sup>Weinmann, 1836; <sup>2</sup>Weinmann, 1837); **Smolensk Oblast** (<sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990); **Vologda Oblast** (<sup>1</sup>Kirillova, 2007).

SIBERIA: **Irkutsk Oblast** (<sup>1</sup>Astapenko and Kutafjeva, 1990; <sup>1</sup>Astapenko, 1990b).

FAR EAST: **Amur Oblast** (<sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990); **Chukotka Autonomous Okrug** (<sup>1</sup>Berkeley and Curtis, 1978; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990); **Kamchatka Krai** (<sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990); **Primorsky Krai** (<sup>1</sup>Vassiljeva, 1972; <sup>1</sup>Vassiljeva, 1973; <sup>1</sup>Bunkina and Nazarova, 1978; <sup>1</sup>Azbukina et al., 2006; <sup>1</sup>Bau, Bulakh, and Govorova, 2011).

### *Lactarius aurantiaco-ochraceus* Lj.N. Vassiljeva

FAR EAST: **Jewish Autonomous Oblast** (Bulakh, Govorova, Nazarova, and Vassiljeva, 2007; Bau, Bulakh, and Govorova, 2011); **Khabarovsk Krai** (Vassiljeva, 1950; Azbukina et al., 1986; Bulakh, 1986; Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; Bau, Bulakh, Zhuang, and Li, 2007; Bau, Bulakh, and Govorova, 2011); **Primorsky Krai** (Vassiljeva, 1950; Vassiljeva, 1972; Vassiljeva, 1973; Bunkina and Nazarova, 1978; Bulakh, 1986; Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; Azbukina et al., 2006; Kozhevnikov, 2008; Bau, Bulakh, and Govorova, 2011).

### *Lactarius aurantiacus* (Pers.) Gray<sup>1</sup>

= *Agaricus mitissimus* Fr.<sup>2</sup> = *Lactarius mitissimus* (Fr.) Fr.<sup>3</sup>

EASTERN EUROPE: **Arkhangelsk Oblast** (<sup>3</sup>Ezhov, Ershov, Ruokolainen, and Zmitrovich, 2011; <sup>3</sup>Ezhov, 2014); **Bryansk Oblast** (<sup>3</sup>Kruglikov, 2007); **Kabardino-Balkarian Republic** (<sup>3</sup>Shkhagapsoev and Krapivina, 2004); **Kaliningrad Oblast** (<sup>1</sup>Dedkov, Volodina, and Gubareva, 2007; <sup>1</sup>Volodina, 2007; <sup>1</sup>Atayev and Volodina, 2020); **Kaluga Oblast** (<sup>3</sup>Sionova, 2003; <sup>3</sup>Sionova, 2006); **Karachay-Cherkess Republic** (<sup>1</sup>Vassiljeva, 1939; <sup>1</sup>Kalamees and Botashev, 2000); **Karelia** (<sup>3</sup>Kovalenko, Morozova, Fomina, and Särkisilta, 1998; <sup>3</sup>Bondartseva et al., 2001; <sup>1</sup>Predtechenskaya and Ruokolainen, 2013; <sup>1</sup>Krutov et al., 2014; <sup>1</sup>Predtechenskaya and Ruokolainen, 2014); **Kirov Oblast** (<sup>1,3</sup>Kirillov, 2011; <sup>1,3</sup>Kirillov, Perevedentseva, and Egoshina, 2011; <sup>3</sup>Kirillov and Luginina, 2011; <sup>1,3</sup>Stavishenko, Luginina, Kirillov, and Egoshina, 2019); **Komi Republic** (<sup>1</sup>Palamarchuk, 2011b; <sup>1</sup>Palamarchuk, 2012; <sup>1</sup>Palamarchuk, 2016a; <sup>1</sup>Palamarchuk, 2016b; <sup>1</sup>Palamarchuk and Kirillov, 2017); **Krasnodar Krai** (<sup>1</sup>Vassiljeva, 1939; <sup>3</sup>Vaasma, Kalamees, and Raitviir, 1986); **Leningrad Oblast** (<sup>3</sup>Thesleff, 1920; <sup>3</sup>Nezdojminogo, 1967; <sup>3</sup>Chastukhin and Nikolaevskaya, 1969; <sup>3</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Fomina, 2000; <sup>1</sup>Morozova and Kovalenko, 2000; <sup>1</sup>Popov et al., 2007; <sup>1</sup>Zmitrovich et al., 2015; <sup>1</sup>Kalinina, 2018); **Moscow Oblast** (<sup>3</sup>Gorlenko, Sidorova, and Sidorova, 1989; <sup>3</sup>Levitskaya, 1995a; <sup>3</sup>Vishnevsky and Sidorova, 1997; <sup>3</sup>Levitskaya, 2013; <sup>1</sup>Sidorova, Alexandrova, and Voronina, 2017); **Murmansk Oblast** (<sup>3</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990); **Novgorod Oblast** (<sup>3</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>3</sup>Malysheva, Malysheva, and

Zmitrovich, 2007); **Oryol Oblast** (<sup>3</sup>Radygina, Derzhavina, and Tsutsupa, 2014); **Perm Krai** (<sup>1,3</sup>Perevedentseva, 2008; <sup>3</sup>Belkovskaya et al., 2014); **Ryazan Oblast** (<sup>3</sup>Volosnova, 1997; <sup>1</sup>Volosnova, 2014); **Saint Petersburg** (<sup>2</sup>Weinmann, 1828; <sup>2</sup>Weinmann, 1836; <sup>2</sup>Weinmann, 1837; <sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Morozova and Smirnov, 2011; <sup>3</sup>Morozova, Kovalenko, Rebriev, and Malysheva, 2014; <sup>1</sup>Morozova et al., 2020); **Samara Oblast** (<sup>3</sup>Malysheva and Malysheva, 2008); **Sverdlovsk Oblast** (<sup>3</sup>Marina, 2006); **Tula Oblast** (<sup>1</sup>Svetasheva, 2004); **Tver Oblast** (<sup>3</sup>Kurochkin, 1993; <sup>3</sup>Mukhina, 2011a; <sup>3</sup>Mukhina, 2011b; <sup>1</sup>Kotkova, 2014; <sup>3</sup>Kurochkin, 2016); **Udmurt Republic** (<sup>3</sup>Tychinin and Kuzmina, 2003); **Yamalo-Nenets Autonomous Okrug** (<sup>1</sup>Stepanova and Sirko, 1970; <sup>3</sup>Stepanova and Sirko, 1977).

SIBERIA: **Altai Republic** (<sup>3</sup>Gorbunova, 1997; <sup>3</sup>Gorbunova, 2001b; <sup>3</sup>Perova and Gorbunova, 2001; <sup>1</sup>Gorbunova, 2010); **Buryatia** (<sup>3</sup>Nezdojminogo, 1970a; <sup>3</sup>Petrov, 1991); **Irkutsk Oblast** (<sup>3</sup>Astapenko, 1990b; <sup>3</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>3</sup>Muzyka, 2002; <sup>3</sup>Muzyka, 2009; <sup>1</sup>Gorbunova and Stepantsova, 2015); **Khanty-Mansi Autonomous Okrug** (<sup>1</sup>Filippova and Bulyonkova, 2017a; <sup>1</sup>Filippova and Bulyonkova, 2017b; <sup>3</sup>Zvyagina and Baykalova, 2017); **Krasnoyarsk Krai** (<sup>3</sup>Beglyanova, 1972a; <sup>3</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>3</sup>Lapitskaya, 1993; <sup>1</sup>Kosheleva and Kutafjeva, 2008a; <sup>1</sup>Krom and Kapitonov, 2019); **Novosibirsk Oblast** (<sup>3</sup>Zaytseva, 1971; <sup>3</sup>Perova and Gorbunova, 2001; <sup>3</sup>Perova and Gorbunova, 2007); **Tomsk Oblast** (<sup>3</sup>Agaphonova, Kutafjeva, and Gashkov, 2007; <sup>3</sup>Agaphonova, Kutafjeva, and Gashkov, 2009a; <sup>1</sup>Kudashova, Gashkov, and Kutafjeva, 2013); **Yamalo-Nenets Autonomous Okrug** (<sup>3</sup>Tarchevskaya, 1990).

FAR EAST: **Chukotka Autonomous Okrug** (<sup>3</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>3</sup>Nezdojminogo, 1997a); **Khabarovsk Krai** (<sup>3</sup>Bulakh, 1986; <sup>3</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990); **Magadan Oblast** (<sup>3</sup>Nazarova, 1976; <sup>3</sup>Sazanova, 2005; <sup>1</sup>Sazanova, 2009a); **Primorsky Krai** (<sup>3</sup>Vassiljeva, 1973; <sup>3</sup>Shalapugina, 1976; <sup>3</sup>Bulakh, 1977; <sup>3</sup>Bunkina and Nazarova, 1978; <sup>3</sup>Azbukina et al., 1984; <sup>3</sup>Bulakh, 1986; <sup>3</sup>Azbukina et al., 1990; <sup>3</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>3</sup>Bardunov et al., 2002; <sup>3</sup>Azbukina et al., 2006; <sup>1</sup>Bau, Bulakh, and Govorova, 2011); **Sakhalin Oblast** (<sup>3</sup>Vassiljeva and Nazarova, 1972; <sup>3</sup>Bulakh, 1986; <sup>3</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990).

#### ***Lactarius auriolla* Kytöv.**

SIBERIA: **Khanty-Mansi Autonomous Okrug** (Filippova and Bulyonkova, 2017a; Filippova and Bulyonkova, 2017b).

#### ***Lactarius azonites* (Bull.) Fr.**

EASTERN EUROPE: **Adygea** (Vassiljeva, 1939); **Kaliningrad Oblast** (Dedkov, Volodina, and Gubareva, 2007); **Karachay-Cherkess Republic** (Kalamees and Botashev, 2000); **Krasnodar Krai** (Kovalenko, 1980a; Kovalenko, 1980b; Vaasma, Kalamees, and Raitviir, 1986); **Leningrad Oblast** (Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; Kovalenko and Morozova, 1999a; Popov et al., 2007); **Mari El Republic** (Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990); **Moscow Oblast** (Levitskaya, 1995a; Levitskaya, 2013); **Novgorod Oblast** (Morozova, 2012; Popov et al., 2013); **Penza Oblast** (Ivanov, 1988a); **Saint Petersburg** (Morozova and Smirnov, 2011; Geltman, 2018a); **Smolensk Oblast** (Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990); **Tatarstan** (Vassiljeva, 1977; Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990); **Tula Oblast** (Svetasheva, 2004; Shcherbakov, 2010); **Arid territories** (Rebriev, Rusanov, et al., 2012).

FAR EAST: **Amur Oblast** (Bulakh, 1986; Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; Azbukina et al., 1998); **Jewish Autonomous Oblast** (Bulakh, Govorova, Nazarova, and Vassiljeva, 2007; Bau, Bulakh, and Govorova, 2011); **Khabarovsk Krai** (Azbukina et al., 1986; Bulakh, 1986; Azbukina et al., 1989; Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; Bau, Bulakh, and Govorova, 2011); **Primorsky Krai** (Vassiljeva, 1972; Vassiljeva, 1973; Bunkina and Nazarova, 1978; Bulakh, 1986; Azbukina et al., 1990; Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; Bardunov et al., 2002; Azbukina et al., 2006; Bau, Bulakh, Zhuang, and Li, 2007; Bau, Bulakh, and Govorova, 2011; Bogacheva, Bulakh, Bukharova, and Egorova, 2020).

#### ***Lactarius badiosanguineus* Kühner & Romagn.**

EASTERN EUROPE: **Adygea** (Sopina, 2004a; Zamotajlov, Sirotyuk (Kuvaeva), Akatova, and Lipka, 2012); **Karelia** (Kovalenko, Morozova, Fomina, and Särkisilta, 1998; Bondartseva et al., 2001; Krutov et al., 2014); **Komi Republic** (Palamarchuk, 2016a; Palamarchuk, 2016b); **Sverdlovsk Oblast** (Marina, 2006).

SIBERIA: **Krasnoyarsk Krai** (Krom and Kapitonov, 2019); **Tomsk Oblast** (Kudashova, Gashkov, and Vaishlya, 2016a; Vaishlya et al., 2017).

FAR EAST: **Primorsky Krai** (Malysheva et al., 2014; Malysheva et al., 2016).

***Lactarius blennius* (Fr.) Fr.<sup>1</sup>**≡ *Agaricus blennius* Fr.<sup>2</sup>

EASTERN EUROPE: **Adygea** (<sup>1</sup>Vassiljeva, 1939; <sup>1</sup>Vaasma, Kalamees, and Raitviir, 1986; <sup>1</sup>Sopina, 2004a); **Belgorod Oblast** (<sup>1</sup>Bedenko, 1980); **Crimea** (<sup>1</sup>Moser, 1993; <sup>1</sup>Sarkina, 2001; <sup>1</sup>Dudka et al., 2004; <sup>1</sup>Sarkina, 2010a; <sup>1</sup>Sarkina, 2011); **Kaliningrad Oblast** (<sup>1</sup>Dedkov, Volodina, and Gubareva, 2007; <sup>1</sup>Atayev and Volodina, 2020); **Karachay-Cherkess Republic** (<sup>1</sup>Vassiljeva, 1939; <sup>1</sup>Kalamees and Botashev, 2000); **Karelia** (<sup>1</sup>Predtechenskaya and Ruokolainen, 2013); **Krasnodar Krai** (<sup>1</sup>Vassiljeva, 1939; <sup>1</sup>Kovalenko, 1980a; <sup>1</sup>Kovalenko, 1980b; <sup>1</sup>Vaasma, Kalamees, and Raitviir, 1986; <sup>1</sup>Sopina, 2004a); **Leningrad Oblast** (<sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Popov et al., 2007); **Saint Petersburg** (<sup>2</sup>Weinmann, 1836; <sup>2</sup>Weinmann, 1837); **Tver Oblast** (<sup>1</sup>Mukhina, 2011b).

FAR EAST: **Primorsky Krai** (<sup>1</sup>Vassiljeva, 1973; <sup>1</sup>Bunkina and Nazarova, 1978).

***Lactarius brunneoviolaceus* M.P. Christ.**

EASTERN EUROPE: **Komi Republic** (Palamarchuk and Kirillov, 2016; Palamarchuk, 2016a; Palamarchuk, 2016b; Dyogteva, 2019; Palamarchuk et al., 2019); **Yamalo-Nenets Autonomous Okrug** (Karatygin, Nezdjominogo, Novozhilov, and Zhurbenko, 1999; Nezdjominogo, 2001).

SIBERIA: **Altai Republic** (Kalamees, 2008; Gorbunova, 2019).

***Lactarius camphoratus* (Bull.) Fr.<sup>1</sup>**≡ *Agaricus subdulcis* β *camphoratus* (Bull.) Fr.<sup>2</sup>

EASTERN EUROPE: **Adygea** (<sup>1</sup>Vaasma, Kalamees, and Raitviir, 1986; <sup>1</sup>Sopina, 2004a); **Bryansk Oblast** (<sup>1</sup>Kruglikov, 2007); **Kabardino-Balkarian Republic** (<sup>1</sup>Shkhagapsoev and Krapivina, 2004); **Kaliningrad Oblast** (<sup>1</sup>Dedkov, Volodina, and Gubareva, 2007; <sup>1</sup>Volodina, 2007); **Kaluga Oblast** (<sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdjominogo, 1990; <sup>1</sup>Sionova, 2003; <sup>1</sup>Sionova, 2006); **Karelia** (<sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdjominogo, 1990; <sup>1</sup>Kovalenko, Morozova, Fomina, and Särkisilta, 1998; <sup>1</sup>Bondartseva et al., 2001; <sup>1</sup>Predtechenskaya and Ruokolainen, 2013; <sup>1</sup>Krutov et al., 2014; <sup>1</sup>Predtechenskaya and Ruokolainen, 2014; <sup>1</sup>Savelev and Kikeeva, 2020); **Kirov Oblast** (<sup>1</sup>Kirillov, 2011; <sup>1</sup>Kirillov, Perevedentseva, and Egoshina, 2011); **Leningrad Oblast** (<sup>1</sup>Kalamees and Kovalenko, 1984; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdjominogo, 1990; <sup>1</sup>Stolyarskaya, 1993; <sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Fomina, 2000; <sup>1</sup>Fomina, 2001; <sup>1</sup>Morozova, 2007; <sup>1</sup>Popov et al., 2007; <sup>1</sup>Zmitrovich et al., 2015); **Lipetsk Oblast** (<sup>1</sup>Rtishcheva, 1999; <sup>1</sup>Sarycheva, 1999; <sup>1</sup>Afanasyev, Rtishcheva, and Starodubtseva, 2007; <sup>1</sup>Sarycheva et al., 2009; <sup>1</sup>Sarycheva, 2014a; <sup>1</sup>Sarycheva, 2016; <sup>1</sup>Sarycheva, Starodubtseva, and Sapelnikova, 2017); **Mari El Republic** (<sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdjominogo, 1990); **Moscow** (<sup>1</sup>Bucholtz, 1897a); **Moscow Oblast** (<sup>1</sup>Gorlenko, Sidorova, and Sidorova, 1989; <sup>1</sup>Levitskaya, 1995a; <sup>1</sup>Voronina et al., 2012; <sup>1</sup>Levitskaya, 2013; <sup>1</sup>Voronina et al., 2014; <sup>1</sup>Sidorova, Alexandrova, and Voronina, 2017); **North Ossetia** (<sup>1</sup>Nikolayev, 2001); **Novgorod Oblast** (<sup>1</sup>Kovalenko, Morozova, Nezdjominogo, and Popov, 2005; <sup>1</sup>Popov et al., 2013); **Penza Oblast** (<sup>1</sup>Ivanov, 1981a; <sup>1</sup>Ivanov, 1981b; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdjominogo, 1990; <sup>1</sup>Ivanov, 2019); **Perm Krai** (<sup>1</sup>Perevedentseva, 2008; <sup>1</sup>Belkovskaya et al., 2014; <sup>1</sup>Perevedentseva and Shishigin, 2014; <sup>1</sup>Perevedentseva and Shishigin, 2015); **Pskov Oblast** (<sup>1</sup>Kovalenko, Kolmakov, Morozova, and Popov, 2003; <sup>1</sup>Popov et al., 2013); **Ryazan Oblast** (<sup>1</sup>Volosnova, 1997; <sup>1</sup>Volosnova, 2014); **Saint Petersburg** (<sup>2</sup>Weinmann, 1828; <sup>2</sup>Weinmann, 1837; <sup>1</sup>Morozova and Smirnov, 2011; <sup>1</sup>Morozova et al., 2020); **Tatarstan** (<sup>1</sup>Vassiljeva, 1977); **Tula Oblast** (<sup>1</sup>Svetasheva, 2004); **Tver Oblast** (<sup>1</sup>Kurochkin, 1993; <sup>1</sup>Mukhina, 2011a; <sup>1</sup>Mukhina, 2011b; <sup>1</sup>Kotkova, 2014); **Udmurt Republic** (<sup>1</sup>Tychinin and Kuzmina, 2003); **Vologda Oblast** (<sup>1</sup>Kirillova, 2007); **Voronezh Oblast** (<sup>1</sup>Rtishcheva, 1999; <sup>1</sup>Afanasyev, Rtishcheva, and Starodubtseva, 2007; <sup>1</sup>Sarycheva, Starodubtseva, and Sapelnikova, 2017); **Yaroslavl Oblast** (<sup>1</sup>Lazareva, 1998a).

SIBERIA: **Altai Krai** (<sup>1</sup>Gorbunova, Vlasenko, and Tzhubarova, 2011); **Altai Republic** (<sup>1</sup>Gorbunova, 1997; <sup>1</sup>Gorbunova, 2001b; <sup>1</sup>Perova and Gorbunova, 2001); **Tomsk Oblast** (<sup>1</sup>Kosheleva and Kutafjeva, 2004; <sup>1</sup>Kudashova, Gashkov, and Kutafjeva, 2013).

FAR EAST: **Primorsky Krai** (<sup>1</sup>Vassiljeva, 1973; <sup>1</sup>Bulakh, 1977; <sup>1</sup>Bunkina and Nazarova, 1978; <sup>1</sup>Azbukina et al., 1984; <sup>1</sup>Bulakh, 1986; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdjominogo, 1990; <sup>1</sup>Azbukina et al., 2006; <sup>1</sup>Bau, Bulakh, and Govorova, 2011); **Sakhalin Oblast** (<sup>1</sup>Vassiljeva and Nazarova, 1972; <sup>1</sup>Bulakh, 1986; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdjominogo, 1990).

***Lactarius chrysorrheus* Fr.**

EASTERN EUROPE: **Adygea** (Vassiljeva, 1939); **Crimea** (Sarkina, 2001; Sarkina, Prydiuk, and Heluta, 2003; Dudka et al., 2004; Sarkina, 2010a; Sarkina, 2011; Sarkina and Prydiuk, 2012; Yena and Fateryga, 2015; Sarkina and Stavishenko, 2019); **Kaliningrad Oblast** (Dedkov, Volodina, and Gubareva, 2007; Dedkov and Grishanov, 2010); **Kirov Oblast** (Kirillov, 2011; Kirillov, Perevedentseva, and Egoshina, 2011); **Perm Krai** (Perevedentseva, 2008);



Belkovskaya et al., 2014); **Sevastopol** (Sarkina, 2016b; Dovgal and Korzhenevsky, 2018; Sarkina, 2020c); **Smolensk Oblast** (Burova, 1969).

SIBERIA: **Altai Republic** (Gorbunova, 2001b; Perova and Gorbunova, 2001).

FAR EAST: **Amur Oblast** (Bulakh, 1986; Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; Azbukina et al., 1998; Bogacheva et al., 2018); **Jewish Autonomous Oblast** (Bulakh, Govorova, Nazarova, and Vassiljeva, 2007; Bau, Bulakh, and Govorova, 2011; Bogacheva et al., 2018); **Khabarovsk Krai** (Azbukina et al., 1986; Bulakh, 1986; Azbukina et al., 1989; Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; Bau, Bulakh, and Govorova, 2011; Bogacheva et al., 2018); **Primorsky Krai** (Vassiljeva, 1972; Vassiljeva, 1973; Bunkina and Nazarova, 1978; Bulakh, 1986; Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; Bardunov et al., 2002; Azbukina et al., 2006; Bau, Bulakh, and Govorova, 2011; Bulakh et al., 2016; Bogacheva et al., 2018; Bogacheva, Bulakh, Bukharova, and Egorova, 2020).

#### *Lactarius circellatus* Fr.

EASTERN EUROPE: **Adygea** (Vassiljeva, 1939; Kovalenko, 1980b; Sopina, 2004a); **Kaliningrad Oblast** (Dedkov, Volodina, and Gubareva, 2007; Atayev and Volodina, 2020); **Krasnodar Krai** (Kovalenko, 1980a; Kovalenko, 1980b); **Orenburg Oblast** (Desyatova, 2008); **Yaroslavl Oblast** (Lazareva, 1997).

SIBERIA: **Krasnoyarsk Krai** (Pavlov et al., 2007).

FAR EAST: **Amur Oblast** (Kochunova and Erofeeva, 2017); **Jewish Autonomous Oblast** (Bulakh, Govorova, Nazarova, and Vassiljeva, 2007; Bau, Bulakh, and Govorova, 2011); **Khabarovsk Krai** (Azbukina et al., 1986; Bulakh, 1986; Azbukina et al., 1989; Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; Bau, Bulakh, and Govorova, 2011); **Magadan Oblast** (Bulakh, 1986; Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; Sazanova, 2009a); **Primorsky Krai** (Bulakh, 1986; Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; Bardunov et al., 2002; Azbukina et al., 2006; Bau, Bulakh, Zhuang, and Li, 2007; Bau, Bulakh, and Govorova, 2011; Bulakh et al., 2016).

#### *Lactarius citriolens* Pouzar

EASTERN EUROPE: **Adygea** (Sopina, 2004a); **Belgorod Oblast** (Bedenko, 1980); **Kirov Oblast** (Kirillov, 2011; Kirillov, Perevedentseva, and Egoshina, 2011; Svetasheva et al., 2017); **Krasnodar Krai** (Kovalenko, 1980a; Kovalenko, 1980b); **Leningrad Oblast** (Stolyarskaya, 1993); **Moscow Oblast** (Levitskaya, 1995a; Vishnevsky and Sidorova, 1997; Levitskaya, 2013); **Penza Oblast** (Ivanov, 1985; Ivanov, 2019); **Perm Krai** (Perevedentseva, 2008); **Sverdlovsk Oblast** (Shiryaeva and Palamarchuk, 2019); **Tula Oblast** (Svetasheva, 2004; Svetasheva, 2005b; Svetasheva, 2013); **Ulyanovsk Oblast** (Ilyukhin, 2009; Ilyukhin, 2010a).

#### *Lactarius controversus* Pers.<sup>1</sup>

≡ *Agaricus controversus* (Pers.) Pers.<sup>2</sup> = *Lactarius sanguinalis* (Batsch) J. Schröt.<sup>3</sup>

EASTERN EUROPE: **Arkhangelsk Oblast** (<sup>1</sup>Lebedeva, 1933); **Astrakhan Oblast** (<sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990); **Bashkortostan** (<sup>1</sup>Stepanova and Sirko, 1977); **Belgorod Oblast** (<sup>1</sup>Bedenko, 1980); **Crimea** (<sup>1</sup>Sarkina, 2001; <sup>1</sup>Sarkina, 2010a; <sup>1</sup>Sarkina and Prydiuk, 2012); **Ivanovo Oblast** (<sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990); **Kabardino-Balkarian Republic** (<sup>1</sup>Shkhagapsoev and Krapivina, 2004); **Kaliningrad Oblast** (<sup>1</sup>Dedkov, Volodina, and Gubareva, 2007); **Karachay-Cherkess Republic** (<sup>1</sup>Vassiljeva, 1939); **Karelia** (<sup>1</sup>Lebedeva, 1933; <sup>1</sup>Krutov et al., 2014); **Krasnodar Krai** (<sup>1</sup>Vassiljeva, 1939; <sup>1</sup>Kovalenko, 1980a; <sup>1</sup>Kovalenko, 1980b; <sup>1</sup>Sopina, 2004a); **Leningrad Oblast** (<sup>2</sup>Weinmann, 1836; <sup>2</sup>Weinmann, 1837; <sup>1</sup>Thesleff, 1920; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Morozova and Kovalenko, 2000; <sup>1</sup>Popov et al., 2007); **Lipetsk Oblast** (<sup>1</sup>Rtishcheva, 1999; <sup>1</sup>Afanasyev, Rtishcheva, and Starodubtseva, 2007; <sup>1</sup>Sarycheva et al., 2009; <sup>1</sup>Sarycheva, Starodubtseva, and Sapelnikova, 2017); **Mari El Republic** (<sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990); **Mordovia** (<sup>1</sup>Ivoilov and Bolshakov, 2011b); **Moscow** (<sup>3</sup>Bucholtz, 1897b; <sup>3</sup>Bucholtz, 1897c; <sup>3</sup>Mosolov, 1906); **Moscow Oblast** (<sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1</sup>Levitskaya, 1995a; <sup>1</sup>Vishnevsky and Sidorova, 1997; <sup>1</sup>Levitskaya, 2013); **Orenburg Oblast** (<sup>1</sup>Vorontsovsky, 1921; <sup>1</sup>Psurtseva, Kiyashko, Gachkova, and Belova, 2007; <sup>1</sup>Desyatova, 2008); **Penza Oblast** (<sup>1</sup>Ivanov, 1981a; <sup>1</sup>Ivanov, 1999); **Perm Krai** (<sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1</sup>Perevedentseva, 2008); **Rostov Oblast** (<sup>1</sup>Morozova et al., 2008); **Ryazan Oblast** (<sup>1</sup>Volosnova, 2014); **Saint Petersburg** (<sup>2</sup>Weinmann, 1828); **Samara Oblast** (<sup>1</sup>Malysheva and Malysheva, 2005b; <sup>1</sup>Malysheva and Malysheva, 2008); **Saratov Oblast** (<sup>1</sup>Komirnyaya, 1970); **Sevastopol** (<sup>1</sup>Sarkina, 2020c); **Tatarstan** (<sup>1</sup>Vassiljeva, 1977; <sup>1</sup>Potapov, 2016a); **Tula Oblast** (<sup>1</sup>Svetasheva, 2004; <sup>1</sup>Svetasheva, 2013); **Tver Oblast** (<sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1</sup>Kurochkin, 1993); **Udmurt Republic** (<sup>1</sup>Tychinin and Kuzmina, 2003); **Ulyanovsk Oblast** (<sup>1</sup>Ilyukhin, 2010a); **Volgograd Oblast** (<sup>1</sup>Burova and Nezdojminogo, 1982; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1</sup>Dudka and Vedeneyev, 2014; <sup>1</sup>Dudka and Vedeneyev, 2015; <sup>1</sup>Goncharova and Vedeneyev,

2015); **Voronezh Oblast** (<sup>1</sup>Rtishcheva, 1999; <sup>1</sup>Afanasyev, Rtishcheva, and Starodubtseva, 2007; <sup>1</sup>Selochnik, 2015; <sup>1</sup>Sarycheva, Starodubtseva, and Sapelnikova, 2017); **Arid territories** (<sup>1</sup>Rebriev, Rusanov, et al., 2012).

SIBERIA: **Irkutsk Oblast** (<sup>1</sup>Kutafjeva, 1984; <sup>1</sup>Astapenko, 1990b; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdoininogo, 1990; <sup>1</sup>Petrov, 1991; <sup>1</sup>Heklau and Dörfelt, 2017); **Khakassia** (<sup>1</sup>Beglyanova, 1972a); **Krasnoyarsk Krai** (<sup>1</sup>Beglyanova, 1972a; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdoininogo, 1990; <sup>1</sup>Zauzolkova, 2012; <sup>1</sup>Zauzolkova, 2015); **Novosibirsk Oblast** (<sup>1</sup>Zaytseva, 1971; <sup>1</sup>Perova, 1977; <sup>1</sup>Perova and Gorbunova, 2001; <sup>1</sup>Koropachinskiy and Banaev, 2014); **Sakha Republic** (<sup>1</sup>Birkenhof, 1936); **Tomsk Oblast** (<sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdoininogo, 1990; <sup>1</sup>Agaphonova, Kutafjeva, and Gashkov, 2009a; <sup>1</sup>Kudashova, Gashkov, and Kutafjeva, 2013); **Tyumen Oblast** (<sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdoininogo, 1990).

FAR EAST: **Amur Oblast** (<sup>1</sup>Kochunova, 2019); **Khabarovsk Krai** (<sup>1</sup>Azbukina et al., 1989; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdoininogo, 1990; <sup>1</sup>Erofeeva and Bulakh, 2015a); **Magadan Oblast** (<sup>1</sup>Sazanova, 1996; <sup>1</sup>Sazanova, 2005; <sup>1</sup>Sazanova, 2009a; <sup>1</sup>Sazanova, 2011); **Primorsky Krai** (<sup>1</sup>Vassiljeva, 1973; <sup>1</sup>Bunkina and Nazarova, 1978; <sup>1</sup>Bulakh, 1986; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdoininogo, 1990; <sup>1</sup>Bardunov et al., 2002; <sup>1</sup>Azbukina et al., 2006; <sup>1</sup>Bau, Bulakh, and Govorova, 2011).

### *Lactarius cremor* Fr.

EASTERN EUROPE: **Adygea** (Vaasma, Kalamees, and Raitviir, 1986); **Krasnodar Krai** (Vaasma, Kalamees, and Raitviir, 1986).

### *Lactarius cyathula* (Fr.) Fr.

EASTERN EUROPE: **Kaliningrad Oblast** (Dedkov, Volodina, and Gubareva, 2007); **Krasnodar Krai** (Vassiljeva, 1939); **Tatarstan** (Vassiljeva, 1977).

SIBERIA: **Krasnoyarsk Krai** (Beglyanova, 1972a); **Sayans** (Saccardo, 1896).

### *Lactarius decipiens* Quél.

EASTERN EUROPE: **Kaliningrad Oblast** (Dedkov, Volodina, and Gubareva, 2007); **Murmansk Oblast** (Bulakh, Wasser, Nazarova, and Nezdoininogo, 1990).

FAR EAST: **Primorsky Krai** (Bulakh, 1986; Bulakh, Wasser, Nazarova, and Nezdoininogo, 1990; Azbukina et al., 2006); **Sakhalin Oblast** (Bulakh, 1986; Bulakh, Wasser, Nazarova, and Nezdoininogo, 1990).

### *Lactarius deliciosus* (L.) Gray<sup>1</sup>

≡ *Agaricus deliciosus* L.<sup>2</sup> = *Lactarius deliciosus* var. *piceae* Vassilkov<sup>3</sup> = *Lactarius deliciosus* var. *piceus* Smotl.<sup>4</sup> = *Lactarius deliciosus* var. *pini* Vassilkov<sup>5</sup> = *Lactarius japonicus* Kawam. ex Lj.N. Vassiljeva<sup>6</sup>

EASTERN EUROPE: **Adygea** (<sup>1</sup>Vassiljeva, 1939; <sup>1</sup>Kovalenko, 1980b; <sup>1</sup>Vaasma, Kalamees, and Raitviir, 1986); **Arkhangelsk Oblast** (<sup>1</sup>Lebedeva, 1933; <sup>1</sup>Ezhov, Ershov, Ruokolainen, and Zmitrovich, 2011; <sup>1</sup>Ezhov, 2014; <sup>1</sup>Ezhov, Zmitrovich, and Ruokolainen, 2019); **Bashkortostan** (<sup>1</sup>Stepanova and Sirko, 1977); **Belgorod Oblast** (<sup>5</sup>Bedenko, 1979a); **Bryansk Oblast** (<sup>1</sup>Kruglikov, 2007); **Chelyabinsk Oblast** (<sup>1</sup>Aleksandrovskaya and Lobanova, 1968; <sup>1</sup>Stepanova and Sirko, 1977); **Crimea** (<sup>1</sup>Zerova, 1962; <sup>1</sup>Sarkina, 2001; <sup>1</sup>Dudka et al., 2004; <sup>1</sup>Sarkina, 2010b; <sup>1</sup>Sarkina, 2011; <sup>1</sup>Sarkina and Prydiuk, 2012; <sup>1</sup>Sarkina, 2013; <sup>1</sup>Sarkina, 2014b; <sup>1</sup>Sarkina and Mironova, 2015; <sup>1</sup>Sarkina, 2016a); **Kabardino-Balkarian Republic** (<sup>1</sup>Shkhagapsoev and Krapivina, 2003; <sup>3,5</sup>Shkhagapsoev and Krapivina, 2004); **Kaliningrad Oblast** (<sup>1</sup>Dedkov, Volodina, and Gubareva, 2007; <sup>1</sup>Volodina, 2007); **Kaluga Oblast** (<sup>1</sup>Sionova, 2003); **Karachay-Cherkess Republic** (<sup>1</sup>Kalamees and Botashev, 2000); **Karelia** (<sup>1</sup>Karsten, 1866; <sup>1</sup>Karsten, 1876; <sup>1</sup>Karsten, 1889; <sup>1</sup>Freindling, 1949; <sup>1</sup>Czerepanova, Perfiljeva, and Tobias, 1982; <sup>1</sup>Bondartseva et al., 2001; <sup>1</sup>Predtechenskaya and Ruokolainen, 2013; <sup>1</sup>Krutov et al., 2014; <sup>1</sup>Predtechenskaya and Ruokolainen, 2014; <sup>3,5</sup>Krutov et al., 2014; <sup>1</sup>Savelev and Kikeeva, 2018); **Kirov Oblast** (<sup>1</sup>Kirillov and Luginina, 2011; <sup>1</sup>Kirillov, 2011; <sup>1</sup>Kirillov, Perevedentseva, and Egoshina, 2011; <sup>1</sup>Stavishenko, Luginina, Kirillov, and Egoshina, 2019); **Komi Republic** (<sup>1</sup>Palamarchuk and Kirillov, 2017); **Kostroma Oblast** (<sup>1</sup>Veremyeva, 1986); **Krasnodar Krai** (<sup>1</sup>Vassiljeva, 1939; <sup>1</sup>Kovalenko, 1980a; <sup>1</sup>Kovalenko, 1980b; <sup>1</sup>Vaasma, Kalamees, and Raitviir, 1986); **Kursk Oblast** (<sup>5</sup>Ryabova and Ignatenko, 1981; <sup>1</sup>Baranov, 2002); **Leningrad Oblast** (<sup>1</sup>Thesleff, 1920; <sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Morozova, 2007; <sup>1</sup>Popov et al., 2007; <sup>1</sup>Zmitrovich et al., 2015); **Lipetsk Oblast** (<sup>1</sup>Rtishcheva, 1999; <sup>1</sup>Sarycheva, 1999; <sup>1</sup>Afanasyev, Rtishcheva, and Starodubtseva, 2007; <sup>1</sup>Sarycheva et al., 2009; <sup>1</sup>Sarycheva, 2011; <sup>1</sup>Sarycheva, 2014a; <sup>1</sup>Sarycheva, Starodubtseva, and Sapelnikova, 2017); **Mordovia** (<sup>1</sup>Chastukhin, 1948a; <sup>1</sup>Kuznetsov, 1960; <sup>1</sup>Chastukhin, 2011; <sup>1</sup>Ivoilov and Bolshakov, 2011b); **Moscow** (<sup>2</sup>Weinmann, 1836; <sup>1</sup>Bucholtz, 1897a; <sup>1</sup>Bucholtz, 1897b; <sup>1</sup>Bucholtz, 1897c; <sup>1</sup>Mosolov, 1906); **Moscow Oblast** (<sup>1</sup>Gorlenko, Sidorova, and Sidorova, 1989; <sup>1</sup>Levitskaya, 1995a; <sup>1</sup>Vishnevsky and Sidorova, 1997; <sup>1</sup>Levitskaya, 2013; <sup>1</sup>Voronina et al., 2014); **Murmansk Oblast** (<sup>1</sup>Karsten, 1866; <sup>1</sup>Karsten, 1876; <sup>1</sup>Vanin, 1928; <sup>3</sup>Pystina, Pavlova, and

Shestakova, 1969; <sup>5</sup>Pystina, Pavlova, and Shestakova, 1969); **North Ossetia** (<sup>1</sup>Nikolayev, 2001); **Novgorod Oblast** (<sup>1</sup>Rusakov, 1968); **Orenburg Oblast** (<sup>1</sup>Desyatova, 2008); **Oryol Oblast** (<sup>1</sup>Radygina, Derzhavina, and Tsutsupa, 2014); **Penza Oblast** (<sup>2</sup>Vet, 1943; <sup>1</sup>Ivanov, 1981a); **Perm Krai** (<sup>1</sup>Perevedentseva, 2008); **Pskov Oblast** (<sup>1</sup>Popov, 2001a; <sup>1</sup>Popov et al., 2013); **Rostov Oblast** (<sup>1</sup>Rusanov et al., 2004; <sup>1</sup>Morozova et al., 2008; <sup>1</sup>Zmitrovich et al., 2008; <sup>1</sup>Rusanov, Rebriev, and Bulgakov, 2018); **Ryazan Oblast** (<sup>1</sup>Volosnova, 1997; <sup>1</sup>Volosnova, 2014); **Saint Petersburg** (<sup>2</sup>Weinmann, 1828; <sup>2</sup>Weinmann, 1837); **Samara Oblast** (<sup>1</sup>Malysheva and Malysheva, 2005b; <sup>1</sup>Malysheva and Malysheva, 2008); **Saratov Oblast** (<sup>5</sup>Nagumanov, 2015); **Sevastopol** (<sup>1</sup>Sarkina, 2016b; <sup>1</sup>Sarkina, 2020c); **Smolensk Oblast** (<sup>1</sup>Jaczewski, 1893; <sup>1</sup>Jaczewski, 1895); **Sverdlovsk Oblast** (<sup>1</sup>Tomilin, 1965; <sup>1</sup>Stepanova and Sirko, 1977; <sup>1</sup>Marina, 2006); **Tatarstan** (<sup>1</sup>Vassiljeva, 1977; <sup>1</sup>Potapov, 2015b); **Tula Oblast** (<sup>1</sup>Svetasheva, 2004; <sup>1</sup>Svetasheva, 2005b); **Tver Oblast** (<sup>1</sup>Kurochkin, 1993); **Udmurt Republic** (<sup>1</sup>Tychinin and Kuzmina, 2003); **Ulyanovsk Oblast** (<sup>1</sup>Ilyukhin, 2010a); **Vladimir Oblast** (<sup>2</sup>Weinmann, 1836); **Volgograd Oblast** (<sup>1</sup>Stauchan and Vedeneyev, 2015); **Vologda Oblast** (<sup>3,5</sup>Kutova, 1957; <sup>1</sup>Kirillova, 2007); **Voronezh Oblast** (<sup>1</sup>Afanasyev, Rtishcheva, and Starodubtseva, 2007; <sup>1</sup>Sarycheva, Starodubtseva, and Sapelnikova, 2017); **Yamalo-Nenets Autonomous Okrug** (<sup>1</sup>Kazantseva, 1972; <sup>1</sup>Stepanova and Sirko, 1977); **Yaroslavl Oblast** (<sup>1</sup>Lazareva, 1998a); **Arid territories** (<sup>1</sup>Rebriev, Rusanov, et al., 2012).

**SIBERIA:** **Altai Krai** (<sup>1</sup>Gorbunova and Perova, 2006); **Altai Republic** (<sup>1</sup>Kovalenko, 1992; <sup>1</sup>Gorbunova, 1996; <sup>1</sup>Gorbunova, 1997; <sup>1</sup>Gorbunova, 2001b; <sup>1</sup>Perova and Gorbunova, 2001; <sup>1</sup>Gorbunova, 2008; <sup>1</sup>Gorbunova, 2010); **Buryatia** (<sup>1</sup>Nezdojminogo, 1970a; <sup>1</sup>Penzina and Petrov, 1994); **Irkutsk Oblast** (<sup>1</sup>Kutafjeva, 1984; <sup>1</sup>Petrov, Nezdojminogo, and Bulakh, 1987; <sup>1</sup>Kutafjeva and Astapenko, 1989; <sup>1</sup>Petrov, 1989; <sup>1</sup>Astapenko, 1990b; <sup>1</sup>Muzyka, 2002; <sup>1</sup>Bardunov et al., 2005; <sup>1</sup>Petrov, 2008; <sup>1</sup>Muzyka, 2009; <sup>1,4</sup>Heklau and Dörfelt, 2017; <sup>1</sup>Muzyka and Penzina, 2017); **Khakassia** (<sup>1</sup>Beglyanova, 1972a; <sup>1</sup>Zauzolkova, 2015); **Khanty-Mansi Autonomous Okrug** (<sup>1</sup>Zvyagina and Baykalova, 2017); **Krasnoyarsk Krai** (<sup>1</sup>Perova, 1970; <sup>1</sup>Beglyanova, 1972a; <sup>1</sup>Nezdojminogo, 1976a; <sup>1</sup>Lapitskaya, 1993; <sup>1</sup>Kosheleva and Kutafjeva, 2008a; <sup>1</sup>Kosheleva and Kutafjeva, 2008b; <sup>1</sup>Kryuchkova, 2014a; <sup>1</sup>Zauzolkova, 2015; <sup>1</sup>Krom and Kapitonov, 2019); **Novosibirsk Oblast** (<sup>1</sup>Zaytseva, 1971; <sup>1</sup>Gorbunova, 2007; <sup>1</sup>Koropachinskiy and Banaev, 2014); **Sverdlovsk Oblast** (<sup>1</sup>Stepanova and Sirko, 1977); **Tomsk Oblast** (<sup>3,5</sup>Milovidova, 1980; <sup>1</sup>Perova and Gorbunova, 2001; <sup>1</sup>Kosheleva and Kutafjeva, 2004; <sup>1</sup>Agaphonova, Kutafjeva, and Gashkov, 2007; <sup>1</sup>Kudashova, Gashkov, and Kutafjeva, 2013; <sup>1</sup>Vaishlya et al., 2017).

**FAR EAST:** **Amur Oblast** (<sup>1</sup>Gordienko, Petrova, and Tarasov, 1981; <sup>1</sup>Bulakh, 1986; <sup>1</sup>Nazarova, 1986; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1</sup>Azbukina et al., 1998; <sup>1</sup>Taranina, 2005); **Chukotka Autonomous Okrug** (<sup>1</sup>Sazanova, 1993; <sup>1</sup>Chereshnev, 2008a); **Jewish Autonomous Oblast** (<sup>1</sup>Bulakh, Govorova, Nazarova, and Vassiljeva, 2007; <sup>1</sup>Bau, Bulakh, and Govorova, 2011); **Khabarovsk Krai** (<sup>1</sup>Azbukina et al., 1986; <sup>1</sup>Bulakh, 1986; <sup>1</sup>Azbukina et al., 1989; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1</sup>Bulakh, Vassiljeva, and Erofeeva, 2010; <sup>1</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Bulakh, 2013; <sup>1</sup>Bogacheva, Bulakh, Bukharova, and Egorova, 2015; <sup>1</sup>Erofeeva and Bulakh, 2015a); **Magadan Oblast** (<sup>1</sup>Chereshnev, 2008b; <sup>1</sup>Sazanova, 2009a; <sup>1</sup>Khoreva and Dokuchaev, 2019); **Primorsky Krai** (<sup>1,6</sup>Vassiljeva, 1972; <sup>1,6</sup>Vassiljeva, 1973; <sup>1</sup>Shalapugina, 1976; <sup>1</sup>Bulakh, 1977; <sup>1,6</sup>Bunkina and Nazarova, 1978; <sup>1</sup>Azbukina et al., 1984; <sup>1</sup>Bulakh, 1986; <sup>1</sup>Azbukina et al., 1990; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1</sup>Bardunov et al., 2002; <sup>1</sup>Azbukina et al., 2006; <sup>1</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Bulakh et al., 2016); **Sakhalin Oblast** (<sup>1</sup>Vassiljeva and Nazarova, 1972; <sup>1</sup>Bulakh, 1986; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990).

### *Lactarius deterrimus* Gröger

**EASTERN EUROPE:** **Arkhangelsk Oblast** (Ezhov, Ershov, Ruokolainen, and Zmitrovich, 2011; Ezhov, 2014; Ezhov, Zmitrovich, and Ruokolainen, 2019); **Kabardino-Balkarian Republic** (Shkhagapsoev and Krapivina, 2004); **Kaliningrad Oblast** (Dedkov, Volodina, and Gubareva, 2007); **Karachay-Cherkess Republic** (Kalamees and Botashev, 2000); **Karelia** (Kovalenko, Morozova, Fomina, and Särkisilta, 1998; Bondartseva et al., 2001; Predtechenskaya and Ruokolainen, 2013; Krutov et al., 2014; Predtechenskaya and Ruokolainen, 2014; Savelev and Kikeeva, 2020); **Kirov Oblast** (Kirillov and Luginina, 2011; Kirillov, 2011; Kirillov, Perevedentseva, and Egoshina, 2011; Stavishenko, Luginina, Kirillov, and Egoshina, 2019); **Komi Republic** (Palamarchuk, 2012; Palamarchuk, 2016a; Palamarchuk, 2016b; Palamarchuk and Kirillov, 2017); **Leningrad Oblast** (Kalamees and Kovalenko, 1984; Kovalenko and Morozova, 1999a; Fomina, 2000; Morozova and Kovalenko, 2000; Fomina, 2001; Popov et al., 2007; Bondartseva et al., 2015; Zmitrovich et al., 2015; Kalinina, 2018); **Mordovia** (Ivoilov and Bolshakov, 2011b); **Moscow Oblast** (Gorlenko, Sidorova, and Sidorova, 1989; Levitskaya, 1995a; Levitskaya, 2013); **Novgorod Oblast** (Kovalenko, Morozova, Nezdojminogo, and Popov, 2005; Popov et al., 2013); **Oryol Oblast** (Radygina, Derzhavina, and Tsutsupa, 2014); **Penza Oblast** (Ivanov, 1981a); **Perm Krai** (Perevedentseva, 2008; Belkovskaya et al., 2014; Perevedentseva and Shishigin, 2015); **Pskov Oblast** (Popov et al., 2013); **Saint Petersburg** (Morozova et al., 2020); **Sverdlovsk Oblast** (Marina, 2006); **Tula Oblast** (Svetasheva, 2004); **Tver Oblast** (Kurochkin, 1993; Kotkova, 2014);

**Udmurt Republic** (Tychinin and Kuzmina, 2003); **Vologda Oblast** (Kirillova, 2007); **Yaroslavl Oblast** (Lazareva, 1997; Lazareva, 1998a).

SIBERIA: **Altai Republic** (Kovalenko, 1992; Gorbunova, 1997; Gorbunova, 2001b; Perova and Gorbunova, 2001; Gorbunova, 2008; Gorbunova, 2017b); **Buryatia** (Petrov, 1991); **Irkutsk Oblast** (Astapenko, 1990b; Petrov, 1991; Muzyka, 2002; Bardunov et al., 2005; Petrov, 2008; Muzyka, 2009; Muzyka and Penzina, 2017); **Khanty-Mansi Autonomous Okrug** (Zvyagina, Baykalova, and Gorbunova, 2007; Filippova, Bulyonkova, and Lapshina, 2015; Zvyagina and Vasina, 2015; Filippova and Bulyonkova, 2017a; Filippova and Bulyonkova, 2017b); **Krasnoyarsk Krai** (Zauzolkova, 2015; Malysheva, Malysheva, Kiyashko, et al., 2017; Krom and Kapitonov, 2019); **Novosibirsk Oblast** (Perova and Gorbunova, 2001; Perova and Gorbunova, 2007); **Tomsk Oblast** (Kudashova, Gashkov, and Kutafjeva, 2013; Kudashova, Gashkov, and Vaishlya, 2016b).

FAR EAST: **Magadan Oblast** (Chereshnev, 2008b; Sazanova, 2009a; Sazanova, 2009b; Sazanova, 2011; Khoreva and Dokuchaev, 2019).

### *Lactarius dryadophilus* Kühner

EASTERN EUROPE: **Komi Republic** (Palamarchuk, 2016a; Palamarchuk, 2016b; Dyogteva, 2019; Palamarchuk et al., 2019); **Yamalo-Nenets Autonomous Okrug** (Karatygin, Nezdoininogo, Novozhilov, and Zhurbenko, 1999; Nezdoininogo, 2001).

SIBERIA: **Altai Krai** (Gorbunova, 2018a); **Altai Republic** (Kalamees, 2008; Gorbunova and Taylakov, 2011); **Krasnoyarsk Krai** (Nezdoininogo and Kuvaev, 1993; Nezdoininogo, 1997a; Karatygin, Nezdoininogo, Novozhilov, and Zhurbenko, 1999; Gorbunova and Taylakov, 2011; Gorbunova, 2016); **Sakha Republic** (Karatygin, Nezdoininogo, Novozhilov, and Zhurbenko, 1999); **Tyva Republic** (Gorbunova, 2015).

FAR EAST: **Chukotka Autonomous Okrug** (Karatygin, Nezdoininogo, Novozhilov, and Zhurbenko, 1999); **Magadan Oblast** (Sazanova, 2005; Sazanova, 2009a; Sazanova, 2012).

### *Lactarius duplicatus* A.H. Sm.

EASTERN EUROPE: **Komi Republic** (Palamarchuk, 2011a; Palamarchuk, 2012; Palamarchuk, 2016a; Palamarchuk, 2016b); **Sverdlovsk Oblast** (Marina, 2006); **Yamalo-Nenets Autonomous Okrug** (Karatygin, Nezdoininogo, Novozhilov, and Zhurbenko, 1999).

SIBERIA: **Altai Republic** (Gorbunova, 2019); **Irkutsk Oblast** (Gorbunova and Stepantsova, 2015); **Khanty-Mansi Autonomous Okrug** (Zvyagina and Baykalova, 2017).

### *Lactarius flavidulus* S. Imai

SIBERIA: **Novosibirsk Oblast** (Perova, 1982; Bulakh, Wasser, Nazarova, and Nezdoininogo, 1990; Perova and Gorbunova, 2001; Perova and Gorbunova, 2007).

FAR EAST: **Amur Oblast** (Vassiljeva, 1973; Bulakh, 1986; Bulakh, Wasser, Nazarova, and Nezdoininogo, 1990; Azbukina et al., 1998); **Jewish Autonomous Oblast** (Bulakh, Govorova, Nazarova, and Vassiljeva, 2007; Bau, Bulakh, and Govorova, 2011); **Khabarovsk Krai** (Azbukina et al., 1986; Bulakh, 1986; Bulakh, Wasser, Nazarova, and Nezdoininogo, 1990; Bau, Bulakh, and Govorova, 2011); **Primorsky Krai** (Vassiljeva, 1972; Vassiljeva, 1973; Bunkina and Nazarova, 1978; Bulakh, 1986; Azbukina et al., 1990; Bulakh, Wasser, Nazarova, and Nezdoininogo, 1990; Bardunov et al., 2002; Azbukina et al., 2006; Bau, Bulakh, and Govorova, 2011); **Sakhalin Oblast** (Vassiljeva and Nazarova, 1972; Vassiljeva, 1973; Bulakh, 1986; Bulakh, Wasser, Nazarova, and Nezdoininogo, 1990).

### *Lactarius flavidus* Boud.<sup>1</sup>

≡ *Lactarius aspideus* var. *flavidus* (Boud.) Neuhoff<sup>2</sup>

EASTERN EUROPE: **Adygea** (<sup>1</sup>Sopina, 2004a); **Leningrad Oblast** (<sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Popov et al., 2007).

FAR EAST: **Chukotka Autonomous Okrug** (<sup>2</sup>Sazanova, 1993); **Kamchatka Krai** (<sup>2</sup>Kalamees and Vaasma, 1981).

### *Lactarius flexuosus* Gray<sup>1</sup>

≡ *Agaricus flexuosus* Fr.<sup>2</sup> ≡ *Lactarius flexuosus* var. *flexuosus* Gray<sup>3</sup> = *Lactarius flexuosus* var. *roseozonatus* H. Post<sup>4</sup> = *Lactarius roseozonatus* (H. Post) H. Post<sup>5</sup> = *Lactarius umbrinus* (Paulet) Fr.<sup>6</sup>

EASTERN EUROPE: **Arkhangelsk Oblast** (<sup>1</sup>Ezhov, Ershov, Ruokolainen, and Zmitrovich, 2011; <sup>1</sup>Ezhov, 2014; <sup>1</sup>Ezhov, Zmitrovich, and Ruokolainen, 2019); **Bashkortostan** (<sup>1</sup>Stepanova and Sirko, 1977); **Bryansk Oblast** (<sup>1</sup>Kruglikov, 2007); **Chelyabinsk Oblast** (<sup>1</sup>Sirko and Stepanova, 1977; <sup>1</sup>Stepanova and Sirko, 1977); **Crimea** (<sup>1</sup>Sarkina, 2010a); **Kabardino-Balkarian Republic** (<sup>1</sup>Shkhagapsoev and Krapivina, 2004); **Kaliningrad Oblast** (<sup>1</sup>Dedkov, Volodina,

and Gubareva, 2007; <sup>1</sup>Volodina, 2007); **Kaluga Oblast** (<sup>1,6</sup>Sionova, 2003); **Karelia** (<sup>1,6</sup>Freindling, 1949; <sup>1</sup>Kovalenko, Morozova, Fomina, and Särkisilta, 1998; <sup>1,5,6</sup>Bondartseva et al., 2001; <sup>1,3</sup>Predtechenskaya and Ruokolainen, 2013; <sup>3,4,6</sup>Krutov et al., 2014; <sup>3</sup>Predtechenskaya and Ruokolainen, 2014; <sup>3</sup>Predtechenskaya, 2015; <sup>1</sup>Savelev and Kikeeva, 2020); **Kirov Oblast** (<sup>3</sup>Kirillov, 2011; <sup>3</sup>Kirillov, Perevedentseva, and Egoshina, 2011; <sup>1</sup>Stavishenko, Luginina, Kirillov, and Egoshina, 2019); **Kostroma Oblast** (<sup>1</sup>Burova, 1982; <sup>1</sup>Veremyeva, 1986); **Leningrad Oblast** (<sup>1</sup>Thesleff, 1920; <sup>5</sup>Kalamees and Kovalenko, 1984; <sup>1,5</sup>Kovalenko and Morozova, 1999a; <sup>1,5</sup>Popov et al., 2007; <sup>1</sup>Zmitrovich et al., 2015); **Lipetsk Oblast** (<sup>1</sup>Alferova, 1977; <sup>1</sup>Rtishcheva, 1999; <sup>1</sup>Sarycheva, 1999; <sup>1</sup>Afanasyev, Rtishcheva, and Starodubtseva, 2007; <sup>1</sup>Sarycheva et al., 2009; <sup>1</sup>Sarycheva, 2011; <sup>1</sup>Sarycheva, 2014a; <sup>1</sup>Sarycheva, Starodubtseva, and Sapelnikova, 2017); **Mordovia** (<sup>1</sup>Chastukhin, 1948a; <sup>1</sup>Chastukhin and Nikolaevskaya, 1969; <sup>1</sup>Chastukhin, 2011; <sup>1</sup>Ivoilov and Bolshakov, 2011b); **Moscow** (<sup>1</sup>Bucholtz, 1897b; <sup>1</sup>Bucholtz, 1897c; <sup>1</sup>Mosolov, 1906; <sup>6</sup>Burova, 1968); **Moscow Oblast** (<sup>1</sup>Gorlenko, Sidorova, and Sidorova, 1989; <sup>1</sup>Levitskaya, 1995a; <sup>1</sup>Vishnevsky and Sidorova, 1997; <sup>1</sup>Levitskaya, 2013; <sup>1</sup>Voronina et al., 2014; <sup>1</sup>Sidorova, Alexandrova, and Voronina, 2017); **Murmansk Oblast** (<sup>1</sup>Pystina, Pavlova, and Shestakova, 1969); **North Ossetia** (<sup>1</sup>Nikolayev, 2001); **Orenburg Oblast** (<sup>1</sup>Desyatova, 2008); **Penza Oblast** (<sup>1</sup>Ivanov, 1981a; <sup>1</sup>Ivanov, 2019); **Perm Krai** (<sup>3</sup>Perevedentseva, 2008; <sup>1</sup>Belkovskaya et al., 2014; <sup>1</sup>Perevedentseva and Shishigin, 2015; <sup>1</sup>Botalov, 2017; <sup>1</sup>Botalov and Perevedentseva, 2018); **Ryazan Oblast** (<sup>1</sup>Volosnova, 1997; <sup>1</sup>Volosnova, 2014); **Saint Petersburg** (<sup>2</sup>Weinmann, 1836; <sup>2</sup>Weinmann, 1837; <sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Morozova and Smirnov, 2011; <sup>1</sup>Morozova et al., 2020); **Saratov Oblast** (<sup>1</sup>Nagumanov, 2015); **Sevastopol** (<sup>1</sup>Sarkina, 2016b; <sup>1</sup>Sarkina, 2020c); **Smolensk Oblast** (<sup>6</sup>Jaczewski, 1898); **Sverdlovsk Oblast** (<sup>1</sup>Tomilin, 1965; <sup>1</sup>Stepanova and Sirko, 1977; <sup>1</sup>Marina, 2006); **Tula Oblast** (<sup>1</sup>Svetasheva, 2001; <sup>1</sup>Svetasheva, 2004); **Tver Oblast** (<sup>1</sup>Chastukhin, 1948b; <sup>1</sup>Chastukhin and Nikolaevskaya, 1969; <sup>1</sup>Kurochkin, 1993; <sup>1</sup>Mukhina, 2011a; <sup>1</sup>Kotkova, 2014); **Udmurt Republic** (<sup>1,6</sup>Tychinin and Kuzmina, 2003); **Vologda Oblast** (<sup>1</sup>Kutova, 1957); **Voronezh Oblast** (<sup>1</sup>Rtishcheva, 1999; <sup>1</sup>Afanasyev, Rtishcheva, and Starodubtseva, 2007; <sup>1</sup>Sarycheva, Starodubtseva, and Sapelnikova, 2017); **Yaroslavl Oblast** (<sup>1</sup>Lazareva, 1998a); **Arid territories** (<sup>1</sup>Rebriev, Rusanov, et al., 2012).

SIBERIA: **Altai Krai** (<sup>1</sup>Gorbunova and Perova, 2006; <sup>1</sup>Gorbunova, 2018a); **Altai Republic** (<sup>1</sup>Gorbunova, 1997; <sup>3</sup>Gorbunova, 2010); **Buryatia** (<sup>1</sup>Nezdojminogo, 1973); **Irkutsk Oblast** (<sup>1</sup>Kutafjeva, 1984; <sup>1</sup>Petrov, Nezdojminogo, and Bulakh, 1987; <sup>1</sup>Astapenko, 1990b; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1</sup>Muzyka, 2002; <sup>1</sup>Petrov, 2008; <sup>1</sup>Muzyka, 2009; <sup>1</sup>Gorbunova and Stepanova, 2015); **Khakassia** (<sup>1</sup>Zauzolkova, 2015); **Khanty-Mansi Autonomous Okrug** (<sup>1</sup>Filippova and Bulyonkova, 2017a; <sup>1</sup>Filippova and Bulyonkova, 2017b; <sup>1</sup>Zvyagina and Baykalova, 2017); **Krasnoyarsk Krai** (<sup>1</sup>Perova, 1970; <sup>1</sup>Beglyanova, 1972a; <sup>1</sup>Nezdojminogo, 1976a; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1</sup>Lapitskaya, 1993; <sup>1</sup>Pavlov et al., 2007; <sup>1</sup>Kosheleva and Kutafjeva, 2008b; <sup>1</sup>Kosheleva, 2010; <sup>1</sup>Malysheva, Malysheva, Kiyashko, et al., 2017; <sup>1</sup>Krom and Kapitonov, 2019; <sup>4</sup>Krom and Kapitonov, 2019); **Kurgan Oblast** (<sup>1</sup>Stepanova and Sirko, 1977); **Novosibirsk Oblast** (<sup>1</sup>Zaytseva, 1971; <sup>1</sup>Perova, 1977; <sup>3</sup>Perova and Gorbunova, 2007; <sup>3</sup>Koropachinskiy and Banaev, 2014); **Sakha Republic** (<sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990); **Sverdlovsk Oblast** (<sup>1</sup>Stepanova and Sirko, 1977); **Tomsk Oblast** (<sup>1</sup>Perova, 1972; <sup>4</sup>Milovidova, 1980; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1</sup>Kosheleva and Kutafjeva, 2004; <sup>1</sup>Agaphonova, Kutafjeva, and Gashkov, 2007; <sup>3</sup>Kudashova, Gashkov, and Kutafjeva, 2013; <sup>4</sup>Kudashova, Gashkov, and Kutafjeva, 2013; <sup>1</sup>Vaishlya et al., 2017); **Tyva Republic** (<sup>1</sup>Gorbunova, 2015).

FAR EAST: **Amur Oblast** (<sup>1</sup>Bulakh, 1986; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1</sup>Taranina, 2005); **Chukotka Autonomous Okrug** (<sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990); **Jewish Autonomous Oblast** (<sup>1</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Erofeeva, Bukharova, and Bulakh, 2019); **Khabarovsk Krai** (<sup>1</sup>Azbukina et al., 1986; <sup>1</sup>Bulakh, 1986; <sup>1</sup>Azbukina et al., 1989; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1</sup>Bulakh, Vassiljeva, and Erofeeva, 2010; <sup>1</sup>Bau, Bulakh, and Govorova, 2011); **Magadan Oblast** (<sup>1</sup>Nazarova, 1976; <sup>1</sup>Bulakh, 1986; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1</sup>Sazanova, 2005; <sup>1</sup>Sazanova, 2009a); **Primorsky Krai** (<sup>1</sup>Bulakh, 1986; <sup>1</sup>Azbukina et al., 1990; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1</sup>Bardunov et al., 2002); **Sakhalin Oblast** (<sup>1</sup>Bulakh, 1986; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990).

### ***Lactarius fluens* Boud.**

EASTERN EUROPE: **Adygea** (Sopina, 2004a); **Krasnodar Krai** (Kovalenko, 1980a; Kovalenko, 1980b).

### ***Lactarius fuliginosus* (Fr.) Fr.<sup>1</sup>**

≡ *Agaricus fuliginosus* Fr.<sup>2</sup>

EASTERN EUROPE: **Adygea** (<sup>1</sup>Vaasma, Kalamees, and Raitviir, 1986; <sup>1</sup>Sopina, 2004a); **Chelyabinsk Oblast** (<sup>1</sup>Stepanova and Sirko, 1977); **Crimea** (<sup>1</sup>Sarkina, 2001; <sup>1</sup>Dudka et al., 2004; <sup>1</sup>Sarkina, 2010a; <sup>1</sup>Sarkina, 2010b; <sup>1</sup>Sarkina, 2011; <sup>1</sup>Sarkina, 2013; <sup>1</sup>Sarkina and Stavishenko, 2019); **Kaliningrad Oblast** (<sup>1</sup>Dedkov, Volodina, and Gubareva, 2007); **Karachay-Cherkess Republic** (<sup>1</sup>Vassiljeva, 1939); **Karelia** (<sup>1</sup>Freindling, 1949; <sup>1</sup>Bulakh, Wasser, Nazarova, and

Nezdojminogo, 1990; <sup>1</sup>Kovalenko, Morozova, Fomina, and Särkisilta, 1998; <sup>1</sup>Bondartseva et al., 2001; <sup>1</sup>Krutov et al., 2014); **Kirov Oblast** (<sup>1</sup>Kirillov, 2011; <sup>1</sup>Kirillov, Perevedentseva, and Egoshina, 2011); **Komi Republic** (<sup>1</sup>Palamarchuk (Bobretsova), 2009; <sup>1</sup>Palamarchuk, 2012; <sup>1</sup>Palamarchuk, 2016a; <sup>1</sup>Palamarchuk, 2016b); **Krasnodar Krai** (<sup>1</sup>Vassiljeva, 1939; <sup>1</sup>Vaasma, Kalamees, and Raitviir, 1986); **Leningrad Oblast** (<sup>2</sup>Weinmann, 1836; <sup>2</sup>Weinmann, 1837; <sup>1</sup>Thesleff, 1920; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Fomina, 2000; <sup>1</sup>Fomina, 2001; <sup>1</sup>Popov et al., 2007); **Moscow Oblast** (<sup>1</sup>Levitskaya, 1995a; <sup>1</sup>Vishnevsky and Sidorova, 1997; <sup>1</sup>Levitskaya, 2013; <sup>1</sup>Voronina et al., 2014); **Murmansk Oblast** (<sup>1</sup>Karatygin, Nezdojminogo, Novozhilov, and Zhurbenko, 1999); **Novgorod Oblast** (<sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1</sup>Morozova, 2012; <sup>1</sup>Popov et al., 2013); **Penza Oblast** (<sup>1</sup>Ivanov, 1981a; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990); **Perm Krai** (<sup>1</sup>Perevedentseva, 2008; <sup>1</sup>Belkovskaya et al., 2014); **Pskov Oblast** (<sup>1</sup>Popov et al., 2013); **Saint Petersburg** (<sup>2</sup>Weinmann, 1828; <sup>1</sup>Morozova et al., 2020); **Sevastopol** (<sup>1</sup>Sarkina, 2016b; <sup>1</sup>Sarkina, 2020c); **Smolensk Oblast** (<sup>1</sup>Jaczewski, 1896; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990); **Sverdlovsk Oblast** (<sup>1</sup>Marina, 2006); **Tatarstan** (<sup>1</sup>Vassiljeva, 1977; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990); **Tula Oblast** (<sup>1</sup>Svetasheva, 2004); **Vologda Oblast** (<sup>1</sup>Kirillova, 2007); **Yamalo-Nenets Autonomous Okrug** (<sup>1</sup>Karatygin, Nezdojminogo, Novozhilov, and Zhurbenko, 1999); **Arid territories** (<sup>1</sup>Rebriev, Rusanov, et al., 2012); **Northern Caucasus** (<sup>1</sup>Vassiljeva, 1939).

SIBERIA: **Altai Krai** (<sup>1</sup>Gorbunova, 2018a); **Altai Republic** (<sup>1</sup>Kovalenko, 1992; <sup>1</sup>Gorbunova, 1996; <sup>1</sup>Gorbunova, 2001b; <sup>1</sup>Perova and Gorbunova, 2001; <sup>1</sup>Gorbunova, 2017b); **Irkutsk Oblast** (<sup>1</sup>Petrov, Nezdojminogo, and Bulakh, 1987; <sup>1</sup>Astapenko and Kutafjeva, 1990; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1</sup>Petrov, 1991; <sup>1</sup>Petrov, 2008); **Khanty-Mansi Autonomous Okrug** (<sup>1</sup>Filippova, Bulyonkova, and Lapshina, 2015; <sup>1</sup>Zvyagina and Baykalova, 2017); **Krasnoyarsk Krai** (<sup>1</sup>Nezdojminogo, 1976a; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1</sup>Gorbunova, 2016); **Kurgan Oblast** (<sup>1</sup>Stepanova and Sirko, 1977); **Tomsk Oblast** (<sup>1</sup>Kudashova, Gashkov, and Kutafjeva, 2013; <sup>1</sup>Vaishlya et al., 2017).

FAR EAST: **Amur Oblast** (<sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1</sup>Azbukina et al., 1998); **Jewish Autonomous Oblast** (<sup>1</sup>Bulakh, Govorova, Nazarova, and Vassiljeva, 2007); **Khabarovsk Krai** (<sup>1</sup>Azbukina et al., 1989; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1</sup>Bulakh, 2013; <sup>1</sup>Bogacheva, Bulakh, Bukharova, and Egorova, 2015); **Primorsky Krai** (<sup>1</sup>Vassiljeva, 1973; <sup>1</sup>Bunkina and Nazarova, 1978; <sup>1</sup>Azbukina et al., 1984; <sup>1</sup>Azbukina et al., 1990; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1</sup>Bardunov et al., 2002; <sup>1</sup>Azbukina et al., 2006; <sup>1</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Bulakh et al., 2016).

### *Lactarius fulvissimus* Romagn.

EASTERN EUROPE: **Kaliningrad Oblast** (Volodina, 2007; Atayev and Volodina, 2020); **Krasnodar Krai** (Sopina, 2004a); **Tula Oblast** (Svetasheva, 2004); **Voronezh Oblast** (Chastukhin and Nikolaevskaya, 1969); **Arid territories** (Rebriev, Rusanov, et al., 2012).

SIBERIA: **Khanty-Mansi Autonomous Okrug** (Filippova, Bulyonkova, and Lapshina, 2015).

FAR EAST: **Jewish Autonomous Oblast** (Bau, Bulakh, and Govorova, 2011); **Khabarovsk Krai** (Bulakh, 2013; Bogacheva, Bulakh, Bukharova, and Egorova, 2015; Erofeeva and Bulakh, 2015a); **Primorsky Krai** (Bau, Bulakh, and Govorova, 2011).

### *Lactarius glyciosmus* (Fr.) Fr.<sup>1</sup>

≡ *Agaricus glyciosmus* Fr.<sup>2</sup>

EASTERN EUROPE: **Kabardino-Balkarian Republic** (<sup>1</sup>Singer, 1931); **Kaliningrad Oblast** (<sup>1</sup>Dedkov, Volodina, and Gubareva, 2007; <sup>1</sup>Volodina, 2007); **Karachay-Cherkess Republic** (<sup>1</sup>Kalamees and Botashev, 2000); **Karelia** (<sup>1</sup>Freindling, 1949; <sup>1</sup>Kovalenko, Morozova, Fomina, and Särkisilta, 1998; <sup>1</sup>Bondartseva et al., 2001; <sup>1</sup>Predtechenskaya, 2013; <sup>1</sup>Krutov et al., 2014; <sup>1</sup>Predtechenskaya and Ruokolainen, 2014; <sup>1</sup>Predtechenskaya, 2015; <sup>1</sup>Savelev and Kikeeva, 2020); **Kirov Oblast** (<sup>1</sup>Kirillov, 2011; <sup>1</sup>Kirillov, Perevedentseva, and Egoshina, 2011); **Komi Republic** (<sup>1</sup>Karatygin, Nezdojminogo, Novozhilov, and Zhurbenko, 1999; <sup>1</sup>Palamarchuk (Bobretsova), 2009; <sup>1</sup>Palamarchuk, 2011b; <sup>1</sup>Palamarchuk, 2012; <sup>1</sup>Palamarchuk, 2016a; <sup>1</sup>Palamarchuk, 2016b); **Kostroma Oblast** (<sup>1</sup>Burova, 1982); **Krasnodar Krai** (<sup>1</sup>Vassiljeva, 1939; <sup>1</sup>Kovalenko, 1980a; <sup>1</sup>Kovalenko, 1980b); **Leningrad Oblast** (<sup>1</sup>Thesleff, 1920; <sup>1</sup>Chastukhin and Nikolaevskaya, 1969; <sup>1</sup>Kalamees and Kovalenko, 1984; <sup>1</sup>Stolyarskaya, 1993; <sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Fomina, 2000; <sup>1</sup>Morozova and Kovalenko, 2000; <sup>1</sup>Fomina, 2001; <sup>1</sup>Morozova, 2007; <sup>1</sup>Popov et al., 2007; <sup>1</sup>Zmitrovich et al., 2015); **Lipetsk Oblast** (<sup>1</sup>Sarycheva et al., 2009; <sup>1</sup>Sarycheva, 2014a); **Moscow** (<sup>1</sup>Bucholtz, 1897b; <sup>1</sup>Bucholtz, 1897c; <sup>1</sup>Mosolov, 1906); **Moscow Oblast** (<sup>1</sup>Levitskaya, 1995a; <sup>1</sup>Vishnevsky and Sidorova, 1997; <sup>1</sup>Levitskaya, 2013); **Nizhny Novgorod Oblast** (<sup>1</sup>Murashkinsky, 1911); **Novgorod Oblast** (<sup>1</sup>Morozova, 2012; <sup>1</sup>Popov et al., 2013); **Oryol Oblast** (<sup>1</sup>Radygina, Derzhavina, and Tsutsupa, 2014); **Penza Oblast** (<sup>1</sup>Ivanov, 1981a; <sup>1</sup>Ivanov, 2019); **Perm Krai** (<sup>1</sup>Perevedentseva, 2008; <sup>1</sup>Belkovskaya et al., 2014; <sup>1</sup>Perevedentseva and Shishigin, 2014; <sup>1</sup>Perevedentseva and

Shishigin, 2015); **Pskov Oblast** (<sup>1</sup>Kalinina, Bolshakov, and Bulyonkova, 2020); **Ryazan Oblast** (<sup>1</sup>Volosnova, 2014); **Saint Petersburg** (<sup>2</sup>Weinmann, 1828; <sup>2</sup>Weinmann, 1836; <sup>2</sup>Weinmann, 1837; <sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Kotkova, Morozova, and Popov, 2005; <sup>1</sup>Morozova and Smirnov, 2011; <sup>1</sup>Morozova et al., 2020); **Sverdlovsk Oblast** (<sup>1</sup>Marina, 2006); **Tatarstan** (<sup>1</sup>Vassiljeva, 1977); **Tula Oblast** (<sup>1</sup>Svetasheva, 2004); **Udmurt Republic** (<sup>1</sup>Tychinin and Kuzmina, 2003); **Vologda Oblast** (<sup>1</sup>Kutova, 1957); **Yaroslavl Oblast** (<sup>1</sup>Lazareva, 1998a).

SIBERIA: **Altai Krai** (<sup>1</sup>Gorbunova, 2018a); **Altai Republic** (<sup>1</sup>Gorbunova, 2001a; <sup>1</sup>Perova and Gorbunova, 2001); **Buryatia** (<sup>1</sup>Nezdojminogo, 1970a); **Irkutsk Oblast** (<sup>1</sup>Petrov, Nezdojminogo, and Bulakh, 1987; <sup>1</sup>Kutafjeva and Astapenko, 1988; <sup>1</sup>Astapenko, 1990b; <sup>1</sup>Petrov, 2008; <sup>1</sup>Gorbunova and Stepantsova, 2015); **Khanty-Mansi Autonomous Okrug** (<sup>1</sup>Filippova, Bulyonkova, and Lapshina, 2015; <sup>1</sup>Filippova and Bulyonkova, 2017a; <sup>1</sup>Filippova and Bulyonkova, 2017b); **Krasnoyarsk Krai** (<sup>1</sup>Vassilkov, 1971b; <sup>1</sup>Beglyanova, 1972a; <sup>1</sup>Nezdojminogo, 1976a; <sup>1</sup>Karatygin, Nezdojminogo, Novozhilov, and Zhurbenko, 1999); **Novosibirsk Oblast** (<sup>1</sup>Koropachinskiy and Banaev, 2014); **Sverdlovsk Oblast** (<sup>1</sup>Stepanova and Sirko, 1977); **Tomsk Oblast** (<sup>1</sup>Perova and Gorbunova, 2001; <sup>1</sup>Agaphonova, Kutafjeva, and Gashkov, 2007; <sup>1</sup>Kudashova, Gashkov, and Kutafjeva, 2013); **Yamalo-Nenets Autonomous Okrug** (<sup>1</sup>Karatygin, Nezdojminogo, Novozhilov, and Zhurbenko, 1999).

FAR EAST: **Chukotka Autonomous Okrug** (<sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1</sup>Karatygin, Nezdojminogo, Novozhilov, and Zhurbenko, 1999); **Jewish Autonomous Oblast** (<sup>1</sup>Bulakh, Govorova, Nazarova, and Vassiljeva, 2007; <sup>1</sup>Bau, Bulakh, and Govorova, 2011); **Kamchatka Krai** (<sup>1</sup>Kalamees and Vaasma, 1981); **Khabarovsk Krai** (<sup>1</sup>Azbukina et al., 1986; <sup>1</sup>Bulakh, 1986; <sup>1</sup>Azbukina et al., 1989; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Bulakh, 2013; <sup>1</sup>Bogacheva, Bulakh, Bukharova, and Egorova, 2015; <sup>1</sup>Erofeeva and Bulakh, 2015a); **Magadan Oblast** (<sup>1</sup>Sazanova, 1996; <sup>1</sup>Sazanova, 2005; <sup>1</sup>Sazanova, 2009a; <sup>1</sup>Sazanova, 2011; <sup>1</sup>Sazanova, 2012; <sup>1</sup>Sazanova and Golodnova, 2015); **Primorsky Krai** (<sup>1</sup>Vassiljeva, 1972; <sup>1</sup>Vassiljeva, 1973; <sup>1</sup>Shalapugina, 1976; <sup>1</sup>Bunkina and Nazarova, 1978; <sup>1</sup>Azbukina et al., 1984; <sup>1</sup>Bulakh, 1986; <sup>1</sup>Azbukina et al., 1990; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1</sup>Bardunov et al., 2002; <sup>1</sup>Azbukina et al., 2006; <sup>1</sup>Bau, Bulakh, Zhuang, and Li, 2007; <sup>1</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Bulakh et al., 2016; <sup>1</sup>Bogacheva, Bulakh, Bukharova, and Egorova, 2020); **Sakhalin Oblast** (<sup>1</sup>Vassiljeva and Nazarova, 1972; <sup>1</sup>Bulakh, 1986; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1</sup>Bulakh, Govorova, and Bogatov, 1999).

### ***Lactarius grandisporus* Lj.N. Vassiljeva**

FAR EAST: **Primorsky Krai** (Vassiljeva, 1950; Vassiljeva, 1972; Vassiljeva, 1973; Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; Azbukina et al., 2006; Kozhevnikov, 2008; Bau, Bulakh, and Govorova, 2011; Bogacheva et al., 2018; Bogacheva, Bulakh, Bukharova, and Egorova, 2020).

### ***Lactarius helvus* (Fr.) Fr.<sup>1</sup>**

≡ *Agaricus helvus* Fr.<sup>2</sup>

EASTERN EUROPE: **Adygea** (<sup>1</sup>Sopina, 2004a); **Arkhangelsk Oblast** (<sup>1</sup>Karatygin, Nezdojminogo, Novozhilov, and Zhurbenko, 1999; <sup>1</sup>Ezhov, Zmitrovich, and Ruokolainen, 2019); **Bryansk Oblast** (<sup>1</sup>Kruglikov, 2007); **Chelyabinsk Oblast** (<sup>1</sup>Stepanova and Sirko, 1977); **Kaliningrad Oblast** (<sup>1</sup>Neuhoff, 1922; <sup>1</sup>Dedkov, Volodina, and Gubareva, 2007; <sup>1</sup>Volodina, 2007); **Kaluga Oblast** (<sup>1</sup>Sionova, 2003; <sup>1</sup>Sionova, 2006); **Karelia** (<sup>1</sup>Freindling, 1949; <sup>1</sup>Kovalenko, Morozova, Fomina, and Särkisilta, 1998; <sup>1</sup>Bondartseva et al., 2001; <sup>1</sup>Predtechenskaya and Ruokolainen, 2008; <sup>1</sup>Predtechenskaya and Ruokolainen, 2013; <sup>1</sup>Predtechenskaya, 2013; <sup>1</sup>Krutov et al., 2014; <sup>1</sup>Predtechenskaya and Ruokolainen, 2014; <sup>1</sup>Predtechenskaya, 2015); **Kirov Oblast** (<sup>1</sup>Kirillov, 2011; <sup>1</sup>Kirillov, Perevedentseva, and Egoshina, 2011; <sup>1</sup>Stavishenko, Luginina, Kirillov, and Egoshina, 2019); **Komi Republic** (<sup>1</sup>Bobretsova, 2004; <sup>1</sup>Palamarchuk, 2011b; <sup>1</sup>Palamarchuk, 2012; <sup>1</sup>Palamarchuk, 2016a; <sup>1</sup>Palamarchuk, 2016b; <sup>1</sup>Palamarchuk, 2017); **Kostroma Oblast** (<sup>1</sup>Burova, 1982); **Krasnodar Krai** (<sup>1</sup>Kovalenko, 1980a; <sup>1</sup>Kovalenko, 1980b); **Leningrad Oblast** (<sup>1</sup>Thesleff, 1920; <sup>1</sup>Nezdojminogo, 1967; <sup>1</sup>Chastukhin and Nikolaevskaya, 1969; <sup>1</sup>Stolyarskaya, 1993; <sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Fomina, 2000; <sup>1</sup>Morozova and Kovalenko, 2000; <sup>1</sup>Fomina, 2001; <sup>1</sup>Popov et al., 2007; <sup>1</sup>Zmitrovich et al., 2015); **Lipetsk Oblast** (<sup>1</sup>Alferova, 1977; <sup>1</sup>Rtishcheva, 1999; <sup>1</sup>Sarycheva, 1999; <sup>1</sup>Afanasyev, Rtishcheva, and Starodubtseva, 2007; <sup>1</sup>Sarycheva et al., 2009); **Moscow Oblast** (<sup>1</sup>Gorlenko, Sidorova, and Sidorova, 1989; <sup>1</sup>Levitskaya, 1995a; <sup>1</sup>Levitskaya, 2013; <sup>1</sup>Voronina et al., 2014); **Murmansk Oblast** (<sup>1</sup>Mikhailovskii, 1975b; <sup>1</sup>Karatygin, Nezdojminogo, Novozhilov, and Zhurbenko, 1999); **Oryol Oblast** (<sup>1</sup>Radygina, Derzhavina, and Tsutsupa, 2014); **Penza Oblast** (<sup>1</sup>Ivanov, 1981a; <sup>1</sup>Ivanov, 1983; <sup>1</sup>Ivanov, 2019); **Perm Krai** (<sup>1</sup>Perevedentseva, 2008; <sup>1</sup>Botalov, 2015; <sup>1</sup>Botalov, 2017; <sup>1</sup>Botalov and Perevedentseva, 2018); **Pskov Oblast** (<sup>1</sup>Kovalenko and Morozova, 1999b; <sup>1</sup>Popov et al., 2013); **Ryazan Oblast** (<sup>1</sup>Volosnova, 2005; <sup>1</sup>Volosnova, 2014); **Saint Petersburg** (<sup>2</sup>Weinmann, 1828; <sup>2</sup>Weinmann, 1836; <sup>2</sup>Weinmann, 1837; <sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Morozova and Smirnov, 2011; <sup>1</sup>Morozova et al., 2020); **Smolensk Oblast** (<sup>1</sup>Jaczewski, 1896; <sup>1</sup>Burova, 1969); **Sverdlovsk Oblast** (<sup>1</sup>Stepanova and Sirko, 1977; <sup>1</sup>Marina, 2006); **Tatarstan** (<sup>1</sup>Vassiljeva, 1977); **Tula**

**Oblast** (<sup>1</sup>Svetasheva, 2004); **Tver Oblast** (<sup>1</sup>Chastukhin, 1948b; <sup>1</sup>Chastukhin and Nikolaevskaya, 1969; <sup>1</sup>Kurochkin, 1993; <sup>1</sup>Mukhina, 2011a; <sup>1</sup>Mukhina, 2011b; <sup>1</sup>Kotkova, 2014); **Udmurt Republic** (<sup>1</sup>Tychinin and Kuzmina, 2003); **Vologda Oblast** (<sup>1</sup>Kutova, 1957; <sup>1</sup>Kirillova, 2007); **Voronezh Oblast** (<sup>1</sup>Rtishcheva, 1999; <sup>1</sup>Afanasyev, Rtishcheva, and Starodubtseva, 2007; <sup>1</sup>Sarycheva, Starodubtseva, and Sapelnikova, 2017); **Yaroslavl Oblast** (<sup>1</sup>Lazareva, 1997; <sup>1</sup>Lazareva, 1998a); **Arid territories** (<sup>1</sup>Rebriev, Rusanov, et al., 2012); **Lapland** (<sup>1</sup>Karsten, 1866).

SIBERIA: **Altai Republic** (<sup>1</sup>Gorbunova, 2001b; <sup>1</sup>Perova and Gorbunova, 2001); **Irkutsk Oblast** (<sup>1</sup>Kutafjeva, 1984); **Khanty-Mansi Autonomous Okrug** (<sup>1</sup>Filippova and Thormann, 2014; <sup>1</sup>Filippova, 2014; <sup>1</sup>Filippova, Mourgues, and Philippe, 2014; <sup>1</sup>Filippova, Bulyonkova, and Lapshina, 2015; <sup>1</sup>Zvyagina and Vasina, 2015; <sup>1</sup>Filippova and Bulyonkova, 2017a; <sup>1</sup>Filippova and Bulyonkova, 2017b; <sup>1</sup>Zvyagina and Baykalova, 2017); **Krasnoyarsk Krai** (<sup>1</sup>Beglyanova, 1972a; <sup>1</sup>Kosheleva and Kutafjeva, 2008a; <sup>1</sup>Krom and Kapitonov, 2019); **Novosibirsk Oblast** (<sup>1</sup>Zaytseva, 1971); **Omsk Oblast** (<sup>1</sup>Pilát, 1935); **Sverdlovsk Oblast** (<sup>1</sup>Stepanova and Sirko, 1977); **Tomsk Oblast** (<sup>1</sup>Agaphonova, Kutafjeva, and Gashkov, 2007; <sup>1</sup>Kudashova, Gashkov, and Kutafjeva, 2013; <sup>1</sup>Vaishlya et al., 2017).

FAR EAST: **Magadan Oblast** (<sup>1</sup>Sazanova and Golodnova, 2015; <sup>1</sup>Sazanova, 2015).

### *Lactarius hepaticus* Plowr.

EASTERN EUROPE: **Belgorod Oblast** (Bedenko, 1980); **Vologda Oblast** (Kirillova, 2007).

SIBERIA: **Altai Republic** (Gorbunova, 2001b; Perova and Gorbunova, 2001); **Tomsk Oblast** (Agaphonova, Kutafjeva, and Gashkov, 2007; Agaphonova, Kutafjeva, and Gashkov, 2009a; Kudashova, Gashkov, and Kutafjeva, 2013; Kudashova, Gashkov, and Vaishlya, 2016b; Vaishlya et al., 2017).

FAR EAST: **Primorsky Krai** (Vassiljeva, 1973; Shalapugina, 1976; Bunkina and Nazarova, 1978).

### *Lactarius hortensis* Velen.

EASTERN EUROPE: **Kaliningrad Oblast** (Atayev and Volodina, 2020).

### *Lactarius hygrophoroides* Berk. & M.A. Curtis

FAR EAST: **Primorsky Krai** (Vassiljeva, 1972; Vassiljeva, 1973; Bulakh, 1986; Bulakh, Wasser, Nazarova, and Nezdjominogo, 1990; Kozhevnikov, 2008; Bogacheva et al., 2018).

### *Lactarius hysginoides* M. Korhonen & T. Ulvinen

EASTERN EUROPE: **Moscow Oblast** (Vishnevsky and Sidorova, 1997).

SIBERIA: **Khanty-Mansi Autonomous Okrug** (Filippova and Bulyonkova, 2017a; Filippova and Bulyonkova, 2017b).

### *Lactarius hysginus* (Fr.) Fr.<sup>1</sup>

≡ *Agaricus hysginus* Fr.<sup>2</sup>

EASTERN EUROPE: **Adygea** (<sup>1</sup>Sopina, 2004a); **Kaliningrad Oblast** (<sup>1</sup>Dedkov, Volodina, and Gubareva, 2007); **Kaluga Oblast** (<sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdjominogo, 1990); **Karelia** (<sup>1</sup>Freindling, 1949; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdjominogo, 1990; <sup>1</sup>Bondartseva et al., 2001; <sup>1</sup>Krutov et al., 2014); **Leningrad Oblast** (<sup>2</sup>Weinmann, 1836; <sup>2</sup>Weinmann, 1837; <sup>1</sup>Thesleff, 1920; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdjominogo, 1990; <sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Popov et al., 2007); **Mordovia** (<sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdjominogo, 1990; <sup>1</sup>Ivoilov and Bolshakov, 2011b); **Moscow Oblast** (<sup>1</sup>Vishnevsky and Sidorova, 1997); **Novgorod Oblast** (<sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdjominogo, 1990); **Pskov Oblast** (<sup>1</sup>Kalinina, Bolshakov, and Bulyonkova, 2020); **Saint Petersburg** (<sup>1</sup>Morozova and Smirnov, 2011); **Sverdlovsk Oblast** (<sup>1</sup>Stepanova and Sirko, 1977; <sup>1</sup>Marina, 2006); **Tatarstan** (<sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdjominogo, 1990).

SIBERIA: **Irkutsk Oblast** (<sup>1</sup>Petrov, Nezdjominogo, and Bulakh, 1987; <sup>1</sup>Petrov, 1991; <sup>1</sup>Petrov, 2008); **Tomsk Oblast** (<sup>1</sup>Kudashova, Gashkov, and Kutafjeva, 2013; <sup>1</sup>Vaishlya et al., 2017).

FAR EAST: **Amur Oblast** (<sup>1</sup>Bulakh, 1986; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdjominogo, 1990; <sup>1</sup>Bulakh, Govorova, and Taranina, 2003); **Jewish Autonomous Oblast** (<sup>1</sup>Bulakh, Govorova, Nazarova, and Vassiljeva, 2007; <sup>1</sup>Bau, Bulakh, and Govorova, 2011); **Khabarovsk Krai** (<sup>1</sup>Azbukina et al., 1986; <sup>1</sup>Bulakh, 1986; <sup>1</sup>Azbukina et al., 1989; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdjominogo, 1990; <sup>1</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Bulakh, 2013; <sup>1</sup>Bogacheva, Bulakh, Bukharova, and Egorova, 2015); **Primorsky Krai** (<sup>1</sup>Vassiljeva, 1972; <sup>1</sup>Vassiljeva, 1973; <sup>1</sup>Bulakh, 1986; <sup>1</sup>Azbukina et al., 1990; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdjominogo, 1990; <sup>1</sup>Bardunov et al., 2002; <sup>1</sup>Bau, Bulakh, and Govorova, 2011); **Sakhalin Oblast** (<sup>1</sup>Vassiljeva and Nazarova, 1972; <sup>1</sup>Bulakh, 1986; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdjominogo, 1990).



***Lactarius jecorinus* (Fr.) Fr.**

≡ *Agaricus jecorinus* Fr.<sup>1</sup>

EASTERN EUROPE: **Saint Petersburg** (<sup>1</sup>Weinmann, 1836; <sup>1</sup>Weinmann, 1837).

***Lactarius kauffmanii* Hesler & A.H. Sm.**

SIBERIA: **Krasnoyarsk Krai** (Krom and Kapitonov, 2019; Krom, Ageev, Bulyonkova, and Morozova, 2019).

***Lactarius lacunarum* Romagn. ex Hora**

EASTERN EUROPE: **Arkhangelsk Oblast** (Karatygin, Nezdoininogo, Novozhilov, and Zhurbenko, 1999); **Kaliningrad Oblast** (Dedkov, Volodina, and Gubareva, 2007; Volodina, 2007); **Karelia** (Kovalenko, Morozova, Fomina, and Särkisilta, 1998; Krutov et al., 2014); **Komi Republic** (Karatygin, Nezdoininogo, Novozhilov, and Zhurbenko, 1999; Palamarchuk (Bobretsova), 2009; Palamarchuk, 2012); **Leningrad Oblast** (Kalamees and Kovalenko, 1984; Kovalenko and Morozova, 1999a; Fomina, 2000; Fomina, 2001; Popov et al., 2007); **Perm Krai** (Perevedentseva, 2008; Belkovskaya et al., 2014); **Udmurt Republic** (Kapitonov, 2013); **Yaroslavl Oblast** (Lazareva, 1998a).

SIBERIA: **Khanty-Mansi Autonomous Okrug** (Filippova, Bulyonkova, and Lapshina, 2015); **Krasnoyarsk Krai** (Vassilkov, 1971b; Beglyanova, 1972a; Beglyanova, 1972b; Beglyanova, 1972c; Karatygin, Nezdoininogo, Novozhilov, and Zhurbenko, 1999); **Sakha Republic** (Karatygin, Nezdoininogo, Novozhilov, and Zhurbenko, 1999); **Yamalo-Nenets Autonomous Okrug** (Karatygin, Nezdoininogo, Novozhilov, and Zhurbenko, 1999).

FAR EAST: **Primorsky Krai** (Bau, Bulakh, and Govorova, 2011).

***Lactarius lanceolatus* O.K. Mill. & Laursen**

EASTERN EUROPE: **Yamalo-Nenets Autonomous Okrug** (Knudsen and Mukhin, 1998; Karatygin, Nezdoininogo, Novozhilov, and Zhurbenko, 1999; Nezdoininogo, 2001).

SIBERIA: **Krasnoyarsk Krai** (Nezdoininogo and Zhurbenko, 1996; Nezdoininogo, 1997a; Karatygin, Nezdoininogo, Novozhilov, and Zhurbenko, 1999; Gorbunova, 2016); **Sakha Republic** (Karatygin, Nezdoininogo, Novozhilov, and Zhurbenko, 1999; Nezdoininogo, 2003).

***Lactarius lapponicus* Harmaja**

EASTERN EUROPE: **Yamalo-Nenets Autonomous Okrug** (Knudsen and Mukhin, 1998).

***Lactarius leonis* Kytöv.**

SIBERIA: **Khanty-Mansi Autonomous Okrug** (Filippova and Bulyonkova, 2017a; Filippova and Bulyonkova, 2017b).

***Lactarius lepidotus* Hesler & A.H. Sm.**

EASTERN EUROPE: **Komi Republic** (Palamarchuk and Kirillov, 2018b).

SIBERIA: **Yamalo-Nenets Autonomous Okrug** (Tarchevskaya, 1990).

FAR EAST: **Kamchatka Krai** (Kalamees and Vaasma, 1981).

***Lactarius lignyotus* Fr.**

EASTERN EUROPE: **Adygea** (Zamotajlov, Sirotyuk (Kuvaeva), Akatova, and Lipka, 2012); **Bryansk Oblast** (Kruglikov, 2007); **Kaliningrad Oblast** (Dedkov, Volodina, and Gubareva, 2007); **Karelia** (Bulakh, Wasser, Nazarova, and Nezdoininogo, 1990; Predtechenskaya and Ruokolainen, 2013; Krutov et al., 2014; Predtechenskaya and Ruokolainen, 2014); **Komi Republic** (Bobretsova, 2004; Palamarchuk, 2012; Palamarchuk, 2016a; Palamarchuk, 2016b); **Leningrad Oblast** (Thesleff, 1920; Bulakh, Wasser, Nazarova, and Nezdoininogo, 1990; Kovalenko and Morozova, 1999a; Fomina, 2000; Fomina, 2001; Popov et al., 2007; Zmitrovich et al., 2015; Geltman et al., 2018; Geltman, 2018b; Kalinina, 2018); **Lipetsk Oblast** (Afanasyev, Rtishcheva, and Starodubtseva, 2007; Sarycheva et al., 2009; Sarycheva, Starodubtseva, and Sapelnikova, 2017); **Mari El Republic** (Bulakh, Wasser, Nazarova, and Nezdoininogo, 1990; Prokhorov, 2007); **Moscow Oblast** (Gorlenko, Sidorova, and Sidorova, 1989; Vishnevsky and Sidorova, 1997; Voronina et al., 2014; Varlygina, Zubakin, Nikitsky, and Sviridov, 2018); **Novgorod Oblast** (Kovalenko, Morozova, Nezdoininogo, and Popov, 2005; Arslanov, 2012; Popov et al., 2013; Arslanov, 2014; Vetkin et al., 2015); **Perm Krai** (Perevedentseva, 2008; Belkovskaya et al., 2014; Perevedentseva and Shishigin, 2014; Perevedentseva and Shishigin, 2015); **Pskov Oblast** (Popov et al., 2013); **Saint Petersburg** (Kovalenko and Morozova, 1999a; Morozova and Smirnov, 2011; Geltman, 2018a; Morozova et al., 2020); **Sverdlovsk Oblast** (Marina, 2006; Korytin, 2018); **Tatarstan** (Nazirov, Gorshkov, Ivanov, and Rogova, 2016; Potapov, 2016b); **Tver Oblast** (Kurochkin, 1993; Sorokin,

2002; Mukhina and Garibova, 2010; Mukhina, 2011a; Mukhina, 2011b; Kotkova, 2014; Orlov et al., 2016); **Udmurt Republic** (Tychinin and Kuzmina, 2003); **Vologda Oblast** (Kirillova, 2007; Suslova et al., 2013); **Voronezh Oblast** (Afanasyev, Rtishcheva, and Starodubtseva, 2007; Agafonov, 2011; Sarycheva, Starodubtseva, and Sapelnikova, 2017; Agafonov, 2018); **Northern Caucasus** (Vassiljeva, 1939).

SIBERIA: **Altai Republic** (Kovalenko, 1992; Gorbunova, 2001b; Perova and Gorbunova, 2001; Gorbunova, 2008; Gorbunova, 2010; Gorbunova, 2017b; Maneev, Achimova, Sedelnikova, and Gorbunova, 2017; Svetasheva et al., 2019); **Irkutsk Oblast** (Petrov, Nezdojminogo, and Bulakh, 1987; Petrov, 1989; Petrov, 1991; Muzyka, 2002; Trofimova, Popov, and Merkacheva, 2020); **Kemerovo Oblast** (Perova and Gorbunova, 2001); **Khakassia** (Ankipovich, 2012); **Krasnoyarsk Krai** (Beglyanova, 1972a; Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; Lapitskaya, 1993; Stepanov, 2012; Malysheva, Malysheva, Kiyashko, et al., 2017); **Novosibirsk Oblast** (Perova and Gorbunova, 2001; Perova and Gorbunova, 2007); **Tomsk Oblast** (Perova and Gorbunova, 2001; Kudashova, Gashkov, and Kutafjeva, 2013; Kudashova, Gashkov, and Vaishlya, 2016b).

FAR EAST: **Jewish Autonomous Oblast** (Bulakh, Govorova, Nazarova, and Vassiljeva, 2007; Bau, Bulakh, and Govorova, 2011; Erofeeva, Bukharova, and Bulakh, 2019); **Kamchatka Krai** (Bulakh, 1986; Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990); **Khabarovsk Krai** (Azbukina et al., 1986; Bulakh, 1986; Azbukina et al., 1989; Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; Bau, Bulakh, Zhuang, and Li, 2007; Bau, Bulakh, and Govorova, 2011; Bulakh, 2013; Bogacheva, Bulakh, Bukharova, and Egorova, 2015; Erofeeva and Bulakh, 2015a); **Magadan Oblast** (Sazanova, 2005; Sazanova, 2009a; Khoreva and Dokuchaev, 2019); **Primorsky Krai** (Vassiljeva, 1972; Vassiljeva, 1973; Shalapugina, 1976; Bunkina and Nazarova, 1978; Azbukina et al., 1984; Bulakh, 1986; Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; Azbukina et al., 2006; Bau, Bulakh, and Govorova, 2011; Bulakh et al., 2016); **Sakhalin Oblast** (Vassiljeva and Nazarova, 1972; Bulakh, 1986; Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990).

#### ***Lactarius lilacinus* Fr.**

EASTERN EUROPE: **Bryansk Oblast** (Kruglikov, 2007); **Kaliningrad Oblast** (Dedkov, Volodina, and Gubareva, 2007); **Kaluga Oblast** (Sionova, 2003); **Karelia** (Bondartseva et al., 2001; Krutov et al., 2014); **Kirov Oblast** (Kirillov, 2011; Kirillov, Perevedentseva, and Egoshina, 2011); **Krasnodar Krai** (Vassiljeva, 1939; Vaasma, Kalamees, and Raitviir, 1986); **Leningrad Oblast** (Thesleff, 1920; Kovalenko and Morozova, 1999a; Fomina, 2000; Morozova and Kovalenko, 2000; Popov et al., 2007; Bondartseva et al., 2015; Zmitrovich et al., 2015); **Lipetsk Oblast** (Alferova, 1977; Sarycheva, 1999; Sarycheva et al., 2009; Shcherbakov, 2014); **Mordovia** (Kuznetsov, 1960; Ivoilov and Bolshakov, 2011b); **Perm Krai** (Perevedentseva, 2008); **Saint Petersburg** (Kovalenko and Morozova, 1999a; Morozova and Smirnov, 2011); **Sverdlovsk Oblast** (Stepanova and Sirko, 1977); **Tver Oblast** (Kurochkin, 1993); **Udmurt Republic** (Tychinin and Kuzmina, 2003).

SIBERIA: **Irkutsk Oblast** (Petrov, Nezdojminogo, and Bulakh, 1987; Petrov, 1991; Petrov, 2008); **Novosibirsk Oblast** (Perova and Gorbunova, 2001); **Tomsk Oblast** (Agaphonova, Kutafjeva, and Gashkov, 2009a; Kudashova, Gashkov, and Kutafjeva, 2013); **Yamalo-Nenets Autonomous Okrug** (Tarchevskaya, 1990).

FAR EAST: **Primorsky Krai** (Vassiljeva, 1972; Vassiljeva, 1973).

#### ***Lactarius luculentus* Burl.**

= *Lactarius luculentus* var. *laetus* Hesler & A.H. Sm.<sup>1</sup>

FAR EAST: **Primorsky Krai** (<sup>1</sup>Malysheva et al., 2016).

#### ***Lactarius luridus* (Pers.) Gray<sup>1</sup>**

≡ *Agaricus luridus* Pers.<sup>2</sup>

EASTERN EUROPE: **Krasnodar Krai** (<sup>1</sup>Vassiljeva, 1939); **Leningrad Oblast** (<sup>1</sup>Singer, 1942; <sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Popov et al., 2007); **Saint Petersburg** (<sup>2</sup>Weinmann, 1836; <sup>2</sup>Weinmann, 1837); **Northern Caucasus** (<sup>1</sup>Vassiljeva, 1939).

#### ***Lactarius luteus* A. Blytt**

EASTERN EUROPE: **Murmansk Oblast** (Mikhailovskii, 1975a).

FAR EAST: **Magadan Oblast** (Nazarova, 1976).

#### ***Lactarius mairei* Malençon**

EASTERN EUROPE: **Crimea** (Sarkina and Stavishenko, 2019; Sarkina, 2020a); **Kabardino-Balkarian Republic** (Krapivina et al., 2020); **Rostov Oblast** (Morozova et al., 2008); **Samara Oblast** (Malysheva and Malysheva, 2008); **Sevastopol** (Sarkina, 2016b; Sarkina, 2020c); **Tula Oblast** (Shcherbakov, 2010; Svetasheva, Aleksandrova, Zaytseva, and Solovjova, 2017); **Arid territories** (Rebriev, Rusanov, et al., 2012).

***Lactarius mammosus* Fr.<sup>1</sup>**= *Lactarius fuscus* Rolland<sup>2</sup>

EASTERN EUROPE: **Kaliningrad Oblast** (<sup>1</sup>Dedkov and Grishanov, 2010); **Karelia** (<sup>1</sup>Bondartseva et al., 2001; <sup>1</sup>Predtechenskaya and Ruokolainen, 2008; <sup>1</sup>Krutov et al., 2014); **Komi Republic** (<sup>1</sup>Karatygin, Nezdoininogo, Novozhilov, and Zhurbenko, 1999; <sup>1</sup>Bobretsova, 2004; <sup>1</sup>Palamarchuk, 2011b; <sup>1</sup>Palamarchuk, 2012; <sup>1</sup>Palamarchuk, 2016a; <sup>1</sup>Palamarchuk, 2016b; <sup>1</sup>Palamarchuk and Kirillov, 2017; <sup>1</sup>Palamarchuk, 2017); **Leningrad Oblast** (<sup>1</sup>Thesleff, 1920; <sup>2</sup>Kalamees and Kovalenko, 1984; <sup>1,2</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Morozova and Kovalenko, 2000; <sup>1,2</sup>Popov et al., 2007; <sup>1</sup>Zmitrovich et al., 2015); **Moscow Oblast** (<sup>1</sup>Levitskaya, 1995a; <sup>1</sup>Levitskaya, 2013); **Perm Krai** (<sup>1</sup>Perevedentseva, 2008); **Ryazan Oblast** (<sup>1</sup>Volosnova, 2014); **Saint Petersburg** (<sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Morozova and Smirnov, 2011); **Yamalo-Nenets Autonomous Okrug** (<sup>1</sup>Karatygin, Nezdoininogo, Novozhilov, and Zhurbenko, 1999); **Yaroslavl Oblast** (<sup>1</sup>Lazareva, 1997; <sup>1</sup>Lazareva, 1998a).

SIBERIA: **Irkutsk Oblast** (<sup>1</sup>Petrov, Nezdoininogo, and Bulakh, 1987; <sup>1</sup>Petrov, 1991; <sup>1</sup>Petrov, 2008); **Khanty-Mansi Autonomous Okrug** (<sup>1</sup>Makarova, Makarov, Zvyagina, and Bobrikov, 2015; <sup>1</sup>Zvyagina and Vasina, 2015; <sup>1</sup>Filippova and Bulyonkova, 2017a; <sup>1</sup>Filippova and Bulyonkova, 2017b); **Tomsk Oblast** (<sup>1</sup>Kosheleva and Kutafjeva, 2004; <sup>2</sup>Agaphonova, Kutafjeva, and Gashkov, 2007; <sup>1</sup>Kudashova, Gashkov, and Kutafjeva, 2013; <sup>1</sup>Vaishlya et al., 2017).

FAR EAST: **Magadan Oblast** (<sup>1</sup>Sazanova and Golodnova, 2015; <sup>1</sup>Sazanova, 2015).

***Lactarius musteus* Fr.**

EASTERN EUROPE: **Kaliningrad Oblast** (Dedkov, Volodina, and Gubareva, 2007; Volodina, 2007; Dedkov and Grishanov, 2010); **Karelia** (Freindling, 1949; Bondartseva et al., 2001; Krutov et al., 2014); **Kirov Oblast** (Kirillov, 2011; Kirillov, Perevedentseva, and Egoshina, 2011); **Komi Republic** (Palamarchuk and Kirillov, 2017; Palamarchuk, 2020a); **Leningrad Oblast** (Stolyarskaya, 1993; Kovalenko and Morozova, 1999a; Popov et al., 2007; Zmitrovich et al., 2015; Malysheva, Malysheva, Shchepin, and Novozhilov, 2018); **Perm Krai** (Perevedentseva, 2008; Botalov, 2017); **Saint Petersburg** (Morozova and Smirnov, 2011); **Vologda Oblast** (Kirillova, 2007); **Arid territories** (Rebriev, Rusanov, et al., 2012).

SIBERIA: **Khanty-Mansi Autonomous Okrug** (Zvyagina and Vasina, 2015; Filippova and Bulyonkova, 2017a; Filippova and Bulyonkova, 2017b; Zvyagina and Baykalova, 2017); **Krasnoyarsk Krai** (Lapitskaya, 1993); **Tomsk Oblast** (Agaphonova, Kutafjeva, and Gashkov, 2009a; Kudashova, Gashkov, and Kutafjeva, 2013; Vaishlya et al., 2017).

FAR EAST: **Magadan Oblast** (Sazanova and Golodnova, 2015; Sazanova, 2015).

***Lactarius nanus* J. Favre**

EASTERN EUROPE: **Arkhangelsk Oblast** (Karatygin, Nezdoininogo, Novozhilov, and Zhurbenko, 1999); **Karelia** (Savelev and Kikeeva, 2018); **Yamalo-Nenets Autonomous Okrug** (Nezdoininogo, 2001).

SIBERIA: **Altai Republic** (Gorbunova, 2019); **Krasnoyarsk Krai** (Karatygin, Nezdoininogo, Novozhilov, and Zhurbenko, 1999); **Sakha Republic** (Karatygin, Nezdoininogo, Novozhilov, and Zhurbenko, 1999); **Tyva Republic** (Gorbunova, 2015).

FAR EAST: **Chukotka Autonomous Okrug** (Nezdoininogo, 1997a; Karatygin, Nezdoininogo, Novozhilov, and Zhurbenko, 1999).

***Lactarius necator* (Bull.) Pers.<sup>1</sup>**≡ *Agaricus necator* Bull.<sup>2</sup>

EASTERN EUROPE: **Arkhangelsk Oblast** (<sup>1</sup>Ezhov, Ershov, Ruokolainen, and Zmitrovich, 2011; <sup>1</sup>Ezhov, 2014); **Bashkortostan** (<sup>1</sup>Stepanova and Sirko, 1977); **Belgorod Oblast** (<sup>1</sup>Bedenko, 1980); **Bryansk Oblast** (<sup>1</sup>Kruglikov, 2007); **Chelyabinsk Oblast** (<sup>1</sup>Stepanova and Sirko, 1977); **Crimea** (<sup>1</sup>Sarkina, 2020a); **Kabardino-Balkarian Republic** (<sup>1</sup>Shkhagapsoev and Krapivina, 2003; <sup>1</sup>Shkhagapsoev and Krapivina, 2004); **Kaliningrad Oblast** (<sup>1</sup>Hennings, 1895); **Kaluga Oblast** (<sup>1</sup>Sionova, 2003; <sup>1</sup>Sionova, 2006); **Karelia** (<sup>1</sup>Karsten, 1866; <sup>1</sup>Karsten, 1889; <sup>1</sup>Kovalenko, Morozova, Fomina, and Särkisilta, 1998; <sup>1</sup>Bondartseva et al., 2001; <sup>1</sup>Predtechenskaya and Ruokolainen, 2013; <sup>1</sup>Predtechenskaya, 2013; <sup>1</sup>Krutov et al., 2014; <sup>1</sup>Predtechenskaya and Ruokolainen, 2014; <sup>1</sup>Predtechenskaya, 2015; <sup>1</sup>Savelev and Kikeeva, 2018); **Kirov Oblast** (<sup>1</sup>Kirillov and Luginina, 2011; <sup>1</sup>Kirillov, 2011; <sup>1</sup>Kirillov, Perevedentseva, and Egoshina, 2011; <sup>1</sup>Stavishenko, Luginina, Kirillov, and Egoshina, 2019); **Komi Republic** (<sup>1</sup>Palamarchuk, 2012; <sup>1</sup>Palamarchuk and Kirillov, 2017); **Kostroma Oblast** (<sup>1</sup>Veremyeva, 1986); **Krasnodar Krai** (<sup>1</sup>Vaasma, Kalamees, and Raitviir, 1986; <sup>1</sup>Shumkova, Krivorotov, and Gayday, 2018); **Kursk Oblast** (<sup>1</sup>Soshnina, 2001); **Leningrad Oblast** (<sup>1</sup>Thesleff, 1920; <sup>1</sup>Kalamees and Kovalenko, 1984; <sup>1</sup>Stolyarskaya, 1989; <sup>1</sup>Zmitrovich et al., 2015; <sup>1</sup>Kalinina, 2018); **Lipetsk Oblast** (<sup>1</sup>Alferova, 1977; <sup>1</sup>Rtishcheva, 1999; <sup>1</sup>Sarycheva, 1999; <sup>1</sup>Afanasyev, Rtishcheva, and Starodubtseva, 2007); **Mari El Republic** (<sup>1</sup>Prokhorov,

2007); **Moscow** (<sup>1</sup>Bucholtz, 1897b; <sup>1</sup>Bucholtz, 1897c; <sup>1</sup>Mosolov, 1906); **Moscow Oblast** (<sup>1</sup>Gorlenko, Sidorova, and Sidorova, 1989; <sup>1</sup>Levitskaya, 1995a; <sup>1</sup>Vishnevsky and Sidorova, 1997; <sup>1</sup>Levitskaya, 2013); **Murmansk Oblast** (<sup>1</sup>Karsten, 1866); **Penza Oblast** (<sup>1</sup>Ivanov, 1981a; <sup>1</sup>Ivanov, 1999; <sup>1</sup>Ivanov, 2019); **Perm Krai** (<sup>1</sup>Shkaraba, Perevedentseva, and Moshkina, 1990; <sup>1</sup>Perevedentseva, 2008; <sup>1</sup>Perevedentseva and Shishigin, 2015; <sup>1</sup>Botalov, 2017); **Ryazan Oblast** (<sup>1</sup>Volosnova, 1997); **Saint Petersburg** (<sup>2</sup>Weinmann, 1828; <sup>2</sup>Weinmann, 1836; <sup>2</sup>Weinmann, 1837); **Saratov Oblast** (<sup>1</sup>Nagumanov, 2015); **Sverdlovsk Oblast** (<sup>1</sup>Stepanova and Sirko, 1977); **Tatarstan** (<sup>1</sup>Vassiljeva, 1977; <sup>1</sup>Potapov, 2015b); **Tula Oblast** (<sup>1</sup>Svetasheva, 2001); **Tver Oblast** (<sup>1</sup>Kurochkin, 1993; <sup>1</sup>Mukhina, 2011a; <sup>1</sup>Mukhina, 2011b; <sup>1</sup>Kotkova, 2014); **Udmurt Republic** (<sup>1</sup>Tychinin and Kuzmina, 2003); **Voronezh Oblast** (<sup>1</sup>Rtishcheva, 1999; <sup>1</sup>Afanasyev, Rtishcheva, and Starodubtseva, 2007); **Yaroslavl Oblast** (<sup>1</sup>Lazareva, 1997; <sup>1</sup>Lazareva, 1998a).

SIBERIA: **Altai Krai** (<sup>1</sup>Gorbunova and Perova, 2006; <sup>1</sup>Gorbunova, 2018a); **Altai Republic** (<sup>1</sup>Gorbunova, 1996; <sup>1</sup>Gorbunova, 1997; <sup>1</sup>Perova and Gorbunova, 2001); **Irkutsk Oblast** (<sup>1</sup>Petrov, Nezdojminogo, and Bulakh, 1987; <sup>1</sup>Muzyka, 2002; <sup>1</sup>Bardunov et al., 2005; <sup>1</sup>Petrov, 2008); **Khakassia** (<sup>1</sup>Beglyanova, 1972a); **Khanty-Mansi Autonomous Okrug** (<sup>1</sup>Zvyagina, Baykalova, and Gorbunova, 2007); **Krasnoyarsk Krai** (<sup>1</sup>Beglyanova, 1972a; <sup>1</sup>Lapitskaya, 1993; <sup>1</sup>Malysheva, Malysheva, Kiyashko, et al., 2017); **Kurgan Oblast** (<sup>1</sup>Bystrushkin, 2016); **Novosibirsk Oblast** (<sup>1</sup>Nozdrenko, 1970; <sup>1</sup>Perova and Gorbunova, 2001; <sup>1</sup>Gorbunova, 2007; <sup>1</sup>Perova and Gorbunova, 2007); **Sverdlovsk Oblast** (<sup>1</sup>Stepanova and Sirko, 1977); **Tomsk Oblast** (<sup>1</sup>Milovidova, 1980; <sup>1</sup>Perova and Gorbunova, 2001; <sup>1</sup>Kudashova, Gashkov, and Kutafjeva, 2013; <sup>1</sup>Vaishlya et al., 2017).

FAR EAST: **Amur Oblast** (<sup>1</sup>Bulakh, 1986; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1</sup>Taranina, 2005); **Jewish Autonomous Oblast** (<sup>1</sup>Bulakh, Govorova, Nazarova, and Vassiljeva, 2007); **Kamchatka Krai** (<sup>1</sup>Kalamees and Vaasma, 1981; <sup>1</sup>Bulakh, 1986; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990); **Khabarovsk Krai** (<sup>1</sup>Azbukina et al., 1986; <sup>1</sup>Bulakh, 1986; <sup>1</sup>Azbukina et al., 1989; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990); **Magadan Oblast** (<sup>1</sup>Nazarova, 1976; <sup>1</sup>Bulakh, 1986; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1</sup>Sazanova, 1996; <sup>1</sup>Sazanova, 2005; <sup>1</sup>Sazanova, 2009b; <sup>1</sup>Sazanova and Golodnova, 2015; <sup>1</sup>Sazanova, 2016); **Primorsky Krai** (<sup>1</sup>Vassiljeva, 1972; <sup>1</sup>Vassiljeva, 1973; <sup>1</sup>Shalapugina, 1976; <sup>1</sup>Bulakh, 1977; <sup>1</sup>Bunkina and Nazarova, 1978; <sup>1</sup>Azbukina et al., 1984; <sup>1</sup>Bulakh, 1986; <sup>1</sup>Azbukina et al., 1990; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1</sup>Bardunov et al., 2002; <sup>1</sup>Azbukina et al., 2006).

***Lactarius obscuratus* (Lasch) Fr.<sup>1</sup>**

= *Lactarius obnubilus* (Lasch) Fr.<sup>2</sup>

EASTERN EUROPE: **Adygea** (<sup>2</sup>Vassiljeva, 1939; <sup>1</sup>Vaasma, Kalamees, and Raitviir, 1986); **Crimea** (<sup>1</sup>Dudka et al., 2004); **Karachay-Cherkess Republic** (<sup>1</sup>Kalamees and Botashev, 2000); **Karelia** (<sup>1</sup>Kovalenko, Morozova, Fomina, and Särkisilta, 1998; <sup>1</sup>Bondartseva et al., 2001; <sup>1</sup>Krutov et al., 2014); **Krasnodar Krai** (<sup>1</sup>Vaasma, Kalamees, and Raitviir, 1986); **Leningrad Oblast** (<sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Morozova, 2007; <sup>1</sup>Popov et al., 2007); **Novgorod Oblast** (<sup>1</sup>Kovalenko, Morozova, Nezdojminogo, and Popov, 2005; <sup>1</sup>Popov et al., 2013); **Penza Oblast** (<sup>1</sup>Ivanov, 1985; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990); **Perm Krai** (<sup>1</sup>Perevedentseva, 2008); **Pskov Oblast** (<sup>1</sup>Kovalenko and Morozova, 1999b; <sup>1</sup>Kovalenko, Kolmakov, Morozova, and Popov, 2003; <sup>1</sup>Popov et al., 2013); **Rostov Oblast** (<sup>1</sup>Morozova et al., 2008); **Ryazan Oblast** (<sup>1</sup>Volosnova, 2014); **Saint Petersburg** (<sup>1</sup>Morozova et al., 2020); **Sverdlovsk Oblast** (<sup>1</sup>Marina, 2006); **Arid territories** (<sup>1</sup>Rebriev, Rusanov, et al., 2012).

SIBERIA: **Irkutsk Oblast** (<sup>1</sup>Gorbunova and Stepantsova, 2015); **Khanty-Mansi Autonomous Okrug** (<sup>1</sup>Zvyagina and Baykalova, 2017); **Krasnoyarsk Krai** (<sup>1</sup>Kutafjeva and Kosheleva, 2005).

FAR EAST: **Chukotka Autonomous Okrug** (<sup>1</sup>Sazanova, 1993); **Jewish Autonomous Oblast** (<sup>1</sup>Bulakh, Govorova, Nazarova, and Vassiljeva, 2007; <sup>1</sup>Bau, Bulakh, and Govorova, 2011); **Kamchatka Krai** (<sup>1</sup>Kalamees and Vaasma, 1981; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990); **Khabarovsk Krai** (<sup>1</sup>Azbukina et al., 1989; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1</sup>Erofeeva and Bulakh, 2015a); **Magadan Oblast** (<sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1</sup>Sazanova, 2005; <sup>1</sup>Sazanova, 2009a; <sup>1</sup>Sazanova, 2012); **Primorsky Krai** (<sup>1</sup>Vassiljeva, 1972; <sup>1</sup>Vassiljeva, 1973; <sup>1</sup>Bulakh, 1986; <sup>1</sup>Azbukina et al., 1990; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1</sup>Bardunov et al., 2002; <sup>1</sup>Azbukina et al., 2006; <sup>1</sup>Bau, Bulakh, and Govorova, 2011); **Sakhalin Oblast** (<sup>1</sup>Bulakh, Govorova, and Bogatov, 1999).

***Lactarius omphaliiformis* Romagn.**

EASTERN EUROPE: **Karelia** (Kovalenko, Morozova, Fomina, and Särkisilta, 1998; Krutov et al., 2014); **Komi Republic** (Shiryayeva and Palamarchuk, 2019); **Penza Oblast** (Ivanov, 1985); **Pskov Oblast** (Kovalenko, Kolmakov, Morozova, and Popov, 2003; Popov et al., 2013); **Rostov Oblast** (Morozova et al., 2008); **Vologda Oblast** (Kirillova, 2007); **Arid territories** (Rebriev, Rusanov, et al., 2012).

FAR EAST: **Magadan Oblast** (Sazanova, 2012).

***Lactarius pallidus* Pers.<sup>1</sup>**≡ *Agaricus pallidus* (Pers.) Pers.<sup>2</sup>

EASTERN EUROPE: **Adygea** (<sup>1</sup>Vassiljeva, 1939; <sup>1</sup>Sopina, 2004a); **Belgorod Oblast** (<sup>1</sup>Bedenko, 1980); **Crimea** (<sup>1</sup>Sarkina, 2001; <sup>1</sup>Sarkina, 2010a; <sup>1</sup>Sarkina, 2014b; <sup>1</sup>Sarkina, 2016a); **Kabardino-Balkarian Republic** (<sup>1</sup>Shkhagapsoev and Krapivina, 2004); **Kaliningrad Oblast** (<sup>1</sup>Atayev and Volodina, 2020); **Karachay-Cherkess Republic** (<sup>1</sup>Kalamees and Botashev, 2000); **Karelia** (<sup>1</sup>Bondartseva et al., 2001; <sup>1</sup>Krutov et al., 2014); **Krasnodar Krai** (<sup>1</sup>Vassiljeva, 1939; <sup>1</sup>Kovalenko, 1980a; <sup>1</sup>Kovalenko, 1980b; <sup>1</sup>Vaasma, Kalamees, and Raitviir, 1986; <sup>1</sup>Sopina, 2004a); **Perm Krai** (<sup>1</sup>Perevedentseva, 2008; <sup>1</sup>Belkovskaya et al., 2014); **Saint Petersburg** (<sup>2</sup>Weinmann, 1836; <sup>2</sup>Weinmann, 1837); **Tver Oblast** (<sup>1</sup>Kurochkin, 1993).

***Lactarius picinus* Fr.**

EASTERN EUROPE: **Karelia** (Predtechenskaya and Ruokolainen, 2013; Predtechenskaya, 2013); **Krasnodar Krai** (Kovalenko, 1980a; Kovalenko, 1980b); **Moscow Oblast** (Levitskaya, 1995a; Levitskaya, 2013); **Perm Krai** (Shkaraba, Perevedentseva, and Moshkina, 1990; Perevedentseva, 2008; Belkovskaya et al., 2014).

SIBERIA: **Altai Republic** (Gorbunova, 2008); **Khanty-Mansi Autonomous Okrug** (Zvyagina and Baykalova, 2017).

***Lactarius pilatii* Z. Schaef.**

EASTERN EUROPE: **Komi Republic** (Palamarchuk and Kirillov, 2018b).

***Lactarius plumbeus* (Bull.) Gray**

EASTERN EUROPE: **Chelyabinsk Oblast** (Aleksandrovskaia and Lobanova, 1968); **Kaliningrad Oblast** (Dedkov, Volodina, and Gubareva, 2007; Volodina, 2007); **Karachay-Cherkess Republic** (Kalamees and Botashev, 2000); **Karelia** (Predtechenskaya and Ruokolainen, 2008); **Kursk Oblast** (Ryabova and Ignatenko, 1981); **Leningrad Oblast** (Kovalenko and Morozova, 1999a; Fomina, 2000; Fomina, 2001; Morozova, 2007; Popov et al., 2007); **Mordovia** (Tsinger, 1966); **North Ossetia** (Nikolayev, 2001); **Novgorod Oblast** (Malysheva, Malysheva, and Zmitrovich, 2007); **Pskov Oblast** (Popov, 2001a); **Rostov Oblast** (Rusanov et al., 2004; Morozova et al., 2008; Zmitrovich et al., 2008); **Saint Petersburg** (Kovalenko and Morozova, 1999a; Kotkova, Morozova, and Popov, 2007; Morozova and Smirnov, 2011; Morozova et al., 2020); **Samara Oblast** (Malysheva and Malysheva, 2004); **Sverdlovsk Oblast** (Marina, 2006); **Tula Oblast** (Svetasheva, 2004); **Vologda Oblast** (Kirillova, 2007); **Voronezh Oblast** (Chastukhin and Nikolaevskaya, 1953); **Arid territories** (Rebriev, Rusanov, et al., 2012).

SIBERIA: **Altai Republic** (Gorbunova, 2001b); **Khanty-Mansi Autonomous Okrug** (Filippova and Bulyonkova, 2017a; Filippova and Bulyonkova, 2017b); **Krasnoyarsk Krai** (Kosheleva, 2010).

***Lactarius porniniae* Rolland**

EASTERN EUROPE: **Komi Republic** (Palamarchuk, 2012; Palamarchuk, 2016a; Palamarchuk, 2016b); **Leningrad Oblast** (Kovalenko and Morozova, 1999a; Popov et al., 2007); **Moscow Oblast** (Gorlenko, Sidorova, and Sidorova, 1989; Vishnevsky and Sidorova, 1997); **Yamalo-Nenets Autonomous Okrug** (Karatygin, Nezdojminogo, Novozhilov, and Zhurbenko, 1999; Nezdojminogo, 2001).

SIBERIA: **Altai Republic** (Singer, 1942; Gorbunova, 2001b; Perova and Gorbunova, 2001; Gorbunova, 2008); **Buryatia** (Nezdojminogo, 1970a; Petrov, 1991); **Irkutsk Oblast** (Kutafjeva, 1984; Petrov, Nezdojminogo, and Bulakh, 1987; Astapenko, 1990b; Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; Petrov, 1991; Petrov, 2008; Muzyka, 2009; Muzyka and Penzina, 2017); **Krasnoyarsk Krai** (Beglyanova, 1972a; Beglyanova, 1972b; Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; Kosheleva and Kutafjeva, 2008b; Kosheleva, 2010).

FAR EAST: **Amur Oblast** (Bulakh, 1986; Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990); **Chukotka Autonomous Okrug** (Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990); **Jewish Autonomous Oblast** (Bulakh, Govorova, Nazarova, and Vassiljeva, 2007; Bau, Bulakh, and Govorova, 2011); **Kamchatka Krai** (Karatygin, Nezdojminogo, Novozhilov, and Zhurbenko, 1999); **Khabarovsk Krai** (Azbukina et al., 1989; Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; Bulakh, Vassiljeva, and Erofeeva, 2010; Bulakh, 2013; Bogacheva, Bulakh, Bukharova, and Egorova, 2015); **Magadan Oblast** (Bulakh, 1986; Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; Sazanova, 1996; Sazanova, 2005; Sazanova, 2009a; Sazanova, 2009b; Sazanova, 2011); **Primorsky Krai** (Vassiljeva, 1973; Bulakh, 1986; Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; Bulakh et al., 2016); **Sakhalin Oblast** (Vassiljeva and Nazarova, 1972; Bulakh, 1986; Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990).

***Lactarius pseudouvidus* Kühner**

EASTERN EUROPE: **Karachay-Cherkess Republic** (Kalamees and Botashev, 2000); **Komi Republic** (Palamarchuk (Bobretsova), 2009; Palamarchuk, 2012; Palamarchuk, 2016a; Palamarchuk, 2016b); **Murmansk Oblast** (Nezdojminogo, 1997b; Karatygin, Nezdojminogo, Novozhilov, and Zhurbenko, 1999); **Yamalo-Nenets Autonomous Okrug** (Knudsen and Mukhin, 1998; Karatygin, Nezdojminogo, Novozhilov, and Zhurbenko, 1999; Nezdojminogo, 2001).

SIBERIA: **Krasnoyarsk Krai** (Nezdojminogo, 1997a; Karatygin, Nezdojminogo, Novozhilov, and Zhurbenko, 1999; Nezdojminogo, 2003; Gorbunova, 2016); **Sakha Republic** (Karatygin, Nezdojminogo, Novozhilov, and Zhurbenko, 1999; Nezdojminogo, 2003).

FAR EAST: **Chukotka Autonomous Okrug** (Karatygin, Nezdojminogo, Novozhilov, and Zhurbenko, 1999).

***Lactarius pterosporus* Romagn.**

EASTERN EUROPE: **Adygea** (Sopina, 2004a); **Krasnodar Krai** (Sopina, 2004a).

FAR EAST: **Khabarovsk Krai** (Bau, Bulakh, Zhuang, and Li, 2007; Bau, Bulakh, and Govorova, 2011).

***Lactarius pubescens* Fr.**

EASTERN EUROPE: **Arkhangelsk Oblast** (Karatygin, Nezdojminogo, Novozhilov, and Zhurbenko, 1999; Ezhov, Ershov, Ruokolainen, and Zmitrovich, 2011; Ezhov, 2014); **Bashkortostan** (Stepanova and Sirko, 1977); **Belgorod Oblast** (Bedenko, 1979a); **Bryansk Oblast** (Kruglikov, 2007); **Chechen Republic** (Taysumov, Krapivina, Umarov, and Astamirova, 2012); **Chelyabinsk Oblast** (Aleksandrovskaya and Lobanova, 1968); **Crimea** (Sarkina, 2001; Dudka et al., 2004; Sarkina and Prydiuk, 2012); **Kabardino-Balkarian Republic** (Shkhagapsoev and Krapivina, 2003; Shkhagapsoev and Krapivina, 2004); **Kaliningrad Oblast** (Dedkov, Volodina, and Gubareva, 2007; Volodina, 2007; Atayev and Volodina, 2020); **Kaluga Oblast** (Sionova, 2003; Sionova, 2006); **Karelia** (Freindling, 1949; Kovalenko, Morozova, Fomina, and Särkisilta, 1998; Bondartseva et al., 2001; Predtechenskaya and Ruokolainen, 2013; Krutov et al., 2014; Predtechenskaya and Ruokolainen, 2014; Predtechenskaya, 2015; Savelev and Kikeeva, 2018); **Kirov Oblast** (Kirillov, 2011; Kirillov, Perevedentseva, and Egoshina, 2011; Stavishenko, Luginina, Kirillov, and Egoshina, 2019); **Komi Republic** (Karatygin, Nezdojminogo, Novozhilov, and Zhurbenko, 1999; Palamarchuk and Kirillov, 2017; Palamarchuk, 2017; Palamarchuk and Kirillov, 2018a); **Krasnodar Krai** (Kovalenko, 1980a; Kovalenko, 1980b); **Kursk Oblast** (Ryabova and Ignatenko, 1981); **Leningrad Oblast** (Thesleff, 1920; Kalamees and Kovalenko, 1984; Kovalenko and Morozova, 1999a; Popov et al., 2007); **Lipetsk Oblast** (Rtishcheva, 1999; Sarycheva, 1999; Afanasyev, Rtishcheva, and Starodubtseva, 2007; Sarycheva et al., 2009; Sarycheva, 2016; Sarycheva, Starodubtseva, and Sapelnikova, 2017); **Mordovia** (Ivoilov and Bolshakov, 2011b); **Moscow Oblast** (Gorlenko, Sidorova, and Sidorova, 1989; Levitskaya, 1995a; Vishnevsky and Sidorova, 1997; Levitskaya, 2013); **Murmansk Oblast** (Pystina, Pavlova, and Shestakova, 1969; Mikhailovskii, 1975b; Karatygin, Nezdojminogo, Novozhilov, and Zhurbenko, 1999); **Nenets Autonomous Okrug** (Matveyeva, 2006); **North Ossetia** (Nikolayev, 2001); **Novgorod Oblast** (Morozova, 2012); **Orenburg Oblast** (Desyatova, 2008); **Oryol Oblast** (Radygina, Derzhavina, and Tsutsupa, 2014); **Penza Oblast** (Ivanov, 1981a; Ivanov, 1981b; Ivanov, 2019); **Perm Krai** (Perevedentseva, 2008; Belkovskaya et al., 2014); **Pskov Oblast** (Popov, 2001a; Popov et al., 2013); **Ryazan Oblast** (Volosnova, 1997; Volosnova, 2014); **Saint Petersburg** (Kovalenko and Morozova, 1999a; Kotkova, Morozova, and Popov, 2005; Morozova, Kovalenko, Rebriev, and Malysheva, 2014; Morozova et al., 2020); **Sverdlovsk Oblast** (Stepanova and Sirko, 1977; Marina, 2006); **Tatarstan** (Vassiljeva, 1977); **Tula Oblast** (Svetasheva, 2004); **Tver Oblast** (Kurochkin, 1993; Kurochkin, 2016); **Udmurt Republic** (Tychinin and Kuzmina, 2003); **Ulyanovsk Oblast** (Ilyukhin, 2009; Ilyukhin, 2010a); **Vologda Oblast** (Kutova, 1957; Kirillova, 2007); **Voronezh Oblast** (Rtishcheva, 1999; Afanasyev, Rtishcheva, and Starodubtseva, 2007; Sarycheva, Starodubtseva, and Sapelnikova, 2017); **Yamalo-Nenets Autonomous Okrug** (Stepanova and Sirko, 1977; Karatygin, Nezdojminogo, Novozhilov, and Zhurbenko, 1999; Nezdojminogo, 2001); **Yaroslavl Oblast** (Lazareva, 1998a).

SIBERIA: **Altai Republic** (Kovalenko, 1992; Gorbunova, 2001b; Gorbunova, 2003; Gorbunova, 2008; Gorbunova, 2010); **Buryatia** (Heklau and Dörfelt, 2017); **Irkutsk Oblast** (Kutafjeva, 1984; Petrov, Nezdojminogo, and Bulakh, 1987; Kutafjeva and Astapenko, 1989; Petrov, 1989; Astapenko, 1990b; Muzyka, 2002; Bardunov et al., 2005; Petrov, 2008; Muzyka, 2009; Muzyka and Penzina, 2017); **Khakassia** (Beglyanova, 1972a; Zauzolkova, 2015); **Khanty-Mansi Autonomous Okrug** (Makarova, Makarov, Zvyagina, and Bobrikov, 2015; Filippova and Bulyonkova, 2017a; Filippova and Bulyonkova, 2017b); **Krasnoyarsk Krai** (Thümen, 1880a; Perova, 1970; Beglyanova, 1972a; Nezdojminogo, 1982a; Lapitskaya, 1993; Karatygin, Nezdojminogo, Novozhilov, and Zhurbenko, 1999; Kosheleva and Kutafjeva, 2008a; Krom and Kapitonov, 2019); **Novosibirsk Oblast** (Zaytseva, 1971; Perova, 1977; Koropachinskiy and Banaev, 2014); **Sverdlovsk Oblast** (Stepanova and Sirko, 1977); **Tomsk Oblast** (Milovidova, 1980; Agaphonova,

Kutafjeva, and Gashkov, 2007; Kudashova, Gashkov, and Kutafjeva, 2013); **Yamalo-Nenets Autonomous Okrug** (Tarchevskaya, 1990; Karatygin, Nezdoininogo, Novozhilov, and Zhurbenko, 1999).

FAR EAST: **Amur Oblast** (Gordienko, Petrova, and Tarasov, 1981; Bulakh, 1986; Bulakh, Wasser, Nazarova, and Nezdoininogo, 1990; Taranina, 2005; Kochunova, 2019); **Chukotka Autonomous Okrug** (Sazanova, 1993; Karatygin, Nezdoininogo, Novozhilov, and Zhurbenko, 1999); **Jewish Autonomous Oblast** (Bulakh, Govorova, Nazarova, and Vassiljeva, 2007; Bau, Bulakh, and Govorova, 2011); **Kamchatka Krai** (Kalamees and Vaasma, 1981; Bulakh, Wasser, Nazarova, and Nezdoininogo, 1990); **Khabarovsk Krai** (Azbukina et al., 1986; Bulakh, 1986; Azbukina et al., 1989; Bulakh, Wasser, Nazarova, and Nezdoininogo, 1990; Bau, Bulakh, Zhuang, and Li, 2007; Bau, Bulakh, and Govorova, 2011); **Magadan Oblast** (Nazarova, 1976; Bulakh, 1986; Bulakh, Wasser, Nazarova, and Nezdoininogo, 1990; Sazanova, 1996; Sazanova, 2005; Sazanova, 2009a; Sazanova, 2009b; Sazanova, 2011); **Primorsky Krai** (Vassiljeva, 1973; Shalapugina, 1976; Bunkina and Nazarova, 1978; Azbukina et al., 1984; Bulakh, 1986; Azbukina et al., 1990; Bulakh, Wasser, Nazarova, and Nezdoininogo, 1990; Bardunov et al., 2002; Azbukina et al., 2006; Bau, Bulakh, and Govorova, 2011; Bulakh et al., 2016); **Sakhalin Oblast** (Vassiljeva and Nazarova, 1972; Bulakh, 1986; Bulakh, Wasser, Nazarova, and Nezdoininogo, 1990).

### ***Lactarius pusillus* Bres.**

SIBERIA: **Irkutsk Oblast** (Petrov, Nezdoininogo, and Bulakh, 1987).

FAR EAST: **Chukotka Autonomous Okrug** (Sazanova, 1993); **Magadan Oblast** (Sazanova, 2009a; Sazanova, 2012).

### ***Lactarius pyrogalus* (Bull.) Fr.**

EASTERN EUROPE: **Adygea** (Vassiljeva, 1939); **Bashkortostan** (Stepanova and Sirko, 1977); **Belgorod Oblast** (Bedenko, 1980; Bulakh, Wasser, Nazarova, and Nezdoininogo, 1990); **Kaliningrad Oblast** (Dedkov, Volodina, and Gubareva, 2007; Volodina, 2007; Atayev and Volodina, 2020); **Karelia** (Bulakh, Wasser, Nazarova, and Nezdoininogo, 1990; Krutov et al., 2014); **Krasnodar Krai** (Vassiljeva, 1939); **Leningrad Oblast** (Thesleff, 1920; Kovalenko and Morozova, 1999a; Morozova and Kovalenko, 2000; Popov et al., 2007; Zmitrovich et al., 2015; Kalinina, 2018); **Mari El Republic** (Bulakh, Wasser, Nazarova, and Nezdoininogo, 1990); **Mordovia** (Bolshakov and Ivoilov, 2012a; Bolshakov and Ivoilov, 2012b); **Moscow** (Bucholtz, 1897b; Bucholtz, 1897c; Mosolov, 1906); **Moscow Oblast** (Bulakh, Wasser, Nazarova, and Nezdoininogo, 1990; Vishnevsky and Sidorova, 1997; Levitskaya, 1998; Levitskaya, 2013); **Murmansk Oblast** (Pystina, Pavlova, and Shestakova, 1969); **Novgorod Oblast** (Morozova, 2012; Popov et al., 2013); **Penza Oblast** (Ivanov, 1983; Bulakh, Wasser, Nazarova, and Nezdoininogo, 1990); **Pskov Oblast** (Popov et al., 2013); **Ryazan Oblast** (Volosnova, 1997; Volosnova, 2014); **Saint Petersburg** (Kotkova, Morozova, and Popov, 2006; Morozova et al., 2020); **Samara Oblast** (Malysheva and Malysheva, 2008); **Smolensk Oblast** (Jaczewski, 1896; Bulakh, Wasser, Nazarova, and Nezdoininogo, 1990); **Tatarstan** (Vassiljeva, 1977; Bulakh, Wasser, Nazarova, and Nezdoininogo, 1990); **Tula Oblast** (Svetasheva, 2004); **Tver Oblast** (Mukhina, 2011a; Mukhina, 2011b; Kotkova, 2014); **Udmurt Republic** (Tychinin and Kuzmina, 2003); **Yaroslavl Oblast** (Lazareva, 1998a).

SIBERIA: **Altai Krai** (Gorbunova, Vlasenko, and Tzhubarova, 2011); **Altai Republic** (Gorbunova, 2001a; Perova and Gorbunova, 2001); **Tomsk Oblast** (Kudashova, Gashkov, and Kutafjeva, 2013).

FAR EAST: **Amur Oblast** (Bulakh, Wasser, Nazarova, and Nezdoininogo, 1990); **Jewish Autonomous Oblast** (Bulakh, Govorova, Nazarova, and Vassiljeva, 2007); **Khabarovsk Krai** (Bulakh, 1986; Azbukina et al., 1989; Bulakh, Wasser, Nazarova, and Nezdoininogo, 1990; Bau, Bulakh, and Govorova, 2011; Bulakh, 2013; Bogacheva, Bulakh, Bukharova, and Egorova, 2015); **Magadan Oblast** (Nazarova, 1976); **Primorsky Krai** (Vassiljeva, 1972; Vassiljeva, 1973; Shalapugina, 1976; Bunkina and Nazarova, 1978; Azbukina et al., 1984; Bulakh, 1986; Azbukina et al., 1990; Bulakh, Wasser, Nazarova, and Nezdoininogo, 1990; Bardunov et al., 2002; Azbukina et al., 2006; Bau, Bulakh, and Govorova, 2011); **Sakhalin Oblast** (Vassiljeva and Nazarova, 1972; Bulakh, Wasser, Nazarova, and Nezdoininogo, 1990).

### ***Lactarius quieticolor* Romagn.**

EASTERN EUROPE: **Leningrad Oblast** (Morozova, 2007; Popov et al., 2007); **Saint Petersburg** (Morozova et al., 2020); **Vologda Oblast** (Kirillova, 2007).

SIBERIA: **Tomsk Oblast** (Kudashova, Gashkov, and Kutafjeva, 2013; Vaishlya et al., 2017).

### ***Lactarius quietus* (Fr.) Fr.<sup>1</sup>**

≡ *Agaricus quietus* Fr.<sup>2</sup>

EASTERN EUROPE: **Adygea** (<sup>1</sup>Sopina, 2004a); **Bashkortostan** (<sup>1</sup>Stepanova and Sirko, 1977); **Belgorod Oblast** (<sup>1</sup>Bedenko, 1979a; <sup>1</sup>Ryabova and Ignatenko, 1981; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdoininogo, 1990; <sup>1</sup>Soshnina,

1995); **Crimea** (<sup>1</sup>Sarkina, 2001; <sup>1</sup>Dudka et al., 2004; <sup>1</sup>Sarkina, 2010a; <sup>1</sup>Sarkina and Prydiuk, 2012; <sup>1</sup>Sarkina, 2014b; <sup>1</sup>Sarkina, 2016a; <sup>1</sup>Sarkina and Stavishenko, 2019); **Kaliningrad Oblast** (<sup>1</sup>Dedkov, Volodina, and Gubareva, 2007; <sup>1</sup>Volodina, 2007; <sup>1</sup>Atayev and Volodina, 2020); **Kaluga Oblast** (<sup>1</sup>Sionova, 2003); **Karelia** (<sup>1</sup>Krutov et al., 2014; <sup>1</sup>Predtechenskaya, 2015); **Kursk Oblast** (<sup>1</sup>Ryabova and Ignatenko, 1981; <sup>1</sup>Soshnina, 2001; <sup>1</sup>Soshnina, 2005); **Leningrad Oblast** (<sup>2</sup>Weinmann, 1836; <sup>2</sup>Weinmann, 1837; <sup>1</sup>Thesleff, 1920; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdoyminogo, 1990; <sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Morozova and Kovalenko, 2000; <sup>1</sup>Popov et al., 2007; <sup>1</sup>Kalinina, 2018); **Lipetsk Oblast** (<sup>1</sup>Sarycheva et al., 2009; <sup>1</sup>Sarycheva, 2011; <sup>1</sup>Sarycheva, 2014a; <sup>1</sup>Sarycheva, 2016); **Mordovia** (<sup>1</sup>Ivoilov and Bolshakov, 2011b; <sup>1</sup>Bolshakov and Ivoilov, 2012b); **Moscow Oblast** (<sup>1</sup>Gorlenko, Sidorova, and Sidorova, 1989; <sup>1</sup>Levitskaya, 1995a; <sup>1</sup>Vishnevsky and Sidorova, 1997; <sup>1</sup>Levitskaya, 2013); **Novgorod Oblast** (<sup>1</sup>Kovalenko, Morozova, Nezdoyminogo, and Popov, 2005; <sup>1</sup>Morozova, 2012; <sup>1</sup>Popov et al., 2013); **Penza Oblast** (<sup>1</sup>Ivanov, 1981a; <sup>1</sup>Ivanov, 1981b); **Rostov Oblast** (<sup>1</sup>Rusanov, Rebriev, and Bulgakov, 2018); **Ryazan Oblast** (<sup>1</sup>Volosnova, 1997; <sup>1</sup>Volosnova, 2014); **Saint Petersburg** (<sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Morozova, Kovalenko, Rebriev, and Malysheva, 2014; <sup>1</sup>Morozova et al., 2020); **Saratov Oblast** (<sup>1</sup>Komirnyaya, 1970); **Tatarstan** (<sup>1</sup>Vassiljeva, 1977; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdoyminogo, 1990); **Tula Oblast** (<sup>1</sup>Svetasheva, 2001; <sup>1</sup>Svetasheva, 2004; <sup>1</sup>Svetasheva, 2013); **Voronezh Oblast** (<sup>1</sup>Chastukhin, 1952; <sup>1</sup>Chastukhin and Nikolaevskaya, 1953; <sup>1</sup>Sarycheva, Starodubtseva, and Sapelnikova, 2017); **Arid territories** (<sup>1</sup>Rebriev, Rusanov, et al., 2012).

FAR EAST: **Jewish Autonomous Oblast** (<sup>1</sup>Bulakh, Govorova, Nazarova, and Vassiljeva, 2007; <sup>1</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Bogacheva et al., 2018); **Khabarovsk Krai** (<sup>1</sup>Erofeeva and Bulakh, 2015a; <sup>1</sup>Bogacheva et al., 2018); **Primorsky Krai** (<sup>1</sup>Bulakh, 1977; <sup>1</sup>Azbukina et al., 1984; <sup>1</sup>Azbukina et al., 1990; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdoyminogo, 1990; <sup>1</sup>Bardunov et al., 2002; <sup>1</sup>Azbukina et al., 2006; <sup>1</sup>Bau, Bulakh, Zhuang, and Li, 2007; <sup>1</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Bulakh et al., 2016; <sup>1</sup>Bogacheva et al., 2018; <sup>1</sup>Bogacheva, Bulakh, Bukharova, and Egorova, 2020).

### ***Lactarius repraesentaneus* Britzelm.<sup>1</sup>**

= *Lactarius speciosus* Burl.<sup>2</sup>

EASTERN EUROPE: **Arkhangelsk Oblast** (<sup>1</sup>Ezhov, Ershov, Ruokolainen, and Zmitrovich, 2011; <sup>1</sup>Ezhov, 2014); **Kaliningrad Oblast** (<sup>1</sup>Dedkov and Grishanov, 2010); **Karachay-Cherkess Republic** (<sup>1</sup>Kalamees and Botashev, 2000); **Karelia** (<sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdoyminogo, 1990; <sup>1</sup>Bondartseva et al., 2001; <sup>1</sup>Krutov et al., 2014); **Komi Republic** (<sup>1</sup>Karatygin, Nezdoyminogo, Novozhilov, and Zhurbenko, 1999; <sup>1</sup>Palamarchuk (Bobretsova), 2009; <sup>1</sup>Palamarchuk, 2011b; <sup>1</sup>Palamarchuk, 2012; <sup>1</sup>Palamarchuk, 2016a; <sup>1</sup>Palamarchuk, 2016b; <sup>1</sup>Palamarchuk and Kirillov, 2017); **Kostroma Oblast** (<sup>1</sup>Veremyeva, 1986); **Leningrad Oblast** (<sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdoyminogo, 1990; <sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Popov et al., 2007); **Moscow Oblast** (<sup>1</sup>Gorlenko, Sidorova, and Sidorova, 1989; <sup>1</sup>Vishnevsky and Sidorova, 1997; <sup>1</sup>Varlygina, Zubakin, and Sobolev, 2008; <sup>1</sup>Varlygina, Zubakin, Nikitsky, and Sviridov, 2018); **Novgorod Oblast** (<sup>1</sup>Svetasheva et al., 2017); **Perm Krai** (<sup>1</sup>Perevedentseva, 2008; <sup>1</sup>Belkovskaya et al., 2014); **Saint Petersburg** (<sup>1</sup>Kovalenko and Morozova, 1999a); **Sverdlovsk Oblast** (<sup>1</sup>Tomilin, 1965; <sup>1</sup>Stepanova and Sirko, 1977; <sup>1</sup>Marina, 2006); **Udmurt Republic** (<sup>1</sup>Tychinin and Kuzmina, 2003); **Vologda Oblast** (<sup>1</sup>Kirillova, 2007); **Yamalo-Nenets Autonomous Okrug** (<sup>1</sup>Stepanova and Sirko, 1970; <sup>1</sup>Stepanova and Sirko, 1977; <sup>1</sup>Karatygin, Nezdoyminogo, Novozhilov, and Zhurbenko, 1999).

SIBERIA: **Altai Krai** (<sup>1</sup>Gorbunova, 2018a); **Altai Republic** (<sup>1</sup>Singer, 1942; <sup>1</sup>Gorbunova, 2001a; <sup>1</sup>Gorbunova, 2001b; <sup>1</sup>Perova and Gorbunova, 2001; <sup>1</sup>Gorbunova, 2010); **Irkutsk Oblast** (<sup>1</sup>Kutafjeva, 1984; <sup>1</sup>Petrov, Nezdoyminogo, and Bulakh, 1987; <sup>1</sup>Petrov, 1989; <sup>1</sup>Astapenko, 1990a; <sup>1</sup>Astapenko, 1990b; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdoyminogo, 1990; <sup>1</sup>Petrov, 1991; <sup>1</sup>Muzyka, 2002; <sup>1</sup>Bardunov et al., 2005; <sup>1</sup>Petrov, 2008; <sup>1</sup>Muzyka, 2009; <sup>1</sup>Muzyka and Penzina, 2017); **Khakassia** (<sup>1</sup>Beglyanova, 1972a); **Khanty-Mansi Autonomous Okrug** (<sup>1</sup>Zvyagina and Vasina, 2015; <sup>1</sup>Filippova and Bulyonkova, 2017a; <sup>1</sup>Filippova and Bulyonkova, 2017b; <sup>1</sup>Zvyagina and Baykalova, 2017); **Krasnoyarsk Krai** (<sup>1</sup>Vassilkov, 1971b; <sup>1</sup>Beglyanova, 1972a; <sup>1</sup>Beglyanova, 1972c; <sup>1</sup>Nezdoyminogo, 1976a; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdoyminogo, 1990; <sup>1</sup>Lapitskaya, 1993; <sup>1</sup>Kosheleva and Kutafjeva, 2008b; <sup>1</sup>Kosheleva, 2010; <sup>1</sup>Malysheva, Malysheva, Kiyashko, et al., 2017; <sup>1</sup>Krom and Kapitonov, 2019); **Novosibirsk Oblast** (<sup>1</sup>Perova and Gorbunova, 2001; <sup>1</sup>Perova and Gorbunova, 2007); **Tomsk Oblast** (<sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdoyminogo, 1990; <sup>1</sup>Perova and Gorbunova, 2001; <sup>1</sup>Kudashova, Gashkov, and Kutafjeva, 2013); **Yamalo-Nenets Autonomous Okrug** (<sup>1</sup>Tarchevskaya, 1990; <sup>1</sup>Karatygin, Nezdoyminogo, Novozhilov, and Zhurbenko, 1999).

FAR EAST: **Amur Oblast** (<sup>1</sup>Bulakh, 1986; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdoyminogo, 1990; <sup>1</sup>Azbukina et al., 1998; <sup>1</sup>Bulakh, Govorova, and Taranina, 2003); **Chukotka Autonomous Okrug** (<sup>1</sup>Vassilkov, 1967; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdoyminogo, 1990; <sup>1</sup>Sazanova, 1993; <sup>1</sup>Karatygin, Nezdoyminogo, Novozhilov, and Zhurbenko, 1999); **Jewish Autonomous Oblast** (<sup>1</sup>Bulakh, Govorova, Nazarova, and Vassiljeva, 2007; <sup>1</sup>Bau, Bulakh, and Govorova, 2011); **Kamchatka Krai** (<sup>2</sup>Kalamees and Vaasma, 1981; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdoyminogo,



1990; <sup>1</sup>Karatygin, Nezdoininogo, Novozhilov, and Zhurbenko, 1999); **Khabarovsk Krai** (<sup>1</sup>Azbukina et al., 1989; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdoininogo, 1990); **Magadan Oblast** (<sup>1</sup>Nazarova, 1976; <sup>1</sup>Bulakh, 1986; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdoininogo, 1990; <sup>1</sup>Sazanova, 1996; <sup>1</sup>Sazanova, 2005; <sup>1</sup>Sazanova, 2009a; <sup>1</sup>Sazanova, 2011); **Primorsky Krai** (<sup>1</sup>Bulakh, 1986; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdoininogo, 1990; <sup>1</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Bulakh et al., 2016).

### *Lactarius resimus* (Fr.) Fr.

EASTERN EUROPE: **Arkhangelsk Oblast** (Ezhov, 2014); **Bashkortostan** (Stepanova and Sirko, 1977); **Belgorod Oblast** (Bedenko, 1979a; Bulakh, Wasser, Nazarova, and Nezdoininogo, 1990); **Bryansk Oblast** (Kruglikov, 2007); **Chelyabinsk Oblast** (Aleksandrovskaya and Lobanova, 1968; Stepanova and Sirko, 1977); **Ivanovo Oblast** (Bulakh, Wasser, Nazarova, and Nezdoininogo, 1990); **Kaliningrad Oblast** (Dedkov, Volodina, and Gubareva, 2007); **Kaluga Oblast** (Sionova, 2003); **Karelia** (Freindling, 1949; Bulakh, Wasser, Nazarova, and Nezdoininogo, 1990; Bondartseva et al., 2001; Predtechenskaya and Ruokolainen, 2013; Predtechenskaya, 2013; Krutov et al., 2014; Predtechenskaya and Ruokolainen, 2014); **Kirov Oblast** (Kirillov and Luginina, 2011; Kirillov, 2011; Kirillov, Perevedentseva, and Egoshina, 2011; Stavishenko, Luginina, Kirillov, and Egoshina, 2019); **Komi Republic** (Palamarchuk and Kirillov, 2017); **Kostroma Oblast** (Veremyeva, 1986; Bulakh, Wasser, Nazarova, and Nezdoininogo, 1990); **Krasnodar Krai** (Vassiljeva, 1939; Kovalenko, 1980a; Kovalenko, 1980b); **Leningrad Oblast** (Thesleff, 1920; Bulakh, Wasser, Nazarova, and Nezdoininogo, 1990; Kovalenko and Morozova, 1999a; Morozova, 2007; Popov et al., 2007; Zmitrovich et al., 2015); **Lipetsk Oblast** (Alferova, 1977; Sarycheva, 1999; Sarycheva et al., 2009; Sarycheva, 2011; Sarycheva, 2014a; Sarycheva, 2016); **Mari El Republic** (Bulakh, Wasser, Nazarova, and Nezdoininogo, 1990); **Mordovia** (Tsinger, 1966; Ivoilov and Bolshakov, 2011b); **Moscow** (Bucholtz, 1897b; Bucholtz, 1897c; Mosolov, 1906); **Moscow Oblast** (Bulakh, Wasser, Nazarova, and Nezdoininogo, 1990); **Novgorod Oblast** (Rusakov, 1968); **Orenburg Oblast** (Desyatova, 2008); **Penza Oblast** (Ivanov, 1981a; Bulakh, Wasser, Nazarova, and Nezdoininogo, 1990; Ivanov, 2019); **Perm Krai** (Perevedentseva, 2008; Belkovskaya et al., 2014); **Pskov Oblast** (Popov, 2001a; Popov et al., 2013); **Rostov Oblast** (Rusanov et al., 2004; Zmitrovich et al., 2008); **Samara Oblast** (Malysheva and Malysheva, 2005b; Malysheva and Malysheva, 2008); **Sverdlovsk Oblast** (Tomilin, 1965; Stepanova and Sirko, 1977); **Tatarstan** (Vassiljeva, 1977; Shchepovskih, Bojko, Gorshkov, and Rogova, 2006; Nazirov, Gorshkov, Ivanov, and Rogova, 2016); **Tula Oblast** (Svetasheva, 2001; Svetasheva, 2004); **Tver Oblast** (Kurochkin, 1993); **Udmurt Republic** (Tychinin and Kuzmina, 2003); **Ulyanovsk Oblast** (Ilyukhin, 2010a); **Vologda Oblast** (Kirillova, 2007); **Yaroslavl Oblast** (Lazareva, 1998a); **Arid territories** (Rebriev, Rusanov, et al., 2012).

SIBERIA: **Altai Republic** (Perova and Gorbunova, 2001; Gorbunova, 2008); **Buryatia** (Nezdoininogo, 1970a); **Irkutsk Oblast** (Kutafjeva, 1984; Petrov, Nezdoininogo, and Bulakh, 1987; Kutafjeva and Astapenko, 1989; Astapenko, 1990b; Bulakh, Wasser, Nazarova, and Nezdoininogo, 1990; Muzyka, 2002; Bardunov et al., 2005; Petrov, 2008; Muzyka, 2009; Muzyka and Penzina, 2017); **Khakassia** (Beglyanova, 1972a); **Krasnoyarsk Krai** (Perova, 1970; Beglyanova, 1972a; Nezdoininogo, 1976a; Bulakh, Wasser, Nazarova, and Nezdoininogo, 1990; Lapitskaya, 1993; Kryuchkova, 2014a; Zauzolkova, 2015); **Kurgan Oblast** (Bystrushkin, 2016); **Novosibirsk Oblast** (Zaytseva, 1971; Perova, 1977; Bulakh, Wasser, Nazarova, and Nezdoininogo, 1990; Perova and Gorbunova, 2001; Koropachinskiy and Banaev, 2014); **Sverdlovsk Oblast** (Stepanova and Sirko, 1977); **Tomsk Oblast** (Milovidova, 1980; Agaphonova, Kutafjeva, and Gashkov, 2007; Kudashova, Gashkov, and Kutafjeva, 2013; Kudashova, Gashkov, and Vaishlya, 2016b); **Tyumen Oblast** (Bulakh, Wasser, Nazarova, and Nezdoininogo, 1990).

FAR EAST: **Amur Oblast** (Gordienko, Petrova, and Tarasov, 1981; Bulakh, 1986; Bulakh, Wasser, Nazarova, and Nezdoininogo, 1990; Azbukina et al., 1998; Kochunova, 2019); **Chukotka Autonomous Okrug** (Sazanova, 1993); **Jewish Autonomous Oblast** (Erofeeva, Bukharova, and Bulakh, 2019); **Kamchatka Krai** (Bulakh, 1986; Bulakh, Wasser, Nazarova, and Nezdoininogo, 1990); **Khabarovsk Krai** (Azbukina et al., 1986; Bulakh, 1986; Azbukina et al., 1989; Bulakh, Wasser, Nazarova, and Nezdoininogo, 1990; Bau, Bulakh, and Govorova, 2011); **Magadan Oblast** (Bulakh, 1986; Bulakh, Wasser, Nazarova, and Nezdoininogo, 1990; Sazanova, 1996; Sazanova, 2005; Sazanova, 2009a; Sazanova, 2011); **Primorsky Krai** (Vassiljeva, 1973; Bunkina and Nazarova, 1978; Bulakh, 1986; Azbukina et al., 1990; Bulakh, Wasser, Nazarova, and Nezdoininogo, 1990; Bardunov et al., 2002; Azbukina et al., 2006; Bau, Bulakh, and Govorova, 2011; Bulakh et al., 2016); **Sakhalin Oblast** (Vassiljeva and Nazarova, 1972; Bulakh, 1986; Bulakh, Wasser, Nazarova, and Nezdoininogo, 1990).

### *Lactarius robertianus* Bon

EASTERN EUROPE: **Yamalo-Nenets Autonomous Okrug** (Knudsen and Mukhin, 1998).

***Lactarius rostratus* Heilm.-Claus.**EASTERN EUROPE: **Adygea** (Sopina, 2004a).***Lactarius rubrocinctus* Fr.**EASTERN EUROPE: **Adygea** (Sopina, 2004a).***Lactarius rufus* (Scop.) Fr.<sup>1</sup>**≡ *Agaricus rufus* Scop.<sup>2</sup>

EASTERN EUROPE: **Arkhangelsk Oblast** (<sup>1</sup>Ezhov, Ershov, Ruokolainen, and Zmitrovich, 2011; <sup>1</sup>Ezhov, 2014); **Belgorod Oblast** (<sup>1</sup>Bedenko, 1980); **Bryansk Oblast** (<sup>1</sup>Kruglikov, 2007); **Chechen Republic** (<sup>1</sup>Taysumov, Krapivina, Umarov, and Astamirova, 2012); **Chelyabinsk Oblast** (<sup>1</sup>Stepanova and Sirko, 1977); **Chuvash Republic** (<sup>1</sup>Marfin, 2001); **Crimea** (<sup>1</sup>Sarkina, 2001; <sup>1</sup>Dudka et al., 2004; <sup>1</sup>Sarkina, 2010a; <sup>1</sup>Sarkina, 2010b; <sup>1</sup>Sarkina, 2011; <sup>1</sup>Sarkina and Prydiuk, 2012; <sup>1</sup>Sarkina and Stavishenko, 2019); **Kabardino-Balkarian Republic** (<sup>1</sup>Shkhgapshev and Krapivina, 2004); **Kaliningrad Oblast** (<sup>1</sup>Hennings, 1895; <sup>1</sup>Neuhoff, 1922; <sup>1</sup>Dedkov, Volodina, and Gubareva, 2007; <sup>1</sup>Volodina, 2007); **Kaluga Oblast** (<sup>1</sup>Sionova, 2003); **Karachay-Cherkess Republic** (<sup>1</sup>Kalamees and Botashev, 2000); **Karelia** (<sup>1</sup>Freindling, 1949; <sup>1</sup>Czerepanova, Perfiljeva, and Tobias, 1982; <sup>1</sup>Kovalenko, Morozova, Fomina, and Särkisilta, 1998; <sup>1</sup>Bondartseva et al., 2001; <sup>1</sup>Predtechenskaya and Ruokolainen, 2008; <sup>1</sup>Predtechenskaya and Ruokolainen, 2013; <sup>1</sup>Predtechenskaya, 2013; <sup>1</sup>Krutov et al., 2014; <sup>1</sup>Predtechenskaya and Ruokolainen, 2014; <sup>1</sup>Predtechenskaya, 2015; <sup>1</sup>Savelev and Kikeeva, 2018); **Kirov Oblast** (<sup>1</sup>Kirillov and Luginina, 2011; <sup>1</sup>Kirillov, 2011; <sup>1</sup>Kirillov, Perevedentseva, and Egoshina, 2011; <sup>1</sup>Stavishenko, Luginina, Kirillov, and Egoshina, 2019); **Komi Republic** (<sup>1</sup>Karatygin, Nezdjominogo, Novozhilov, and Zhurbenko, 1999; <sup>1</sup>Palamarchuk, 2011b; <sup>1</sup>Palamarchuk, 2012; <sup>1</sup>Palamarchuk, 2016a; <sup>1</sup>Palamarchuk, 2016b; <sup>1</sup>Palamarchuk and Kirillov, 2017; <sup>1</sup>Palamarchuk, 2017); **Kostroma Oblast** (<sup>1</sup>Burova, 1982; <sup>1</sup>Veremyeva, 1986); **Leningrad Oblast** (<sup>1</sup>Thesleff, 1920; <sup>1</sup>Nezdjominogo, 1967; <sup>1</sup>Chastukhin and Nikolaevskaya, 1969; <sup>1</sup>Kalamees and Kovalenko, 1984; <sup>1</sup>Stolyarskaya, 1989; <sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Fomina, 2000; <sup>1</sup>Morozova and Kovalenko, 2000; <sup>1</sup>Fomina, 2001; <sup>1</sup>Morozova, 2007; <sup>1</sup>Popov et al., 2007; <sup>1</sup>Zmitrovich et al., 2015; <sup>1</sup>Malysheva, Malysheva, Shchepin, and Novozhilov, 2018); **Lipetsk Oblast** (<sup>1</sup>Rtishcheva, 1999; <sup>1</sup>Afanasyev, Rtishcheva, and Starodubtseva, 2007; <sup>1</sup>Sarycheva et al., 2009; <sup>1</sup>Sarycheva, 2011; <sup>1</sup>Sarycheva, 2014a; <sup>1</sup>Sarycheva, Starodubtseva, and Sapelnikova, 2017); **Mordovia** (<sup>1</sup>Chastukhin, 1948a; <sup>1</sup>Kuznetsov, 1960; <sup>1</sup>Chastukhin and Nikolaevskaya, 1969; <sup>1</sup>Chastukhin, 2011; <sup>1</sup>Ivoilov and Bolshakov, 2011b); **Moscow** (<sup>1</sup>Burova, 1968; <sup>1</sup>Vishnevsky and Sidorova, 1997); **Moscow Oblast** (<sup>1</sup>Gorlenko, Sidorova, and Sidorova, 1989; <sup>1</sup>Levitskaya, 1995a; <sup>1</sup>Vishnevsky and Sidorova, 1997; <sup>1</sup>Levitskaya, 2013; <sup>1</sup>Voronina et al., 2014; <sup>1</sup>Sidorova, Alexandrova, and Voronina, 2017); **Murmansk Oblast** (<sup>1</sup>Pystina, Pavlova, and Shestakova, 1969; <sup>1</sup>Mikhailovskii, 1975b; <sup>1</sup>Nezdjominogo, 1997b; <sup>1</sup>Karatygin, Nezdjominogo, Novozhilov, and Zhurbenko, 1999); **Novgorod Oblast** (<sup>1</sup>Rusakov, 1968; <sup>1</sup>Kovalenko, Morozova, Nezdjominogo, and Popov, 2005; <sup>1</sup>Malysheva, Malysheva, and Zmitrovich, 2007; <sup>1</sup>Popov et al., 2013); **Penza Oblast** (<sup>1</sup>Ivanov, 1981a); **Perm Krai** (<sup>1</sup>Shkaraba, Perevedentseva, and Moshkina, 1990; <sup>1</sup>Perevedentseva, 2008; <sup>1</sup>Belkovskaya et al., 2014; <sup>1</sup>Botalov, 2015; <sup>1</sup>Botalov, Perevedentseva, and Denisov, 2015; <sup>1</sup>Perevedentseva and Shishigin, 2015; <sup>1</sup>Botalov, 2017; <sup>1</sup>Botalov and Perevedentseva, 2018); **Pskov Oblast** (<sup>1</sup>Kovalenko and Morozova, 1999b; <sup>1</sup>Popov, 2001a; <sup>1</sup>Popov et al., 2013); **Rostov Oblast** (<sup>1</sup>Rusanov et al., 2004; <sup>1</sup>Morozova et al., 2008; <sup>1</sup>Zmitrovich et al., 2008); **Ryazan Oblast** (<sup>1</sup>Volosnova, 1997; <sup>1</sup>Volosnova, 2014); **Saint Petersburg** (<sup>2</sup>Weinmann, 1828; <sup>2</sup>Weinmann, 1836; <sup>2</sup>Weinmann, 1837; <sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Kotkova, Morozova, and Popov, 2005; <sup>1</sup>Morozova and Smirnov, 2011; <sup>1</sup>Morozova, Kovalenko, Rebriev, and Malysheva, 2014; <sup>1</sup>Morozova et al., 2020); **Samara Oblast** (<sup>1</sup>Malysheva and Malysheva, 2004; <sup>1</sup>Malysheva and Malysheva, 2008); **Sevastopol** (<sup>1</sup>Sarkina, 2016b; <sup>1</sup>Sarkina, 2020c); **Smolensk Oblast** (<sup>1</sup>Jaczewski, 1898; <sup>1</sup>Burova, 1969); **Sverdlovsk Oblast** (<sup>1</sup>Tomilin, 1965; <sup>1</sup>Stepanova and Sirko, 1977; <sup>1</sup>Marina, 2006); **Tatarstan** (<sup>1</sup>Vassiljeva, 1977); **Tula Oblast** (<sup>1</sup>Svetasheva, 2001; <sup>1</sup>Svetasheva, 2004); **Tver Oblast** (<sup>1</sup>Chastukhin, 1948b; <sup>1</sup>Chastukhin and Nikolaevskaya, 1969; <sup>1</sup>Kurochkin, 1993; <sup>1</sup>Mukhina, 2011a; <sup>1</sup>Mukhina, 2011b; <sup>1</sup>Kotkova, 2014); **Udmurt Republic** (<sup>1</sup>Tychinin and Kuzmina, 2003); **Ulyanovsk Oblast** (<sup>1</sup>Ilyukhin, 2010a); **Volgograd Oblast** (<sup>1</sup>Stauchan and Vedeneyev, 2015); **Vologda Oblast** (<sup>1</sup>Kutova, 1957; <sup>1</sup>Kirillova, 2007); **Voronezh Oblast** (<sup>1</sup>Rtishcheva, 1999; <sup>1</sup>Afanasyev, Rtishcheva, and Starodubtseva, 2007; <sup>1</sup>Selochnik, 2015; <sup>1</sup>Kochergina and Furmenkova, 2019); **Yamalo-Nenets Autonomous Okrug** (<sup>1</sup>Stepanova and Sirko, 1977; <sup>1</sup>Karatygin, Nezdjominogo, Novozhilov, and Zhurbenko, 1999); **Yaroslavl Oblast** (<sup>1</sup>Lazareva, 1997; <sup>1</sup>Lazareva, 1998a); **Arid territories** (<sup>1</sup>Rebriev, Rusanov, et al., 2012); **Lapland** (<sup>1</sup>Karsten, 1866).

SIBERIA: **Altai Krai** (<sup>1</sup>Gorbunova and Perova, 2006); **Altai Republic** (<sup>1</sup>Kovalenko, 1992; <sup>1</sup>Gorbunova, 2001b; <sup>1</sup>Perova and Gorbunova, 2001); **Buryatia** (<sup>1</sup>Nezdjominogo, 1970a; <sup>1</sup>Penzina and Petrov, 1994); **Irkutsk Oblast** (<sup>1</sup>Kutafjeva, 1984; <sup>1</sup>Petrov, Nezdjominogo, and Bulakh, 1987; <sup>1</sup>Petrov, 1989; <sup>1</sup>Astapenko, 1990a; <sup>1</sup>Astapenko, 1990b; <sup>1</sup>Muzyka, 2002; <sup>1</sup>Bardunov et al., 2005; <sup>1</sup>Petrov, 2008; <sup>1</sup>Gorbunova and Stepantsova, 2015; <sup>1</sup>Muzyka and Penzina, 2017); **Khakassia** (<sup>1</sup>Zauzolkova, 2015); **Khanty-Mansi Autonomous Okrug** (<sup>1</sup>Filippova, 2009; <sup>1</sup>Zvyagina and Baykalova,

2012; <sup>1</sup>Filippova and Thormann, 2014; <sup>1</sup>Filippova, 2014; <sup>1</sup>Filippova, Mourgues, and Philippe, 2014; <sup>1</sup>Filippova, Bulyonkova, and Lapshina, 2015; <sup>1</sup>Makarova, Makarov, Zvyagina, and Bobrikov, 2015; <sup>1</sup>Zvyagina and Vasina, 2015; <sup>1</sup>Filippova and Bulyonkova, 2017a; <sup>1</sup>Filippova and Bulyonkova, 2017b); **Krasnoyarsk Krai** (<sup>1</sup>Stepanova and Tomilin, 1973; <sup>1</sup>Nezdojminogo, 1976a; <sup>1</sup>Lapitskaya, 1993; <sup>1</sup>Kutafjeva and Kosheleva, 2005; <sup>1</sup>Kosheleva and Kutafjeva, 2008a; <sup>1</sup>Kosheleva and Kutafjeva, 2008b; <sup>1</sup>Kryuchkova, 2009; <sup>1</sup>Kosheleva, 2010; <sup>1</sup>Gorbunova, 2016; <sup>1</sup>Malysheva, Malysheva, Kiyashko, et al., 2017); **Novosibirsk Oblast** (<sup>1</sup>Zaytseva, 1971; <sup>1</sup>Perova, 1977; <sup>1</sup>Perova and Gorbunova, 2001; <sup>1</sup>Gorbunova, 2007); **Sverdlovsk Oblast** (<sup>1</sup>Stepanova and Sirko, 1977); **Tomsk Oblast** (<sup>1</sup>Milovidova, 1980; <sup>1</sup>Perova and Gorbunova, 2001; <sup>1</sup>Kosheleva and Kutafjeva, 2004; <sup>1</sup>Agaphonova, Kutafjeva, and Gashkov, 2007; <sup>1</sup>Kudashova, Gashkov, and Kutafjeva, 2013; <sup>1</sup>Vaishlya et al., 2017); **Yamalo-Nenets Autonomous Okrug** (<sup>1</sup>Tarchevskaya, 1990; <sup>1</sup>Karatygin, Nezdojminogo, Novozhilov, and Zhurbenko, 1999); **Zabaykalsky Krai** (<sup>1</sup>Karsten, 1906).

FAR EAST: **Chukotka Autonomous Okrug** (<sup>1</sup>Sazanova, 1993; <sup>1</sup>Karatygin, Nezdojminogo, Novozhilov, and Zhurbenko, 1999); **Jewish Autonomous Oblast** (<sup>1</sup>Bulakh, Govorova, Nazarova, and Vassiljeva, 2007; <sup>1</sup>Bau, Bulakh, and Govorova, 2011); **Kamchatka Krai** (<sup>1</sup>Kalamees and Vaasma, 1981; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1</sup>Karatygin, Nezdojminogo, Novozhilov, and Zhurbenko, 1999); **Khabarovsk Krai** (<sup>1</sup>Bulakh, 1986; <sup>1</sup>Azbukina et al., 1989; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1</sup>Bulakh, Vassiljeva, and Erofeeva, 2010; <sup>1</sup>Bulakh, 2013; <sup>1</sup>Bogacheva, Bulakh, Bukharova, and Egorova, 2015; <sup>1</sup>Erofeeva and Bulakh, 2015a); **Magadan Oblast** (<sup>1</sup>Nazarova, 1976; <sup>1</sup>Bulakh, 1986; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1</sup>Sazanova, 1996; <sup>1</sup>Sazanova, 2005; <sup>1</sup>Sazanova, 2009a; <sup>1</sup>Sazanova, 2009b; <sup>1</sup>Sazanova, 2011; <sup>1</sup>Sazanova, 2012; <sup>1</sup>Sazanova and Golodnova, 2015; <sup>1</sup>Sazanova, 2016); **Primorsky Krai** (<sup>1</sup>Vassiljeva, 1973; <sup>1</sup>Bulakh, 1986; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1</sup>Bulakh et al., 2016); **Sakhalin Oblast** (<sup>1</sup>Vassiljeva and Nazarova, 1972; <sup>1</sup>Bulakh, 1986; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990).

### ***Lactarius ruginosus* Romagn.**

EASTERN EUROPE: **Krasnodar Krai** (Kovalenko, 1980a; Kovalenko, 1980b).

### ***Lactarius sakamotoi* S. Imai**

FAR EAST: **Khabarovsk Krai** (Azbukina et al., 1986; Bulakh, 1986; Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; Bau, Bulakh, and Govorova, 2011); **Primorsky Krai** (Vassiljeva, 1972; Vassiljeva, 1973; Bulakh, 1977; Bunkina and Nazarova, 1978; Azbukina et al., 1984; Bulakh, 1986; Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; Azbukina et al., 2006; Bau, Bulakh, and Govorova, 2011).

### ***Lactarius salicis-herbaceae* Kühner**

EASTERN EUROPE: **Komi Republic** (Palamarchuk, 2016a; Palamarchuk, 2016b); **Yamalo-Nenets Autonomous Okrug** (Knudsen and Mukhin, 1998; Karatygin, Nezdojminogo, Novozhilov, and Zhurbenko, 1999).

SIBERIA: **Krasnoyarsk Krai** (Nezdojminogo and Zhurbenko, 1996; Nezdojminogo, 1997a; Karatygin, Nezdojminogo, Novozhilov, and Zhurbenko, 1999); **Sakha Republic** (Karatygin, Nezdojminogo, Novozhilov, and Zhurbenko, 1999).

### ***Lactarius salicis-reticulatae* Kühner**

EASTERN EUROPE: **Komi Republic** (Palamarchuk, 2016a; Palamarchuk, 2016b).

SIBERIA: **Krasnoyarsk Krai** (Nezdojminogo and Zhurbenko, 1996; Karatygin, Nezdojminogo, Novozhilov, and Zhurbenko, 1999; Gorbunova, 2016); **Sakha Republic** (Nezdojminogo, 1997a; Karatygin, Nezdojminogo, Novozhilov, and Zhurbenko, 1999; Nezdojminogo, 2003).

### ***Lactarius salmonicolor* R. Heim & Leclair**

EASTERN EUROPE: **Adygea** (Sopina, 2004a); **Belgorod Oblast** (Bedenko, 1979b; Bedenko, 1980); **Kabardino-Balkarian Republic** (Shkhagapsoev and Krapivina, 2004); **Krasnodar Krai** (Kovalenko, 1980a; Kovalenko, 1980b; Sopina, 2004a).

### ***Lactarius sanguifluus* (Paulet) Fr.**

EASTERN EUROPE: **Adygea** (Vaasma, Kalamees, and Raitviir, 1986); **Belgorod Oblast** (Bedenko, 1980); **Crimea** (Zerova, 1962; Sarkina, 2001; Sarkina, Prydiuk, and Heluta, 2003; Dudka et al., 2004; Sarkina, 2010b; Sarkina, 2011; Sarkina and Prydiuk, 2012; Sarkina, 2013; Sarkina, 2014b; Sarkina and Mironova, 2015; Yena and Fateryga, 2015; Sarkina, 2016a); **Krasnodar Krai** (Vaasma, Kalamees, and Raitviir, 1986); **Leningrad Oblast** (Kovalenko and Morozova, 1999a; Popov et al., 2007); **Moscow Oblast** (Vishnevsky and Sidorova, 1997); **Rostov Oblast** (Rusanov

et al., 2004; Zmitrovich et al., 2008); **Sevastopol** (Sarkina, 2016b; Sarkina, 2020b; Sarkina, 2020c); **Tver Oblast** (Mukhina and Garibova, 2010; Mukhina, 2011a; Mukhina, 2011b; Kotkova, 2014); **Arid territories** (Rebriev, Rusanov, et al., 2012).

FAR EAST: **Primorsky Krai** (Bau, Bulakh, and Govorova, 2011).

#### ***Lactarius scoticus* Berk. & Broome**

EASTERN EUROPE: **Karelia** (Krutov et al., 2014); **Komi Republic** (Shiryayeva and Palamarchuk, 2019); **Leningrad Oblast** (Stolyarskaya, 1993; Kovalenko and Morozova, 1999a; Morozova and Kovalenko, 2000; Popov et al., 2007; Zmitrovich et al., 2015); **Saint Petersburg** (Morozova et al., 2020); **Vologda Oblast** (Kirillova, 2007).

SIBERIA: **Altai Republic** (Kovalenko, 1992); **Khakassia** (Pilát, 1936); **Khanty-Mansi Autonomous Okrug** (Zvyagina and Baykalova, 2017).

FAR EAST: **Kamchatka Krai** (Karatygin, Nezdojminogo, Novozhilov, and Zhurbenko, 1999).

#### ***Lactarius scrobiculatus* (Scop.) Fr.<sup>1</sup>**

≡ *Agaricus scrobiculatus* Scop.<sup>2</sup>

EASTERN EUROPE: **Adygea** (<sup>1</sup>Vassiljeva, 1939; <sup>1</sup>Kovalenko, 1980b; <sup>1</sup>Vaasma, Kalamees, and Raitviir, 1986); **Arkhangelsk Oblast** (<sup>1</sup>Ezhov, Ershov, Ruokolainen, and Zmitrovich, 2011; <sup>1</sup>Ezhov, 2014); **Belgorod Oblast** (<sup>1</sup>Bedenko, 1980); **Bryansk Oblast** (<sup>1</sup>Kruglikov, 2007); **Crimea** (<sup>1</sup>Sarkina, 2010a; <sup>1</sup>Sarkina and Prydiuk, 2012; <sup>1</sup>Sarkina and Mironova, 2015); **Kabardino-Balkarian Republic** (<sup>1</sup>Shkhagapsoev and Krapivina, 2003; <sup>1</sup>Shkhagapsoev and Krapivina, 2004); **Kaliningrad Oblast** (<sup>1</sup>Dedkov, Volodina, and Gubareva, 2007; <sup>1</sup>Volodina, 2007; <sup>1</sup>Dedkov and Grishanov, 2010); **Karachay-Cherkess Republic** (<sup>1</sup>Vassiljeva, 1939; <sup>1</sup>Kalamees and Botashev, 2000); **Karelia** (<sup>1</sup>Freindling, 1949; <sup>1</sup>Kovalenko, Morozova, Fomina, and Särkisilta, 1998; <sup>1</sup>Bondartseva et al., 2001; <sup>1</sup>Predtechenskaya and Ruokolainen, 2008; <sup>1</sup>Predtechenskaya, 2013; <sup>1</sup>Krutov et al., 2014; <sup>1</sup>Predtechenskaya and Ruokolainen, 2014; <sup>1</sup>Savelev and Kikeeva, 2018); **Komi Republic** (<sup>1</sup>Palamarchuk, 2012; <sup>1</sup>Palamarchuk, 2016a; <sup>1</sup>Palamarchuk, 2016b; <sup>1</sup>Palamarchuk and Kirillov, 2017); **Krasnodar Krai** (<sup>1</sup>Vassiljeva, 1939; <sup>1</sup>Kovalenko, 1980a; <sup>1</sup>Kovalenko, 1980b; <sup>1</sup>Sopina, 2004a); **Leningrad Oblast** (<sup>2</sup>Weinmann, 1836; <sup>2</sup>Weinmann, 1837; <sup>1</sup>Thesleff, 1920; <sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Morozova and Kovalenko, 2000; <sup>1</sup>Popov et al., 2007); **Lipetsk Oblast** (<sup>1</sup>Rtishcheva, 1999; <sup>1</sup>Afanasyev, Rtishcheva, and Starodubtseva, 2007; <sup>1</sup>Sarycheva, Starodubtseva, and Sapelnikova, 2017); **Murmansk Oblast** (<sup>1</sup>Pystina, Pavlova, and Shestakova, 1969); **Perm Krai** (<sup>1</sup>Perevedentseva, 2008; <sup>1</sup>Belkovskaya et al., 2014); **Ryazan Oblast** (<sup>1</sup>Volosnova, 1997; <sup>1</sup>Volosnova, 2014); **Smolensk Oblast** (<sup>1</sup>Jaczewski, 1893; <sup>1</sup>Jaczewski, 1895); **Sverdlovsk Oblast** (<sup>1</sup>Stepanova and Sirko, 1977); **Tambov Oblast** (<sup>1</sup>Elenevskiy, 2002; <sup>1</sup>Konakov et al., 2019); **Tatarstan** (<sup>1</sup>Vassiljeva, 1977); **Tver Oblast** (<sup>1</sup>Kurochkin, 1993); **Udmurt Republic** (<sup>1</sup>Tychinin and Kuzmina, 2003; <sup>1</sup>Baranova, 2012); **Voronezh Oblast** (<sup>1</sup>Rtishcheva, 1999; <sup>1</sup>Afanasyev, Rtishcheva, and Starodubtseva, 2007; <sup>1</sup>Sarycheva, Starodubtseva, and Sapelnikova, 2017); **Yaroslavl Oblast** (<sup>1</sup>Lazareva, 1998a).

SIBERIA: **Krasnoyarsk Krai** (<sup>1</sup>Beglyanova, 1972a; <sup>1</sup>Kosheleva and Kutafjeva, 2008a; <sup>1</sup>Krom and Kapitonov, 2019); **Novosibirsk Oblast** (<sup>1</sup>Zaytseva, 1971; <sup>1</sup>Perova and Gorbunova, 2001); **Tomsk Oblast** (<sup>1</sup>Perova and Gorbunova, 2001; <sup>1</sup>Kudashova, Gashkov, and Kutafjeva, 2013); **Zabaykalsky Krai** (<sup>1</sup>Karsten, 1911).

FAR EAST: **Amur Oblast** (<sup>1</sup>Kochunova and Erofeeva, 2017); **Khabarovsk Krai** (<sup>1</sup>Bulakh, 1986; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990); **Magadan Oblast** (<sup>1</sup>Nazarova, 1976); **Primorsky Krai** (<sup>1</sup>Vassiljeva, 1973; <sup>1</sup>Shalapugina, 1976; <sup>1</sup>Bulakh, 1977; <sup>1</sup>Bunkina and Nazarova, 1978; <sup>1</sup>Azbukina et al., 1984; <sup>1</sup>Bulakh, 1986; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1</sup>Azbukina et al., 2006; <sup>1</sup>Bau, Bulakh, and Govorova, 2011).

#### ***Lactarius semisanguifluus* R. Heim & Leclair**

EASTERN EUROPE: **Crimea** (Dudka et al., 2004; Sarkina and Prydiuk, 2012; Sarkina, 2014b; Sarkina and Mironova, 2015; Sarkina, 2016a); **Leningrad Oblast** (Kovalenko and Morozova, 1999a; Tzvelev, 2000; Popov et al., 2007; Geltman et al., 2018); **Penza Oblast** (Ivanov, 2013a); **Perm Krai** (Baklanov, 2018); **Vologda Oblast** (Kirillova, 2007; Suslova et al., 2013).

#### ***Lactarius serifluus* (DC.) Fr.**

EASTERN EUROPE: **Kaliningrad Oblast** (Dedkov, Volodina, and Gubareva, 2007; Volodina, 2007); **Kaluga Oblast** (Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; Sionova, 2003); **Karachay-Cherkess Republic** (Hollós, 1902; Hollós, 1905; Filarszky, 1907); **Karelia** (Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; Kovalenko, Morozova, Fomina, and Särkisilta, 1998; Krutov et al., 2014); **Kursk Oblast** (Baranov, 2002); **Leningrad Oblast** (Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; Kovalenko and Morozova, 1999a; Popov et al., 2007); **Mari El Republic** (Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990); **Moscow** (Bucholtz, 1897b; Bucholtz, 1897c; Mosolov, 1906); **Moscow**

**Oblast** (Bulakh, Wasser, Nazarova, and Nezdjominogo, 1990; Vishnevsky and Sidorova, 1997); **Murmansk Oblast** (Pystina, Pavlova, and Shestakova, 1969); **Saint Petersburg** (Morozova, Kovalenko, Rebriev, and Malysheva, 2014); **Samara Oblast** (Malysheva and Malysheva, 2008); **Stavropol Krai** (Bulakh, Wasser, Nazarova, and Nezdjominogo, 1990); **Tver Oblast** (Bulakh, Wasser, Nazarova, and Nezdjominogo, 1990).

FAR EAST: **Khabarovsk Krai** (Bulakh, 1986; Bau, Bulakh, and Govorova, 2011); **Magadan Oblast** (Bulakh, 1986); **Primorsky Krai** (Bulakh, 1986; Azbukina et al., 1990; Bulakh, Wasser, Nazarova, and Nezdjominogo, 1990; Bardunov et al., 2002; Azbukina et al., 2006; Bau, Bulakh, and Govorova, 2011; Bogacheva et al., 2018); **Sakhalin Oblast** (Bulakh, 1986).

### *Lactarius sphagneti* (Fr.) Neuhoff

EASTERN EUROPE: **Karelia** (Krutov et al., 2014); **Kostroma Oblast** (Burova, 1982); **Leningrad Oblast** (Fomina, 2000; Fomina, 2001); **Sverdlovsk Oblast** (Marina, 2006).

SIBERIA: **Irkutsk Oblast** (Gorbunova and Stepantsova, 2015).

### *Lactarius spinosulus* Qué. & Le Bret.

EASTERN EUROPE: **Adygea** (Sopina, 2004a); **Belgorod Oblast** (Bedenko, 1980); **Kabardino-Balkarian Republic** (Shkhagapsoev and Krapivina, 2004); **Kaliningrad Oblast** (Dedkov, Volodina, and Gubareva, 2007); **Karachay-Cherkess Republic** (Vassiljeva, 1939; Kalamees and Botashev, 2000); **Karelia** (Freindling, 1949; Bondartseva et al., 2001; Predtechenskaya, 2013; Krutov et al., 2014); **Komi Republic** (Palamarchuk and Kirillov, 2018a); **Krasnodar Krai** (Vassiljeva, 1939); **Leningrad Oblast** (Kovalenko and Morozova, 1999a; Morozova, 1999; Popov et al., 2007); **Moscow Oblast** (Gorlenko, Sidorova, and Sidorova, 1989; Levitskaya, 1995a; Levitskaya, 2013); **Penza Oblast** (Ivanov, 1989); **Perm Krai** (Perevedentseva, 2008; Botalov, 2017); **Pskov Oblast** (Kalinina, Bolshakov, and Bulyonkova, 2020); **Sverdlovsk Oblast** (Marina, 2006); **Tatarstan** (Vassiljeva, 1977); **Tula Oblast** (Svetasheva, 2004); **Udmurt Republic** (Kapitonov, 2013).

SIBERIA: **Altai Krai** (Gorbunova and Perova, 2006; Gorbunova, 2018a); **Altai Republic** (Gorbunova, 1996; Gorbunova, 1997; Gorbunova, 2001a; Perova and Gorbunova, 2001); **Khanty-Mansi Autonomous Okrug** (Filippova, Bulyonkova, and Lapshina, 2015); **Krasnoyarsk Krai** (Krom and Kapitonov, 2019); **Novosibirsk Oblast** (Perova and Gorbunova, 2001; Koropachinskiy and Banaev, 2014); **Tomsk Oblast** (Agaphonova, Kutafjeva, and Gashkov, 2009a; Kudashova, Gashkov, and Kutafjeva, 2013).

### *Lactarius subcircellatus* Kühner

EASTERN EUROPE: **Komi Republic** (Karatygin, Nezdjominogo, Novozhilov, and Zhurbenko, 1999; Palamarchuk, 2016a; Palamarchuk, 2016b); **Yamalo-Nenets Autonomous Okrug** (Nezdjominogo, 2001).

SIBERIA: **Sakha Republic** (Karatygin, Nezdjominogo, Novozhilov, and Zhurbenko, 1999).

### *Lactarius subdulcis* (Pers.) Gray<sup>1</sup>

≡ *Agaricus subdulcis* Pers.<sup>2</sup>

EASTERN EUROPE: **Adygea** (<sup>1</sup>Sopina, 2004a); **Bryansk Oblast** (<sup>1</sup>Kruglikov, 2007); **Chelyabinsk Oblast** (<sup>1</sup>Stepanova and Sirko, 1977); **Crimea** (<sup>1</sup>Moser, 1993; <sup>1</sup>Sarkina, 2001; <sup>1</sup>Dudka et al., 2004; <sup>1</sup>Sarkina, 2010a; <sup>1</sup>Sarkina, 2010b; <sup>1</sup>Sarkina, 2011; <sup>1</sup>Sarkina, 2013; <sup>1</sup>Sarkina and Mironova, 2015; <sup>1</sup>Sarkina and Stavishenko, 2019); **Ivanovo Oblast** (<sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdjominogo, 1990); **Kaliningrad Oblast** (<sup>1</sup>Hennings, 1895; <sup>1</sup>Dedkov, Volodina, and Gubareva, 2007; <sup>1</sup>Atayev and Volodina, 2020); **Kaluga Oblast** (<sup>1</sup>Sionova, 2003); **Karelia** (<sup>1</sup>Freindling, 1949; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdjominogo, 1990; <sup>1</sup>Bondartseva et al., 2001; <sup>1</sup>Krutov et al., 2014); **Kostroma Oblast** (<sup>1</sup>Veremyeva, 1986); **Krasnodar Krai** (<sup>1</sup>Kovalenko, 1980a; <sup>1</sup>Kovalenko, 1980b; <sup>1</sup>Sopina, 2004a); **Leningrad Oblast** (<sup>1</sup>Thesleff, 1920; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdjominogo, 1990; <sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Popov et al., 2007); **Mordovia** (<sup>1</sup>Kuznetsov, 1960; <sup>1</sup>Chastukhin, 2011; <sup>1</sup>Ivoilov and Bolshakov, 2011b); **Moscow** (<sup>2</sup>Weinmann, 1836; <sup>1</sup>Bucholtz, 1897a); **Moscow Oblast** (<sup>1</sup>Gorlenko, Sidorova, and Sidorova, 1989; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdjominogo, 1990; <sup>1</sup>Vishnevsky and Sidorova, 1997; <sup>1</sup>Voronina et al., 2014); **Murmansk Oblast** (<sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdjominogo, 1990); **Penza Oblast** (<sup>1</sup>Ivanov, 1983; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdjominogo, 1990; <sup>1</sup>Ivanov, 2019); **Perm Krai** (<sup>1</sup>Perevedentseva, 2008; <sup>1</sup>Belkovskaya et al., 2014); **Rostov Oblast** (<sup>1</sup>Rusanov et al., 2004; <sup>1</sup>Zmitrovich et al., 2008); **Saint Petersburg** (<sup>2</sup>Weinmann, 1828; <sup>2</sup>Weinmann, 1836; <sup>2</sup>Weinmann, 1837); **Smolensk Oblast** (<sup>1</sup>Jaczewski, 1895); **Sverdlovsk Oblast** (<sup>1</sup>Stepanova and Sirko, 1977); **Tatarstan** (<sup>1</sup>Vassiljeva, 1977; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdjominogo, 1990); **Tver Oblast** (<sup>1</sup>Chastukhin, 1948b; <sup>1</sup>Chastukhin and Nikolaevskaya, 1969; <sup>1</sup>Kurochkin, 1993; <sup>1</sup>Mukhina, 2011a; <sup>1</sup>Mukhina, 2011b; <sup>1</sup>Kotkova, 2014); **Udmurt Republic** (<sup>1</sup>Tychinin and Kuzmina, 2003); **Vologda Oblast** (<sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdjominogo, 1990); **Yamalo-**

**Nenets Autonomous Okrug** (<sup>1</sup>Stepanova and Sirko, 1970; <sup>1</sup>Stepanova and Sirko, 1977); **Arid territories** (<sup>1</sup>Rebriev, Rusanov, et al., 2012); **Northern Caucasus** (<sup>1</sup>Vassiljeva, 1939).

SIBERIA: **Altai Krai** (<sup>1</sup>Gorbunova and Perova, 2006); **Altai Republic** (<sup>1</sup>Gorbunova, 1996; <sup>1</sup>Gorbunova, 1997; <sup>1</sup>Gorbunova, 2001b; <sup>1</sup>Gorbunova, 2008); **Irkutsk Oblast** (<sup>1</sup>Petrov, Nezdjominog, and Bulakh, 1987; <sup>1</sup>Petrov, 1989; <sup>1</sup>Petrov, 1991; <sup>1</sup>Petrov, 2008); **Krasnoyarsk Krai** (<sup>1</sup>Thümen, 1880a; <sup>1</sup>Beglyanova, 1972a; <sup>1</sup>Stepanova and Tomilin, 1973; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdjominog, 1990; <sup>1</sup>Kryuchkova, 2009; <sup>1</sup>Zauzolkova, 2015); **Kurgan Oblast** (<sup>1</sup>Stepanova and Sirko, 1977); **Novosibirsk Oblast** (<sup>1</sup>Zaytseva, 1971; <sup>1</sup>Perova, 1977; <sup>1</sup>Perova and Gorbunova, 2007); **Sverdlovsk Oblast** (<sup>1</sup>Stepanova and Sirko, 1977); **Tomsk Oblast** (<sup>1</sup>Perova, 1972; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdjominog, 1990; <sup>1</sup>Kudashova, Gashkov, and Kutafjeva, 2013; <sup>1</sup>Vaishlya et al., 2017); **Tyumen Oblast** (<sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdjominog, 1990); **Yamalo-Nenets Autonomous Okrug** (<sup>1</sup>Tarчевskaya, 1990).

FAR EAST: **Chukotka Autonomous Okrug** (<sup>1</sup>Berkeley and Curtis, 1978); **Magadan Oblast** (<sup>1</sup>Nazarova, 1976); **Primorsky Krai** (<sup>1</sup>Vassiljeva, 1973; <sup>1</sup>Shalapugina, 1976; <sup>1</sup>Bunkina and Nazarova, 1978; <sup>1</sup>Azbukina et al., 1984; <sup>1</sup>Bulakh, 1986; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdjominog, 1990; <sup>1</sup>Azbukina et al., 2006; <sup>1</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Bulakh et al., 2016); **Sakhalin Oblast** (<sup>1</sup>Vassiljeva and Nazarova, 1972; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdjominog, 1990).

***Lactarius subindigo* Verbeken & E. Horak**

SIBERIA: **Tomsk Oblast** (Vaishlya et al., 2017).

***Lactarius subplinthogalus* Coker**

FAR EAST: **Primorsky Krai** (Bulakh, 1986; Bulakh, Wasser, Nazarova, and Nezdjominog, 1990; Bogacheva et al., 2018).

***Lactarius subumbonatus* Lindgr.**

EASTERN EUROPE: **Adygea** (Sopina, 2004a); **Kaliningrad Oblast** (Atayev and Volodina, 2020); **Ulyanovsk Oblast** (Ilyukhin, 2010a).

***Lactarius syringinus* Z. Schaef.**

EASTERN EUROPE: **Vologda Oblast** (Kirillova, 2007).

***Lactarius tabidus* Fr.**

EASTERN EUROPE: **Karelia** (Freindling, 1949; Bondartseva et al., 2001; Krutov et al., 2014); **Komi Republic** (Palamarchuk, 2012; Palamarchuk, 2016a; Palamarchuk, 2016b); **Leningrad Oblast** (Morozova, 2007; Zmitrovich et al., 2015); **Lipetsk Oblast** (Sarycheva et al., 2009); **Moscow Oblast** (Voronina et al., 2014; Malysheva, Malysheva, Voronina, and Kovalenko, 2018); **Pskov Oblast** (Kalinina, Bolshakov, and Bulyonkova, 2020); **Ryazan Oblast** (Volosnova, 2014); **Saint Petersburg** (Morozova and Smirnov, 2011; Morozova et al., 2020); **Tver Oblast** (Mukhina, 2011a; Kotkova, 2014); **Vologda Oblast** (Kirillova, 2007).

SIBERIA: **Altai Krai** (Gorbunova, 2018a); **Altai Republic** (Gorbunova, 2010); **Irkutsk Oblast** (Gorbunova and Stepantsova, 2015); **Khanty-Mansi Autonomous Okrug** (Zvyagina and Baykalova, 2017); **Tomsk Oblast** (Vaishlya et al., 2017).

FAR EAST: **Amur Oblast** (Kochunova, 2019); **Primorsky Krai** (Vassiljeva, 1973; Bunkina and Nazarova, 1978; Bulakh, 1986; Azbukina et al., 2006; Malysheva et al., 2016); **Sakhalin Oblast** (Vassiljeva and Nazarova, 1972).

***Lactarius tithymalinus* (Scop.) Fr.**

EASTERN EUROPE: **Adygea** (Vaasma, Kalamees, and Raitviir, 1986); **Kaliningrad Oblast** (Dedkov, Volodina, and Gubareva, 2007).

***Lactarius torminosulus* Knudsen & T. Borgen**

EASTERN EUROPE: **Komi Republic** (Karatygin, Nezdjominog, Novozhilov, and Zhurbenko, 1999; Palamarchuk, 2011b; Palamarchuk, 2016a; Palamarchuk, 2016b; Palamarchuk, 2020a); **Murmansk Oblast** (Nezdjominog, 1997b; Karatygin, Nezdjominog, Novozhilov, and Zhurbenko, 1999); **Nenets Autonomous Okrug** (Karatygin, Nezdjominog, Novozhilov, and Zhurbenko, 1999); **Yamalo-Nenets Autonomous Okrug** (Knudsen and Mukhin, 1998; Karatygin, Nezdjominog, Novozhilov, and Zhurbenko, 1999; Nezdjominog, 2001).

SIBERIA: **Altai Republic** (Gorbunova, 2010; Gorbunova, 2019); **Krasnoyarsk Krai** (Karatygin, Nezdojminogo, Novozhilov, and Zhurbenko, 1999; Gorbunova, 2016); **Sakha Republic** (Karatygin, Nezdojminogo, Novozhilov, and Zhurbenko, 1999); **Yamalo-Nenets Autonomous Okrug** (Kapitonov, 2015).

FAR EAST: **Chukotka Autonomous Okrug** (Karatygin, Nezdojminogo, Novozhilov, and Zhurbenko, 1999); **Kamchatka Krai** (Karatygin, Nezdojminogo, Novozhilov, and Zhurbenko, 1999).

***Lactarius torminosus* (Schaeff.) Pers.<sup>1</sup>**

≡ *Agaricus torminosus* Schaeff.<sup>2</sup> = *Lactarius cilicioides* (Fr.) Fr.<sup>3</sup>

EASTERN EUROPE: **Adygea** (<sup>1</sup>Vassiljeva, 1939; <sup>1</sup>Sopina, 2004a); **Arkhangelsk Oblast** (<sup>1</sup>Lebedeva, 1933; <sup>1</sup>Ezhov, Ershov, Ruokolainen, and Zmitrovich, 2011; <sup>1</sup>Ezhov, 2014; <sup>1</sup>Ezhov, Zmitrovich, and Ruokolainen, 2019); **Bashkortostan** (<sup>1</sup>Stepanova and Sirko, 1977); **Belgorod Oblast** (<sup>1</sup>Bedenko, 1980); **Bryansk Oblast** (<sup>1</sup>Kruglikov, 2007); **Chechen Republic** (<sup>1</sup>Taysumov, Krapivina, Umarov, and Astamirova, 2012); **Chelyabinsk Oblast** (<sup>1</sup>Aleksandrovskaia and Lobanova, 1968; <sup>1</sup>Sirko and Stepanova, 1977; <sup>1</sup>Stepanova and Sirko, 1977); **Crimea** (<sup>1</sup>Sarkina, 2001; <sup>1</sup>Dudka et al., 2004; <sup>1</sup>Sarkina and Prydiuk, 2012); **Kabardino-Balkarian Republic** (<sup>1</sup>Singer, 1931; <sup>1</sup>Shkhagapsoev and Krapivina, 2003; <sup>1</sup>Shkhagapsoev and Krapivina, 2004); **Kaliningrad Oblast** (<sup>1</sup>Dedkov, Volodina, and Gubareva, 2007; <sup>1</sup>Volodina, 2007; <sup>1</sup>Atayev and Volodina, 2020); **Kaluga Oblast** (<sup>1</sup>Sionova, 2003; <sup>1</sup>Sionova, 2006); **Karachay-Cherkess Republic** (<sup>1</sup>Kalamees and Botashev, 2000); **Karelia** (<sup>1</sup>Freindling, 1949; <sup>1</sup>Kovalenko, Morozova, Fomina, and Särkisilta, 1998; <sup>1</sup>Bondartseva et al., 2001; <sup>1</sup>Predtechenskaya and Ruokolainen, 2013; <sup>1</sup>Predtechenskaya, 2013; <sup>1</sup>Krutov et al., 2014; <sup>1</sup>Predtechenskaya and Ruokolainen, 2014; <sup>1</sup>Predtechenskaya, 2015; <sup>1</sup>Savelev and Kikeeva, 2018); **Kirov Oblast** (<sup>1</sup>Kirillov and Luginina, 2011; <sup>1</sup>Kirillov, 2011; <sup>1</sup>Kirillov, Perevedentseva, and Egoshina, 2011; <sup>1</sup>Stavishenko, Luginina, Kirillov, and Egoshina, 2019); **Komi Republic** (<sup>1</sup>Karatygin, Nezdojminogo, Novozhilov, and Zhurbenko, 1999; <sup>1</sup>Palamarchuk, 2011b; <sup>1</sup>Palamarchuk, 2012; <sup>1</sup>Palamarchuk, 2016a; <sup>1</sup>Palamarchuk, 2016b; <sup>1</sup>Palamarchuk and Kirillov, 2017; <sup>1</sup>Palamarchuk, 2017); **Kostroma Oblast** (<sup>1</sup>Burova, 1982; <sup>1</sup>Veremyeva, 1986); **Krasnodar Krai** (<sup>1</sup>Vassiljeva, 1939; <sup>1</sup>Kovalenko, 1980a; <sup>1</sup>Kovalenko, 1980b; <sup>1</sup>Shumkova, Krivorotov, and Gayday, 2018); **Kursk Oblast** (<sup>1</sup>Ryabova and Ignatenko, 1981; <sup>1</sup>Soshnina, 2001); **Leningrad Oblast** (<sup>1</sup>Thesleff, 1920; <sup>1</sup>Kalamees and Kovalenko, 1984; <sup>1</sup>Stolyarskaya, 1989; <sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Fomina, 2000; <sup>1</sup>Fomina, 2001; <sup>1</sup>Morozova, 2007; <sup>1</sup>Popov et al., 2007; <sup>1</sup>Zmitrovich et al., 2015; <sup>1</sup>Kalinina, 2018); **Lipetsk Oblast** (<sup>1</sup>Alferova, 1977; <sup>1</sup>Rtishcheva, 1999; <sup>1</sup>Sarycheva, 1999; <sup>1</sup>Afanasyev, Rtishcheva, and Starodubtseva, 2007; <sup>1</sup>Sarycheva et al., 2009; <sup>1</sup>Sarycheva, 2011; <sup>1</sup>Sarycheva, 2014a; <sup>1</sup>Sarycheva, 2016; <sup>1</sup>Sarycheva, Starodubtseva, and Sapelnikova, 2017); **Mari El Republic** (<sup>1</sup>Prokhorov, 2007); **Mordovia** (<sup>1</sup>Chastukhin, 1948a; <sup>1</sup>Kuznetsov, 1960; <sup>1</sup>Chastukhin and Nikolaevskaya, 1969; <sup>1</sup>Chastukhin, 2011; <sup>1</sup>Ivoilov and Bolshakov, 2011b); **Moscow** (<sup>1</sup>Bucholtz, 1897a; <sup>1</sup>Bucholtz, 1897b; <sup>1</sup>Bucholtz, 1897c; <sup>1</sup>Mosolov, 1906); **Moscow Oblast** (<sup>1</sup>Gorlenko, Sidorova, and Sidorova, 1989; <sup>1</sup>Levitskaya, 1995a; <sup>1</sup>Vishnevsky and Sidorova, 1997; <sup>1</sup>Levitskaya, 2013; <sup>1</sup>Voronina et al., 2014; <sup>1</sup>Malysheva, Malysheva, Voronina, and Kovalenko, 2018); **Murmansk Oblast** (<sup>1</sup>Vanin, 1928; <sup>1</sup>Pystina, Pavlova, and Shestakova, 1969; <sup>1</sup>Mikhailovskii, 1975b; <sup>1</sup>Karatygin, Nezdojminogo, Novozhilov, and Zhurbenko, 1999); **Nizhny Novgorod Oblast** (<sup>1</sup>Murashkinsky, 1911); **North Ossetia** (<sup>1</sup>Nikolayev, 2001); **Novgorod Oblast** (<sup>1</sup>Rusakov, 1968; <sup>1</sup>Kovalenko, Morozova, Nezdojminogo, and Popov, 2005; <sup>1</sup>Popov et al., 2013); **Orenburg Oblast** (<sup>1</sup>Desyatova, 2008); **Penza Oblast** (<sup>1</sup>Ivanov, 1981a; <sup>1</sup>Ivanov, 1981b; <sup>1</sup>Ivanov, 1999; <sup>1</sup>Ivanov, 2019); **Perm Krai** (<sup>1</sup>Shkaraba, Perevedentseva, and Moshkina, 1990; <sup>1</sup>Perevedentseva, 2008; <sup>1</sup>Belkovskaya et al., 2014; <sup>1</sup>Perevedentseva and Shishigin, 2015; <sup>1</sup>Botalov, 2017); **Pskov Oblast** (<sup>1</sup>Popov, 2001a; <sup>1</sup>Popov et al., 2013); **Ryazan Oblast** (<sup>1</sup>Volosnova, 1997; <sup>1</sup>Volosnova, 2014); **Saint Petersburg** (<sup>2</sup>Weinmann, 1828; <sup>2</sup>Weinmann, 1836; <sup>2</sup>Weinmann, 1837; <sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Kotkova, Morozova, and Popov, 2005; <sup>1</sup>Morozova and Smirnov, 2011; <sup>1</sup>Morozova et al., 2020); **Samara Oblast** (<sup>1</sup>Malysheva and Malysheva, 2004; <sup>1</sup>Malysheva and Malysheva, 2008); **Smolensk Oblast** (<sup>1</sup>Jaczevski, 1893; <sup>1</sup>Jaczevski, 1895); **Sverdlovsk Oblast** (<sup>1</sup>Tomilin, 1965; <sup>1</sup>Stepanova and Sirko, 1977; <sup>1</sup>Marina, 2006); **Tatarstan** (<sup>1</sup>Vassiljeva, 1977; <sup>1</sup>Potapov, 2015b; <sup>1</sup>Potapov, 2016a); **Tula Oblast** (<sup>1</sup>Svetasheva, 2004); **Tver Oblast** (<sup>1</sup>Chastukhin, 1948b; <sup>1</sup>Chastukhin and Nikolaevskaya, 1969; <sup>1</sup>Kurochkin, 1993; <sup>1</sup>Mukhina and Garibova, 2010; <sup>1</sup>Mukhina, 2011a; <sup>1</sup>Mukhina, 2011b; <sup>1</sup>Kotkova, 2014); **Udmurt Republic** (<sup>1</sup>Tychinin and Kuzmina, 2003); **Ulyanovsk Oblast** (<sup>1</sup>Ilyukhin, 2009; <sup>1</sup>Ilyukhin, 2010a); **Volgograd Oblast** (<sup>1</sup>Burova and Nezdojminogo, 1982); **Vologda Oblast** (<sup>1</sup>Kutova, 1957; <sup>1</sup>Kirillova, 2007); **Voronezh Oblast** (<sup>1</sup>Rtishcheva, 1999; <sup>1</sup>Afanasyev, Rtishcheva, and Starodubtseva, 2007; <sup>1</sup>Sarycheva, Starodubtseva, and Sapelnikova, 2017); **Yamalo-Nenets Autonomous Okrug** (<sup>1</sup>Kazantseva, 1972; <sup>1</sup>Stepanova and Sirko, 1977); **Yaroslavl Oblast** (<sup>1</sup>Lazareva, 1997; <sup>1</sup>Lazareva, 1998a); **Arid territories** (<sup>1,3</sup>Rebriev, Rusanov, et al., 2012); **Lapland** (<sup>1</sup>Karsten, 1866).

SIBERIA: **Altai Krai** (<sup>1</sup>Gorbunova, Vlasenko, and Tzhubarova, 2011); **Altai Republic** (<sup>1</sup>Kovalenko, 1992; <sup>1</sup>Gorbunova, 1997; <sup>1</sup>Gorbunova, 2001b; <sup>1</sup>Gorbunova, 2008; <sup>1</sup>Gorbunova, 2010); **Buryatia** (<sup>1</sup>Nezdojminogo, 1970a); **Irkutsk Oblast** (<sup>1</sup>Kutafjeva, 1984; <sup>1</sup>Petrov, Nezdojminogo, and Bulakh, 1987; <sup>1</sup>Kutafjeva and Astapenko, 1989; <sup>1</sup>Petrov, 1989; <sup>1</sup>Astapenko, 1990b; <sup>1</sup>Muzyka, 2002; <sup>1</sup>Bardunov et al., 2005; <sup>1</sup>Petrov, 2008; <sup>1</sup>Muzyka, 2009; <sup>1</sup>Muzyka

and Penzina, 2017); **Khakassia** (<sup>1</sup>Beglyanova, 1972a; <sup>1</sup>Zauzolkova, 2015); **Khanty-Mansi Autonomous Okrug** (<sup>1</sup>Zvyagina, Baykalova, and Gorbunova, 2007; <sup>1</sup>Filippova, Bulyonkova, and Lapshina, 2015; <sup>1</sup>Makarova, Makarov, Zvyagina, and Bobrikov, 2015; <sup>1</sup>Filippova and Bulyonkova, 2017a; <sup>1</sup>Filippova and Bulyonkova, 2017b); **Krasnoyarsk Krai** (<sup>1</sup>Thümen, 1878; <sup>1</sup>Perova, 1970; <sup>1</sup>Vassilkov, 1971b; <sup>1</sup>Beglyanova, 1972a; <sup>1</sup>Beglyanova, 1972c; <sup>1</sup>Stepanova and Tomilin, 1973; <sup>1</sup>Nezdojminogo, 1976a; <sup>1</sup>Lapitskaya, 1993; <sup>1</sup>Kosheleva and Kutafjeva, 2008a; <sup>1</sup>Kryuchkova, 2009; <sup>1</sup>Zauzolkova, 2012; <sup>1</sup>Kryuchkova, 2014a; <sup>1</sup>Zauzolkova, 2015; <sup>1</sup>Malysheva, Malysheva, Kiyashko, et al., 2017; <sup>1</sup>Krom and Kapitonov, 2019); **Kurgan Oblast** (<sup>1</sup>Bystrushkin, 2016); **Novosibirsk Oblast** (<sup>1</sup>Zaytseva, 1971; <sup>1</sup>Perova, 1977; <sup>1</sup>Perova and Gorbunova, 2007; <sup>1</sup>Koropachinskiy and Banaev, 2014); **Sverdlovsk Oblast** (<sup>1</sup>Stepanova and Sirko, 1977); **Tomsk Oblast** (<sup>1</sup>Milovidova, 1980; <sup>1</sup>Kosheleva and Kutafjeva, 2004; <sup>1</sup>Agaphonova, Kutafjeva, and Gashkov, 2007; <sup>1</sup>Kudashova, Gashkov, and Kutafjeva, 2013; <sup>1</sup>Vaishlya et al., 2017); **Yamalo-Nenets Autonomous Okrug** (<sup>1</sup>Tarchevskaya, 1990; <sup>1</sup>Karatygin, Nezdojminogo, Novozhilov, and Zhurbenko, 1999); **Zabaykalsky Krai** (<sup>1</sup>Karsten, 1911).

FAR EAST: **Amur Oblast** (<sup>1</sup>Tomilin, 1962; <sup>1</sup>Bulakh, 1986; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1</sup>Azbukina et al., 1998; <sup>1</sup>Bulakh, Govorova, and Taranina, 2003; <sup>1</sup>Kochunova, 2019); **Chukotka Autonomous Okrug** (<sup>1</sup>Sazanova, 1993; <sup>1</sup>Karatygin, Nezdojminogo, Novozhilov, and Zhurbenko, 1999); **Jewish Autonomous Oblast** (<sup>1</sup>Bulakh, Govorova, Nazarova, and Vassiljeva, 2007; <sup>1</sup>Bau, Bulakh, and Govorova, 2011); **Kamchatka Krai** (<sup>1</sup>Kalamees and Vaasma, 1981; <sup>1</sup>Bulakh, 1986; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990); **Khabarovsk Krai** (<sup>1</sup>Azbukina et al., 1986; <sup>1</sup>Bulakh, 1986; <sup>1</sup>Azbukina et al., 1989; <sup>1</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Erofeeva and Bulakh, 2015a); **Magadan Oblast** (<sup>1</sup>Nazarova, 1976; <sup>1</sup>Sazanova, 1996; <sup>1</sup>Sazanova, 2005; <sup>1</sup>Sazanova, 2009a; <sup>1</sup>Sazanova, 2011); **Primorsky Krai** (<sup>1</sup>Vassiljeva, 1972; <sup>1</sup>Vassiljeva, 1973; <sup>1</sup>Shalapugina, 1976; <sup>1</sup>Bunkina and Nazarova, 1978; <sup>1</sup>Azbukina et al., 1984; <sup>1</sup>Bulakh, 1986; <sup>1</sup>Azbukina et al., 1990; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1</sup>Bardunov et al., 2002; <sup>1</sup>Azbukina et al., 2006; <sup>1</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Bulakh et al., 2016); **Sakhalin Oblast** (<sup>1</sup>Vassiljeva and Nazarova, 1972; <sup>1</sup>Bulakh, 1986; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990).

### *Lactarius trivialis* (Fr.) Fr.<sup>1</sup>

≡ *Agaricus trivialis* Fr.<sup>2</sup>

EASTERN EUROPE: **Arkhangelsk Oblast** (<sup>1</sup>Lebedeva, 1933); **Bryansk Oblast** (<sup>1</sup>Kruglikov, 2007); **Crimea** (<sup>1</sup>Zerova, 1962; <sup>1</sup>Sarkina, 2001; <sup>1</sup>Dudka et al., 2004); **Kaliningrad Oblast** (<sup>1</sup>Neuhoff, 1922; <sup>1</sup>Dedkov, Volodina, and Gubareva, 2007; <sup>1</sup>Volodina, 2007; <sup>1</sup>Atayev and Volodina, 2020); **Kaluga Oblast** (<sup>1</sup>Sionova, 2003); **Karachay-Cherkess Republic** (<sup>1</sup>Kalamees and Botashev, 2000); **Karelia** (<sup>1</sup>Freindling, 1949; <sup>1</sup>Kovalenko, Morozova, Fomina, and Särkisilta, 1998; <sup>1</sup>Bondartseva et al., 2001; <sup>1</sup>Predtechenskaya and Ruokolainen, 2013; <sup>1</sup>Predtechenskaya, 2013; <sup>1</sup>Krutov et al., 2014; <sup>1</sup>Predtechenskaya and Ruokolainen, 2014; <sup>1</sup>Predtechenskaya, 2015; <sup>1</sup>Savelev and Kikeeva, 2020); **Kirov Oblast** (<sup>1</sup>Kirillov, 2011; <sup>1</sup>Kirillov, Perevedentseva, and Egoshina, 2011; <sup>1</sup>Stavishenko, Luginina, Kirillov, and Egoshina, 2019); **Komi Republic** (<sup>1</sup>Karatygin, Nezdojminogo, Novozhilov, and Zhurbenko, 1999; <sup>1</sup>Bobretsova, 2004; <sup>1</sup>Palamarchuk, 2011b; <sup>1</sup>Palamarchuk, 2012; <sup>1</sup>Palamarchuk, 2016a; <sup>1</sup>Palamarchuk, 2016b; <sup>1</sup>Palamarchuk and Kirillov, 2017); **Kostroma Oblast** (<sup>1</sup>Veremyeva, 1986); **Leningrad Oblast** (<sup>1</sup>Thesleff, 1920; <sup>1</sup>Kalamees and Kovalenko, 1984; <sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Fomina, 2000; <sup>1</sup>Fomina, 2001; <sup>1</sup>Morozova, 2007; <sup>1</sup>Popov et al., 2007; <sup>1</sup>Zmitrovich et al., 2015); **Mordovia** (<sup>1</sup>Kuznetsov, 1960; <sup>1</sup>Ivoilov and Bolshakov, 2011b); **Moscow Oblast** (<sup>1</sup>Gorlenko, Sidorova, and Sidorova, 1989; <sup>1</sup>Levitskaya, 1995a; <sup>1</sup>Vishnevsky and Sidorova, 1997; <sup>1</sup>Levitskaya, 2013; <sup>1</sup>Voronina et al., 2014); **Novgorod Oblast** (<sup>1</sup>Rusakov, 1968; <sup>1</sup>Morozova, 2012; <sup>1</sup>Popov et al., 2013); **Penza Oblast** (<sup>1</sup>Ivanov, 1981a; <sup>1</sup>Ivanov, 2019); **Perm Krai** (<sup>1</sup>Perevedentseva, 2008; <sup>1</sup>Perevedentseva and Shishigin, 2014; <sup>1</sup>Perevedentseva and Shishigin, 2015; <sup>1</sup>Botalov, 2017; <sup>1</sup>Botalov and Perevedentseva, 2018); **Ryazan Oblast** (<sup>1</sup>Volosnova, 2014); **Saint Petersburg** (<sup>2</sup>Weinmann, 1828; <sup>2</sup>Weinmann, 1836; <sup>2</sup>Weinmann, 1837; <sup>1</sup>Morozova and Smirnov, 2011; <sup>1</sup>Morozova et al., 2020); **Sverdlovsk Oblast** (<sup>1</sup>Tomilin, 1965; <sup>1</sup>Stepanova and Sirko, 1977; <sup>1</sup>Marina, 2006); **Tatarstan** (<sup>1</sup>Vassiljeva, 1977); **Tula Oblast** (<sup>1</sup>Svetasheva, 2004); **Tver Oblast** (<sup>1</sup>Kurochkin, 1993; <sup>1</sup>Mukhina, 2011a; <sup>1</sup>Mukhina, 2011b; <sup>1</sup>Kotkova, 2014); **Udmurt Republic** (<sup>1</sup>Tychinin and Kuzmina, 2003); **Vologda Oblast** (<sup>1</sup>Kirillova, 2007); **Yamalo-Nenets Autonomous Okrug** (<sup>1</sup>Stepanova and Sirko, 1977; <sup>1</sup>Karatygin, Nezdojminogo, Novozhilov, and Zhurbenko, 1999; <sup>1</sup>Nezdojminogo, 2001); **Yaroslavl Oblast** (<sup>1</sup>Lazareva, 1998a); **Arid territories** (<sup>1</sup>Rebriev, Rusanov, et al., 2012).

SIBERIA: **Altai Krai** (<sup>1</sup>Gorbunova and Perova, 2006; <sup>1</sup>Gorbunova, 2018a); **Altai Republic** (<sup>1</sup>Gorbunova, 2001b; <sup>1</sup>Perova and Gorbunova, 2001); **Buryatia** (<sup>1</sup>Nezdojminogo, 1970a; <sup>1</sup>Penzina and Petrov, 1994); **Irkutsk Oblast** (<sup>1</sup>Kutafjeva, 1984; <sup>1</sup>Petrov, Nezdojminogo, and Bulakh, 1987; <sup>1</sup>Petrov, 1989; <sup>1</sup>Astapenko, 1990b; <sup>1</sup>Muzyka, 2002; <sup>1</sup>Petrov, 2008; <sup>1</sup>Muzyka, 2009; <sup>1</sup>Gorbunova and Stepantsova, 2015; <sup>1</sup>Muzyka and Penzina, 2017); **Khakassia** (<sup>1</sup>Beglyanova, 1972a; <sup>1</sup>Zauzolkova, 2015); **Khanty-Mansi Autonomous Okrug** (<sup>1</sup>Zvyagina, Baykalova, and Gorbunova, 2007; <sup>1</sup>Zvyagina, 2008; <sup>1</sup>Shepeleva et al., 2014; <sup>1</sup>Filippova, Bulyonkova, and Lapshina, 2015; <sup>1</sup>Zvyagina and Vasina, 2015; <sup>1</sup>Filippova and Bulyonkova, 2017a; <sup>1</sup>Filippova and Bulyonkova, 2017b); **Krasnoyarsk Krai** (<sup>1</sup>Beglyanova, 1972a;



<sup>1</sup>Stepanova and Tomilin, 1973; <sup>1</sup>Nezdojminogo, 1976a; <sup>1</sup>Lapitskaya, 1993; <sup>1</sup>Pavlov et al., 2007; <sup>1</sup>Kosheleva and Kutafjeva, 2008a; <sup>1</sup>Kryuchkova, 2009; <sup>1</sup>Malysheva, Malysheva, Kiyashko, et al., 2017); **Novosibirsk Oblast** (<sup>1</sup>Perova and Gorbunova, 2001; <sup>1</sup>Koropachinskiy and Banaev, 2014); **Sverdlovsk Oblast** (<sup>1</sup>Stepanova and Sirko, 1977); **Tomsk Oblast** (<sup>1</sup>Kosheleva and Kutafjeva, 2004; <sup>1</sup>Agaphonova, Kutafjeva, and Gashkov, 2007; <sup>1</sup>Kudashova, Gashkov, and Kutafjeva, 2013; <sup>1</sup>Vaishlya et al., 2017); **Yamalo-Nenets Autonomous Okrug** (<sup>1</sup>Tarchevskaya, 1990; <sup>1</sup>Karatygin, Nezdojminogo, Novozhilov, and Zhurbenko, 1999).

FAR EAST: **Amur Oblast** (<sup>1</sup>Tomilin, 1962; <sup>1</sup>Bulakh, 1986; <sup>1</sup>Bulakh, Govorova, and Taranina, 2003); **Chukotka Autonomous Okrug** (<sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1</sup>Sazanova, 1993; <sup>1</sup>Karatygin, Nezdojminogo, Novozhilov, and Zhurbenko, 1999); **Jewish Autonomous Oblast** (<sup>1</sup>Bulakh, Govorova, Nazarova, and Vassiljeva, 2007; <sup>1</sup>Bau, Bulakh, and Govorova, 2011); **Kamchatka Krai** (<sup>1</sup>Kalamees and Vaasma, 1981; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1</sup>Karatygin, Nezdojminogo, Novozhilov, and Zhurbenko, 1999); **Khabarovsk Krai** (<sup>1</sup>Azbukina et al., 1986; <sup>1</sup>Bulakh, 1986; <sup>1</sup>Azbukina et al., 1989; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1</sup>Bau, Bulakh, Zhuang, and Li, 2007; <sup>1</sup>Bulakh, Vassiljeva, and Erofeeva, 2010; <sup>1</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Bulakh, 2013; <sup>1</sup>Bogacheva, Bulakh, Bukharova, and Egorova, 2015; <sup>1</sup>Erofeeva and Bulakh, 2015a); **Magadan Oblast** (<sup>1</sup>Bulakh, 1986; <sup>1</sup>Sazanova, 1996; <sup>1</sup>Sazanova, 2005; <sup>1</sup>Sazanova, 2009a; <sup>1</sup>Sazanova, 2009b; <sup>1</sup>Sazanova, 2011; <sup>1</sup>Sazanova and Golodnova, 2015); **Primorsky Krai** (<sup>1</sup>Vassiljeva, 1973; <sup>1</sup>Bulakh, 1977; <sup>1</sup>Azbukina et al., 1984; <sup>1</sup>Bulakh, 1986; <sup>1</sup>Azbukina et al., 1990; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1</sup>Bardunov et al., 2002; <sup>1</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Bulakh et al., 2016; <sup>1</sup>Bogacheva, Bulakh, Bukharova, and Egorova, 2020); **Sakhalin Oblast** (<sup>1</sup>Bulakh, 1986; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990).

***Lactarius turpis* (Weinm.) Fr.<sup>1</sup>**

≡ *Agaricus turpis* Weinm.<sup>2</sup>

EASTERN EUROPE: **Arkhangelsk Oblast** (<sup>1</sup>Lebedeva, 1933); **Belgorod Oblast** (<sup>1</sup>Bedenko, 1979a); **Kaliningrad Oblast** (<sup>1</sup>Atayev and Volodina, 2020); **Karachay-Cherkess Republic** (<sup>1</sup>Vassiljeva, 1939); **Karelia** (<sup>1</sup>Karsten, 1876); **Komi Republic** (<sup>1</sup>Palamarchuk and Kirillov, 2018a); **Krasnodar Krai** (<sup>1</sup>Vassiljeva, 1939); **Leningrad Oblast** (<sup>1</sup>Chastukhin and Nikolaevskaya, 1969); **Lipetsk Oblast** (<sup>1</sup>Sarycheva et al., 2009; <sup>1</sup>Sarycheva, 2011; <sup>1</sup>Sarycheva, 2014a; <sup>1</sup>Sarycheva, 2016; <sup>1</sup>Sarycheva, Starodubtseva, and Sapelnikova, 2017); **Mordovia** (<sup>1</sup>Chastukhin, 1948a; <sup>1</sup>Ivoilov and Bolshakov, 2011b); **Moscow Oblast** (<sup>1</sup>Voronina et al., 2014; <sup>1</sup>Sidorova, Alexandrova, and Voronina, 2017); **Murmansk Oblast** (<sup>1</sup>Karsten, 1876); **Novgorod Oblast** (<sup>1</sup>Morozova, 2012; <sup>1</sup>Popov et al., 2013); **Orenburg Oblast** (<sup>1</sup>Desyatova, 2008); **Perm Krai** (<sup>1</sup>Belkovskaya et al., 2014); **Pskov Oblast** (<sup>1</sup>Popov et al., 2013); **Ryazan Oblast** (<sup>1</sup>Volosnova, 2014); **Saint Petersburg** (<sup>2</sup>Weinmann, 1828; <sup>1</sup>Morozova, Kovalenko, Rebriev, and Malysheva, 2014); **Samara Oblast** (<sup>1</sup>Malysheva and Malysheva, 2008); **Smolensk Oblast** (<sup>1</sup>Jaczewski, 1893; <sup>1</sup>Jaczewski, 1895); **Tver Oblast** (<sup>1</sup>Chastukhin, 1948b; <sup>1</sup>Chastukhin and Nikolaevskaya, 1969; <sup>1</sup>Kotkova, 2014); **Ulyanovsk Oblast** (<sup>1</sup>Ilyukhin, 2010a; <sup>1</sup>Ilyukhin, 2010b); **Voronezh Oblast** (<sup>1</sup>Chastukhin and Nikolaevskaya, 1969; <sup>1</sup>Sarycheva, Starodubtseva, and Sapelnikova, 2017).

SIBERIA: **Altai Republic** (<sup>1</sup>Kovalenko, 1992); **Buryatia** (<sup>1</sup>Nezdojminogo, 1970a); **Khakassia** (<sup>1</sup>Zauzolkova, 2015); **Khanty-Mansi Autonomous Okrug** (<sup>1</sup>Filippova, Bulyonkova, and Lapshina, 2015); **Krasnoyarsk Krai** (<sup>1</sup>Thümen, 1878; <sup>1</sup>Kosheleva and Kutafjeva, 2008b; <sup>1</sup>Zauzolkova, 2015; <sup>1</sup>Krom and Kapitonov, 2019); **Novosibirsk Oblast** (<sup>1</sup>Zaytseva, 1971; <sup>1</sup>Koropachinskiy and Banaev, 2014); **Tomsk Oblast** (<sup>1</sup>Agaphonova, Kutafjeva, and Gashkov, 2007).

FAR EAST: **Jewish Autonomous Oblast** (<sup>1</sup>Bau, Bulakh, and Govorova, 2011); **Khabarovsk Krai** (<sup>1</sup>Bulakh, Vassiljeva, and Erofeeva, 2010; <sup>1</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Bulakh, 2013; <sup>1</sup>Bogacheva, Bulakh, Bukharova, and Egorova, 2015; <sup>1</sup>Erofeeva and Bulakh, 2015a); **Magadan Oblast** (<sup>1</sup>Sazanova, 2009a; <sup>1</sup>Sazanova, 2011); **Primorsky Krai** (<sup>1</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Bulakh et al., 2016).

***Lactarius uvidus* (Fr.) Fr.<sup>1</sup>**

≡ *Agaricus uvidus* Fr.<sup>2</sup>

EASTERN EUROPE: **Kaliningrad Oblast** (<sup>1</sup>Dedkov, Volodina, and Gubareva, 2007); **Karelia** (<sup>1</sup>Karsten, 1866; <sup>1</sup>Karsten, 1876; <sup>1</sup>Karsten, 1889; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1</sup>Kovalenko, Morozova, Fomina, and Särkisilta, 1998; <sup>1</sup>Krutov et al., 2014); **Kirov Oblast** (<sup>1</sup>Kirillov and Luginina, 2011; <sup>1</sup>Stavishenko, Luginina, Kirillov, and Egoshina, 2019); **Komi Republic** (<sup>1</sup>Palamarchuk, 2011a; <sup>1</sup>Palamarchuk, 2012; <sup>1</sup>Palamarchuk, 2016a; <sup>1</sup>Palamarchuk, 2016b); **Krasnodar Krai** (<sup>1</sup>Vassiljeva, 1939); **Leningrad Oblast** (<sup>2</sup>Weinmann, 1836; <sup>2</sup>Weinmann, 1837; <sup>1</sup>Thesleff, 1920; <sup>1</sup>Kalamees and Kovalenko, 1984; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Fomina, 2000; <sup>1</sup>Morozova and Kovalenko, 2000; <sup>1</sup>Popov et al., 2007); **Lipetsk Oblast** (<sup>1</sup>Rtishcheva, 1999; <sup>1</sup>Sarycheva, 1999; <sup>1</sup>Afanasyev, Rtishcheva, and Starodubtseva, 2007; <sup>1</sup>Sarycheva et al., 2009; <sup>1</sup>Sarycheva, 2016;

<sup>1</sup>Sarycheva, Starodubtseva, and Sapelnikova, 2017); **Moscow Oblast** (<sup>1</sup>Levitskaya, 1998; <sup>1</sup>Levitskaya, 2013); **Murmansk Oblast** (<sup>1</sup>Mikhailovskii, 1975b; <sup>1</sup>Karatygin, Nezdojminogo, Novozhilov, and Zhurbenko, 1999); **Novgorod Oblast** (<sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1</sup>Morozova, 2012; <sup>1</sup>Popov et al., 2013); **Orenburg Oblast** (<sup>1</sup>Desyatova, 2008); **Perm Krai** (<sup>1</sup>Perevedentseva, 2008); **Pskov Oblast** (<sup>1</sup>Kovalenko and Morozova, 1999b); **Ryazan Oblast** (<sup>1</sup>Volosnova, 1997; <sup>1</sup>Volosnova, 2014); **Saint Petersburg** (<sup>2</sup>Weinmann, 1828; <sup>1</sup>Kotkova, Morozova, and Popov, 2005; <sup>1</sup>Morozova and Smirnov, 2011; <sup>1</sup>Morozova et al., 2020); **Sevastopol** (<sup>1</sup>Sarkina, 2016b; <sup>1</sup>Dovgal and Korzhenevsky, 2018; <sup>1</sup>Sarkina, 2020c); **Sverdlovsk Oblast** (<sup>1</sup>Marina, 2006); **Tatarstan** (<sup>1</sup>Vassiljeva, 1977; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990); **Tula Oblast** (<sup>1</sup>Svetasheva, 2004; <sup>1</sup>Shcherbakov, 2010); **Udmurt Republic** (<sup>1</sup>Tychinin and Kuzmina, 2003); **Vologda Oblast** (<sup>1</sup>Kirillova, 2007); **Voronezh Oblast** (<sup>1</sup>Rtishcheva, 1999; <sup>1</sup>Afanasyev, Rtishcheva, and Starodubtseva, 2007; <sup>1</sup>Sarycheva, Starodubtseva, and Sapelnikova, 2017); **Yamalo-Nenets Autonomous Okrug** (<sup>1</sup>Stepanova and Sirko, 1977); **Yaroslavl Oblast** (<sup>1</sup>Lazareva, 1998a).

SIBERIA: **Altai Krai** (<sup>1</sup>Gorbunova and Perova, 2006; <sup>1</sup>Gorbunova, 2018a); **Altai Republic** (<sup>1</sup>Gorbunova, 2001b; <sup>1</sup>Perova and Gorbunova, 2001; <sup>1</sup>Gorbunova, 2003; <sup>1</sup>Gorbunova, 2008); **Buryatia** (<sup>1</sup>Nezdojminogo, 1970a); **Irkutsk Oblast** (<sup>1</sup>Kutafjeva, 1984; <sup>1</sup>Petrov, Nezdojminogo, and Bulakh, 1987; <sup>1</sup>Petrov, 1989; <sup>1</sup>Astapenko, 1990b; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1</sup>Petrov, 2008; <sup>1</sup>Gorbunova and Stepantsova, 2015); **Khakassia** (<sup>1</sup>Zauzolkova and Gorbunova, 2013; <sup>1</sup>Zauzolkova, 2015); **Khanty-Mansi Autonomous Okrug** (<sup>1</sup>Zvyagina, 2008; <sup>1</sup>Shepeleva et al., 2014; <sup>1</sup>Filippova, Bulyonkova, and Lapshina, 2015; <sup>1</sup>Filippova and Bulyonkova, 2017a; <sup>1</sup>Filippova and Bulyonkova, 2017b; <sup>1</sup>Zvyagina and Baykalova, 2017); **Krasnoyarsk Krai** (<sup>1</sup>Vassilkov, 1971b; <sup>1</sup>Beglyanova, 1972a; <sup>1</sup>Stepanova and Tomilin, 1973; <sup>1</sup>Nezdojminogo, 1976a; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1</sup>Lapitskaya, 1993; <sup>1</sup>Kosheleva and Kutafjeva, 2008a; <sup>1</sup>Kryuchkova, 2009); **Novosibirsk Oblast** (<sup>1</sup>Perova and Gorbunova, 2001); **Tomsk Oblast** (<sup>1</sup>Perova and Gorbunova, 2001; <sup>1</sup>Agaphonova, Kutafjeva, and Gashkov, 2007; <sup>1</sup>Kudashova, Gashkov, and Kutafjeva, 2013; <sup>1</sup>Vaishlya et al., 2017); **Yamalo-Nenets Autonomous Okrug** (<sup>1</sup>Tarchevskaya, 1990; <sup>1</sup>Karatygin, Nezdojminogo, Novozhilov, and Zhurbenko, 1999).

FAR EAST: **Amur Oblast** (<sup>1</sup>Bulakh, 1986; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1</sup>Azbukina et al., 1998; <sup>1</sup>Bulakh, Govorova, and Taranina, 2003); **Chukotka Autonomous Okrug** (<sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1</sup>Sazanova, 1993; <sup>1</sup>Karatygin, Nezdojminogo, Novozhilov, and Zhurbenko, 1999); **Jewish Autonomous Oblast** (<sup>1</sup>Bulakh, Govorova, Nazarova, and Vassiljeva, 2007; <sup>1</sup>Bau, Bulakh, and Govorova, 2011); **Kamchatka Krai** (<sup>1</sup>Bulakh, 1986; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990); **Khabarovsk Krai** (<sup>1</sup>Azbukina et al., 1986; <sup>1</sup>Bulakh, 1986; <sup>1</sup>Azbukina et al., 1989; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Bulakh, 2013; <sup>1</sup>Bogacheva, Bulakh, Bukharova, and Egorova, 2015; <sup>1</sup>Erofeeva and Bulakh, 2015a); **Magadan Oblast** (<sup>1</sup>Nazarova, 1976; <sup>1</sup>Bulakh, 1986; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1</sup>Sazanova, 1996; <sup>1</sup>Sazanova, 2005; <sup>1</sup>Sazanova, 2009a; <sup>1</sup>Sazanova, 2011; <sup>1</sup>Sazanova and Golodnova, 2015); **Primorsky Krai** (<sup>1</sup>Vassiljeva, 1973; <sup>1</sup>Shalapugina, 1976; <sup>1</sup>Bulakh, 1977; <sup>1</sup>Azbukina et al., 1984; <sup>1</sup>Bulakh, 1986; <sup>1</sup>Azbukina et al., 1990; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1</sup>Bardunov et al., 2002; <sup>1</sup>Azbukina et al., 2006; <sup>1</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Bulakh et al., 2016); **Sakhalin Oblast** (<sup>1</sup>Vassiljeva and Nazarova, 1972; <sup>1</sup>Bulakh, 1986; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990).

### ***Lactarius vietus* (Fr.) Fr.<sup>1</sup>**

≡ *Agaricus vietus* Fr.<sup>2</sup>

EASTERN EUROPE: **Arkhangelsk Oblast** (<sup>1</sup>Ezhov, Ershov, Ruokolainen, and Zmitrovich, 2011; <sup>1</sup>Ezhov, 2014); **Belgorod Oblast** (<sup>1</sup>Bedenko, 1980); **Chelyabinsk Oblast** (<sup>1</sup>Stepanova and Sirko, 1977); **Crimea** (<sup>1</sup>Sarkina, 2001; <sup>1</sup>Dudka et al., 2004; <sup>1</sup>Sarkina, 2010a; <sup>1</sup>Sarkina and Prydiuk, 2012); **Kabardino-Balkarian Republic** (<sup>1</sup>Shkhagapsoev and Krapivina, 2004); **Kaliningrad Oblast** (<sup>1</sup>Dedkov, Volodina, and Gubareva, 2007; <sup>1</sup>Volodina, 2007); **Karachay-Cherkess Republic** (<sup>1</sup>Vassiljeva, 1939; <sup>1</sup>Kalamees and Botashev, 2000); **Karelia** (<sup>1</sup>Freindling, 1949; <sup>1</sup>Kovalenko, Morozova, Fomina, and Särkisilta, 1998; <sup>1</sup>Bondartseva et al., 2001; <sup>1</sup>Predtechenskaya and Ruokolainen, 2013; <sup>1</sup>Predtechenskaya, 2013; <sup>1</sup>Krutov et al., 2014; <sup>1</sup>Predtechenskaya and Ruokolainen, 2014; <sup>1</sup>Predtechenskaya, 2015); **Kirov Oblast** (<sup>1</sup>Kirillov and Luginina, 2011; <sup>1</sup>Kirillov, 2011; <sup>1</sup>Kirillov, Perevedentseva, and Egoshina, 2011; <sup>1</sup>Stavishenko, Luginina, Kirillov, and Egoshina, 2019); **Komi Republic** (<sup>1</sup>Karatygin, Nezdojminogo, Novozhilov, and Zhurbenko, 1999; <sup>1</sup>Palamarchuk, 2011b; <sup>1</sup>Palamarchuk, 2012; <sup>1</sup>Palamarchuk, 2016a; <sup>1</sup>Palamarchuk, 2016b; <sup>1</sup>Palamarchuk and Kirillov, 2017; <sup>1</sup>Palamarchuk, 2017); **Kostroma Oblast** (<sup>1</sup>Burova, 1982; <sup>1</sup>Veremyeva, 1986); **Krasnodar Krai** (<sup>1</sup>Vassiljeva, 1939; <sup>1</sup>Vaasma, Kalamees, and Raitviir, 1986); **Leningrad Oblast** (<sup>1</sup>Thesleff, 1920; <sup>1</sup>Nezdojminogo, 1967; <sup>1</sup>Kalamees and Kovalenko, 1984; <sup>1</sup>Stolyarskaya, 1989; <sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Fomina, 2000; <sup>1</sup>Morozova and Kovalenko, 2000; <sup>1</sup>Fomina, 2001; <sup>1</sup>Morozova, 2007; <sup>1</sup>Popov et al., 2007; <sup>1</sup>Zmitrovich et al., 2015); **Moscow** (<sup>1</sup>Burova, 1968); **Moscow Oblast** (<sup>1</sup>Gorlenko, Sidorova, and Sidorova, 1989; <sup>1</sup>Levitskaya, 1995a; <sup>1</sup>Levitskaya, 2013; <sup>1</sup>Voronina et al., 2014); **Murmansk Oblast** (<sup>1</sup>Nezdojminogo, 1997b; <sup>1</sup>Karatygin, Nezdojminogo,

Novozhilov, and Zhurbenko, 1999); **Novgorod Oblast** (<sup>1</sup>Morozova, 2012; <sup>1</sup>Popov et al., 2013); **Penza Oblast** (<sup>1</sup>Ivanov, 1983; <sup>1</sup>Ivanov, 2019); **Perm Krai** (<sup>1</sup>Perevedentseva, 2008; <sup>1</sup>Belkovskaya et al., 2014; <sup>1</sup>Perevedentseva and Shishigin, 2014; <sup>1</sup>Perevedentseva and Shishigin, 2015; <sup>1</sup>Botalov, 2017; <sup>1</sup>Botalov and Perevedentseva, 2018); **Pskov Oblast** (<sup>1</sup>Kalinina, Bolshakov, and Bulyonkova, 2020); **Rostov Oblast** (<sup>1</sup>Rusanov et al., 2004; <sup>1</sup>Zmitrovich et al., 2008); **Saint Petersburg** (<sup>2</sup>Weinmann, 1828; <sup>2</sup>Weinmann, 1836; <sup>2</sup>Weinmann, 1837; <sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Kotkova, Morozova, and Popov, 2005; <sup>1</sup>Morozova and Smirnov, 2011; <sup>1</sup>Morozova et al., 2020); **Sevastopol** (<sup>1</sup>Sarkina, 2016b; <sup>1</sup>Sarkina, 2020c); **Sverdlovsk Oblast** (<sup>1</sup>Stepanova and Sirko, 1977; <sup>1</sup>Marina, 2006); **Tatarstan** (<sup>1</sup>Vassiljeva, 1977); **Tula Oblast** (<sup>1</sup>Svetasheva, 2004); **Tver Oblast** (<sup>1</sup>Kurochkin, 1993); **Udmurt Republic** (<sup>1</sup>Tychinin and Kuzmina, 2003); **Vologda Oblast** (<sup>1</sup>Kirillova, 2007); **Yamalo-Nenets Autonomous Okrug** (<sup>1</sup>Karatygin, Nezdoyminogo, Novozhilov, and Zhurbenko, 1999); **Yaroslavl Oblast** (<sup>1</sup>Lazareva, 1998a); **Arid territories** (<sup>1</sup>Rebriev, Rusanov, et al., 2012).

SIBERIA: **Altai Krai** (<sup>1</sup>Gorbunova and Perova, 2006; <sup>1</sup>Gorbunova, Vlasenko, and Tzhubarova, 2011); **Altai Republic** (<sup>1</sup>Gorbunova, 1996; <sup>1</sup>Gorbunova, 1997; <sup>1</sup>Gorbunova, 2001b; <sup>1</sup>Perova and Gorbunova, 2001; <sup>1</sup>Gorbunova, 2010); **Buryatia** (<sup>1</sup>Nezdoyminogo, 1970a); **Irkutsk Oblast** (<sup>1</sup>Kutafjeva, 1984; <sup>1</sup>Petrov, Nezdoyminogo, and Bulakh, 1987; <sup>1</sup>Kutafjeva and Astapenko, 1989; <sup>1</sup>Petrov, 1989; <sup>1</sup>Astapenko, 1990a; <sup>1</sup>Astapenko, 1990b; <sup>1</sup>Muzyka, 2002; <sup>1</sup>Bardunov et al., 2005; <sup>1</sup>Petrov, 2008; <sup>1</sup>Muzyka, 2009); **Khakassia** (<sup>1</sup>Beglyanova, 1972a); **Khanty-Mansi Autonomous Okrug** (<sup>1</sup>Filippova and Bulyonkova, 2017a; <sup>1</sup>Filippova and Bulyonkova, 2017b; <sup>1</sup>Zvyagina and Baykalova, 2017); **Krasnoyarsk Krai** (<sup>1</sup>Perova, 1970; <sup>1</sup>Beglyanova, 1972a; <sup>1</sup>Stepanova and Tomilin, 1973; <sup>1</sup>Nezdoyminogo, 1976a; <sup>1</sup>Lapitskaya, 1993; <sup>1</sup>Pavlov et al., 2007; <sup>1</sup>Kosheleva and Kutafjeva, 2008a); **Kurgan Oblast** (<sup>1</sup>Stepanova and Sirko, 1977); **Novosibirsk Oblast** (<sup>1</sup>Zaytseva, 1971; <sup>1</sup>Perova, 1977; <sup>1</sup>Perova and Gorbunova, 2001; <sup>1</sup>Perova and Gorbunova, 2007; <sup>1</sup>Koropachinskiy and Banaev, 2014); **Sverdlovsk Oblast** (<sup>1</sup>Stepanova and Sirko, 1977); **Tomsk Oblast** (<sup>1</sup>Kosheleva and Kutafjeva, 2004; <sup>1</sup>Kudashova, Gashkov, and Kutafjeva, 2013; <sup>1</sup>Vaishlya et al., 2017).

FAR EAST: **Amur Oblast** (<sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdoyminogo, 1990; <sup>1</sup>Azbukina et al., 1998); **Chukotka Autonomous Okrug** (<sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdoyminogo, 1990; <sup>1</sup>Sazanova, 1993; <sup>1</sup>Karatygin, Nezdoyminogo, Novozhilov, and Zhurbenko, 1999); **Jewish Autonomous Oblast** (<sup>1</sup>Bulakh, Govorova, Nazarova, and Vassiljeva, 2007; <sup>1</sup>Bau, Bulakh, and Govorova, 2011); **Kamchatka Krai** (<sup>1</sup>Kalamees and Vaasma, 1981; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdoyminogo, 1990); **Khabarovsk Krai** (<sup>1</sup>Azbukina et al., 1986; <sup>1</sup>Azbukina et al., 1989; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdoyminogo, 1990; <sup>1</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Bulakh, 2013; <sup>1</sup>Bogacheva, Bulakh, Bukharova, and Egorova, 2015); **Magadan Oblast** (<sup>1</sup>Nazarova, 1976; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdoyminogo, 1990; <sup>1</sup>Sazanova, 1996; <sup>1</sup>Sazanova, 2005; <sup>1</sup>Sazanova, 2009a; <sup>1</sup>Sazanova, 2011; <sup>1</sup>Sazanova and Golodnova, 2015); **Primorsky Krai** (<sup>1</sup>Vassiljeva, 1972; <sup>1</sup>Vassiljeva, 1973; <sup>1</sup>Shalapugina, 1976; <sup>1</sup>Azbukina et al., 1984; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdoyminogo, 1990; <sup>1</sup>Bardunov et al., 2002; <sup>1</sup>Azbukina et al., 2006; <sup>1</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Bulakh et al., 2016); **Sakhalin Oblast** (<sup>1</sup>Vassiljeva and Nazarova, 1972; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdoyminogo, 1990).

#### ***Lactarius vinaceorufescens* A.H. Sm.**

FAR EAST: **Jewish Autonomous Oblast** (Bulakh, Govorova, Nazarova, and Vassiljeva, 2007; Bau, Bulakh, and Govorova, 2011); **Khabarovsk Krai** (Bulakh, 1986; Azbukina et al., 1989; Bulakh, Wasser, Nazarova, and Nezdoyminogo, 1990; Bau, Bulakh, and Govorova, 2011; Erofeeva and Bulakh, 2015a); **Primorsky Krai** (Bulakh, 1986; Azbukina et al., 1990; Bulakh, Wasser, Nazarova, and Nezdoyminogo, 1990; Bardunov et al., 2002; Azbukina et al., 2006; Bau, Bulakh, and Govorova, 2011; Bulakh et al., 2016; Bogacheva, Bulakh, Bukharova, and Egorova, 2020).

#### ***Lactarius violaceomarginatus* Lj.N. Vassiljeva**

FAR EAST: **Primorsky Krai** (Vassiljeva, 1950; Vassiljeva, 1972; Vassiljeva, 1973; Bunkina and Nazarova, 1978).

#### ***Lactarius violascens* (J. Otto) Fr.**

EASTERN EUROPE: **Karelia** (Freindling, 1949; Bondartseva et al., 2001; Predtechenskaya, 2013; Krutov et al., 2014); **Moscow** (Bucholtz, 1897b; Bucholtz, 1897c; Mosolov, 1906); **Moscow Oblast** (Bulakh, Wasser, Nazarova, and Nezdoyminogo, 1990; Vishnevsky and Sidorova, 1997); **Penza Oblast** (Ivanov, 1981a; Bulakh, Wasser, Nazarova, and Nezdoyminogo, 1990); **Perm Krai** (Perevedentseva, 2008); **Sverdlovsk Oblast** (Marina, 2006); **Tatarstan** (Vassiljeva, 1977; Bulakh, Wasser, Nazarova, and Nezdoyminogo, 1990); **Tver Oblast** (Kurochkin, 1993).

SIBERIA: **Irkutsk Oblast** (Petrov, 1991; Petrov, 2008); **Khakassia** (Zauzolkova and Gorbunova, 2013; Zauzolkova, 2015); **Novosibirsk Oblast** (Koropachinskiy and Banaev, 2014).

FAR EAST: **Primorsky Krai** (Bulakh, 1986; Azbukina et al., 1990; Bulakh, Wasser, Nazarova, and Nezdoyminogo, 1990; Bardunov et al., 2002; Azbukina et al., 2006; Bau, Bulakh, and Govorova, 2011; Bogacheva, Bulakh, Bukharova, and Egorova, 2020).

***Lactarius zonarioides* Kühner & Romagn.**

EASTERN EUROPE: **Karelia** (Kovalenko, Morozova, Fomina, and Särkisilta, 1998; Krutov et al., 2014); **Komi Republic** (Palamarchuk and Kirillov, 2018a; Palamarchuk, 2020a); **Sverdlovsk Oblast** (Marina, 2006).

SIBERIA: **Khanty-Mansi Autonomous Okrug** (Zvyagina and Baykalova, 2017).

***Lactarius zonarius* (Bull.) Fr.<sup>1</sup>**

= *Agaricus insulsus* Fr.<sup>2</sup> = *Lactarius insulsus* (Fr.) Fr.<sup>3</sup> = *Lactarius zonarius* var. *scrobipes* (Kühner & Romagn.) Bon<sup>4</sup>

EASTERN EUROPE: **Adygea** (<sup>3</sup>Vassiljeva, 1939; <sup>1</sup>Sopina, 2004a); **Bashkortostan** (<sup>3</sup>Stepanova and Sirko, 1977); **Belgorod Oblast** (<sup>3</sup>Bedenko, 1979a; <sup>1</sup>Bedenko, 1980; <sup>1,3</sup>Bulakh, Wasser, Nazarova, and Nezdoyminogo, 1990); **Bryansk Oblast** (<sup>3</sup>Kruglikov, 2007); **Crimea** (<sup>1,3</sup>Sarkina, 2001; <sup>1,3</sup>Dudka et al., 2004; <sup>3</sup>Sarkina, 2010a; <sup>3</sup>Sarkina, 2010b; <sup>3</sup>Sarkina, 2011; <sup>1,3</sup>Sarkina and Prydiuk, 2012; <sup>3</sup>Sarkina, 2014b; <sup>3</sup>Sarkina and Mironova, 2015; <sup>3</sup>Sarkina, 2016a; <sup>3</sup>Sarkina and Stavishenko, 2019); **Kabardino-Balkarian Republic** (<sup>3</sup>Singer, 1931; <sup>3</sup>Shkhagapsoev and Krapivina, 2004); **Kaluga Oblast** (<sup>1</sup>Antokhina et al., 2015); **Karelia** (<sup>3</sup>Freindling, 1949; <sup>3</sup>Bondartseva et al., 2001; <sup>3</sup>Krutov et al., 2014); **Kostroma Oblast** (<sup>3</sup>Bulakh, Wasser, Nazarova, and Nezdoyminogo, 1990); **Krasnodar Krai** (<sup>1,3</sup>Vassiljeva, 1939; <sup>1,3</sup>Kovalenko, 1980a; <sup>1,3</sup>Kovalenko, 1980b); **Kursk Oblast** (<sup>3</sup>Ryabova and Ignatenko, 1981); **Leningrad Oblast** (<sup>2</sup>Weinmann, 1837; <sup>3</sup>Bulakh, Wasser, Nazarova, and Nezdoyminogo, 1990); **Lipetsk Oblast** (<sup>3</sup>Sarycheva, 1999; <sup>1</sup>Sarycheva et al., 2009; <sup>1</sup>Sarycheva, 2011; <sup>1,3</sup>Sarycheva, 2014a; <sup>1</sup>Sarycheva, 2016; <sup>1</sup>Sarycheva, Starodubtseva, and Sapelnikova, 2017); **Mari El Republic** (<sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdoyminogo, 1990); **Mordovia** (<sup>3</sup>Ivoilov and Bolshakov, 2011b; <sup>3</sup>Bolshakov and Ivoilov, 2012b); **Moscow Oblast** (<sup>4</sup>Levitskaya, 1995a; <sup>3</sup>Vishnevsky and Sidorova, 1997; <sup>1</sup>Levitskaya, 2013); **Murmansk Oblast** (<sup>3</sup>Pystina, Pavlova, and Shestakova, 1969); **Orenburg Oblast** (<sup>3</sup>Vorontsovsky, 1921; <sup>3</sup>Desyatova, 2008); **Penza Oblast** (<sup>3</sup>Ivanov, 1981a; <sup>3</sup>Bulakh, Wasser, Nazarova, and Nezdoyminogo, 1990); **Rostov Oblast** (<sup>1,3</sup>Rusanov et al., 2004; <sup>1,3</sup>Zmitrovich et al., 2008; <sup>1,3</sup>Rusanov, Rebriev, and Bulgakov, 2018); **Saint Petersburg** (<sup>2</sup>Weinmann, 1836); **Sevastopol** (<sup>3</sup>Sarkina, 2016b; <sup>3</sup>Sarkina, 2020c); **Sverdlovsk Oblast** (<sup>1</sup>Marina, 2006); **Tatarstan** (<sup>3</sup>Vassiljeva, 1977; <sup>3</sup>Bulakh, Wasser, Nazarova, and Nezdoyminogo, 1990; <sup>1</sup>Potapov, 2016b); **Tula Oblast** (<sup>1</sup>Svetasheva, 2004; <sup>1</sup>Shcherbakov, 2010); **Tver Oblast** (<sup>3</sup>Bulakh, Wasser, Nazarova, and Nezdoyminogo, 1990); **Voronezh Oblast** (<sup>3</sup>Chastukhin and Nikolaevskaya, 1953; <sup>3</sup>Chastukhin and Nikolaevskaya, 1969); **Arid territories** (<sup>1</sup>Rebriev, Rusanov, et al., 2012; <sup>3</sup>Rebriev, Rusanov, et al., 2012).

SIBERIA: **Irkutsk Oblast** (<sup>1</sup>Muzyka, 2009); **Krasnoyarsk Krai** (<sup>1</sup>Kalchbrenner, 1878; <sup>1</sup>Thümen, 1878; <sup>1</sup>Beglyanova, 1972a; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdoyminogo, 1990; <sup>1</sup>Zauzolkova, 2015); **Tomsk Oblast** (<sup>1,3</sup>Kudashova, Gashkov, and Kutafjeva, 2013; <sup>1</sup>Kudashova, Gashkov, and Vaishlya, 2016b); **Tyumen Oblast** (<sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdoyminogo, 1990).

FAR EAST: **Amur Oblast** (<sup>3</sup>Bulakh, 1986; <sup>3</sup>Bulakh, Wasser, Nazarova, and Nezdoyminogo, 1990; <sup>3</sup>Azbukina et al., 1998; <sup>3</sup>Bogacheva et al., 2018); **Jewish Autonomous Oblast** (<sup>3</sup>Bogacheva et al., 2018; <sup>1</sup>Erofeeva, Bukharova, and Bulakh, 2019); **Khabarovsk Krai** (<sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdoyminogo, 1990); **Primorsky Krai** (<sup>3</sup>Vassiljeva, 1972; <sup>3</sup>Vassiljeva, 1973; <sup>1,3</sup>Bulakh, 1986; <sup>1</sup>Azbukina et al., 1990; <sup>1,3</sup>Bulakh, Wasser, Nazarova, and Nezdoyminogo, 1990; <sup>1</sup>Bardunov et al., 2002; <sup>1,3</sup>Azbukina et al., 2006; <sup>1</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Bulakh et al., 2016; <sup>1,3</sup>Bogacheva et al., 2018).

***Lactifluus bertillonii* (Neuhoff ex Z. Schaef.) Verbeken<sup>1</sup>**

≡ *Lactarius bertillonii* (Neuhoff ex Z. Schaef.) Bon<sup>2</sup>

EASTERN EUROPE: **Adygea** (<sup>2</sup>Sopina, 2004a); **Karelia** (<sup>2</sup>Kovalenko, Morozova, Fomina, and Särkisilta, 1998; <sup>2</sup>Krutov et al., 2014); **Komi Republic** (<sup>2</sup>Bobretsova, 2004); **Leningrad Oblast** (<sup>2</sup>Kovalenko and Morozova, 1999a; <sup>2</sup>Fomina, 2000; <sup>2</sup>Morozova and Kovalenko, 2000; <sup>2</sup>Fomina, 2001; <sup>2</sup>Popov et al., 2007; <sup>2</sup>Kalinina, 2018); **Moscow Oblast** (<sup>2</sup>Levitskaya, 1998; <sup>2</sup>Levitskaya, 2013); **Novgorod Oblast** (<sup>2</sup>Kovalenko, Morozova, Nezdoyminogo, and Popov, 2005; <sup>2</sup>Popov et al., 2013); **Orenburg Oblast** (<sup>2</sup>Desyatova, 2008); **Perm Krai** (<sup>2</sup>Perevedentseva, 2008); **Sverdlovsk Oblast** (<sup>2</sup>Marina, 2006); **Vologda Oblast** (<sup>2</sup>Kirillova, 2007); **Yaroslavl Oblast** (<sup>2</sup>Lazareva, 1998a).

SIBERIA: **Khanty-Mansi Autonomous Okrug** (<sup>1</sup>Zvyagina and Baykalova, 2017); **Krasnoyarsk Krai** (<sup>1</sup>Krom and Kapitonov, 2019).

***Lactifluus glaucescens* (Crossl.) Verbeken**

≡ *Lactarius glaucescens* Crossl.<sup>1</sup>

EASTERN EUROPE: **Adygea** (<sup>1</sup>Vaasma, Kalamees, and Raitviir, 1986; <sup>1</sup>Sopina, 2004a); **Krasnodar Krai** (<sup>1</sup>Vaasma, Kalamees, and Raitviir, 1986; <sup>1</sup>Sopina, 2004a); **Kursk Oblast** (<sup>1</sup>Baranov, 2002); **Leningrad Oblast** (<sup>1</sup>Kalamees and Kovalenko, 1984; <sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Popov et al., 2007); **Novgorod Oblast** (<sup>1</sup>Kovalenko, Morozova,

Nezdojminogo, and Popov, 2005; <sup>1</sup>Popov et al., 2013); **Perm Krai** (<sup>1</sup>Perevedentseva, 2008); **Tula Oblast** (<sup>1</sup>Svetasheva, 2004); **Udmurt Republic** (<sup>1</sup>Kapitonov, 2013); **Ulyanovsk Oblast** (<sup>1</sup>Ilyukhin, 2009; <sup>1</sup>Ilyukhin, 2010a); **Yaroslavl Oblast** (<sup>1</sup>Lazareva, 1997; <sup>1</sup>Lazareva, 1998a).

***Lactifluus luteolus* (Peck) Verbeken**

≡ *Lactarius luteolus* Peck<sup>1</sup>

FAR EAST: **Primorsky Krai** (<sup>1</sup>Bulakh, 1986; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1</sup>Kozhevnikov, 2008; <sup>1</sup>Bogacheva et al., 2018).

***Lactifluus oedematopus* (Scop.) Kuntze**

≡ *Lactarius volemus* subsp. *oedematopus* (Scop.) Sacc.<sup>1</sup>

EASTERN EUROPE: **Moscow** (<sup>1</sup>Bucholtz, 1897a).

***Lactifluus pergamenus* (Sw.) Kuntze**

≡ *Lactarius pergamenus* (Sw.) Fr.<sup>1</sup>

EASTERN EUROPE: **Adygea** (<sup>1</sup>Vaasma, Kalamees, and Raitviir, 1986); **Kaluga Oblast** (<sup>1</sup>Sionova, 2003); **Krasnodar Krai** (<sup>1</sup>Kovalenko, 1980a; <sup>1</sup>Kovalenko, 1980b; <sup>1</sup>Vaasma, Kalamees, and Raitviir, 1986); **Lipetsk Oblast** (<sup>1</sup>Sarycheva et al., 2009; <sup>1</sup>Sarycheva, 2011; <sup>1</sup>Sarycheva, 2014a); **Moscow** (<sup>1</sup>Bucholtz, 1897b; <sup>1</sup>Bucholtz, 1897c; <sup>1</sup>Mosolov, 1906); **Moscow Oblast** (<sup>1</sup>Gorlenko, Sidorova, and Sidorova, 1989; <sup>1</sup>Varlygina, Zubakin, and Sobolev, 2008); **Orenburg Oblast** (<sup>1</sup>Desyatova, 2008); **Penza Oblast** (<sup>1</sup>Ivanov, 1988a); **Sverdlovsk Oblast** (<sup>1</sup>Marina, 2006); **Tambov Oblast** (<sup>1</sup>Elenevskiy, 2002; <sup>1</sup>Konakov et al., 2019); **Tver Oblast** (<sup>1</sup>Kurochkin, 1993); **Udmurt Republic** (<sup>1</sup>Tychinin and Kuzmina, 2003); **Ulyanovsk Oblast** (<sup>1</sup>Artemyeva, Maslennikov, and Korepov, 2015).

SIBERIA: **Krasnoyarsk Krai** (<sup>1</sup>Thümen, 1878).

***Lactifluus piperatus* (L.) Roussel**

≡ *Agaricus piperatus* Scop.<sup>1</sup> ≡ *Lactarius piperatus* (L.) Pers.<sup>2</sup>

EASTERN EUROPE: **Adygea** (<sup>2</sup>Vassiljeva, 1939; <sup>2</sup>Vaasma, Kalamees, and Raitviir, 1986; <sup>2</sup>Sopina, 2004a); **Arkhangelsk Oblast** (<sup>2</sup>Lebedeva, 1933); **Bashkortostan** (<sup>2</sup>Stepanova and Sirko, 1977); **Belgorod Oblast** (<sup>2</sup>Bedenko, 1979a); **Chechen Republic** (<sup>2</sup>Taysumov, Krapivina, Umarov, and Astamirova, 2012); **Crimea** (<sup>2</sup>Sarkina, 2001; <sup>2</sup>Dudka et al., 2004; <sup>2</sup>Sarkina, 2010a; <sup>2</sup>Sarkina, 2010b; <sup>2</sup>Sarkina, 2011; <sup>2</sup>Sarkina and Prydiuk, 2012; <sup>2</sup>Sarkina, 2013; <sup>2</sup>Sarkina and Stavishenko, 2019); **Kaliningrad Oblast** (<sup>2</sup>Dedkov, Volodina, and Gubareva, 2007); **Kaluga Oblast** (<sup>2</sup>Sionova, 2003); **Karachay-Cherkess Republic** (<sup>2</sup>Kalamees and Botashev, 2000); **Karelia** (<sup>2</sup>Krutov et al., 2014); **Kirov Oblast** (<sup>2</sup>Kirillov, 2011; <sup>2</sup>Kirillov, Perevedentseva, and Egoshina, 2011); **Komi Republic** (<sup>2</sup>Palamarchuk, 2012); **Krasnodar Krai** (<sup>2</sup>Vassiljeva, 1939; <sup>2</sup>Kovalenko, 1980a; <sup>2</sup>Vaasma, Kalamees, and Raitviir, 1986; <sup>2</sup>Sopina, 2004a); **Leningrad Oblast** (<sup>2</sup>Thesleff, 1920; <sup>2</sup>Kalamees and Kovalenko, 1984; <sup>2</sup>Kovalenko and Morozova, 1999a; <sup>2</sup>Popov et al., 2007); **Lipetsk Oblast** (<sup>2</sup>Afanasyev, Rtishcheva, and Starodubtseva, 2007; <sup>2</sup>Sarycheva et al., 2009; <sup>2</sup>Sarycheva, 2011; <sup>2</sup>Sarycheva, 2014a; <sup>2</sup>Sarycheva, 2016; <sup>2</sup>Sarycheva, Starodubtseva, and Sapelnikova, 2017); **Mordovia** (<sup>2</sup>Kuznetsov, 1960; <sup>2</sup>Chastukhin, 2011; <sup>2</sup>Ivoilov and Bolshakov, 2011b); **Moscow** (<sup>1</sup>Weinmann, 1836; <sup>2</sup>Bucholtz, 1897a; <sup>2</sup>Bucholtz, 1897b; <sup>2</sup>Bucholtz, 1897c; <sup>2</sup>Mosolov, 1906; <sup>2</sup>Burova, 1968); **Moscow Oblast** (<sup>2</sup>Gorlenko, Sidorova, and Sidorova, 1989; <sup>2</sup>Levitskaya, 1995a; <sup>2</sup>Vishnevsky and Sidorova, 1997; <sup>2</sup>Levitskaya, 2013); **North Ossetia** (<sup>2</sup>Nikolayev, 2001); **Novgorod Oblast** (<sup>2</sup>Kovalenko, Morozova, Nezdojminogo, and Popov, 2005; <sup>2</sup>Popov et al., 2013); **Orenburg Oblast** (<sup>2</sup>Desyatova, 2008); **Oryol Oblast** (<sup>2</sup>Radygina, Derzhavina, and Tsutsupa, 2014); **Penza Oblast** (<sup>1</sup>Vet, 1943; <sup>2</sup>Ivanov, 1981a); **Perm Krai** (<sup>2</sup>Perevedentseva, 2008); **Rostov Oblast** (<sup>2</sup>Zmitrovich et al., 2008); **Ryazan Oblast** (<sup>2</sup>Volosnova, 2014); **Saint Petersburg** (<sup>1</sup>Weinmann, 1837; <sup>2</sup>Morozova and Smirnov, 2011); **Saratov Oblast** (<sup>2</sup>Kazakevich and Prisyazhnyuk, 1932); **Sevastopol** (<sup>2</sup>Sarkina, 2016b; <sup>2</sup>Sarkina, 2020c); **Smolensk Oblast** (<sup>2</sup>Jaczewski, 1893; <sup>2</sup>Jaczewski, 1895); **Sverdlovsk Oblast** (<sup>2</sup>Stepanova and Sirko, 1977); **Tula Oblast** (<sup>2</sup>Svetasheva, 2004); **Tver Oblast** (<sup>2</sup>Kurochkin, 1993); **Udmurt Republic** (<sup>2</sup>Tychinin and Kuzmina, 2003); **Ulyanovsk Oblast** (<sup>2</sup>Ilyukhin, 2009; <sup>2</sup>Ilyukhin, 2010a); **Voronezh Oblast** (<sup>2</sup>Afanasyev, Rtishcheva, and Starodubtseva, 2007; <sup>2</sup>Sarycheva, Starodubtseva, and Sapelnikova, 2017; <sup>2</sup>Kochergina and Furmenkova, 2019); **Yaroslavl Oblast** (<sup>2</sup>Lazareva, 1998a); **Arid territories** (<sup>2</sup>Rebriev, Rusanov, et al., 2012); **Northern Caucasus** (<sup>2</sup>Kovalenko, 1980b).

SIBERIA: **Krasnoyarsk Krai** (<sup>2</sup>Thümen, 1878; <sup>2</sup>Beglyanova, 1972a; <sup>2</sup>Beglyanova, 1972b; <sup>2</sup>Zauzolkova, 2012; <sup>2</sup>Zauzolkova, 2015); **Novosibirsk Oblast** (<sup>2</sup>Gorbunova, 2007); **Tomsk Oblast** (<sup>2</sup>Kudashova, Gashkov, and Kutafjeva, 2013; <sup>2</sup>Kudashova, Gashkov, and Vaishlya, 2016b).

FAR EAST: **Amur Oblast** (<sup>2</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>2</sup>Azbukina et al., 1998; <sup>2</sup>Taranina, 2005); **Jewish Autonomous Oblast** (<sup>2</sup>Bau, Bulakh, Zhuang, and Li, 2007; <sup>2</sup>Bulakh, Govorova, Nazarova,

and Vassiljeva, 2007; <sup>2</sup>Bau, Bulakh, and Govorova, 2011; <sup>2</sup>Bogacheva et al., 2018); **Khabarovsk Krai** (<sup>2</sup>Azbukina et al., 1986; <sup>2</sup>Bulakh, 1986; <sup>2</sup>Azbukina et al., 1989; <sup>2</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>2</sup>Bau, Bulakh, Zhuang, and Li, 2007; <sup>2</sup>Bau, Bulakh, and Govorova, 2011; <sup>2</sup>Erofeeva and Bulakh, 2015a; <sup>2</sup>Bogacheva et al., 2018); **Primorsky Krai** (<sup>2</sup>Vassiljeva, 1972; <sup>2</sup>Vassiljeva, 1973; <sup>2</sup>Bulakh, 1977; <sup>2</sup>Bunkina and Nazarova, 1978; <sup>2</sup>Azbukina et al., 1984; <sup>2</sup>Bulakh, 1986; <sup>2</sup>Azbukina et al., 1990; <sup>2</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>2</sup>Bardunov et al., 2002; <sup>2</sup>Azbukina et al., 2006; <sup>2</sup>Bau, Bulakh, and Govorova, 2011; <sup>2</sup>Bulakh et al., 2016; <sup>2</sup>Bogacheva et al., 2018; <sup>2</sup>Bogacheva, Bulakh, Bukharova, and Egorova, 2020).

***Lactifluus subvellereus* (Peck) Nuytinck**

≡ *Lactarius subvellereus* Peck<sup>1</sup>

FAR EAST: **Khabarovsk Krai** (<sup>1</sup>Azbukina et al., 1986; <sup>1</sup>Bulakh, 1986); **Primorsky Krai** (<sup>1</sup>Bulakh, 1986).

***Lactifluus vellereus* (Fr.) Kuntze<sup>1</sup>**

≡ *Agaricus vellereus* Fr.<sup>2</sup> ≡ *Lactarius vellereus* (Fr.) Fr.<sup>3</sup> ≡ *Lactarius vellereus* var. *vellereus* (Fr.) Fr.<sup>4</sup> = *Lactarius vellereus* var. *bertillonii* Neuhoff<sup>5</sup>

EASTERN EUROPE: **Adygea** (<sup>3</sup>Vassiljeva, 1939; <sup>4</sup>Vaasma, Kalamees, and Raitviir, 1986); **Arkhangelsk Oblast** (<sup>3</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990); **Bashkortostan** (<sup>3</sup>Stepanova and Sirko, 1977); **Belgorod Oblast** (<sup>3</sup>Bedenko, 1979a; <sup>3</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990); **Bryansk Oblast** (<sup>3</sup>Kruglikov, 2007); **Chelyabinsk Oblast** (<sup>3</sup>Stepanova and Sirko, 1977); **Crimea** (<sup>3</sup>Zerova, 1962; <sup>3</sup>Sarkina, 2001; <sup>3</sup>Dudka et al., 2004; <sup>3</sup>Sarkina, 2010a; <sup>3</sup>Sarkina, 2011; <sup>3</sup>Sarkina and Prydiuk, 2012); **Kabardino-Balkarian Republic** (<sup>3</sup>Shkhagapsoev and Krapivina, 2003; <sup>3</sup>Shkhagapsoev and Krapivina, 2004); **Kaliningrad Oblast** (<sup>3</sup>Dedkov, Volodina, and Gubareva, 2007; <sup>3</sup>Atayev and Volodina, 2020); **Kaluga Oblast** (<sup>3</sup>Sionova, 2003; <sup>3</sup>Sionova, 2006); **Karachay-Cherkess Republic** (<sup>3</sup>Kalamees and Botashev, 2000); **Karelia** (<sup>3</sup>Freindling, 1949; <sup>3</sup>Bondartseva et al., 2001; <sup>3</sup>Predtechenskaya, 2013; <sup>3</sup>Krutov et al., 2014); **Kirov Oblast** (<sup>4</sup>Kirillov and Luginina, 2011; <sup>4</sup>Kirillov, 2011; <sup>4</sup>Kirillov, Perevedentseva, and Egoshina, 2011; <sup>4</sup>Stavishenko, Luginina, Kirillov, and Egoshina, 2019); **Komi Republic** (<sup>3</sup>Palamarchuk, 2012; <sup>3</sup>Palamarchuk and Kirillov, 2017); **Kostroma Oblast** (<sup>3</sup>Veremyeva, 1986); **Krasnodar Krai** (<sup>3</sup>Vassiljeva, 1939; <sup>3</sup>Kovalenko, 1980a; <sup>4,5</sup>Vaasma, Kalamees, and Raitviir, 1986; <sup>3</sup>Sopina, 2004a; <sup>3</sup>Shumkova, Krivorotov, and Gayday, 2018); **Leningrad Oblast** (<sup>3</sup>Thesleff, 1920; <sup>3</sup>Kalamees and Kovalenko, 1984; <sup>3</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>3</sup>Kalinina, 2018); **Lipetsk Oblast** (<sup>3</sup>Rtishcheva, 1999; <sup>3</sup>Afanasyev, Rtishcheva, and Starodubtseva, 2007; <sup>3</sup>Sarycheva et al., 2009; <sup>3</sup>Sarycheva, 2011; <sup>3</sup>Sarycheva, 2014a; <sup>3</sup>Sarycheva, 2016; <sup>3</sup>Sarycheva, Starodubtseva, and Sapelnikova, 2017); **Mordovia** (<sup>3</sup>Kuznetsov, 1960; <sup>3</sup>Chastukhin, 2011; <sup>3</sup>Ivoilov and Bolshakov, 2011b); **Moscow** (<sup>3</sup>Bucholtz, 1897b; <sup>3</sup>Bucholtz, 1897c; <sup>3</sup>Mosolov, 1906); **Moscow Oblast** (<sup>3</sup>Gorlenko, Sidorova, and Sidorova, 1989; <sup>3</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>3</sup>Levitskaya, 1995a; <sup>3</sup>Vishnevsky and Sidorova, 1997; <sup>3</sup>Voronina et al., 2012; <sup>3</sup>Levitskaya, 2013; <sup>3</sup>Voronina et al., 2014; <sup>3</sup>Sidorova, Alexandrova, and Voronina, 2017); **North Ossetia** (<sup>3</sup>Nikolayev, 2001); **Penza Oblast** (<sup>3</sup>Ivanov, 1981a; <sup>3</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990); **Perm Krai** (<sup>4</sup>Perevedentseva, 2008); **Rostov Oblast** (<sup>3</sup>Rusanov et al., 2004; <sup>3</sup>Zmitrovich et al., 2008); **Ryazan Oblast** (<sup>3</sup>Volosnova, 1997; <sup>3</sup>Volosnova, 2014); **Saint Petersburg** (<sup>2</sup>Weinmann, 1828; <sup>2</sup>Weinmann, 1836; <sup>2</sup>Weinmann, 1837); **Smolensk Oblast** (<sup>3</sup>Jaczewski, 1896; <sup>3</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990); **Sverdlovsk Oblast** (<sup>3</sup>Stepanova and Sirko, 1977); **Tatarstan** (<sup>3</sup>Vassiljeva, 1977; <sup>3</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990); **Tula Oblast** (<sup>3</sup>Svetasheva, 2001; <sup>3</sup>Svetasheva, 2004; <sup>3</sup>Svetasheva, 2013); **Tver Oblast** (<sup>3</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>3</sup>Kurochkin, 1993); **Udmurt Republic** (<sup>3</sup>Tychinin and Kuzmina, 2003); **Ulyanovsk Oblast** (<sup>3</sup>Ilyukhin, 2009); **Voronezh Oblast** (<sup>3</sup>Chastukhin and Nikolaevskaya, 1953; <sup>3</sup>Chastukhin and Nikolaevskaya, 1969; <sup>3</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>3</sup>Rtishcheva, 1999; <sup>3</sup>Afanasyev, Rtishcheva, and Starodubtseva, 2007; <sup>3</sup>Selochnik, 2015; <sup>3</sup>Sarycheva, Starodubtseva, and Sapelnikova, 2017); **Yaroslavl Oblast** (<sup>3</sup>Lazareva, 1998a); **Arid territories** (<sup>3</sup>Rebriev, Rusanov, et al., 2012); **Northern Caucasus** (<sup>1</sup>Kovalenko, 1980b).

SIBERIA: **Altai Krai** (<sup>3</sup>Gorbunova, 2018a); **Altai Republic** (<sup>3</sup>Gorbunova, 1997; <sup>3</sup>Gorbunova, 2001b; <sup>3</sup>Perova and Gorbunova, 2001); **Irkutsk Oblast** (<sup>3</sup>Petrov, Nezdojminogo, and Bulakh, 1987; <sup>3</sup>Petrov, 1991; <sup>3</sup>Muzyka, 2002; <sup>3</sup>Petrov, 2008; <sup>3</sup>Heklau and Dörfelt, 2017); **Krasnoyarsk Krai** (<sup>3</sup>Beglyanova, 1972a; <sup>3</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>3</sup>Lapitskaya, 1993; <sup>3</sup>Pavlov et al., 2007; <sup>3</sup>Kosheleva and Kutafjeva, 2008a); **Novosibirsk Oblast** (<sup>3</sup>Perova and Gorbunova, 2001; <sup>4</sup>Perova and Gorbunova, 2007); **Sverdlovsk Oblast** (<sup>3</sup>Stepanova and Sirko, 1977); **Tomsk Oblast** (<sup>3</sup>Milovidova, 1980; <sup>3</sup>Kudashova, Gashkov, and Kutafjeva, 2013; <sup>3</sup>Vaishlya et al., 2017).

FAR EAST: **Amur Oblast** (<sup>3</sup>Kochunova and Erofeeva, 2017); **Jewish Autonomous Oblast** (<sup>3</sup>Bulakh, Govorova, Nazarova, and Vassiljeva, 2007; <sup>3</sup>Bau, Bulakh, and Govorova, 2011); **Khabarovsk Krai** (<sup>3</sup>Azbukina et al., 1986; <sup>3</sup>Bulakh, 1986; <sup>3</sup>Azbukina et al., 1989; <sup>3</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>3</sup>Bau, Bulakh, Zhuang, and Li, 2007; <sup>3</sup>Bau, Bulakh, and Govorova, 2011; <sup>3</sup>Erofeeva and Bulakh, 2015a); **Magadan Oblast** (<sup>3</sup>Nazarova, 1976);

**Primorsky Krai** (<sup>3</sup>Vassiljeva, 1972; <sup>3</sup>Vassiljeva, 1973; <sup>3</sup>Shalapugina, 1976; <sup>3</sup>Bunkina and Nazarova, 1978; <sup>3</sup>Azbukina et al., 1984; <sup>3</sup>Bulakh, Wasser, Nazarova, and Nezdjominogo, 1990; <sup>3</sup>Bardunov et al., 2002; <sup>3</sup>Azbukina et al., 2006; <sup>3</sup>Bau, Bulakh, and Govorova, 2011; <sup>3</sup>Bulakh et al., 2016; <sup>3</sup>Bogacheva, Bulakh, Bukharova, and Egorova, 2020); **Sakhalin Oblast** (<sup>3</sup>Vassiljeva and Nazarova, 1972; <sup>3</sup>Bulakh, 1986; <sup>3</sup>Bulakh, Wasser, Nazarova, and Nezdjominogo, 1990; <sup>3</sup>Bulakh, Govorova, and Bogatov, 1999).

***Lactifluus volemus* (Fr.) Kuntze<sup>1</sup>**

≡ *Agaricus volemus* Fr.<sup>2</sup> ≡ *Lactarius volemus* (Fr.) Fr.<sup>3</sup> = *Lactarius ichoratus* (Batsch) Fr.<sup>4</sup>

EASTERN EUROPE: **Adygea** (<sup>3</sup>Vassiljeva, 1939; <sup>3</sup>Vaasma, Kalamees, and Raitviir, 1986; <sup>3</sup>Sopina, 2004a); **Belgorod Oblast** (<sup>3</sup>Bedenko, 1980; <sup>3</sup>Bulakh, Wasser, Nazarova, and Nezdjominogo, 1990); **Chechen Republic** (<sup>3</sup>Taysumov, Krapivina, Umarov, and Astamirova, 2012); **Chuvash Republic** (<sup>3</sup>Marfin, 2001); **Crimea** (<sup>3</sup>Sarkina, 2001; <sup>3</sup>Dudka et al., 2004; <sup>3</sup>Sarkina, 2010a; <sup>3</sup>Sarkina, 2011); **Kabardino-Balkarian Republic** (<sup>3</sup>Shkhagapsoev and Krapivina, 2003; <sup>3</sup>Shkhagapsoev and Krapivina, 2004); **Kaliningrad Oblast** (<sup>3,4</sup>Dedkov, Volodina, and Gubareva, 2007; <sup>4</sup>Volodina, 2007); **Kaluga Oblast** (<sup>3</sup>Sionova, 2006); **Karachay-Cherkess Republic** (<sup>3</sup>Kalamees and Botashev, 2000); **Krasnodar Krai** (<sup>3</sup>Vassiljeva, 1939; <sup>3</sup>Kovalenko, 1980a; <sup>3</sup>Vaasma, Kalamees, and Raitviir, 1986; <sup>3</sup>Sopina, 2004a; <sup>1</sup>Van de Putte, Nuytinck, De Crop, and Verbeken, 2016); **Leningrad Oblast** (<sup>3</sup>Thesleff, 1920; <sup>3</sup>Kalamees and Kovalenko, 1984; <sup>3,4</sup>Bulakh, Wasser, Nazarova, and Nezdjominogo, 1990; <sup>3</sup>Kovalenko and Morozova, 1999a; <sup>3</sup>Morozova and Kovalenko, 2000; <sup>3</sup>Morozova, 2007; <sup>3,4</sup>Popov et al., 2007; <sup>3</sup>Geltman et al., 2018; <sup>3</sup>Geltman, 2018b; <sup>3</sup>Kalinina, 2018); **Lipetsk Oblast** (<sup>3</sup>Alferova, 1977; <sup>3</sup>Rtishcheva, 1999; <sup>3</sup>Sarycheva, 1999; <sup>3</sup>Afanasyev, Rtishcheva, and Starodubtseva, 2007; <sup>3</sup>Sarycheva et al., 2009; <sup>3</sup>Sarycheva, 2011; <sup>3</sup>Sarycheva, 2014a; <sup>3</sup>Sarycheva, 2016; <sup>3</sup>Sarycheva, Starodubtseva, and Sapelnikova, 2017); **Mari El Republic** (<sup>3</sup>Bulakh, Wasser, Nazarova, and Nezdjominogo, 1990); **Mordovia** (<sup>3</sup>Chastukhin, 2011; <sup>3</sup>Ivoilov and Bolshakov, 2011b); **Moscow** (<sup>3</sup>Bucholtz, 1897b; <sup>3</sup>Bucholtz, 1897c; <sup>3</sup>Mosolov, 1906); **Moscow Oblast** (<sup>3</sup>Gorlenko, Sidorova, and Sidorova, 1989; <sup>3</sup>Bulakh, Wasser, Nazarova, and Nezdjominogo, 1990; <sup>3</sup>Levitskaya, 1995a; <sup>3</sup>Levitskaya, 2013; <sup>3</sup>Voronina et al., 2014); **North Ossetia** (<sup>3</sup>Nikolayev, 2001); **Novgorod Oblast** (<sup>3</sup>Kovalenko, Morozova, Nezdjominogo, and Popov, 2005; <sup>3</sup>Arslanov, 2012; <sup>3</sup>Popov et al., 2013; <sup>3</sup>Vetkin et al., 2015); **Penza Oblast** (<sup>3</sup>Ivanov, 1981a; <sup>4</sup>Ivanov, 1983; <sup>4</sup>Bulakh, Wasser, Nazarova, and Nezdjominogo, 1990); **Perm Krai** (<sup>3</sup>Perevedentseva, 2008; <sup>3</sup>Shepel', 2008; <sup>3</sup>Baklanov, 2018); **Pskov Oblast** (<sup>3</sup>Kovalenko, Kolmakov, Morozova, and Popov, 2003; <sup>3</sup>Popov et al., 2013; <sup>3</sup>Aleksandrov et al., 2014); **Ryazan Oblast** (<sup>3</sup>Volosnova, 1997; <sup>3</sup>Volosnova, 2014); **Saint Petersburg** (<sup>2</sup>Weinmann, 1836; <sup>2</sup>Weinmann, 1837; <sup>4</sup>Kovalenko and Morozova, 1999a; <sup>3</sup>Morozova, Kovalenko, Rebriev, and Malysheva, 2014; <sup>3</sup>Geltman, 2018a); **Saratov Oblast** (<sup>3</sup>Nagumanov, 2015); **Sevastopol** (<sup>3</sup>Sarkina, 2016b; <sup>3</sup>Sarkina, 2020c); **Sverdlovsk Oblast** (<sup>3</sup>Stepanova and Sirko, 1977; <sup>3</sup>Marina, 2006; <sup>1</sup>Van de Putte, Nuytinck, De Crop, and Verbeken, 2016; <sup>3</sup>Korytin, 2018); **Tatarstan** (<sup>3</sup>Shchepovskikh, Bojko, Gorshkov, and Rogova, 2006; <sup>3</sup>Nazirov, Gorshkov, Ivanov, and Rogova, 2016; <sup>3</sup>Potapov, 2016b); **Tula Oblast** (<sup>3</sup>Svetasheva, 2004; <sup>3</sup>Svetasheva, 2005b); **Tver Oblast** (<sup>3</sup>Bulakh, Wasser, Nazarova, and Nezdjominogo, 1990; <sup>3</sup>Kurochkin, 1993); **Udmurt Republic** (<sup>3</sup>Tychinin and Kuzmina, 2003); **Voronezh Oblast** (<sup>3</sup>Chastukhin and Nikolaevskaya, 1953; <sup>3</sup>Chastukhin and Nikolaevskaya, 1969; <sup>3</sup>Rtishcheva, 1999; <sup>3</sup>Afanasyev, Rtishcheva, and Starodubtseva, 2007; <sup>3</sup>Selochnik, 2015; <sup>3</sup>Sarycheva, Starodubtseva, and Sapelnikova, 2017); **Yaroslavl Oblast** (<sup>3</sup>Lazareva, 1997; <sup>3</sup>Lazareva, 1998a); **Arid territories** (<sup>3</sup>Rebriev, Rusanov, et al., 2012); **Northern Caucasus** (<sup>3</sup>Kovalenko, 1980b).

SIBERIA: **Tomsk Oblast** (<sup>3</sup>Bulakh, Wasser, Nazarova, and Nezdjominogo, 1990).

FAR EAST: **Amur Oblast** (<sup>3</sup>Bulakh, 1986; <sup>3</sup>Bulakh, Wasser, Nazarova, and Nezdjominogo, 1990; <sup>3</sup>Azbukina et al., 1998; <sup>3</sup>Bogacheva et al., 2018); **Jewish Autonomous Oblast** (<sup>3,4</sup>Bulakh, Govorova, Nazarova, and Vassiljeva, 2007; <sup>3</sup>Bau, Bulakh, and Govorova, 2011; <sup>3</sup>Bogacheva et al., 2018); **Khabarovsk Krai** (<sup>3,4</sup>Azbukina et al., 1986; <sup>3</sup>Bulakh, 1986; <sup>3,4</sup>Azbukina et al., 1989; <sup>3,4</sup>Bulakh, Wasser, Nazarova, and Nezdjominogo, 1990; <sup>3</sup>Bau, Bulakh, and Govorova, 2011; <sup>3</sup>Erofeeva and Bulakh, 2015a; <sup>3</sup>Bogacheva et al., 2018); **Magadan Oblast** (<sup>4</sup>Bulakh, Wasser, Nazarova, and Nezdjominogo, 1990; <sup>4</sup>Sazanova, 2005; <sup>3</sup>Sazanova, 2009a); **Primorsky Krai** (<sup>3</sup>Vassiljeva, 1972; <sup>3</sup>Vassiljeva, 1973; <sup>3</sup>Bulakh, 1977; <sup>3</sup>Bunkina and Nazarova, 1978; <sup>3</sup>Azbukina et al., 1984; <sup>3</sup>Bulakh, 1986; <sup>3,4</sup>Bulakh, Wasser, Nazarova, and Nezdjominogo, 1990; <sup>3</sup>Bardunov et al., 2002; <sup>3,4</sup>Azbukina et al., 2006; <sup>3</sup>Bau, Bulakh, Zhuang, and Li, 2007; <sup>3</sup>Bau, Bulakh, and Govorova, 2011; <sup>3</sup>Bulakh et al., 2016; <sup>3</sup>Bogacheva et al., 2018; <sup>3</sup>Bogacheva, Bulakh, Bukharova, and Egorova, 2020); **Sakhalin Oblast** (<sup>4</sup>Bulakh, Wasser, Nazarova, and Nezdjominogo, 1990).

***Lanmaoa fragrans* (Vittad.) Vizzini, Gelardi & Simonini**

≡ *Boletus fragrans* Vittad.<sup>1</sup>

EASTERN EUROPE: **Adygea** (<sup>1</sup>Vaasma, Kalamees, and Raitviir, 1986); **Belgorod Oblast** (<sup>1</sup>Bedenko, 1979a); **Chechen Republic** (<sup>1</sup>Taysumov, Zamotaylov, and Batkhiev, 2020).

***Leccinellum crocipodium* (Letell.) Della Magg. & Trassin.**

≡ *Leccinellum crocipodium* (Letell.) Bresinsky & Manfr. Binder<sup>1</sup> ≡ *Leccinum crocipodium* (Letell.) Watling<sup>2</sup> = *Boletus nigrescens* Richon & Roze<sup>3</sup>

EASTERN EUROPE: **Adygea** (<sup>2</sup>Kovalenko, 1979a; <sup>2</sup>Kovalenko, 1980b); **Crimea** (<sup>2</sup>Sarkina, 2010b; <sup>2</sup>Sarkina, 2011; <sup>2</sup>Sarkina, 2013); **Karachay-Cherkess Republic** (<sup>2</sup>Kalamees and Botashev, 2000); **Krasnodar Krai** (<sup>2</sup>Kovalenko, 1980a; <sup>2</sup>Kovalenko, 1980b; <sup>2</sup>Vaasma, Kalamees, and Raitviir, 1986); **Mordovia** (<sup>1</sup>Ivoilov and Bolshakov, 2011b); **Moscow** (<sup>3</sup>Bucholtz, 1897b; <sup>3</sup>Bucholtz, 1897c; <sup>3</sup>Mosolov, 1906); **North Ossetia** (<sup>3</sup>Chernetskaja, 1929); **Penza Oblast** (<sup>2</sup>Ivanov, 1985; <sup>2</sup>Ivanov, 2013a); **Ulyanovsk Oblast** (<sup>1</sup>Svetasheva et al., 2017).

***Leccinellum griseum* (Quél.) Bresinsky & Manfr. Binder<sup>1</sup>**

≡ *Gyroporus griseus* Quél.<sup>2</sup> ≡ *Leccinum griseum* (Quél.) Singer<sup>3</sup>

EASTERN EUROPE: **Adygea** (<sup>3</sup>Kovalenko, 1980b; <sup>3</sup>Vaasma, Kalamees, and Raitviir, 1986); **Crimea** (<sup>3</sup>Sarkina, 2001; <sup>3</sup>Dudka et al., 2004; <sup>2</sup>Akulov and Pryidiuk, 2007; <sup>3</sup>Sarkina, 2010b; <sup>3</sup>Sarkina, 2011); **Kaliningrad Oblast** (<sup>3</sup>Dedkov, Volodina, and Gubareva, 2007; <sup>1</sup>Atayev and Volodina, 2020); **Krasnodar Krai** (<sup>3</sup>Kovalenko, 1980a; <sup>3</sup>Kovalenko, 1980b); **Mordovia** (<sup>1</sup>Ivoilov and Bolshakov, 2011b); **Penza Oblast** (<sup>3</sup>Ivanov, 1981a); **Saratov Oblast** (<sup>3</sup>Komirnaya, 1975).

SIBERIA: **Tomsk Oblast** (<sup>3</sup>Agaphonova, Kutafjeva, and Gashkov, 2009a).

***Leccinellum luteoporum* (Bouchinot) Blanco-Dios**

≡ *Krombholzia luteopora* (Bouchinot) Singer<sup>1</sup>

EASTERN EUROPE: **Northern Caucasus** (<sup>1</sup>Singer, 1938c).

***Leccinellum pseudoscabrum* (Kallenb.) Mikšik<sup>1</sup>**

≡ *Leccinum pseudoscabrum* (Kallenb.) Šutara<sup>2</sup> = *Leccinum carpini* (R. Schulz) M.M. Moser ex D.A. Reid<sup>3</sup>

EASTERN EUROPE: **Adygea** (<sup>3</sup>Sopina, 2001a); **Crimea** (<sup>2</sup>Sarkina and Prydiuk, 2012; <sup>2</sup>Sarkina, 2013; <sup>2</sup>Sarkina and Mironova, 2015; <sup>1</sup>Sarkina and Stavishenko, 2019); **Kabardino-Balkarian Republic** (<sup>3</sup>Shkhagapsoev and Krapivina, 2004); **Karachay-Cherkess Republic** (<sup>3</sup>Kalamees and Botashev, 2000); **Krasnodar Krai** (<sup>3</sup>Sopina, 2001a); **Leningrad Oblast** (<sup>1</sup>Kalinina, 2018; <sup>2</sup>Geltman et al., 2018; <sup>2</sup>Geltman, 2018b); **North Ossetia** (<sup>3</sup>Nikolayev, 2001); **Sevastopol** (<sup>2</sup>Sarkina, 2016b; <sup>1</sup>Sarkina, 2020c).

SIBERIA: **Tomsk Oblast** (<sup>2</sup>Kudashova, Gashkov, and Vaishlya, 2016a).

FAR EAST: **Amur Oblast** (<sup>1</sup>Kochunova, 2019).

***Leccinum albstipitatum* den Bakker & Noordel.**

EASTERN EUROPE: **Arkhangelsk Oblast** (Ezhov, Zmitrovich, and Ruokolainen, 2019); **Karelia** (Savelev and Kikeeva, 2020); **Komi Republic** (Svetasheva et al., 2017); **Leningrad Oblast** (Popov et al., 2007; Zmitrovich et al., 2015; Kalinina, 2018); **Mordovia** (Ivoilov and Bolshakov, 2011b); **Novgorod Oblast** (Kovalenko, Morozova, Nezdojminogo, and Popov, 2005 [as *Leccinum aurantiacum* (Bull.) Gray, redet. in Popov et al., 2013]; Popov et al., 2013); **Pskov Oblast** (Popov, 2001a [as *Leccinum aurantiacum* (Bull.) Gray, redet. in Popov et al., 2013]; Popov et al., 2013); **Saint Petersburg** (Morozova and Smirnov, 2011; Morozova et al., 2020); **Tatarstan** (Potapov, 2015b; Potapov, 2016b).

SIBERIA: **Khanty-Mansi Autonomous Okrug** (Filippova, Bulyonkova, and Lapshina, 2015; Filippova and Bulyonkova, 2017a; Filippova and Bulyonkova, 2017b); **Krasnoyarsk Krai** (Krom and Kapitonov, 2019); **Novosibirsk Oblast** (Koropachinskiy and Banaev, 2014); **Tomsk Oblast** (Kudashova, Gashkov, and Vaishlya, 2016a; Kudashova, Gashkov, and Vaishlya, 2016b).

FAR EAST: **Magadan Oblast** (Rebriev, Bulakh, Sazanova, and Shiryaev, 2020).

***Leccinum arctoi* Vassilkov**

FAR EAST: **Chukotka Autonomous Okrug** (Vassilkov, 1978; Sazanova, 1993; Karatygin, Nezdojminogo, Novozhilov, and Zhurbenko, 1999; Chereshev, 2008a); **Kamchatka Krai** (Vassilkov, 1978; Karatygin, Nezdojminogo, Novozhilov, and Zhurbenko, 1999); **Magadan Oblast** (Sazanova, 2005; Chereshev, 2008b; Sazanova, 2009a; Sazanova, 2011; Sazanova, 2016; Khoreva and Dokuchaev, 2019).

***Leccinum aurantiacum* (Bull.) Gray<sup>1</sup>**

≡ *Boletus scaber* var. *aurantiacus* (Bull.) Opat.<sup>2</sup> ≡ *Boletus versipellis* var. *aurantiacus* (Bull.) Vassilkov<sup>3</sup> ≡ *Krombholzia aurantiaca* (Bull.) E.-J. Gilbert<sup>4</sup> ≡ *Krombholzia aurantiaca* f. *aurantiaca* (Bull.) E.-J. Gilbert<sup>5</sup> = *Boletopsis*



*rufa* (Schaeff.) Henn.<sup>6</sup> = *Boletus rufus* Schaeff.<sup>7</sup> = *Leccinum aurantiacum* subsp. *rufescens* Secr. ex Hlaváček<sup>8</sup> = *Leccinum decipiens* (Singer) Pilát & Dermek<sup>9</sup> = *Leccinum populinum* M. Korhonen<sup>10</sup> = *Leccinum quercinum* (Pilát) E.E. Green & Watling<sup>11</sup> = *Leccinum quercinum* Pilát<sup>12</sup> = *Leccinum rufum* (Schaeff.) Kreisel<sup>13</sup>

EASTERN EUROPE: **Adygea** (<sup>4</sup>Vassiljeva, 1939; <sup>11</sup>Sopina, 2001a); **Arkhangelsk Oblast** (<sup>1</sup>Ezhov, Ershov, Ruokolainen, and Zmitrovich, 2011; <sup>1</sup>Ezhov, 2014); **Astrakhan Oblast** (<sup>9</sup>Pilipenko et al., 2014); **Belgorod Oblast** (<sup>1</sup>Bedenko, 1979a); **Bryansk Oblast** (<sup>1</sup>Kruglikov, 2007); **Chelyabinsk Oblast** (<sup>3</sup>Aleksandrovskaya and Lobanova, 1968; <sup>1</sup>Sirko and Stepanova, 1977); **Chuvash Republic** (<sup>11</sup>Marfin, 2001); **Crimea** (<sup>1</sup>Sarkina, 2001; <sup>1</sup>Dudka et al., 2004; <sup>1</sup>Akulov and Pryidiuk, 2007; <sup>1</sup>Sarkina, 2011); **Ivanovo Oblast** (<sup>7</sup>Alyavdina, 1928); **Kabardino-Balkarian Republic** (<sup>1</sup>Shkhagapsoev and Krapivina, 2004); **Kaliningrad Oblast** (<sup>1</sup>Dedkov, Volodina, and Gubareva, 2007); **Kaluga Oblast** (<sup>1</sup>Sionova, 2003; <sup>1</sup>Sionova, 2006); **Karachay-Cherkess Republic** (<sup>4</sup>Vassiljeva, 1939; <sup>1</sup>Kalamees and Botashev, 2000); **Karelia** (<sup>1,12</sup>Kovalenko, Morozova, Fomina, and Särkisilta, 1998; <sup>1,8</sup>Bondartseva et al., 2001; <sup>1</sup>Predtechenskaya and Ruokolainen, 2013; <sup>1,8,11</sup>Krutov et al., 2014; <sup>1</sup>Savelev and Kikeeva, 2018); **Kirov Oblast** (<sup>1</sup>Kirillov and Luginina, 2011; <sup>1</sup>Kirillov, 2011; <sup>1</sup>Kirillov, Perevedentseva, and Egoshina, 2011; <sup>1</sup>Stavishenko, Luginina, Kirillov, and Egoshina, 2019); **Komi Republic** (<sup>1</sup>Palamarchuk, 2012; <sup>1</sup>Palamarchuk and Kirillov, 2017; <sup>1</sup>Palamarchuk, 2017); **Kostroma Oblast** (<sup>1</sup>Veremyeva, 1986); **Krasnodar Krai** (<sup>1,11</sup>Kovalenko, 1980a; <sup>12</sup>Kovalenko, 1980b; <sup>1</sup>Vaasma, Kalamees, and Raitviir, 1986); **Kursk Oblast** (<sup>1</sup>Bedenko, 1985; <sup>1</sup>Soshnina, 2005); **Leningrad Oblast** (<sup>1</sup>Kalamees and Kovalenko, 1984; <sup>1</sup>Stolyarskaya, 1989; <sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Morozova and Kovalenko, 2000; <sup>10</sup>Morozova, 2007; <sup>1</sup>Morozova, 2007; <sup>1</sup>Popov et al., 2007; <sup>1</sup>Zmitrovich et al., 2015; <sup>1</sup>Kalinina, 2018; <sup>1</sup>Malysheva, Malysheva, Shchepin, and Novozhilov, 2018); **Lipetsk Oblast** (<sup>1</sup>Rtishcheva, 1999; <sup>1</sup>Afanasyev, Rtishcheva, and Starodubtseva, 2007; <sup>1</sup>Sarycheva et al., 2009; <sup>1</sup>Sarycheva, 2014a; <sup>1</sup>Sarycheva, 2016; <sup>1</sup>Sarycheva, Starodubtseva, and Sapelnikova, 2017); **Mari El Republic** (<sup>13</sup>Prokhorov, 2007); **Mordovia** (<sup>1,11</sup>Ivoilov and Bolshakov, 2011b; <sup>7</sup>Chastukhin, 2011); **Moscow** (<sup>7</sup>Bucholtz, 1897a; <sup>7</sup>Bucholtz, 1897b; <sup>7</sup>Bucholtz, 1897c; <sup>7</sup>Mosolov, 1906); **Moscow Oblast** (<sup>1</sup>Gorlenko, Sidorova, and Sidorova, 1989; <sup>1</sup>Levitskaya, 1995b; <sup>1</sup>Levitskaya, 2013; <sup>1</sup>Sidorova, Alexandrova, and Voronina, 2017); **Murmansk Oblast** (<sup>1</sup>Vassilkov, 1967); **Nizhny Novgorod Oblast** (<sup>6</sup>Murashkinsky, 1911); **North Ossetia** (<sup>1</sup>Nikolayev, 2001); **Novgorod Oblast** (<sup>1</sup>Rusakov, 1968; <sup>11</sup>Kovalenko, Morozova, Nezdoyminogo, and Popov, 2005); **Orenburg Oblast** (<sup>1</sup>Desyatova, 2008); **Oryol Oblast** (<sup>1</sup>Radygina, Derzhavina, and Tsutsupa, 2014); **Penza Oblast** (<sup>1,11</sup>Ivanov, 1981a); **Perm Krai** (<sup>1</sup>Perevedentseva, 2008; <sup>1</sup>Belkovskaya et al., 2014; <sup>1</sup>Botalov, 2017); **Rostov Oblast** (<sup>1</sup>Rusanov et al., 2004; <sup>1</sup>Zmitrovich et al., 2008); **Ryazan Oblast** (<sup>1</sup>Volosnova, 1997; <sup>1</sup>Volosnova, 2014); **Saint Petersburg** (<sup>2</sup>Weinmann, 1836; <sup>1</sup>Kotkova, Morozova, and Popov, 2005; <sup>1</sup>Morozova and Smirnov, 2011; <sup>1</sup>Morozova et al., 2020); **Samara Oblast** (<sup>1</sup>Malysheva and Malysheva, 2005b; <sup>1</sup>Malysheva and Malysheva, 2008); **Saratov Oblast** (<sup>1</sup>Komirnyaya, 1975); **Sevastopol** (<sup>1</sup>Sarkina, 2020c); **Smolensk Oblast** (<sup>7</sup>Elenew, 1904); **Sverdlovsk Oblast** (<sup>4,5</sup>Tomilin, 1965; <sup>1</sup>Marina, 2006); **Tatarstan** (<sup>1</sup>Vassiljeva, 1977); **Tula Oblast** (<sup>1,12</sup>Svetasheva, 2004); **Tver Oblast** (<sup>1,12</sup>Kurochkin, 1993; <sup>1</sup>Mukhina, 2011a; <sup>1</sup>Mukhina, 2011b; <sup>1</sup>Kotkova, 2014); **Udmurt Republic** (<sup>1</sup>Tychinin and Kuzmina, 2003); **Ulyanovsk Oblast** (<sup>1</sup>Ilyukhin, 2009; <sup>1</sup>Ilyukhin, 2010a); **Volgograd Oblast** (<sup>1</sup>Stauchan and Vedeneyev, 2015); **Vologda Oblast** (<sup>1</sup>Kirillova, 2007); **Voronezh Oblast** (<sup>1</sup>Bedenko, 1985; <sup>1</sup>Rtishcheva, 1999; <sup>1</sup>Afanasyev, Rtishcheva, and Starodubtseva, 2007; <sup>1</sup>Sarycheva, Starodubtseva, and Sapelnikova, 2017); **Yaroslavl Oblast** (<sup>1</sup>Lazareva, 1998a; <sup>1</sup>Lazareva, 1998b); **Arid territories** (<sup>1,9</sup>Rebriev, Rusanov, et al., 2012); **Northern Caucasus** (<sup>1</sup>Kovalenko, 1980b).

SIBERIA: **Altai Krai** (<sup>1</sup>Gorbunova and Perova, 2006; <sup>1</sup>Gorbunova and Chubarova, 2008; <sup>1</sup>Gorbunova, Vlasenko, and Tzhubarova, 2011); **Altai Republic** (<sup>1</sup>Gorbunova, 2001b; <sup>1</sup>Gorbunova, 2008); **Buryatia** (<sup>1</sup>Nezdoyminogo, 1970a; <sup>1</sup>Petrov, 1991); **Irkutsk Oblast** (<sup>1</sup>Kutafjeva, 1982; <sup>1</sup>Astapenko, 1990b; <sup>1</sup>Muzyka, 2002; <sup>1</sup>Bardunov et al., 2005; <sup>1</sup>Petrov, 2008; <sup>1</sup>Muzyka, 2009; <sup>1</sup>Gorbunova and Stepanova, 2015; <sup>1</sup>Muzyka and Penzina, 2017); **Khakassia** (<sup>1</sup>Beglyanova, 1972a; <sup>1</sup>Zauzolkova, 2015); **Khanty-Mansi Autonomous Okrug** (<sup>1</sup>Zvyagina, Baykalova, and Gorbunova, 2007; <sup>1</sup>Zvyagina and Baykalova, 2012; <sup>1</sup>Filippova, Bulyonkova, and Lapshina, 2015; <sup>1</sup>Filippova and Bulyonkova, 2017a; <sup>1</sup>Filippova and Bulyonkova, 2017b); **Krasnoyarsk Krai** (<sup>1</sup>Beglyanova, 1972a; <sup>1</sup>Nezdoyminogo, 1976a; <sup>1</sup>Lapitskaya, 1990; <sup>1</sup>Kryuchkova, 2009; <sup>1</sup>Zauzolkova, 2012; <sup>1</sup>Zauzolkova, 2015); **Novosibirsk Oblast** (<sup>1</sup>Zaytseva, 1971; <sup>1</sup>Perova, 1977; <sup>1</sup>Gorbunova, 2007; <sup>1</sup>Perova and Gorbunova, 2007; <sup>1</sup>Koropachinskiy and Banaev, 2014); **Tomsk Oblast** (<sup>1</sup>Milovidova, 1980; <sup>1</sup>Kudashova, Gashkov, and Kutafjeva, 2013); **Yamalo-Nenets Autonomous Okrug** (<sup>1</sup>Tarchevskaya, 1990).

FAR EAST: **Amur Oblast** (<sup>1</sup>Gordienko, Petrova, and Tarasov, 1981; <sup>1</sup>Kochunova, 2019); **Jewish Autonomous Oblast** (<sup>1</sup>Erofeeva and Bulakh, 2015b; <sup>1</sup>Erofeeva, Bukharova, and Bulakh, 2019); **Khabarovsk Krai** (<sup>4</sup>Vassiljeva, 1956; <sup>1</sup>Azbukina et al., 1986; <sup>1</sup>Azbukina et al., 1989; <sup>1</sup>Bau, Bulakh, Zhuang, and Li, 2007; <sup>1</sup>Bulakh, Vassiljeva, and Erofeeva, 2010; <sup>1</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Erofeeva and Bulakh, 2015a); **Magadan Oblast** (<sup>1</sup>Sazanova, 1996; <sup>1</sup>Sazanova, 2005; <sup>1</sup>Sazanova, 2009a; <sup>1</sup>Sazanova, 2009b; <sup>1</sup>Sazanova, 2011); **Primorsky Krai** (<sup>4</sup>Vassiljeva, 1956; <sup>1</sup>Vassiljeva, 1972; <sup>1</sup>Vassiljeva, 1973; <sup>1</sup>Bau, Bulakh, Zhuang, and Li, 2007; <sup>1</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Bulakh et al., 2016); **Sakhalin Oblast** (<sup>1</sup>Vassiljeva and Nazarova, 1972).

***Leccinum cyaneobasileucum* Lannoy & Estadès<sup>1</sup>**= *Leccinum brunneogriseolum* Lannoy & Estadès<sup>2</sup>EASTERN EUROPE: **Karelia** (<sup>2</sup>Kovalenko, Morozova, Fomina, and Särkisilta, 1998); **Komi Republic** (<sup>1</sup>Svetasheva et al., 2017); **Penza Oblast** (<sup>1</sup>Ivanov, 2019).SIBERIA: **Irkutsk Oblast** (<sup>1</sup>Petrov, 2008).***Leccinum duriusculum* (Schulzer ex Kalchbr.) Singer<sup>1</sup>**≡ *Boletus duriusculus* Schulzer ex Kalchbr.<sup>2</sup> ≡ *Krombholzia duriuscula* (Schulzer ex Kalchbr.) E.-J. Gilbert<sup>3</sup>EASTERN EUROPE: **Adygea** (<sup>3</sup>Vassiljeva, 1939); **Astrakhan Oblast** (<sup>1</sup>Rebriev, Aleksandrova, et al., 2012); **Bashkortostan** (<sup>1</sup>Mirkin, 2011); **Kabardino-Balkarian Republic** (<sup>2</sup>Singer, 1929); **Kaliningrad Oblast** (<sup>1</sup>Dedkov, Volodina, and Gubareva, 2007; <sup>1</sup>Dedkov and Grishanov, 2010); **Karelia** (<sup>1</sup>Ivanter and Kuznetsov, 2007; <sup>1</sup>Krutov et al., 2014; <sup>1</sup>Kuznetsov, 2020); **Krasnodar Krai** (<sup>3</sup>Vassiljeva, 1939; <sup>1</sup>Kovalenko, 1980a; <sup>1</sup>Kovalenko, 1980b); **Leningrad Oblast** (<sup>1</sup>Stolyarskaya, 1993; <sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Popov et al., 2007; <sup>1</sup>Zmitrovich et al., 2015); **Lipetsk Oblast** (<sup>1</sup>Shcherbakov, 2014); **Mordovia** (<sup>1</sup>Ivoilov and Bolshakov, 2011b); **Moscow** (<sup>2</sup>Bucholtz, 1897b; <sup>2</sup>Bucholtz, 1897c; <sup>2</sup>Mosolov, 1906); **Novgorod Oblast** (<sup>1</sup>Kovalenko, Morozova, Nezdoinog, and Popov, 2005; <sup>1</sup>Popov et al., 2013); **Penza Oblast** (<sup>1</sup>Ivanov, 1981a); **Perm Krai** (<sup>1</sup>Perevedentseva, 2008); **Rostov Oblast** (<sup>1</sup>Fedyeva, 2014); **Saint Petersburg** (<sup>1</sup>Morozova and Smirnov, 2011); **Saratov Oblast** (<sup>1</sup>Komirnaya, 1975); **Sevastopol** (<sup>1</sup>Sarkina, 2020c); **Ulyanovsk Oblast** (<sup>1</sup>Svetasheva et al., 2017); **Volgograd Oblast** (<sup>1</sup>Rebriev, Svetasheva, Popov, and Zmitrovich, 2013; <sup>1</sup>Rebriev, Popov, Pridyuk, and Svetasheva, 2014); **Arid territories** (<sup>1</sup>Rebriev, Rusanov, et al., 2012).SIBERIA: **Altai Krai** (<sup>1</sup>Gorbunova and Perova, 2006); **Altai Republic** (<sup>1</sup>Kovalenko, 1992; <sup>1</sup>Perova and Gorbunova, 2001); **Buryatia** (<sup>1</sup>Petrov, 1991; <sup>1</sup>Penzina and Petrov, 1994); **Irkutsk Oblast** (<sup>1</sup>Petrov, 1991; <sup>1</sup>Petrov, 2008); **Khanty-Mansi Autonomous Okrug** (<sup>1</sup>Zvyagina, Baykalova, and Gorbunova, 2007); **Novosibirsk Oblast** (<sup>1</sup>Koropachinskiy and Banaev, 2014); **Sverdlovsk Oblast** (<sup>1</sup>Stepanova and Sirko, 1977); **Tomsk Oblast** (<sup>1</sup>Agaphonova, Kutafjeva, and Gashkov, 2009a; <sup>1</sup>Kudashova, Gashkov, and Kutafjeva, 2013; <sup>1</sup>Kudashova, Gashkov, and Vaishlya, 2016b).FAR EAST: **Magadan Oblast** (<sup>1</sup>Sazanova, 2005; <sup>1</sup>Sazanova, 2009a).***Leccinum holopus* (Rostk.) Watling<sup>1</sup>**= *Leccinum aeruginum* (Fr.) Lannoy & Estadès<sup>2</sup> = *Leccinum nucatum* Lannoy & Estadès<sup>3</sup>EASTERN EUROPE: **Arkhangelsk Oblast** (<sup>1</sup>Ezhov, Ershov, Ruokolainen, and Zmitrovich, 2011; <sup>1</sup>Ezhov, 2014); **Chuvash Republic** (<sup>1</sup>Ivanov, 2001); **Ivanovo Oblast** (<sup>1</sup>Borisova and Mineyeva, 2020); **Kaliningrad Oblast** (<sup>1</sup>Dedkov, Volodina, and Gubareva, 2007; <sup>1</sup>Volodina, 2007); **Kaluga Oblast** (<sup>1</sup>Sionova, 2003; <sup>1</sup>Alekseev et al., 2006; <sup>1</sup>Sionova, 2006; <sup>1</sup>Sionova, 2009; <sup>1</sup>Antokhina et al., 2015); **Karachay-Cherkess Republic** (<sup>1</sup>Kalamees and Botashev, 2000); **Karelia** (<sup>1</sup>Kovalenko, Morozova, Fomina, and Särkisilta, 1998; <sup>1</sup>Bondartseva et al., 2001; <sup>1</sup>Predtechenskaya, 2013; <sup>1,2</sup>Krutov et al., 2014; <sup>1</sup>Predtechenskaya and Ruokolainen, 2014; <sup>1</sup>Predtechenskaya, 2015; <sup>1</sup>Savelev and Kikeeva, 2020); **Komi Republic** (<sup>1</sup>Palamarchuk and Kirillov, 2018a); **Kostroma Oblast** (<sup>1</sup>Burova, 1982); **Kursk Oblast** (<sup>1</sup>Soshnina, 2001); **Leningrad Oblast** (<sup>1</sup>Kalamees and Kovalenko, 1984; <sup>1</sup>Stolyarskaya, 1993; <sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Morozova and Kovalenko, 2000; <sup>1</sup>Morozova, 2007; <sup>1</sup>Popov et al., 2007; <sup>1</sup>Zmitrovich et al., 2015); **Lipetsk Oblast** (<sup>1</sup>Sarycheva et al., 2009); **Mordovia** (<sup>1</sup>Ivoilov and Bolshakov, 2011b); **Moscow Oblast** (<sup>1</sup>Gorlenko, Sidorova, and Sidorova, 1989; <sup>1</sup>Levitskaya, 1995b; <sup>1</sup>Levitskaya, 2013; <sup>1</sup>Voronina et al., 2014; <sup>1</sup>Sidorova, Alexandrova, and Voronina, 2017); **Penza Oblast** (<sup>1</sup>Ivanov, 1981a; <sup>1</sup>Ivanov, 2019); **Perm Krai** (<sup>1</sup>Belkovskaya et al., 2014; <sup>1</sup>Botalov, 2017); **Ryazan Oblast** (<sup>1</sup>Volosnova, 1997; <sup>1</sup>Volosnova, 2014); **Saint Petersburg** (<sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Kotkova, Morozova, and Popov, 2005; <sup>1</sup>Morozova and Smirnov, 2011; <sup>1</sup>Morozova et al., 2020); **Sverdlovsk Oblast** (<sup>1</sup>Marina, 2006); **Tatarstan** (<sup>1</sup>Vassiljeva, 1977); **Tula Oblast** (<sup>1</sup>Svetasheva, 2004); **Tver Oblast** (<sup>1</sup>Kurochkin, 1993; <sup>1</sup>Mukhina, 2011a; <sup>1</sup>Mukhina, 2011b; <sup>1</sup>Kotkova, 2014); **Udmurt Republic** (<sup>1</sup>Tychinin and Kuzmina, 2003); **Vologda Oblast** (<sup>1</sup>Kirillova, 2007); **Yaroslavl Oblast** (<sup>1</sup>Lazareva, 1997; <sup>1</sup>Lazareva, 1998a).SIBERIA: **Altai Republic** (<sup>1</sup>Gorbunova, 2001a; <sup>1</sup>Gorbunova, 2010); **Irkutsk Oblast** (<sup>1</sup>Petrov, 1984; <sup>1</sup>Petrov, 1989; <sup>1</sup>Astapenko, 1990b; <sup>1</sup>Muzyka, 2002; <sup>1</sup>Bardunov et al., 2005; <sup>1</sup>Petrov, 2008; <sup>1</sup>Muzyka, 2009; <sup>1</sup>Muzyka and Penzina, 2017); **Khakassia** (<sup>1</sup>Zauzolkova, 2015; <sup>1</sup>Zauzolkova and Gorbunova, 2016); **Khanty-Mansi Autonomous Okrug** (<sup>1</sup>Zvyagina, Baykalova, and Gorbunova, 2007; <sup>1</sup>Zvyagina, 2008; <sup>1</sup>Filippova, 2009; <sup>1</sup>Filippova and Thormann, 2014; <sup>1</sup>Filippova, 2014; <sup>1</sup>Filippova, Mourgues, and Philippe, 2014; <sup>1,3</sup>Shepeleva et al., 2014; <sup>1</sup>Filippova, Bulyonkova, and Lapshina, 2015; <sup>1</sup>Zvyagina and Vasina, 2015); **Krasnoyarsk Krai** (<sup>1</sup>Lapitskaya, 1990; <sup>1</sup>Krom and Kapitonov, 2019); **Kurgan Oblast** (<sup>1</sup>Bystrushkin, 2016); **Tomsk Oblast** (<sup>1</sup>Kudashova, Gashkov, and Kutafjeva, 2013); **Yamalo-Nenets Autonomous Okrug** (<sup>1</sup>Tarchevskaya, 1990).FAR EAST: **Amur Oblast** (<sup>1</sup>Kochunova and Erofeeva, 2017); **Chukotka Autonomous Okrug** (<sup>1</sup>Sazanova, 1993); **Khabarovsk Krai** (<sup>1</sup>Bulakh, Vassiljeva, and Erofeeva, 2010); **Magadan Oblast** (<sup>1</sup>Nazarova, 1976; <sup>1</sup>Sazanova, 1996);

<sup>1</sup>Sazanova, 2009a; <sup>1</sup>Sazanova, 2009b; <sup>1</sup>Sazanova, 2011; <sup>1</sup>Sazanova, 2012; <sup>1</sup>Sazanova and Golodnova, 2015); **Primorsky Krai** (<sup>1</sup>Vassiljeva, 1973; <sup>1</sup>Bau, Bulakh, and Govorova, 2011).

***Leccinum leucophaeum* (Pers.) Bon**

≡ *Krombholzia leucophaea* (Pers.) E.-J. Gilbert<sup>1</sup>

EASTERN EUROPE: **Adygea** (<sup>1</sup>Vassiljeva, 1939); **Krasnodar Krai** (<sup>1</sup>Vassiljeva, 1939).

***Leccinum leucopodium* (Pers.) Dörfelt & G. Berg**

SIBERIA: **Irkutsk Oblast** (Heklau and Dörfelt, 2017).

***Leccinum melaneum* (Smotl.) Pilát & Dermek<sup>1</sup>**

≡ *Krombholzia scabra* f. *melanea* (Smotl.) Vassilkov<sup>2</sup> ≡ *Leccinum scabrum* var. *melaneum* (Smotl.) Dermek<sup>3</sup>

EASTERN EUROPE: **Arkhangelsk Oblast** (<sup>1</sup>Ezhov, Ershov, Ruokolainen, and Zmitrovich, 2011; <sup>1</sup>Ezhov, 2014); **Kaliningrad Oblast** (<sup>1</sup>Dedkov, Volodina, and Gubareva, 2007); **Karelia** (<sup>1</sup>Kovalenko, Morozova, Fomina, and Särkisilta, 1998; <sup>1</sup>Savelev and Kikeeva, 2018); **Komi Republic** (<sup>1</sup>Palamarchuk and Kirillov, 2017); **Leningrad Oblast** (<sup>2</sup>Vassilkov, 1956b; <sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Morozova, 2007; <sup>1</sup>Popov et al., 2007; <sup>1</sup>Zmitrovich et al., 2015); **Moscow Oblast** (<sup>1</sup>Gorlenko, Sidorova, and Sidorova, 1989); **Murmansk Oblast** (<sup>2</sup>Vassilkov, 1956b); **North Ossetia** (<sup>1</sup>Nikolayev, 2001); **Penza Oblast** (<sup>1</sup>Ivanov, 2019); **Perm Krai** (<sup>1</sup>Perevedentseva, 2008; <sup>1</sup>Belkovskaya et al., 2014; <sup>1</sup>Botalov, 2017); **Pskov Oblast** (<sup>1</sup>Kovalenko and Morozova, 1999b); **Saint Petersburg** (<sup>1</sup>Morozova et al., 2020); **Saratov Oblast** (<sup>1</sup>Nagumanov, 2015); **Tatarstan** (<sup>1</sup>Yupina, Marfin, Sapayev, and Potapov, 2006; <sup>3</sup>Shchepovskih, Bojko, Gorshkov, and Rogova, 2006; <sup>1</sup>Potapov, Galejev, and Zhukov, 2013; <sup>1</sup>Potapov, 2015b); **Tula Oblast** (<sup>1</sup>Svetasheva, 2004); **Tver Oblast** (<sup>1</sup>Kurochkin, 1993); **Udmurt Republic** (<sup>1</sup>Tychinin and Kuzmina, 2003); **Vologda Oblast** (<sup>1</sup>Kirillova, 2007).

SIBERIA: **Altai Krai** (<sup>1</sup>Gorbunova, 2018a); **Irkutsk Oblast** (<sup>2</sup>Vassilkov, 1956b; <sup>1</sup>Petrov, 1984; <sup>1</sup>Muzyka, 2002; <sup>1</sup>Bardunov et al., 2005; <sup>1</sup>Petrov, 2008; <sup>1</sup>Muzyka, 2009; <sup>1</sup>Muzyka and Penzina, 2017); **Krasnoyarsk Krai** (<sup>1</sup>Lapitskaya, 1990); **Tomsk Oblast** (<sup>1</sup>Agaphonova, Kutafjeva, and Gashkov, 2009a; <sup>1</sup>Kudashova, Gashkov, and Kutafjeva, 2013).

FAR EAST: **Chukotka Autonomous Okrug** (<sup>1</sup>Sazanova, 1993); **Magadan Oblast** (<sup>1</sup>Sazanova, 2005).

***Leccinum piceinum* Pilát & Dermek**

EASTERN EUROPE: **Karelia** (Kovalenko, Morozova, Fomina, and Särkisilta, 1998; Krutov et al., 2014); **Sverdlovsk Oblast** (Marina, 2006).

***Leccinum pulchrum* Lannoy & Estadès**

EASTERN EUROPE: **Karelia** (Kovalenko, Morozova, Fomina, and Särkisilta, 1998).

***Leccinum scabrum* (Bull.) Gray<sup>1</sup>**

≡ *Boletus scaber* Bull.<sup>2</sup> ≡ *Boletus scaber* var. *scaber* Bull.<sup>3</sup> ≡ *Krombholzia scabra* (Bull.) P. Karst.<sup>4</sup> ≡ *Krombholzia scabra* var. *scabra* (Bull.) P. Karst.<sup>5</sup> ≡ *Leccinum scabrum* f. *scabrum* (Bull.) Gray<sup>6</sup> ≡ *Leccinum scabrum* var. *scabrum* (Bull.) Gray<sup>7</sup> = *Boletus scaber* f. *rotundifoliae* (Singer) Vassilkov<sup>8</sup> = *Boletus scaber* var. *niveus* Opat.<sup>9</sup> = *Krombholzia oxydabilis* Singer<sup>10</sup> = *Krombholzia rotundifoliae* Singer<sup>11</sup> = *Krombholzia scabra* f. *albida* Vassilkov<sup>12</sup> = *Krombholzia scabra* f. *cinnamomea* Vassilkov<sup>13</sup> = *Krombholzia scabra* f. *lignicola* Vassilkov<sup>14</sup> = *Krombholzia scabra* f. *media* Vassilkov<sup>15</sup> = *Krombholzia scabra* f. *oxydabilis* (Singer) Vassilkov<sup>16</sup> = *Krombholzia scabra* f. *rotundifoliae* (Singer) Vassilkov<sup>17</sup> = *Krombholzia scabra* f. *squamulosa* Vassilkov<sup>18</sup> = *Krombholzia scabra* f. *versicolor* Vassilkov<sup>19</sup> = *Leccinum niveum* (Opat.) Rauschert<sup>20</sup> = *Leccinum oxydabile* (Singer) Singer<sup>21</sup> = *Leccinum rigidipes* P.D. Orton<sup>22</sup> = *Leccinum roseofractum* Watling<sup>23</sup> = *Leccinum rotundifoliae* (Singer) A.H. Sm., Thiers & Watling<sup>24</sup>

EASTERN EUROPE: **Adygea** (<sup>1</sup>Kovalenko, 1979a; <sup>1</sup>Kovalenko, 1980b; <sup>1</sup>Vaasma, Kalamees, and Raitviir, 1986); **Arkhangelsk Oblast** (<sup>1</sup>Ezhov, Ershov, Ruokolainen, and Zmitrovich, 2011; <sup>1</sup>Ezhov, 2014; <sup>1</sup>Ezhov, Zmitrovich, and Ruokolainen, 2019); **Belgorod Oblast** (<sup>1</sup>Bedenko, 1979a; <sup>1</sup>Soshnina, 1995; <sup>23</sup>Psurtseva, Belova, and Ryabusheva, 2003); **Bryansk Oblast** (<sup>1</sup>Kruglikov, 2007); **Chelyabinsk Oblast** (<sup>2,3,9</sup>Aleksandrovskaya and Lobanova, 1968; <sup>1</sup>Sirko and Stepanova, 1977); **Chuvash Republic** (<sup>1</sup>Marfin, 2001); **Crimea** (<sup>1</sup>Sarkina, 2001; <sup>1</sup>Dudka et al., 2004; <sup>1</sup>Akulov and Pryidiuk, 2007; <sup>1</sup>Sarkina and Pryidiuk, 2012); **Ivanovo Oblast** (<sup>2</sup>Alyavdina, 1928); **Kabardino-Balkarian Republic** (<sup>1</sup>Shkhagapsoev and Krapivina, 2004); **Kaliningrad Oblast** (<sup>1</sup>Dedkov, Volodina, and Gubareva, 2007; <sup>1,21</sup>Volodina, 2007; <sup>1</sup>Atayev and Volodina, 2020); **Kaluga Oblast** (<sup>1</sup>Sionova, 2003; <sup>1</sup>Sionova, 2006; <sup>21</sup>Antokhina et al., 2015); **Karachay-Cherkess Republic** (<sup>1</sup>Onipchenko and Kaverina, 1989; <sup>1</sup>Kalamees and Botashev, 2000); **Karelia** (<sup>2</sup>Lebedeva, 1933; <sup>4,10</sup>Freindling, 1949; <sup>12,13</sup>Vassilkov, 1956b; <sup>1,21,23,24</sup>Kovalenko, Morozova, Fomina, and

Särkisilta, 1998; <sup>1,21</sup>Bondartseva et al., 2001; <sup>1</sup>Predtechenskaya and Ruokolainen, 2008; <sup>1,21</sup>Predtechenskaya and Ruokolainen, 2013; <sup>1</sup>Predtechenskaya, 2013; <sup>1,21,23,24</sup>Krutov et al., 2014; <sup>1</sup>Predtechenskaya and Ruokolainen, 2014; <sup>1</sup>Predtechenskaya, 2015; <sup>1</sup>Savelev and Kikeeva, 2018); **Kirov Oblast** (<sup>1,20</sup>Kirillov and Luginina, 2011; <sup>1,20</sup>Kirillov, 2011; <sup>1,20</sup>Kirillov, Perevedentseva, and Egoshina, 2011; <sup>1,20</sup>Stavishenko, Luginina, Kirillov, and Egoshina, 2019); **Komi Republic** (<sup>20,21,24</sup>Karatygin, Nezdoyminogo, Novozhilov, and Zhurbenko, 1999; <sup>1</sup>Bobretsova, 2004; <sup>1,24</sup>Palamarchuk, 2011b; <sup>1,21</sup>Palamarchuk, 2012; <sup>1,20,24</sup>Palamarchuk, 2016a; <sup>1,20,24</sup>Palamarchuk, 2016b; <sup>1</sup>Palamarchuk and Kirillov, 2017; <sup>1</sup>Palamarchuk, 2017; <sup>24</sup>Palamarchuk, 2020a); **Kostroma Oblast** (<sup>1</sup>Burova, 1982; <sup>1</sup>Veremyeva, 1986); **Krasnodar Krai** (<sup>1</sup>Kovalenko, 1980a; <sup>1</sup>Kovalenko, 1980b; <sup>1</sup>Vaasma, Kalamees, and Raitviir, 1986; <sup>1</sup>Shumkova, Krivorotov, and Gayday, 2018); **Kursk Oblast** (<sup>1</sup>Ryabova and Ignatenko, 1981; <sup>1,21</sup>Bedenko, 1985; <sup>1</sup>Soshnina, 2001; <sup>1</sup>Soshnina, 2005); **Leningrad Oblast** (<sup>4</sup>Thesleff, 1920; <sup>14</sup>Vassilkov, 1956b; <sup>1</sup>Kalamees and Kovalenko, 1984; <sup>1,21</sup>Stolyarskaya, 1993; <sup>1,21,23</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Morozova and Kovalenko, 2000; <sup>1</sup>Morozova, 2007; <sup>1,21,23</sup>Popov et al., 2007; <sup>1</sup>Zmitrovich et al., 2015; <sup>1</sup>Kalinina, 2018); **Lipetsk Oblast** (<sup>1</sup>Alferova, 1977; <sup>1</sup>Rtishcheva, 1999; <sup>1</sup>Sarycheva, 1999; <sup>1</sup>Afanasyev, Rtishcheva, and Starodubtseva, 2007; <sup>1,22</sup>Sarycheva et al., 2009; <sup>1</sup>Sarycheva, 2011; <sup>1</sup>Sarycheva, 2014a; <sup>1</sup>Sarycheva, 2016; <sup>1</sup>Sarycheva, Starodubtseva, and Sapelnikova, 2017); **Mari El Republic** (<sup>13,15,16,17,18</sup>Vassilkov, 1956b; <sup>1</sup>Prokhorov, 2007); **Mordovia** (<sup>2</sup>Chastukhin, 1948a; <sup>2</sup>Kuznetsov, 1960; <sup>2</sup>Chastukhin and Nikolaevskaya, 1969; <sup>1,21</sup>Ivoilov and Bolshakov, 2011b; <sup>2</sup>Chastukhin, 2011; <sup>21</sup>Bolshakov and Ivoilov, 2012b); **Moscow** (<sup>2</sup>Bucholtz, 1897b; <sup>2</sup>Bucholtz, 1897c; <sup>2</sup>Mosolov, 1906; <sup>2</sup>Burova, 1968; <sup>20</sup>Samoilov and Morozova, 2011; <sup>23</sup>Samoilov and Morozova, 2011); **Moscow Oblast** (<sup>2</sup>Heyden, 1899; <sup>1,21</sup>Gorlenko, Sidorova, and Sidorova, 1989; <sup>1,21,23</sup>Levitskaya, 1995a; <sup>21</sup>Varlygina, Zubakin, and Sobolev, 2008; <sup>1</sup>Voronina et al., 2012; <sup>1,21,23</sup>Levitskaya, 2013; <sup>1</sup>Voronina et al., 2014; <sup>1</sup>Sidorova, Alexandrova, and Voronina, 2017); **Murmansk Oblast** (<sup>2</sup>Karsten, 1866; <sup>4</sup>Karsten, 1889; <sup>2</sup>Vanin, 1928; <sup>13,17,19</sup>Vassilkov, 1956b; <sup>5</sup>Pystina, Pavlova, and Shestakova, 1969; <sup>20,24</sup>Nezdoyminogo, 1997b; <sup>20,24</sup>Karatygin, Nezdoyminogo, Novozhilov, and Zhurbenko, 1999); **Nenets Autonomous Okrug** (<sup>24</sup>Karatygin, Nezdoyminogo, Novozhilov, and Zhurbenko, 1999); **North Ossetia** (<sup>2</sup>Chernetskaja, 1929; <sup>1,20,21</sup>Nikolayev, 2001); **Novgorod Oblast** (<sup>1</sup>Rusakov, 1968; <sup>1,23</sup>Kovalenko, Morozova, Nezdoyminogo, and Popov, 2005; <sup>1</sup>Malysheva, Malysheva, and Zmitrovich, 2007; <sup>1,23</sup>Popov et al., 2013; <sup>1</sup>Baklan, 2015); **Orenburg Oblast** (<sup>2</sup>Vorontsovsky, 1921; <sup>1</sup>Korshikova, 2006; <sup>1</sup>Desyatova, 2008); **Oryol Oblast** (<sup>1</sup>Volobuev and Tsutsupa, 2009); **Penza Oblast** (<sup>2</sup>Kazakevich and Prisyazhnyuk, 1932; <sup>1,21</sup>Ivanov, 1981a; <sup>1</sup>Ivanov, 1981b; <sup>1</sup>Ivanov, 2019); **Perm Krai** (<sup>1</sup>Shkaraba, Perevedentseva, and Moshkina, 1990; <sup>1,20,21</sup>Perevedentseva, 2008; <sup>1,21</sup>Belkovskaya et al., 2014; <sup>1</sup>Perevedentseva and Shishigin, 2014; <sup>1</sup>Perevedentseva and Shishigin, 2015; <sup>1,21</sup>Botalov, 2017; <sup>1</sup>Botalov and Perevedentseva, 2018; <sup>1</sup>Botalov, Perevedentseva, and Shishigin, 2020); **Pskov Oblast** (<sup>1</sup>Kovalenko and Morozova, 1999b; <sup>1</sup>Popov, 2001a; <sup>1</sup>Popov et al., 2013); **Rostov Oblast** (<sup>1</sup>Rusanov et al., 2004; <sup>1</sup>Morozova et al., 2008; <sup>1</sup>Zmitrovich et al., 2008); **Ryazan Oblast** (<sup>1</sup>Volosnova, 1997; <sup>21</sup>Ivanchev and Kazakova, 2011; <sup>1,21</sup>Volosnova, 2014); **Saint Petersburg** (<sup>2</sup>Weinmann, 1828; <sup>2</sup>Weinmann, 1836; <sup>2</sup>Weinmann, 1837; <sup>1,21</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Morozova and Kovalenko, 2000; <sup>1</sup>Kotkova, Morozova, and Popov, 2005; <sup>1</sup>Kotkova, Morozova, and Popov, 2006; <sup>1</sup>Kotkova, Morozova, and Popov, 2007; <sup>1</sup>Morozova and Smirnov, 2011; <sup>1</sup>Morozova, Kovalenko, Rebriev, and Malysheva, 2014; <sup>1</sup>Morozova et al., 2020); **Samara Oblast** (<sup>1</sup>Malysheva and Malysheva, 2005b; <sup>1,24</sup>Malysheva and Malysheva, 2008); **Saratov Oblast** (<sup>2</sup>Komirnaya, 1952; <sup>1,21</sup>Komirnaya, 1975); **Smolensk Oblast** (<sup>2</sup>Jaczevski, 1893; <sup>2</sup>Jaczevski, 1895; <sup>2</sup>Elenew, 1904); **Sverdlovsk Oblast** (<sup>4</sup>Tomilin, 1965; <sup>1</sup>Marina, 2006); **Tatarstan** (<sup>1,21</sup>Vassiljeva, 1977; <sup>1</sup>Potapov, 2015b; <sup>1</sup>Potapov, 2016a); **Tula Oblast** (<sup>1</sup>Svetasheva, 2001; <sup>1,21,23</sup>Svetasheva, 2004; <sup>21</sup>Shcherbakov, 2010; <sup>1</sup>Svetasheva, 2013); **Tver Oblast** (<sup>2</sup>Chastukhin, 1948b; <sup>2</sup>Chastukhin and Nikolaevskaya, 1969; <sup>1,21</sup>Kurochkin, 1993; <sup>1</sup>Mukhina and Garibova, 2010; <sup>1</sup>Mukhina, 2011a; <sup>1</sup>Mukhina, 2011b; <sup>1</sup>Kotkova, 2014); **Udmurt Republic** (<sup>1,21</sup>Tychinin and Kuzmina, 2003); **Ulyanovsk Oblast** (<sup>1,21</sup>Ilyukhin, 2009; <sup>1,21</sup>Ilyukhin, 2010a); **Vladimir Oblast** (<sup>1</sup>Mishulin, Blinov, and Gushchina, 2018); **Vologda Oblast** (<sup>3</sup>Kutova, 1957; <sup>1</sup>Kirillova, 2007); **Voronezh Oblast** (<sup>2</sup>Chastukhin and Nikolaevskaya, 1953; <sup>2</sup>Chastukhin and Nikolaevskaya, 1969; <sup>1</sup>Rtishcheva, 1999; <sup>1</sup>Afanasyev, Rtishcheva, and Starodubtseva, 2007; <sup>1</sup>Sarycheva, Starodubtseva, and Sapelnikova, 2017); **Yamalo-Nenets Autonomous Okrug** (<sup>2</sup>Kazantseva, 1966; <sup>1</sup>Stepanova and Sirko, 1970; <sup>24</sup>Knudsen and Mukhin, 1998; <sup>20,24</sup>Karatygin, Nezdoyminogo, Novozhilov, and Zhurbenko, 1999; <sup>24</sup>Nezdoyminogo, 2001); **Yaroslavl Oblast** (<sup>1</sup>Lazareva, 1997; <sup>1,21</sup>Lazareva, 1998a; <sup>21</sup>Lazareva, 1998b); **Arid territories** (<sup>1</sup>Rebriev, Rusanov, et al., 2012).

**SIBERIA:** Altai Krai (<sup>1</sup>Gorbunova and Perova, 2006; <sup>1</sup>Gorbunova and Chubarova, 2008; <sup>1</sup>Gorbunova, Vlasenko, and Tzhubarova, 2011); **Altai Republic** (<sup>11</sup>Singer, 1938c; <sup>16,17</sup>Vassilkov, 1956b; <sup>1,21</sup>Kovalenko, 1992; <sup>1,21</sup>Gorbunova, 2001a; <sup>1,21</sup>Gorbunova, 2001b; <sup>21</sup>Perova and Gorbunova, 2001; <sup>1,21</sup>Gorbunova, 2003; <sup>1</sup>Gorbunova, 2008; <sup>1,21,24</sup>Gorbunova, 2010; <sup>20</sup>Gorbunova, 2019); **Buryatia** (<sup>1,21</sup>Nezdoyminogo, 1970a; <sup>24</sup>Petrov, 1991; <sup>1,24</sup>Penzina and Petrov, 1994; <sup>1</sup>Krasnopevtseva and Ermakova, 2015); **Irkutsk Oblast** (<sup>1,21</sup>Kutafjeva, 1982; <sup>1</sup>Petrov, 1984; <sup>1</sup>Kutafjeva and Astapenko, 1988; <sup>1</sup>Kutafjeva and Astapenko, 1989; <sup>1</sup>Petrov, 1989; <sup>1</sup>Astapenko, 1990b; <sup>24</sup>Petrov, 1991; <sup>1</sup>Muzyka, 2002; <sup>6,24</sup>Bardunov et al., 2005; <sup>6</sup>Petrov, 2008; <sup>1</sup>Muzyka, 2009; <sup>1</sup>Heklau and Dörfelt, 2017; <sup>1</sup>Muzyka and Penzina, 2017); **Khakassia** (<sup>1</sup>Beglyanova, 1972a; <sup>1</sup>Zauzolkova, 2015); **Khanty-Mansi Autonomous Okrug** (<sup>1,21</sup>Zvyagina, Baykalova,

and Gorbunova, 2007; <sup>1</sup>Zvyagina, 2008; <sup>1</sup>Filippova, 2009; <sup>1</sup>Shepeleva et al., 2014; <sup>1</sup>Filippova, Bulyonkova, and Lapshina, 2015; <sup>1</sup>Makarova, Makarov, Zvyagina, and Bobrikov, 2015; <sup>1</sup>Filippova and Bulyonkova, 2017a; <sup>1</sup>Filippova and Bulyonkova, 2017b); **Krasnoyarsk Krai** (<sup>2</sup>Borszczow and Borszczow, 1856; <sup>2</sup>Kalchbrenner, 1878; <sup>2</sup>Thümen, 1878; <sup>8</sup>Vassilkov, 1971b; <sup>1,21</sup>Beglyanova, 1972a; <sup>4</sup>Stepanova and Tomilin, 1973; <sup>1</sup>Nezdojminogo, 1976a; <sup>1,21</sup>Lapitskaya, 1990; <sup>24</sup>Karatygin, Nezdojminogo, Novozhilov, and Zhurbenko, 1999; <sup>24</sup>Nezdojminogo, 2003; <sup>1,21</sup>Kosheleva and Kutafjeva, 2008a; <sup>1</sup>Kryuchkova, 2009; <sup>1</sup>Kryuchkova, 2014a; <sup>20,24</sup>Gorbunova, 2016; <sup>1</sup>Krom and Kapitonov, 2019); **Kurgan Oblast** (<sup>2</sup>Sirko, 1966; <sup>1</sup>Bystrushkin, 2016); **Novosibirsk Oblast** (<sup>1</sup>Zaytseva, 1971; <sup>1</sup>Perova, 1977; <sup>7</sup>Gorbunova, 2007; <sup>7</sup>Perova and Gorbunova, 2007; <sup>1,21</sup>Koropachinskiy and Banaev, 2014); **Sakha Republic** (<sup>2</sup>Birkenhof, 1936; <sup>17</sup>Vassilkov, 1956b; <sup>20,24</sup>Karatygin, Nezdojminogo, Novozhilov, and Zhurbenko, 1999; <sup>24</sup>Nezdojminogo, 2003); **Tomsk Oblast** (<sup>6</sup>Milovidova, 1980; <sup>20</sup>Perova and Gorbunova, 2001; <sup>1</sup>Kosheleva and Kutafjeva, 2004; <sup>1,21,24</sup>Kudashova, Gashkov, and Kutafjeva, 2013); **Yamalo-Nenets Autonomous Okrug** (<sup>1,21</sup>Tarchevskaya, 1990; <sup>20,21</sup>Karatygin, Nezdojminogo, Novozhilov, and Zhurbenko, 1999; <sup>24</sup>Kapitonov, 2015); **Zabaykalsky Krai** (<sup>4</sup>Karsten, 1911).

FAR EAST: **Amur Oblast** (<sup>10</sup>Vassiljeva, 1956; <sup>4</sup>Tomilin, 1962; <sup>1</sup>Gordienko, Petrova, and Tarasov, 1981; <sup>1</sup>Nazarova, 1986; <sup>1</sup>Azbukina et al., 1998; <sup>21</sup>Bulakh, Govorova, and Taranina, 2003; <sup>21</sup>Taranina, 2005); **Chukotka Autonomous Okrug** (<sup>1,21,24</sup>Sazanova, 1993; <sup>20,21,24</sup>Karatygin, Nezdojminogo, Novozhilov, and Zhurbenko, 1999); **Jewish Autonomous Oblast** (<sup>1</sup>Bulakh, Govorova, Nazarova, and Vassiljeva, 2007; <sup>1</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Erofeeva, Bukharova, and Bulakh, 2019); **Kamchatka Krai** (<sup>1,21,24</sup>Kalamees and Vaasma, 1981; <sup>21</sup>Karatygin, Nezdojminogo, Novozhilov, and Zhurbenko, 1999); **Khabarovsk Krai** (<sup>10</sup>Vassiljeva, 1956; <sup>1,21</sup>Azbukina et al., 1986; <sup>1,21</sup>Azbukina et al., 1989; <sup>1</sup>Bulakh, Vassiljeva, and Erofeeva, 2010; <sup>1</sup>Bau, Bulakh, and Govorova, 2011; <sup>1,21</sup>Erofeeva and Bulakh, 2015a); **Magadan Oblast** (<sup>1,21</sup>Nazarova, 1976; <sup>1,21</sup>Sazanova, 1996; <sup>1,20,21,24</sup>Sazanova, 2005; <sup>1,21,24</sup>Sazanova, 2009a; <sup>21</sup>Sazanova, 2009b; <sup>1,21</sup>Sazanova, 2011; <sup>1,24</sup>Sazanova, 2012; <sup>1,21,24</sup>Sazanova, 2016); **Primorsky Krai** (<sup>10</sup>Vassiljeva, 1956; <sup>21</sup>Vassiljeva, 1972; <sup>21</sup>Vassiljeva, 1973; <sup>1</sup>Shalapugina, 1976; <sup>21</sup>Shalapugina, 1976; <sup>21</sup>Bunkina and Nazarova, 1978; <sup>1,21</sup>Azbukina et al., 1984; <sup>1</sup>Azbukina et al., 1990; <sup>1</sup>Bardunov et al., 2002; <sup>1,21</sup>Azbukina et al., 2006; <sup>1</sup>Bau, Bulakh, Zhuang, and Li, 2007; <sup>1,21</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Bulakh et al., 2016); **Sakhalin Oblast** (<sup>21</sup>Vassiljeva and Nazarova, 1972).

### *Leccinum schistophilum* Bon<sup>1</sup>

= *Leccinum palustre* M. Korhonen<sup>2</sup>

EASTERN EUROPE: **Pskov Oblast** (<sup>2</sup>Popov et al., 2013); **Saint Petersburg** (<sup>1</sup>Morozova et al., 2020); **Tatarstan** (<sup>1</sup>Bolshakov et al., 2018).

SIBERIA: **Khanty-Mansi Autonomous Okrug** (<sup>1</sup>Zvyagina and Vasina, 2015); **Krasnoyarsk Krai** (<sup>1</sup>Krom and Kapitonov, 2019).

### *Leccinum variicolor* Watling

EASTERN EUROPE: **Kaliningrad Oblast** (Dedkov, Volodina, and Gubareva, 2007; Atayev and Volodina, 2020); **Karelia** (Kovalenko, Morozova, Fomina, and Särkisilta, 1998; Bondartseva et al., 2001; Predtechenskaya and Ruokolainen, 2013; Krutov et al., 2014; Predtechenskaya and Ruokolainen, 2014); **Komi Republic** (Karatygin, Nezdojminogo, Novozhilov, and Zhurbenko, 1999; Palamarchuk, 2016a; Palamarchuk, 2016b; Palamarchuk, 2020a); **Krasnodar Krai** (Shumkova, Krivorotov, and Gayday, 2018); **Leningrad Oblast** (Kalamees and Kovalenko, 1984; Stolyarskaya, 1993; Kovalenko and Morozova, 1999a; Fomina, 2000; Morozova and Kovalenko, 2000; Fomina, 2001; Popov et al., 2007; Zmitrovich et al., 2015; Kalinina, 2018); **Moscow Oblast** (Levitskaya, 1995c; Levitskaya, 2013; Voronina et al., 2014; Sidorova, Alexandrova, and Voronina, 2017; Varlygina, Zubakin, Nikitsky, and Sviridov, 2018); **Novgorod Oblast** (Kovalenko, Morozova, Nezdojminogo, and Popov, 2005; Popov et al., 2013); **Penza Oblast** (Ivanov, 2019); **Perm Krai** (Perevedentseva, Nezdojminogo, and Kovalenko, 1990; Perevedentseva, 2008; Belkovskaya et al., 2014; Perevedentseva and Shishigin, 2015); **Rostov Oblast** (Rusanov et al., 2004; Zmitrovich et al., 2008); **Saint Petersburg** (Kovalenko and Morozova, 1999a; Kotkova, Morozova, and Popov, 2005; Morozova and Smirnov, 2011; Morozova et al., 2020); **Sverdlovsk Oblast** (Marina, 2006); **Tatarstan** (Bolshakov et al., 2018); **Tula Oblast** (Svetasheva, 2001; Svetasheva, 2004); **Tver Oblast** (Mukhina, 2011a; Mukhina, 2011b; Kotkova, 2014); **Udmurt Republic** (Kapitonov, 2008); **Vologda Oblast** (Kirillova, 2007); **Yamalo-Nenets Autonomous Okrug** (Karatygin, Nezdojminogo, Novozhilov, and Zhurbenko, 1999; Nezdojminogo, 2001); **Yaroslavl Oblast** (Lazareva, 1997; Lazareva, 1998a); **Arid territories** (Rebriev, Rusanov, et al., 2012).

SIBERIA: **Altai Republic** (Gorbunova, 2001b; Perova and Gorbunova, 2001; Gorbunova, 2003; Gorbunova, 2010); **Buryatia** (Petrov, 1991); **Irkutsk Oblast** (Petrov, 1984; Kutafjeva and Astapenko, 1988; Astapenko, 1990b; Petrov, 1991; Bardunov et al., 2005; Petrov, 2008; Muzyka, 2009; Gorbunova and Stepantsova, 2015); **Khanty-Mansi Autonomous Okrug** (Zvyagina, Baykalova, and Gorbunova, 2007; Filippova, Bulyonkova, and Lapshina, 2015);

**Krasnoyarsk Krai** (Kryuchkova, 2009; Gorbunova, 2016; Malysheva, Malysheva, Kiyashko, et al., 2017; Krom and Kapitonov, 2019); **Tomsk Oblast** (Kosheleva and Kutafjeva, 2004; Agaphonova, Kutafjeva, and Gashkov, 2009a; Kudashova, Gashkov, and Kutafjeva, 2013; Vaishlya et al., 2017).

FAR EAST: **Amur Oblast** (Bulakh, Govorova, and Taranina, 2003; Kochunova, 2019); **Chukotka Autonomous Okrug** (Sazanova, 1993; Karatygin, Nezdojminogo, Novozhilov, and Zhurbenko, 1999); **Jewish Autonomous Oblast** (Bulakh, Govorova, Nazarova, and Vassiljeva, 2007; Bau, Bulakh, and Govorova, 2011); **Khabarovsk Krai** (Erofeeva and Bulakh, 2015a); **Magadan Oblast** (Sazanova, 1996; Sazanova, 2005; Sazanova, 2009a; Sazanova, 2009b; Sazanova, 2011; Sazanova, 2012); **Primorsky Krai** (Azbukina et al., 1990; Bardunov et al., 2002; Azbukina et al., 2006; Bau, Bulakh, and Govorova, 2011).

### ***Leccinum versipelle* (Fr. & Hök) Snell<sup>1</sup>**

≡ *Boletus versipellis* Fr. & Hök<sup>2</sup> = *Boletus percandidus* Vassilkov<sup>3</sup> = *Boletus versipellis* var. *rufescens* Secr. ex Vassilkov<sup>4</sup> = *Krombholzia rufescens* (Secr. ex Konrad) Singer<sup>5</sup> = *Krombholzia rufescens* var. *percandida* (Vassilkov) Pilát<sup>6</sup> = *Krombholzia rufescens* var. *rufescens* (Secr. ex Konrad) Singer<sup>7</sup> = *Leccinum atrostipitatum* A.H. Sm., Thiers & Watling<sup>8</sup> = *Leccinum percandidum* (Vassilkov) Watling<sup>9</sup> = *Leccinum rufescens* (Secr. ex Konrad) Šutara<sup>10</sup> = *Leccinum testaceoscabrum* Secr. ex Singer<sup>11</sup>

EASTERN EUROPE: **Adygea** (<sup>5</sup>Vassiljeva, 1939); **Arkhangelsk Oblast** (<sup>2</sup>Lebedeva, 1933; <sup>3</sup>Novoselov, 2008; <sup>9,11</sup>Ezhov, Ershov, Ruokolainen, and Zmitrovich, 2011; <sup>9,11</sup>Ezhov, 2014); **Belgorod Oblast** (<sup>11</sup>Bedenko, 1979a); **Bryansk Oblast** (<sup>11</sup>Kruglikov, 2007); **Chelyabinsk Oblast** (<sup>2,4</sup>Aleksandrovskaia and Lobanova, 1968); **Chuvash Republic** (<sup>9</sup>Ivanov, 2001); **Crimea** (<sup>1</sup>Sarkina and Prydiuk, 2012); **Ivanovo Oblast** (<sup>9</sup>Borisova and Mineyeva, 2020); **Kabardino-Balkarian Republic** (<sup>11</sup>Shkhagapsoev and Krapivina, 2004); **Kaliningrad Oblast** (<sup>1,9</sup>Dedkov, Volodina, and Gubareva, 2007; <sup>1</sup>Volodina, 2007; <sup>9</sup>Dedkov and Grishanov, 2010); **Kaluga Oblast** (<sup>11</sup>Sionova, 2003; <sup>9</sup>Alekseev et al., 2006; <sup>9</sup>Sionova, 2009); **Karachay-Cherkess Republic** (<sup>11</sup>Onipchenko and Kaverina, 1989; <sup>1,9</sup>Kalamees and Botashev, 2000); **Karelia** (<sup>2</sup>Lebedeva, 1933; <sup>5</sup>Freindling, 1949; <sup>1</sup>Kovalenko, Morozova, Fomina, and Särkisilta, 1998; <sup>1</sup>Bondartseva et al., 2001; <sup>9</sup>Ivanter and Kuznetsov, 2007; <sup>1</sup>Predtechenskaya and Ruokolainen, 2008; <sup>1</sup>Predtechenskaya and Ruokolainen, 2013; <sup>1,9</sup>Predtechenskaya, 2013; <sup>1,9</sup>Krutov et al., 2014; <sup>1</sup>Predtechenskaya and Ruokolainen, 2014; <sup>1</sup>Predtechenskaya, 2015; <sup>1</sup>Savelev and Kikeeva, 2018); **Kirov Oblast** (<sup>1,9</sup>Kirillov, 2011; <sup>1,9</sup>Kirillov, Perevedentseva, and Egoshina, 2011; <sup>1</sup>Stavishenko, Luginina, Kirillov, and Egoshina, 2019); **Komi Republic** (<sup>1,9</sup>Karatygin, Nezdojminogo, Novozhilov, and Zhurbenko, 1999; <sup>1</sup>Palamarchuk, 2011b; <sup>1,9</sup>Palamarchuk, 2012; <sup>1</sup>Palamarchuk, 2016a; <sup>1</sup>Palamarchuk, 2016b; <sup>1</sup>Palamarchuk and Kirillov, 2017; <sup>1</sup>Palamarchuk, 2017); **Kostroma Oblast** (<sup>9,11</sup>Burova, 1982); **Krasnodar Krai** (<sup>5</sup>Vassiljeva, 1939; <sup>11</sup>Kovalenko, 1980a; <sup>11</sup>Kovalenko, 1980b); **Kursk Oblast** (<sup>11</sup>Bedenko, 1985); **Leningrad Oblast** (<sup>11</sup>Kalamees and Kovalenko, 1984; <sup>9,11</sup>Stolyarskaya, 1989; <sup>1,9</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Fomina, 2000; <sup>1</sup>Morozova and Kovalenko, 2000; <sup>9</sup>Tzvelev, 2000; <sup>1</sup>Fomina, 2001; <sup>1</sup>Morozova, 2007; <sup>1,9</sup>Popov et al., 2007; <sup>1</sup>Zmitrovich et al., 2015; <sup>1</sup>Kalinina, 2018; <sup>9</sup>Geltman et al., 2018); **Lipetsk Oblast** (<sup>11</sup>Afanasyev, Rtishcheva, and Starodubtseva, 2007; <sup>1,9</sup>Sarycheva et al., 2009; <sup>1</sup>Sarycheva, 2011; <sup>1,11</sup>Sarycheva, 2014a; <sup>9</sup>Shcherbakov, 2014; <sup>1</sup>Sarycheva, 2016; <sup>1,9</sup>Sarycheva, Starodubtseva, and Sapelnikova, 2017); **Mari El Republic** (<sup>9</sup>Bogdanov, Abramov, Urbanavichus, and Bogdanova, 2013); **Mordovia** (<sup>2</sup>Kuznetsov, 1960; <sup>1</sup>Novikov and Silaeva, 2003; <sup>1,9</sup>Ivoilov and Bolshakov, 2011b; <sup>9</sup>Silaeva et al., 2011; <sup>9</sup>Bolshakov and Ivoilov, 2012b); **Moscow** (<sup>2</sup>Burova, 1968; <sup>9</sup>Samoilov and Morozova, 2011); **Moscow Oblast** (<sup>9,11</sup>Gorlenko, Sidorova, and Sidorova, 1989; <sup>1</sup>Levitskaya, 1995b; <sup>9</sup>Levitskaya, 1998; <sup>9</sup>Varlygina, Zubakin, and Sobolev, 2008; <sup>1,9</sup>Levitskaya, 2013); **Murmansk Oblast** (<sup>2</sup>Karsten, 1866; <sup>2</sup>Karsten, 1876; <sup>2</sup>Vanin, 1928; <sup>6,7</sup>Pystina, Pavlova, and Shestakova, 1969; <sup>11</sup>Mikhailovskii, 1975b; <sup>1</sup>Karatygin, Nezdojminogo, Novozhilov, and Zhurbenko, 1999; <sup>9</sup>Berlina, 2005); **Nenets Autonomous Okrug** (<sup>1</sup>Karatygin, Nezdojminogo, Novozhilov, and Zhurbenko, 1999; <sup>9</sup>Matveyeva, 2006); **Nizhny Novgorod Oblast** (<sup>9</sup>Okhapkin, 2005); **Novgorod Oblast** (<sup>9</sup>Kovalenko, Morozova, Nezdojminogo, and Popov, 2005; <sup>1</sup>Psurtsseva, Kiyashko, Gachkova, and Belova, 2007; <sup>1</sup>Morozova, 2012; <sup>1,9</sup>Popov et al., 2013); **Orenburg Oblast** (<sup>2</sup>Vorontsovsky, 1921); **Penza Oblast** (<sup>9,11</sup>Ivanov, 1981a; <sup>1</sup>Ivanov, 2019); **Perm Krai** (<sup>1,9</sup>Perevedentseva, 2008; <sup>9</sup>Shepel', 2008; <sup>1</sup>Belkovskaya et al., 2014; <sup>1</sup>Botalov, 2017); **Pskov Oblast** (<sup>1</sup>Kovalenko and Morozova, 1999b; <sup>1</sup>Popov, 2001a; <sup>1</sup>Popov et al., 2013); **Rostov Oblast** (<sup>4</sup>Zmitrovich et al., 2008); **Ryazan Oblast** (<sup>9,11</sup>Volosnova, 1997; <sup>9</sup>Ivanchev and Kazakova, 2011; <sup>1,9</sup>Volosnova, 2014); **Saint Petersburg** (<sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Noskov, 2004; <sup>1,9</sup>Morozova and Smirnov, 2011; <sup>1</sup>Morozova et al., 2020); **Saratov Oblast** (<sup>11</sup>Komirnyaya, 1975; <sup>11</sup>Nagumanov, 2015); **Smolensk Oblast** (<sup>2</sup>Jaczevski, 1893; <sup>2</sup>Jaczevski, 1895); **Sverdlovsk Oblast** (<sup>1,9</sup>Marina, 2006); **Tambov Oblast** (<sup>9</sup>Elenevskiy, 2002; <sup>9</sup>Konakov et al., 2019); **Tatarstan** (<sup>11</sup>Vassiljeva, 1977; <sup>9</sup>Shchepovskih, Boroznov, Bojko, and Liubarsky, 1995; <sup>9</sup>Shchepovskih, Bojko, Gorshkov, and Rogova, 2006; <sup>9</sup>Yupina, Marfin, Sapayev, and Potapov, 2006; <sup>1</sup>Potapov, 2015a; <sup>1</sup>Potapov, 2015b); **Tula Oblast** (<sup>1</sup>Svetasheva, 2004; <sup>1</sup>Svetasheva, 2005b; <sup>9</sup>Shcherbakov, 2010); **Tver Oblast** (<sup>9,11</sup>Kurochkin, 1993; <sup>1</sup>Sorokin, 2002; <sup>1</sup>Mukhina, 2011a; <sup>1</sup>Mukhina, 2011b; <sup>1</sup>Kotkova, 2014); **Udmurt Republic** (<sup>9,10,11</sup>Tychinin and Kuzmina, 2003); **Ulyanovsk Oblast** (<sup>1</sup>Ilyukhin, 2010a; <sup>9</sup>Artemyeva, Maslennikov,

and Korepov, 2015); **Vladimir Oblast** (<sup>9</sup>Azbukina et al., 2010); **Vologda Oblast** (<sup>2</sup>Kutova, 1957; <sup>1,9</sup>Kirillova, 2007); **Voronezh Oblast** (<sup>11</sup>Bedenko, 1985; <sup>11</sup>Afanasyev, Rtishcheva, and Starodubtseva, 2007; <sup>9</sup>Agafonov, 2011; <sup>11</sup>Selochnik, 2015; <sup>1,9</sup>Sarycheva, Starodubtseva, and Sapelnikova, 2017); **Yamalo-Nenets Autonomous Okrug** (<sup>9</sup>Karatygin, Nezdojminogo, Novozhilov, and Zhurbenko, 1999; <sup>1</sup>Nezdojminogo, 2001); **Yaroslavl Oblast** (<sup>9</sup>Lazareva, 1997; <sup>1,9</sup>Lazareva, 1998a; <sup>1</sup>Lazareva, 1998b; <sup>9</sup>Nyankovsky, 2015); **Arid territories** (<sup>1</sup>Rebriev, Rusanov, et al., 2012).

SIBERIA: **Altai Krai** (<sup>9</sup>Gorbunova and Perova, 2006; <sup>1,9</sup>Gorbunova and Chubarova, 2008; <sup>1,9</sup>Gorbunova, Vlasenko, and Tzhubarova, 2011); **Altai Republic** (<sup>9</sup>Gorbunova, 1996; <sup>9</sup>Gorbunova, 1997; <sup>1</sup>Gorbunova, 2001a; <sup>9</sup>Perova and Gorbunova, 2001; <sup>1</sup>Gorbunova, 2019); **Buryatia** (<sup>11</sup>Nezdojminogo, 1973; <sup>11</sup>Penzina and Petrov, 1994; <sup>9</sup>Pronin, 2013; <sup>11</sup>Krasnopevtseva and Ermakova, 2015); **Irkutsk Oblast** (<sup>11</sup>Kutafjeva, 1982; <sup>9</sup>Petrov, 1984; <sup>9,11</sup>Kutafjeva and Astapenko, 1989; <sup>9,11</sup>Petrov, 1989; <sup>9,11</sup>Astapenko, 1990b; <sup>9</sup>Petrov, 1991; <sup>9,11</sup>Muzyka, 2002; <sup>11</sup>Bardunov et al., 2005; <sup>9,11</sup>Petrov, 2008; <sup>11</sup>Muzyka, 2009; <sup>9</sup>Gaykova and Popov, 2010; <sup>11</sup>Muzyka and Penzina, 2017; <sup>1</sup>Heklau and Dörfelt, 2017; <sup>9</sup>Trofimova, Popov, and Merkacheva, 2020); **Khakassia** (<sup>1</sup>Zauzolkova, 2015); **Khanty-Mansi Autonomous Okrug** (<sup>1,9</sup>Zvyagina, Baykalova, and Gorbunova, 2007; <sup>1</sup>Zvyagina, 2008; <sup>1</sup>Zvyagina and Baykalova, 2012; <sup>1</sup>Shepeleva et al., 2014; <sup>1</sup>Filippova, Bulyonkova, and Lapshina, 2015; <sup>1</sup>Makarova, Makarov, Zvyagina, and Bobrikov, 2015; <sup>1</sup>Zvyagina and Vasina, 2015; <sup>1</sup>Filippova and Bulyonkova, 2017a; <sup>1</sup>Filippova and Bulyonkova, 2017b); **Krasnoyarsk Krai** (<sup>11</sup>Beglyanova, 1972a; <sup>11</sup>Nezdojminogo, 1976a; <sup>9,11</sup>Lapitskaya, 1990; <sup>9</sup>Stepanov, 2012; <sup>1</sup>Malysheva, Malysheva, Kiyashko, et al., 2017; <sup>1</sup>Krom and Kapitonov, 2019); **Kurgan Oblast** (<sup>2</sup>Sirko, 1966); **Novosibirsk Oblast** (<sup>11</sup>Zaytseva, 1971); **Tomsk Oblast** (<sup>9</sup>Perova and Gorbunova, 2001; <sup>1</sup>Kosheleva and Kutafjeva, 2004; <sup>11</sup>Agaphonova, Kutafjeva, and Gashkov, 2009a; <sup>1</sup>Kudashova, Gashkov, and Kutafjeva, 2013; <sup>9</sup>Adam, 2013; <sup>1</sup>Kudashova, Gashkov, and Vaishlya, 2016b; <sup>1</sup>Vaishlya et al., 2017); **Yamalo-Nenets Autonomous Okrug** (<sup>11</sup>Tarchevskaya, 1990; <sup>1</sup>Karatygin, Nezdojminogo, Novozhilov, and Zhurbenko, 1999); **Zabaykalsky Krai** (<sup>9</sup>Polyakov, Popova, and Afonina, 2017).

FAR EAST: **Amur Oblast** (<sup>11</sup>Bulakh, Govorova, and Taranina, 2003; <sup>1</sup>Taranina, 2005; <sup>1</sup>Kochunova, 2019); **Chukotka Autonomous Okrug** (<sup>11</sup>Sazanova, 1993; <sup>1</sup>Karatygin, Nezdojminogo, Novozhilov, and Zhurbenko, 1999); **Jewish Autonomous Oblast** (<sup>1</sup>Bulakh, Govorova, Nazarova, and Vassiljeva, 2007; <sup>1</sup>Bau, Bulakh, and Govorova, 2011); **Kamchatka Krai** (<sup>8</sup>Kalamees and Vaasma, 1981); **Khabarovsk Krai** (<sup>11</sup>Azbukina et al., 1989; <sup>1</sup>Bulakh, Vassiljeva, and Erofeeva, 2010; <sup>1</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Bulakh, 2013; <sup>1</sup>Bogacheva, Bulakh, Bukharova, and Egorova, 2015; <sup>1</sup>Erofeeva and Bulakh, 2015a); **Magadan Oblast** (<sup>11</sup>Nazarova, 1976; <sup>11</sup>Sazanova, 1996; <sup>1,9</sup>Sazanova, 2005; <sup>9</sup>Chereshnev, 2008b; <sup>1,9</sup>Sazanova, 2009a; <sup>1</sup>Sazanova, 2009b; <sup>1</sup>Sazanova, 2011; <sup>1</sup>Sazanova, 2012; <sup>1</sup>Sazanova and Golodnova, 2015; <sup>1</sup>Sazanova, 2016); **Primorsky Krai** (<sup>11</sup>Vassiljeva, 1972; <sup>11</sup>Vassiljeva, 1973; <sup>11</sup>Shalapugina, 1976; <sup>11</sup>Bunkina and Nazarova, 1978; <sup>11</sup>Azbukina et al., 1984; <sup>11</sup>Azbukina et al., 1990; <sup>11</sup>Bardunov et al., 2002; <sup>11</sup>Azbukina et al., 2006; <sup>1</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Bulakh et al., 2016); **Sakhalin Oblast** (<sup>11</sup>Bulakh, Govorova, and Bogatov, 1999).

### *Leccinum vulpinum* Watling

EASTERN EUROPE: **Karelia** (Bondartseva et al., 2001; Krutov et al., 2014; Predtechenskaya, 2015; Savelev and Kikeeva, 2020); **Kostroma Oblast** (Burova, 1982); **Leningrad Oblast** (Kalamees and Kovalenko, 1984; Stolyarskaya, 1993; Kovalenko and Morozova, 1999a; Morozova, 2007; Popov et al., 2007; Zmitrovich et al., 2015; Malysheva, Malysheva, Shchepin, and Novozhilov, 2018); **Moscow Oblast** (Gorlenko, Sidorova, and Sidorova, 1989); **Penza Oblast** (Ivanov, 1981a); **Perm Krai** (Perevedentseva, 2008); **Pskov Oblast** (Kovalenko and Morozova, 1999b); **Saint Petersburg** (Morozova and Smirnov, 2011); **Sverdlovsk Oblast** (Marina, 2006); **Yaroslavl Oblast** (Lazareva, 1998a; Lazareva, 1998b).

SIBERIA: **Altai Republic** (Gorbunova, 2017a); **Buryatia** (Nezdojminogo, 1973; Petrov, 1991); **Irkutsk Oblast** (Petrov, 1984; Kutafjeva, 1989; Astapenko, 1990b; Petrov, 1991; Muzyka, 2002; Petrov, 2008; Muzyka, 2009; Heklau and Dörfelt, 2017; Muzyka and Penzina, 2017); **Khanty-Mansi Autonomous Okrug** (Zvyagina, 2008; Zvyagina and Baykalova, 2012; Shepeleva et al., 2014; Makarova, Makarov, Zvyagina, and Bobrikov, 2015; Zvyagina and Vasina, 2015); **Krasnoyarsk Krai** (Lapitskaya, 1990); **Tomsk Oblast** (Agaphonova, Kutafjeva, and Gashkov, 2009a; Kudashova, Gashkov, and Kutafjeva, 2013; Vaishlya et al., 2017).

### *Lentinellus bissus* (Quél.) Kühner & Maire

EASTERN EUROPE: **Kaliningrad Oblast** (Volodina, 2007).

SIBERIA: **Altai Republic** (Singer, 1943).

FAR EAST: **Amur Oblast** (Nazarova, 1986); **Primorsky Krai** (Vassiljeva, 1973); **Sakhalin Oblast** (Vassiljeva and Nazarova, 1972).

***Lentinellus brunnescens* Lj.N. Vassiljeva**

FAR EAST: **Jewish Autonomous Oblast** (Bau, Bulakh, and Govorova, 2011); **Primorsky Krai** (Vassiljeva, 1973; Bunkina and Nazarova, 1978; Azbukina et al., 1990; Bardunov et al., 2002; Azbukina et al., 2006; Kozhevnikov, 2008; Bau, Bulakh, and Govorova, 2011).

***Lentinellus castoreus* (Fr.) Kühner & Maire<sup>1</sup>**

≡ *Lentinus castoreus* Fr.<sup>2</sup>

EASTERN EUROPE: **Adygea** (<sup>1</sup>Vaasma, Kalamees, and Raitviir, 1986); **Arkhangelsk Oblast** (<sup>1</sup>Ezhov, Ershov, Ruokolainen, and Zmitrovich, 2011; <sup>1</sup>Ezhov, 2013); **Chechen Republic** (<sup>1</sup>Taysumov, Krapivina, and Kushalieva, 2016); **Chelyabinsk Oblast** (<sup>1</sup>Psurtseva, Kiyashko, Gachkova, and Belova, 2007); **Kabardino-Balkarian Republic** (<sup>1</sup>Shkhagapsoev and Krapivina, 2004); **Leningrad Oblast** (<sup>2</sup>Thesleff, 1920; <sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Zmitrovich, Malysheva, Malysheva, and Spirin, 2004; <sup>1</sup>Popov et al., 2007; <sup>1</sup>Zmitrovich et al., 2015); **Pskov Oblast** (<sup>1</sup>Popov et al., 2013); **Saint Petersburg** (<sup>1</sup>Morozova et al., 2020).

SIBERIA: **Altai Republic** (<sup>2</sup>Pilát, 1934); **Tomsk Oblast** (<sup>1</sup>Pilát, 1935; <sup>1</sup>Perova, 1972; <sup>2</sup>Zhukov, 1980; <sup>1</sup>Kudashova, Gashkov, and Kutafjeva, 2013).

FAR EAST: **Sakhalin Oblast** (<sup>1</sup>Vassiljeva and Nazarova, 1972).

***Lentinellus cochleatus* (Pers.) P. Karst.<sup>1</sup>**

≡ *Agaricus cochleatus* Pers.<sup>2</sup> ≡ *Lentinus cochleatus* (Pers.) Fr.<sup>3</sup> = *Lentinellus cochleatus* var. *inolens* Konrad & Maubl.<sup>4</sup> = *Lentinus dentatus* Quél.<sup>5</sup>

EASTERN EUROPE: **Adygea** (<sup>4</sup>Vaasma, Kalamees, and Raitviir, 1986); **Belgorod Oblast** (<sup>1</sup>Bedenko, 1980); **Kaliningrad Oblast** (<sup>1</sup>Dedkov, Volodina, and Gubareva, 2007; <sup>1</sup>Volodina, 2007); **Karachay-Cherkess Republic** (<sup>3</sup>Hollós, 1902; <sup>3</sup>Hollós, 1905; <sup>3</sup>Filarszky, 1907); **Krasnodar Krai** (<sup>4</sup>Vaasma, Kalamees, and Raitviir, 1986); **Kursk Oblast** (<sup>1</sup>Ryabova and Ignatenko, 1981); **Leningrad Oblast** (<sup>3</sup>Thesleff, 1920; <sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Zmitrovich, Malysheva, Malysheva, and Spirin, 2004; <sup>1</sup>Popov et al., 2007; <sup>1</sup>Psurtseva, Kiyashko, Gachkova, and Belova, 2007); **Lipetsk Oblast** (<sup>3</sup>Alferova, 1977; <sup>1</sup>Sarycheva, 1999; <sup>1</sup>Sarycheva et al., 2009; <sup>1</sup>Sarycheva, 2011; <sup>1</sup>Sarycheva, 2014a; <sup>1</sup>Sarycheva, 2016); **Mordovia** (<sup>1</sup>Bolshakov, 2015; <sup>1</sup>Silaeva, 2017); **Pskov Oblast** (<sup>1</sup>Popov et al., 2013); **Saint Petersburg** (<sup>3</sup>Weinmann, 1836; <sup>2</sup>Weinmann, 1837; <sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Zmitrovich, Malysheva, Malysheva, and Spirin, 2004); **Sverdlovsk Oblast** (<sup>1</sup>Marina, 2006); **Tula Oblast** (<sup>1</sup>Svetasheva and Freze, 2013); **Volgograd Oblast** (<sup>1</sup>Burova and Nezdjominog, 1980); **Lapland** (<sup>5</sup>Karsten, 1866).

SIBERIA: **Altai Krai** (<sup>1</sup>Gorbunova and Perova, 2006; <sup>1</sup>Gorbunova, 2018b); **Altai Republic** (<sup>1</sup>Perova and Gorbunova, 2001); **Irkutsk Oblast** (<sup>1</sup>Kutafjeva, 1989; <sup>1</sup>Astapenko, 1990a; <sup>1</sup>Petrov, 1991; <sup>1</sup>Bardunov et al., 2005; <sup>1</sup>Petrov, 2008); **Krasnoyarsk Krai** (<sup>1</sup>Beglyanova, 1972a; <sup>1</sup>Beglyanova, 1972b; <sup>1</sup>Pavlov et al., 2007; <sup>1</sup>Kosheleva and Kutafjeva, 2008a); **Novosibirsk Oblast** (<sup>1</sup>Perova and Gorbunova, 2001; <sup>1</sup>Perova and Gorbunova, 2007; <sup>1</sup>Koropachinskiy and Banaev, 2014); **Sverdlovsk Oblast** (<sup>1</sup>Shiryaev, 2007); **Tomsk Oblast** (<sup>1</sup>Kudashova, Gashkov, and Kutafjeva, 2013); **Yamalo-Nenets Autonomous Okrug** (<sup>1</sup>Tarchevskaya, 1990).

FAR EAST: **Amur Oblast** (<sup>1</sup>Nazarova, 1986); **Jewish Autonomous Oblast** (<sup>1</sup>Bulakh, Govorova, Nazarova, and Vassiljeva, 2007; <sup>1</sup>Bau, Bulakh, and Govorova, 2011); **Khбаровsk Krai** (<sup>1</sup>Azbukina et al., 1986; <sup>1</sup>Azbukina et al., 1989; <sup>1</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Erofeeva and Bulakh, 2015a); **Magadan Oblast** (<sup>1</sup>Nazarova, 1976; <sup>1</sup>Govorova and Sazanova, 2003; <sup>1</sup>Sazanova, 2005; <sup>1</sup>Sazanova, 2009a; <sup>1</sup>Sazanova and Golodnova, 2015); **Primorsky Krai** (<sup>1</sup>Vassiljeva, 1972; <sup>1</sup>Vassiljeva, 1973; <sup>1</sup>Bunkina and Nazarova, 1978; <sup>1</sup>Azbukina et al., 1984; <sup>1</sup>Bardunov et al., 2002; <sup>1</sup>Azbukina et al., 2006; <sup>1</sup>Bau, Bulakh, Zhuang, and Li, 2007; <sup>1</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Bogacheva, Bulakh, Bukharova, and Egorova, 2020); **Sakhalin Oblast** (<sup>1</sup>Vassiljeva and Nazarova, 1972).

***Lentinellus flabelliformis* (Bolton) S. Ito<sup>1</sup>**

≡ *Lentinus flabelliformis* (Bolton) Fr.<sup>2</sup>

EASTERN EUROPE: **Adygea** (<sup>1</sup>Vaasma, Kalamees, and Raitviir, 1986); **Crimea** (<sup>1</sup>Sarkina, 2001; <sup>1</sup>Sarkina and Prydiuk, 2012); **Leningrad Oblast** (<sup>1</sup>Zmitrovich, 2003); **Ryazan Oblast** (<sup>2</sup>Vanin, 1916); **Smolensk Oblast** (<sup>2</sup>Jaczewski, 1896); **Tula Oblast** (<sup>1</sup>Svetasheva and Freze, 2013).

SIBERIA: **Altai Krai** (<sup>1</sup>Gorbunova and Chubarova, 2008; <sup>1</sup>Gorbunova, Vlasenko, and Tzhubarova, 2011); **Buryatia** (<sup>1</sup>Nezdjominog, 1973; <sup>1</sup>Petrov, 1991); **Krasnoyarsk Krai** (<sup>1</sup>Nezdjominog, 1976a); **Tomsk Oblast** (<sup>2</sup>Zhukov, 1980; <sup>1</sup>Agaphonova, Kruchkova, Kutafjeva, and Gashkov, 2007; <sup>1</sup>Agaphonova, Kutafjeva, and Gashkov, 2009a; <sup>1</sup>Kudashova, Gashkov, and Kutafjeva, 2013).



***Lentinellus micheneri* (Berk. & M.A. Curtis) Pegler<sup>1</sup>**= *Lentinellus omphalodes* (Fr.) P. Karst.<sup>2</sup>

EASTERN EUROPE: **Chelyabinsk Oblast** (<sup>1</sup>Psurtseva, Kiyashko, Gachkova, and Belova, 2007); **Crimea** (<sup>2</sup>Dudka et al., 2004); **Kaliningrad Oblast** (<sup>2</sup>Dedkov, Volodina, and Gubareva, 2007); **Karelia** (<sup>1</sup>Predtechenskaya and Ruokolainen, 2013); **Komi Republic** (<sup>1</sup>Palamarchuk, 2016a; <sup>1</sup>Palamarchuk, 2016b; <sup>1</sup>Palamarchuk, 2020a); **Krasnodar Krai** (<sup>1</sup>Vassiljeva, 1939); **Perm Krai** (<sup>2</sup>Bondartseva and Zmitrovich, 2004); **Ryazan Oblast** (<sup>2</sup>Volosnova, 2014); **Saint Petersburg** (<sup>1</sup>Morozova and Smirnov, 2011); **Sverdlovsk Oblast** (<sup>1</sup>Marina, 2006); **Yamalo-Nenets Autonomous Okrug** (<sup>2</sup>Kazanthseva, 1970; <sup>2</sup>Stepanova and Sirko, 1977).

SIBERIA: **Altai Krai** (<sup>2</sup>Gorbunova and Perova, 2006; <sup>1</sup>Gorbunova and Chubarova, 2008; <sup>1</sup>Gorbunova, Vlasenko, and Tzhubarova, 2011); **Irkutsk Oblast** (<sup>2</sup>Kutafjeva, 1989; <sup>2</sup>Astapenko, 1990a; <sup>2</sup>Petrov, 1991; <sup>2</sup>Bardunov et al., 2005; <sup>2</sup>Petrov, 2008); **Kemerovo Oblast** (<sup>2</sup>Perova and Gorbunova, 2001); **Khanty-Mansi Autonomous Okrug** (<sup>2</sup>Mukhin, 1993; <sup>1</sup>Filippova, Bulyonkova, and Lapshina, 2015; <sup>1</sup>Filippova and Bulyonkova, 2017a; <sup>1</sup>Filippova and Bulyonkova, 2017b); **Krasnoyarsk Krai** (<sup>2</sup>Beglyanova, 1972a; <sup>1</sup>Zauzolkova, 2012; <sup>2</sup>Kryuchkova, 2014a); **Kurgan Oblast** (<sup>2</sup>Mukhin, 1993); **Novosibirsk Oblast** (<sup>2</sup>Perova and Gorbunova, 2001; <sup>1</sup>Perova and Gorbunova, 2007; <sup>1</sup>Koropachinskiy and Banaev, 2014); **Sverdlovsk Oblast** (<sup>2</sup>Mukhin, 1993; <sup>2</sup>Mukhin et al., 2003); **Tomsk Oblast** (<sup>2</sup>Perova, 1972; <sup>1</sup>Kudashova, Gashkov, and Kutafjeva, 2013); **Tyumen Oblast** (<sup>2</sup>Mukhin, 1993); **Yamalo-Nenets Autonomous Okrug** (<sup>2</sup>Mukhin, 1993); **Baikalia** (<sup>1</sup>Psurtseva, Kiyashko, Gachkova, and Belova, 2007).

FAR EAST: **Magadan Oblast** (<sup>2</sup>Nazarova, 1976; <sup>2</sup>Sazanova, 1996; <sup>2</sup>Govorova and Sazanova, 2003; <sup>2</sup>Sazanova, 2005; <sup>1</sup>Sazanova, 2009a; <sup>1</sup>Sazanova, 2011); **Primorsky Krai** (<sup>2</sup>Azbukina et al., 1984; <sup>2</sup>Bardunov et al., 2002; <sup>1</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Bulakh et al., 2016); **Sakhalin Oblast** (<sup>2</sup>Bulakh, Govorova, and Bogatov, 1999).

***Lentinellus pilatii* Herink**SIBERIA: **Irkutsk Oblast** (Petrov, 1991; Petrov, 2008).***Lentinellus tridentinus* (Sacc. & P. Syd.) Singer**

EASTERN EUROPE: **Krasnodar Krai** (Vassiljeva, 1939; Singer, 1943); **Tatarstan** (Vassiljeva, 1977); **Yamalo-Nenets Autonomous Okrug** (Stepanova and Sirko, 1977).

SIBERIA: **Novosibirsk Oblast** (Zhukov, 1980); **Tomsk Oblast** (Kudashova, Gashkov, and Kutafjeva, 2013).

***Lentinellus ursinus* (Fr.) Kühner<sup>1</sup>**≡ *Agaricus ursinus* Fr.<sup>2</sup> ≡ *Lentinus ursinus* (Fr.) Fr.<sup>3</sup>

EASTERN EUROPE: **Adygea** (<sup>1</sup>Psurtseva, Kiyashko, Gachkova, and Belova, 2007); **Kaliningrad Oblast** (<sup>1</sup>Dedkov, Volodina, and Gubareva, 2007; <sup>1</sup>Volodina, 2007); **Krasnodar Krai** (<sup>1</sup>Vassiljeva, 1939; <sup>1</sup>Psurtseva, Kiyashko, Gachkova, and Belova, 2007); **Leningrad Oblast** (<sup>1</sup>Zmitrovich, 2003; <sup>1</sup>Zmitrovich, Malysheva, Malysheva, and Spirin, 2004; <sup>1</sup>Popov et al., 2007; <sup>1</sup>Zmitrovich et al., 2015; <sup>1</sup>Kalinina, 2018); **Lipetsk Oblast** (<sup>1</sup>Sarycheva, Starodubtseva, and Sapelnikova, 2017); **Moscow Oblast** (<sup>1</sup>Voronina et al., 2012; <sup>1</sup>Voronina et al., 2014); **Nizhny Novgorod Oblast** (<sup>1</sup>Spirin, 2003); **Novgorod Oblast** (<sup>1</sup>Psurtseva, Kiyashko, Gachkova, and Belova, 2007); **Perm Krai** (<sup>1</sup>Bondartseva and Zmitrovich, 2004); **Pskov Oblast** (<sup>1</sup>Popov et al., 2013); **Ryazan Oblast** (<sup>1</sup>Volosnova, 2014); **Saint Petersburg** (<sup>2,3</sup>Weinmann, 1836; <sup>1</sup>Morozova and Smirnov, 2011; <sup>1</sup>Morozova et al., 2020); **Samara Oblast** (<sup>1</sup>Malysheva and Malysheva, 2005b; <sup>1</sup>Malysheva and Malysheva, 2008); **Tatarstan** (<sup>1</sup>Vassiljeva, 1977).

SIBERIA: **Altai Krai** (<sup>1</sup>Gorbunova and Chubarova, 2008; <sup>1</sup>Gorbunova, Vlasenko, and Tzhubarova, 2011); **Altai Republic** (<sup>1</sup>Singer, 1943); **Irkutsk Oblast** (<sup>1</sup>Astapenko, 1990a); **Khanty-Mansi Autonomous Okrug** (<sup>1</sup>Zvyagina, Baykalova, and Gorbunova, 2007; <sup>1</sup>Baykalova and Zvyagina, 2008); **Krasnoyarsk Krai** (<sup>1</sup>Beglyanova, 1972a; <sup>1</sup>Gorbunova, 2016; <sup>1</sup>Malysheva, Malysheva, Kiyashko, et al., 2017); **Novosibirsk Oblast** (<sup>1</sup>Gorbunova, 2007; <sup>1</sup>Koropachinskiy and Banaev, 2014); **Sverdlovsk Oblast** (<sup>1</sup>Shiryayev, 2007); **Tomsk Oblast** (<sup>1</sup>Kudashova, Gashkov, and Kutafjeva, 2013); **Baikalia** (<sup>1</sup>Psurtseva, Kiyashko, Gachkova, and Belova, 2007).

FAR EAST: **Amur Oblast** (<sup>1</sup>Azbukina et al., 1998; <sup>1</sup>Taranina, 2005; <sup>1</sup>Kochunova, 2019); **Jewish Autonomous Oblast** (<sup>1</sup>Bulakh, Govorova, Nazarova, and Vassiljeva, 2007; <sup>1</sup>Bau, Bulakh, and Govorova, 2011); **Khabarovsk Krai** (<sup>1</sup>Bau, Bulakh, Zhuang, and Li, 2007; <sup>1</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Erofeeva and Bulakh, 2015a); **Primorsky Krai** (<sup>1</sup>Vassiljeva, 1973; <sup>1</sup>Bunkina and Nazarova, 1978; <sup>1</sup>Azbukina et al., 1984; <sup>1</sup>Azbukina et al., 1990; <sup>1</sup>Bardunov et al., 2002; <sup>1</sup>Azbukina et al., 2006; <sup>1</sup>Bau, Bulakh, Zhuang, and Li, 2007; <sup>1</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Bulakh et al., 2016; <sup>1</sup>Bogacheva, Bulakh, Bukharova, and Egorova, 2020).

***Lentinellus vulpinus* (Sowerby) Kühner & Maire<sup>1</sup>**

≡ *Lentinus vulpinus* (Sowerby) Fr.<sup>2</sup> = *Lentinellus auricula* (Fr.) E. Ludw.<sup>3</sup> = *Lentinellus ursinus* f. *robustus* (P. Karst.) R.H. Petersen<sup>4</sup>

EASTERN EUROPE: **Chechen Republic** (<sup>2</sup>Taysumov, Krapivina, and Kushaliev, 2016); **Chelyabinsk Oblast** (<sup>1</sup>Stepanova and Sirko, 1977); **Kabardino-Balkarian Republic** (<sup>1</sup>Shkhagapsoev and Krapivina, 2004); **Karelia** (<sup>1</sup>Singer, 1943; <sup>1</sup>Predtechenskaya and Ruokolainen, 2013); **Komi Republic** (<sup>1</sup>Taskaev, 2009; <sup>1</sup>Dyogteva, 2019); **Leningrad Oblast** (<sup>1</sup>Kalamees and Kovalenko, 1984; <sup>1</sup>Zmitrovich, Malysheva, Malysheva, and Spirin, 2004; <sup>4</sup>Morozova, 2005; <sup>1</sup>Popov et al., 2007; <sup>4</sup>Psurtseva, Kiyashko, Gachkova, and Belova, 2007; <sup>1</sup>Bondartseva et al., 2015; <sup>1</sup>Zmitrovich et al., 2015); **Nizhny Novgorod Oblast** (<sup>3</sup>Spirin, 2003); **North Ossetia** (<sup>1</sup>Nikolayev, 2001); **Novgorod Oblast** (<sup>1</sup>Psurtseva, Kiyashko, Gachkova, and Belova, 2007); **Rostov Oblast** (<sup>1</sup>Rusanov, Rebriev, and Bulgakov, 2018); **Sverdlovsk Oblast** (<sup>1</sup>Stepanova and Sirko, 1977); **Tula Oblast** (<sup>1</sup>Svetasheva and Freze, 2013).

SIBERIA: **Altai Republic** (<sup>1</sup>Perova and Gorbunova, 2001); **Irkutsk Oblast** (<sup>1</sup>Astapenko, 1990a; <sup>1</sup>Petrov, 1991; <sup>1</sup>Bardunov et al., 2005; <sup>1</sup>Petrov, 2008); **Khanty-Mansi Autonomous Okrug** (<sup>1</sup>Filippova, Bulyonkova, and Lapshina, 2015; <sup>1</sup>Filippova and Bulyonkova, 2017a; <sup>1</sup>Filippova and Bulyonkova, 2017b; <sup>1</sup>Zvyagina and Baykalova, 2017); **Krasnoyarsk Krai** (<sup>1</sup>Beglyanova, 1972a; <sup>1</sup>Beglyanova, 1972b; <sup>1</sup>Pavlov et al., 2007; <sup>1</sup>Kryuchkova, 2015; <sup>2</sup>Kryuchkova and Yaskova, 2017; <sup>1</sup>Krom and Kapitonov, 2019); **Novosibirsk Oblast** (<sup>1</sup>Perova, 1977; <sup>1</sup>Zhukov, 1980; <sup>1</sup>Perova and Gorbunova, 2001; <sup>1</sup>Perova and Gorbunova, 2007); **Sverdlovsk Oblast** (<sup>1</sup>Shiryayev, 2007); **Tomsk Oblast** (<sup>1</sup>Perova, 1972; <sup>1</sup>Kudashova, Gashkov, and Kutafjeva, 2013; <sup>1</sup>Kudashova, Gashkov, and Vaishlya, 2016b).

FAR EAST: **Amur Oblast** (<sup>1</sup>Tomilin, 1962); **Chukotka Autonomous Okrug** (<sup>1</sup>Sazanova, 1993; <sup>1</sup>Govorova and Sazanova, 2003); **Magadan Oblast** (<sup>1</sup>Sazanova, 1996; <sup>1</sup>Govorova and Sazanova, 2003; <sup>1</sup>Sazanova, 2005; <sup>1</sup>Sazanova, 2009a; <sup>1</sup>Sazanova, 2009b; <sup>1</sup>Sazanova, 2011).

***Lentinula edodes* (Berk.) Pegler<sup>1</sup>**

≡ *Lentinus edodes* (Berk.) Singer<sup>2</sup>

FAR EAST: **Kamchatka Krai** (<sup>1</sup>Chernyagina, 2018); **Khabarovsk Krai** (<sup>1</sup>Erofeeva and Bulakh, 2015a; <sup>1</sup>Erofeeva, 2016); **Primorsky Krai** (<sup>2</sup>Azbukina et al., 1990; <sup>1</sup>Bulakh and Govorova, 2000; <sup>1</sup>Bardunov et al., 2002; <sup>1</sup>Azbukina et al., 2006; <sup>1</sup>Psurtseva, Kiyashko, Gachkova, and Belova, 2007; <sup>1</sup>Kozhevnikov, 2008; <sup>1</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Bogacheva et al., 2018).

***Lentinus crinitus* (L.) Fr.**

EASTERN EUROPE: **Moscow Oblast** (Malysheva, Malysheva, Voronina, et al., 2017; Malysheva, Malysheva, Voronina, and Kovalenko, 2018).

***Lentinus martianoffianus* Kalchbr.**

SIBERIA: **Khanty-Mansi Autonomous Okrug** (Zvyagina, Baykalova, and Gorbunova, 2007); **Krasnoyarsk Krai** (Thümen, 1877; Kalchbrenner, 1878; Saccardo, 1896; Pegler, 1983); **Tyumen Oblast** (Mukhin, 1993).

FAR EAST: **Jewish Autonomous Oblast** (Bau, Bulakh, and Govorova, 2011); **Khabarovsk Krai** (Bulakh, Vassiljeva, and Erofeeva, 2010; Erofeeva and Bulakh, 2015a); **Primorsky Krai** (Bau, Bulakh, and Govorova, 2011; Bogacheva, Bulakh, Bukharova, and Egorova, 2020).

***Lentinus pilosquamulosus* Lj.N. Vassiljeva**

SIBERIA: **Khanty-Mansi Autonomous Okrug** (Zvyagina, 2012; Vasin and Vasina, 2013; Filippova, Bulyonkova, and Lapshina, 2015).

FAR EAST: **Jewish Autonomous Oblast** (Bulakh, Govorova, Nazarova, and Vassiljeva, 2007); **Primorsky Krai** (Vassiljeva, 1973; Bunkina and Nazarova, 1978; Azbukina et al., 1984; Azbukina et al., 2006).

***Lentinus sibiricus* Pilát**

SIBERIA: **Tomsk Oblast** (Pilát, 1935).

***Lentinus squamosus* Quéf.**

EASTERN EUROPE: **Mordovia** (Chastukhin, 1948a; Chastukhin, 2011); **Moscow** (Hennings, 1905); **Perm Krai** (Naoumoff, 1915); **Voronezh Oblast** (Chastukhin and Nikolaevskaya, 1953); **Yamalo-Nenets Autonomous Okrug** (Kazantseva, 1966).

SIBERIA: **Altai Krai** (Zhukov, 1980); **Novosibirsk Oblast** (Nozdrenko, 1970; Zhukov, 1980); **Zabaykalsky Krai** (Karsten, 1906).

***Lentinus tigrinus* (Bull.) Fr.<sup>1</sup>**≡ *Panus tigrinus* (Bull.) Singer<sup>2</sup>

EASTERN EUROPE: **Belgorod Oblast** (<sup>2</sup>Bedenko, 1980); **Bryansk Oblast** (<sup>1</sup>Kruglikov, 2007); **Chechen Republic** (<sup>2</sup>Taysumov, Krapivina, and Kushalieva, 2016); **Chelyabinsk Oblast** (<sup>1</sup>Aleksandrovskaya and Lobanova, 1968; <sup>2</sup>Stepanova and Sirko, 1977); **Kabardino-Balkarian Republic** (<sup>2</sup>Shkhagapsoev and Krapivina, 2004); **Kaliningrad Oblast** (<sup>1</sup>Dedkov, Volodina, and Gubareva, 2007); **Krasnodar Krai** (<sup>1</sup>Vassiljeva, 1939; <sup>2</sup>Kovalenko, 1980a; <sup>2</sup>Kovalenko, 1980b); **Kursk Oblast** (<sup>1</sup>Baranov, 2002); **Leningrad Oblast** (<sup>1</sup>Zmitrovich, Malysheva, Malysheva, and Spirin, 2004); **Lipetsk Oblast** (<sup>1</sup>Sarycheva et al., 2009; <sup>1</sup>Sarycheva, 2016); **Mordovia** (<sup>1</sup>Chastukhin and Nikolaevskaya, 1969; <sup>1</sup>Chastukhin, 2011; <sup>1</sup>Ivoilov and Bolshakov, 2011b); **North Ossetia** (<sup>1</sup>Chernetskaja, 1929; <sup>1</sup>Nikolayev, 2001); **Novgorod Oblast** (<sup>1</sup>Kalinina, 2019); **Orenburg Oblast** (<sup>1</sup>Safonov, 2002; <sup>1</sup>Korshikova, 2006; <sup>1</sup>Desyatova, 2008); **Penza Oblast** (<sup>2</sup>Ivanov, 1981b; <sup>2</sup>Ivanov, 1982; <sup>2</sup>Ivanov, 1999); **Rostov Oblast** (<sup>1</sup>Rusanov et al., 2004; <sup>1</sup>Psurtseva, Kiyashko, Gachkova, and Belova, 2007; <sup>1</sup>Morozova et al., 2008; <sup>1</sup>Zmitrovich et al., 2008; <sup>1</sup>Rebriev and Svetasheva, 2010; <sup>1</sup>Rusanov, Rebriev, and Bulgakov, 2018); **Ryazan Oblast** (<sup>2</sup>Volosnova, 1997; <sup>1</sup>Volosnova, 2014); **Saint Petersburg** (<sup>1</sup>Zmitrovich, Malysheva, Malysheva, and Spirin, 2004; <sup>1</sup>Morozova, Kovalenko, Rebriev, and Malysheva, 2014); **Samara Oblast** (<sup>1</sup>Malysheva and Malysheva, 2005b; <sup>1</sup>Malysheva and Malysheva, 2008); **Sevastopol** (<sup>1</sup>Sarkina, 2016b; <sup>1</sup>Sarkina, 2020c); **Smolensk Oblast** (<sup>1</sup>Jaczewski, 1898); **Sverdlovsk Oblast** (<sup>2</sup>Stepanova and Sirko, 1977); **Tatarstan** (<sup>1</sup>Vassiljeva, 1977); **Tver Oblast** (<sup>2</sup>Kurochkin, 1993); **Udmurt Republic** (<sup>1</sup>Tychinin and Kuzmina, 2003); **Volgograd Oblast** (<sup>1</sup>Goncharova and Vedeneyev, 2015); **Voronezh Oblast** (<sup>1</sup>Chastukhin and Nikolaevskaya, 1969; <sup>1</sup>Sarycheva, Starodubtseva, and Sapelnikova, 2017); **Arid territories** (<sup>1</sup>Rebriev, Rusanov, et al., 2012).

SIBERIA: **Krasnoyarsk Krai** (<sup>2</sup>Beglyanova, 1972a); **Kurgan Oblast** (<sup>1</sup>Sirko, 1966; <sup>2</sup>Stepanova and Sirko, 1977); **Novosibirsk Oblast** (<sup>1</sup>Koropachinskiy and Banaev, 2014); **Tomsk Oblast** (<sup>1</sup>Agaphonova, Kutafjeva, and Gashkov, 2007; <sup>1</sup>Kudashova, Gashkov, and Kutafjeva, 2013); **Tyumen Oblast** (<sup>1</sup>Mukhin, 1993); **Yamalo-Nenets Autonomous Okrug** (<sup>2</sup>Mukhin, 1987).

FAR EAST: **Amur Oblast** (<sup>1</sup>Gordienko, Petrova, and Tarasov, 1981; <sup>1</sup>Kochunova, 2016).

***Lepiota amyloidea* Singer**SIBERIA: **Altai Republic** (Singer, 1943).***Lepiota angustispora* (Migl. & Bi i) Hauskn. & Pidlich-Aigner**

EASTERN EUROPE: **Sverdlovsk Oblast** (Shiryaeva and Palamarchuk, 2019); **Tatarstan** (Potapov, 2016a; Potapov, 2016b); **Udmurt Republic** (Kapitonov, 2013).

***Lepiota apatelia* Vellinga & Huijser**FAR EAST: **Primorsky Krai** (Bulakh et al., 2016).***Lepiota boudieri* Bres.<sup>1</sup>**= *Lepiota fulvella* Rea<sup>2</sup>

EASTERN EUROPE: **Lipetsk Oblast** (<sup>1</sup>Sarycheva et al., 2009; <sup>1</sup>Sarycheva, 2011; <sup>1</sup>Sarycheva, 2014a; <sup>1</sup>Shcherbakov, 2014; <sup>1</sup>Sarycheva, 2016); **Moscow Oblast** (<sup>2</sup>Levitskaya, 1995c; <sup>2</sup>Levitskaya, 2013); **Penza Oblast** (<sup>2</sup>Ivanov, 1989); **Pskov Oblast** (<sup>1</sup>Kalinina, Bolshakov, and Bulyonkova, 2020); **Rostov Oblast** (<sup>2</sup>Vyshchepan, 1992; <sup>1</sup>Rusanov, Rebriev, and Bulgakov, 2018); **Tatarstan** (<sup>2</sup>Vassiljeva, 1977); **Arid territories** (<sup>1</sup>Rebriev, Rusanov, et al., 2012).

SIBERIA: **Altai Republic** (<sup>2</sup>Gorbunova, 1997; <sup>2</sup>Perova and Gorbunova, 2001); **Krasnoyarsk Krai** (<sup>1</sup>Malysheva, Malysheva, Kiyashko, et al., 2017).

FAR EAST: **Primorsky Krai** (<sup>2</sup>Kovalenko and Nezdoinog, 1989; <sup>1</sup>Bulakh et al., 2016).

***Lepiota brunneoincarnata* Chodat & C. Martín**

EASTERN EUROPE: **Belgorod Oblast** (Bedenko, 1980); **Crimea** (Zerova, 1962; Wasser, 1980; Sarkina, 2001; Dudka et al., 2004; Sarkina, 2010b; Sarkina, 2011; Sarkina, 2014b); **Kabardino-Balkarian Republic** (Krapivina et al., 2020); **Moscow Oblast** (Levitskaya, 1995c; Levitskaya, 2013); **Orenburg Oblast** (Desyatova, 2008); **Penza Oblast** (Ivanov and Nezdoinog, 1990); **Rostov Oblast** (Rusanov, Rebriev, and Bulgakov, 2018); **Arid territories** (Rebriev, Rusanov, et al., 2012).

SIBERIA: **Krasnoyarsk Krai** (Pavlov et al., 2007; Malysheva, Malysheva, Kiyashko, et al., 2017; Krom and Kapitonov, 2019).

FAR EAST: **Jewish Autonomous Oblast** (Bulakh, Govorova, Nazarova, and Vassiljeva, 2007; Bau, Bulakh, and Govorova, 2011).

***Lepiota castanea* Quél.<sup>1</sup>**

= *Lepiota ignicolor* Bres.<sup>2</sup> = *Lepiota ignipes* Locq. ex Bon<sup>3</sup>

EASTERN EUROPE: **Crimea** (<sup>1</sup>Sarkina and Prydiuk, 2012; <sup>1</sup>Sarkina and Mironova, 2015); **Kaliningrad Oblast** (<sup>1</sup>Dedkov, Volodina, and Gubareva, 2007; <sup>1</sup>Volodina, 2007); **Kaluga Oblast** (<sup>1</sup>Sionova, 2003); **Krasnodar Krai** (<sup>1</sup>Vassiljeva, 1939); **Leningrad Oblast** (<sup>1</sup>Wasser, 1980; <sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Morozova, 1999; <sup>1</sup>Morozova and Kovalenko, 2000; <sup>1</sup>Tzvelev, 2000; <sup>1</sup>Popov et al., 2007; <sup>1</sup>Geltman et al., 2018; <sup>1</sup>Geltman, 2018b; <sup>1</sup>Kalinina, 2018); **Lipetsk Oblast** (<sup>1</sup>Sarycheva, 1999; <sup>1</sup>Sarycheva et al., 2009; <sup>1</sup>Sarycheva, 2011; <sup>1</sup>Sarycheva, 2014a; <sup>1</sup>Sarycheva, 2016); **Mordovia** (<sup>1</sup>Ivoilov and Bolshakov, 2011a; <sup>1</sup>Bolshakov and Ivoilov, 2012b; <sup>1</sup>Silaeva, 2017); **Moscow Oblast** (<sup>1</sup>Levitskaya, 1995c; <sup>1</sup>Levitskaya, 2013; <sup>1</sup>Voronina et al., 2014); **Orenburg Oblast** (<sup>1</sup>Desyatova, 2008); **Penza Oblast** (<sup>1</sup>Ivanov, 1982; <sup>2</sup>Ivanov, 1999); **Perm Krai** (<sup>1</sup>Perevedentseva, 2008); **Pskov Oblast** (<sup>1,2</sup>Popov et al., 2013); **Saint Petersburg** (<sup>1</sup>Morozova and Smirnov, 2011; <sup>1</sup>Morozova et al., 2020); **Samara Oblast** (<sup>1</sup>Malysheva and Malysheva, 2006; <sup>1</sup>Malysheva and Malysheva, 2008); **Sverdlovsk Oblast** (<sup>1</sup>Stepanova and Sirko, 1977; <sup>1</sup>Marina, 2006); **Tatarstan** (<sup>1</sup>Potapov, 2016b); **Tula Oblast** (<sup>1</sup>Svetasheva, 2004; <sup>1</sup>Shcherbakov, 2010); **Udmurt Republic** (<sup>1</sup>Tychinin and Kuzmina, 2003); **Ulyanovsk Oblast** (<sup>1</sup>Ilyukhin, 2009; <sup>1</sup>Ilyukhin, 2010a); **Voronezh Oblast** (<sup>1</sup>Selochnik, 2015; <sup>1</sup>Kochergina and Furmenkova, 2019); **Arid territories** (<sup>1</sup>Rebriev, Rusanov, et al., 2012).

SIBERIA: **Altai Krai** (<sup>1</sup>Gorbunova, 2018a); **Irkutsk Oblast** (<sup>1</sup>Petrov, 1986; <sup>1</sup>Petrov, 1991; <sup>1</sup>Petrov, 2008); **Khakassia** (<sup>1</sup>Beglyanova, 1972a); **Krasnoyarsk Krai** (<sup>1</sup>Wasser, 1980); **Novosibirsk Oblast** (<sup>1</sup>Perova and Gorbunova, 2001; <sup>1</sup>Koropachinskiy and Banaev, 2014); **Tomsk Oblast** (<sup>1</sup>Perova and Gorbunova, 2001; <sup>1</sup>Kosheleva and Kutafjeva, 2004; <sup>1</sup>Kudashova, Gashkov, and Kutafjeva, 2013; <sup>1</sup>Kudashova, Gashkov, and Vaishlya, 2016b).

FAR EAST: **Amur Oblast** (<sup>1</sup>Taranina, 2005); **Jewish Autonomous Oblast** (<sup>2</sup>Bulakh, Govorova, Nazarova, and Vassiljeva, 2007; <sup>1</sup>Bau, Bulakh, and Govorova, 2011); **Khabarovsk Krai** (<sup>1</sup>Erofeeva and Bulakh, 2015a); **Primorsky Krai** (<sup>1</sup>Vassiljeva, 1972; <sup>1,2</sup>Vassiljeva, 1973; <sup>1,2</sup>Bunkina and Nazarova, 1978; <sup>1,2</sup>Wasser, 1980; <sup>1,2</sup>Azbukina et al., 1984; <sup>1,2,3</sup>Azbukina et al., 2006; <sup>1</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Bulakh et al., 2016).

***Lepiota citrophylla* (Berk. & Broome) Sacc.**

EASTERN EUROPE: **Saint Petersburg** (Morozova, Kovalenko, Rebriev, and Malysheva, 2014).

FAR EAST: **Khabarovsk Krai** (Azbukina et al., 1986; Bau, Bulakh, and Govorova, 2011); **Primorsky Krai** (Vassiljeva, 1973; Bunkina and Nazarova, 1978; Azbukina et al., 2006; Bau, Bulakh, and Govorova, 2011).

***Lepiota clypeolaria* (Bull.) P. Kumm.<sup>1</sup>**

≡ *Agaricus clypeolarius* Bull.<sup>2</sup> ≡ *Lepiota clypeolaria* f. *clypeolaria* (Bull.) P. Kumm.<sup>3</sup> ≡ *Lepiota clypeolaria* var. *clypeolaria* (Bull.) P. Kumm.<sup>4</sup> = *Lepiota clypeolaria* f. *foetens* A.N. Petrov<sup>5</sup>

EASTERN EUROPE: **Bashkortostan** (<sup>1</sup>Stepanova and Sirko, 1977); **Belgorod Oblast** (<sup>1</sup>Bedenko, 1979a; <sup>1</sup>Psurtseva, Belova, and Ryabusheva, 2003; <sup>1</sup>Psurtseva, Kiyashko, Gachkova, and Belova, 2007); **Bryansk Oblast** (<sup>1</sup>Kruglikov, 2007); **Chelyabinsk Oblast** (<sup>1</sup>Sirko and Stepanova, 1977; <sup>1</sup>Stepanova and Sirko, 1977); **Crimea** (<sup>1</sup>Sarkina, 2001; <sup>1</sup>Dudka et al., 2004; <sup>1</sup>Sarkina, 2010b; <sup>1</sup>Sarkina, 2011; <sup>1</sup>Sarkina and Prydiuk, 2012; <sup>1</sup>Sarkina, 2013; <sup>1</sup>Sarkina and Mironova, 2015; <sup>1</sup>Sarkina and Stavishenko, 2019); **Kaliningrad Oblast** (<sup>1</sup>Dedkov, Volodina, and Gubareva, 2007; <sup>1</sup>Volodina, 2007); **Kaluga Oblast** (<sup>1</sup>Sionova, 2012); **Karachay-Cherkess Republic** (<sup>1</sup>Vassiljeva, 1939; <sup>1</sup>Kalamees and Botashev, 2000); **Karelia** (<sup>1</sup>Freindling, 1949; <sup>1</sup>Wasser, 1980; <sup>1</sup>Bondartseva et al., 2001; <sup>1</sup>Krutov et al., 2014; <sup>1</sup>Savelev and Kikeeva, 2018); **Kirov Oblast** (<sup>1</sup>Kirillov, 2011; <sup>1</sup>Kirillov, Perevedentseva, and Egoshina, 2011; <sup>1</sup>Stavishenko, Luginina, Kirillov, and Egoshina, 2019); **Komi Republic** (<sup>1</sup>Bobretsova, 2004; <sup>1</sup>Palamarchuk, 2012; <sup>1</sup>Palamarchuk, 2016a; <sup>1</sup>Palamarchuk, 2016b; <sup>1</sup>Palamarchuk, 2017); **Krasnodar Krai** (<sup>1</sup>Vassiljeva, 1939; <sup>1</sup>Kovalenko, 1980a; <sup>1</sup>Kovalenko, 1980b; <sup>1</sup>Vaasma, Kalamees, and Raitviir, 1986); **Kursk Oblast** (<sup>1</sup>Baranov, 2002); **Leningrad Oblast** (<sup>1</sup>Thesleff, 1920; <sup>1</sup>Nezdojminogo, 1967; <sup>1</sup>Chastukhin and Nikolaevskaya, 1969; <sup>1</sup>Wasser, 1980; <sup>1</sup>Stolyarskaya, 1993; <sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Morozova, 2007; <sup>1</sup>Popov et al., 2007; <sup>1</sup>Zmitrovich et al., 2015); **Lipetsk Oblast** (<sup>1</sup>Alferova, 1977; <sup>1</sup>Sarycheva, 1999; <sup>1</sup>Sarycheva et al., 2009; <sup>1</sup>Sarycheva, 2011; <sup>1</sup>Sarycheva, 2014a; <sup>1</sup>Sarycheva, 2016); **Mordovia** (<sup>1</sup>Kuznetsov, 1960; <sup>1</sup>Chastukhin, 2011; <sup>1</sup>Ivoilov and Bolshakov, 2011a); **Moscow** (<sup>1</sup>Burova, 1968); **Moscow Oblast** (<sup>1</sup>Wasser, 1980; <sup>1</sup>Gorlenko, Sidorova, and Sidorova, 1989; <sup>1</sup>Levitskaya, 1995c; <sup>1</sup>Voronina et al., 2012; <sup>1</sup>Levitskaya, 2013; <sup>1</sup>Voronina et al., 2014); **Novgorod Oblast** (<sup>1</sup>Kovalenko, Morozova, Nezdojminogo, and Popov, 2005; <sup>1</sup>Popov et al., 2013); **Orenburg Oblast** (<sup>1</sup>Desyatova, 2008); **Penza Oblast** (<sup>1</sup>Ivanov, 1982); **Perm Krai** (<sup>1</sup>Perevedentseva, 2008; <sup>1</sup>Belkovskaya et al., 2014); **Pskov Oblast** (<sup>1</sup>Popov, 2001a; <sup>1</sup>Popov et al., 2013); **Ryazan Oblast** (<sup>1</sup>Volosnova, 1997; <sup>1</sup>Volosnova, 2014); **Saint Petersburg** (<sup>2</sup>Weinmann, 1837; <sup>1</sup>Morozova and Smirnov, 2011; <sup>1</sup>Morozova et al., 2020); **Sevastopol** (<sup>1</sup>Sarkina, 2016b; <sup>1</sup>Sarkina, 2020b); **Smolensk Oblast** (<sup>1</sup>Jaczewski, 1898); **Sverdlovsk Oblast** (<sup>1</sup>Marina, 2006); **Tatarstan** (<sup>2</sup>Sorokin, 1872; <sup>1</sup>Vassiljeva, 1977; <sup>1</sup>Potapov, 2015b); **Tula Oblast** (<sup>1</sup>Svetasheva, 2004); **Tver Oblast** (<sup>1</sup>Chastukhin, 1948b; <sup>1</sup>Chastukhin and Nikolaevskaya, 1969; <sup>1</sup>Kurochkin, 1993; <sup>1</sup>Mukhina, 2011a; <sup>1</sup>Mukhina, 2011b);

<sup>1</sup>Kotkova, 2014); **Udmurt Republic** (<sup>1</sup>Tychinin and Kuzmina, 2003); **Ulyanovsk Oblast** (<sup>1</sup>Ilyukhin, 2009; <sup>1</sup>Ilyukhin, 2010a); **Vologda Oblast** (<sup>1</sup>Kirillova, 2007); **Arid territories** (<sup>1</sup>Rebriev, Rusanov, et al., 2012).

SIBERIA: **Altai Krai** (<sup>1</sup>Gorbunova and Perova, 2006); **Altai Republic** (<sup>1</sup>Wasser, 1980; <sup>1</sup>Gorbunova, 1996; <sup>1</sup>Gorbunova, 1997; <sup>1</sup>Gorbunova, 2001a; <sup>1</sup>Gorbunova, 2001b; <sup>1</sup>Gorbunova, 2008); **Irkutsk Oblast** (<sup>1</sup>Kutafjeva, 1983; <sup>1</sup>Petrov, 1986; <sup>5</sup>Petrov, 1987; <sup>1</sup>Petrov, 1989; <sup>1</sup>Astapenko, 1990a; <sup>3,5</sup>Petrov, 1991; <sup>1</sup>Bardunov et al., 2005; <sup>3,5</sup>Petrov, 2008; <sup>1</sup>Muzyka, 2009; <sup>1</sup>Muzyka and Penzina, 2017); **Khakassia** (<sup>1</sup>Zauzolkova and Gorbunova, 2013; <sup>1</sup>Zauzolkova, 2015); **Khanty-Mansi Autonomous Okrug** (<sup>1</sup>Zvyagina, Baykalova, and Gorbunova, 2007; <sup>1</sup>Baykalova and Zvyagina, 2008; <sup>1</sup>Filippova, Bulyonkova, and Lapshina, 2015; <sup>1</sup>Zvyagina and Vasina, 2015; <sup>1</sup>Filippova and Bulyonkova, 2017a; <sup>1</sup>Filippova and Bulyonkova, 2017b); **Krasnoyarsk Krai** (<sup>1</sup>Perova, 1970; <sup>1</sup>Beglyanova, 1972a; <sup>1</sup>Wasser, 1980; <sup>1</sup>Nezdojminogo, 1982a; <sup>1</sup>Lapitskaya, 1993; <sup>1</sup>Pavlov et al., 2007; <sup>1</sup>Kosheleva and Kutafjeva, 2008a; <sup>1</sup>Kryuchkova, 2009; <sup>1</sup>Malysheva, Malysheva, Kiyashko, et al., 2017); **Novosibirsk Oblast** (<sup>1</sup>Perova, 1977; <sup>1</sup>Gorbunova, 2007; <sup>1</sup>Perova and Gorbunova, 2007; <sup>1</sup>Koropachinskiy and Banaev, 2014); **Sakha Republic** (<sup>1</sup>Wasser, 1980); **Tomsk Oblast** (<sup>1</sup>Perova, 1972; <sup>1</sup>Kudashova, Gashkov, and Kutafjeva, 2013); **Yamalo-Nenets Autonomous Okrug** (<sup>1</sup>Tarchevskaya, 1990; <sup>1</sup>Karatygin, Nezdojminogo, Novozhilov, and Zhurbenko, 1999).

FAR EAST: **Amur Oblast** (<sup>1</sup>Azbukina et al., 1998; <sup>1</sup>Kochunova, 2019); **Chukotka Autonomous Okrug** (<sup>4</sup>Sazanova, 1993); **Jewish Autonomous Oblast** (<sup>1</sup>Bulakh, Govorova, Nazarova, and Vassiljeva, 2007; <sup>1</sup>Bau, Bulakh, and Govorova, 2011); **Kamchatka Krai** (<sup>1</sup>Kalamees and Vaasma, 1981); **Khabarovsk Krai** (<sup>1</sup>Azbukina et al., 1986; <sup>1</sup>Azbukina et al., 1989; <sup>1</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Bulakh, 2013; <sup>1</sup>Bogacheva, Bulakh, Bukharova, and Egorova, 2015; <sup>1</sup>Erofeeva and Bulakh, 2015a); **Magadan Oblast** (<sup>4</sup>Sazanova, 2005; <sup>1</sup>Sazanova, 2009a); **Primorsky Krai** (<sup>1</sup>Vassiljeva, 1972; <sup>1</sup>Vassiljeva, 1973; <sup>1</sup>Bunkina and Nazarova, 1978; <sup>1</sup>Wasser, 1980; <sup>1</sup>Azbukina et al., 1984; <sup>1</sup>Azbukina et al., 1990; <sup>1</sup>Bardunov et al., 2002; <sup>1</sup>Azbukina et al., 2006; <sup>1</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Bulakh et al., 2016); **Sakhalin Oblast** (<sup>1</sup>Vassiljeva and Nazarova, 1972).

### *Lepiota clypeolarioides* Rea

EASTERN EUROPE: **Perm Krai** (Perevedentseva, 2008; Belkovskaya et al., 2014).

### *Lepiota cortinarius* J.E. Lange

EASTERN EUROPE: **Komi Republic** (Palamarchuk, 2017); **Sverdlovsk Oblast** (Marina, 2006); **Udmurt Republic** (Kapitonov, 2013).

SIBERIA: **Irkutsk Oblast** (Astapenko and Kutafjeva, 1990).

### *Lepiota cristata* (Bolton) P. Kumm.<sup>1</sup>

≡ *Agaricus cristatus* Bolton<sup>2</sup> ≡ *Lepiota cristata* var. *cristata* (Bolton) P. Kumm.<sup>3</sup> = *Lepiota cristata* var. *felinoides* Bon<sup>4</sup> = *Lepiota cristata* var. *pallidior* Bon<sup>5</sup>

EASTERN EUROPE: **Adygea** (<sup>1</sup>Sopina, 2001a); **Belgorod Oblast** (<sup>1</sup>Bedenko, 1979a); **Bryansk Oblast** (<sup>1</sup>Kruglikov, 2007); **Crimea** (<sup>2</sup>Léveillé, 1842; <sup>1</sup>Wasser, 1980; <sup>1</sup>Sarkina, 2001; <sup>1</sup>Dudka et al., 2004; <sup>1</sup>Sarkina, 2011; <sup>1</sup>Sarkina, 2014b; <sup>1</sup>Sarkina and Mironova, 2015); **Dagestan** (<sup>1</sup>Wasser, 1980); **Kabardino-Balkarian Republic** (<sup>1</sup>Shkhagapsoev and Krapivina, 2003; <sup>1</sup>Shkhagapsoev and Krapivina, 2004); **Kaliningrad Oblast** (<sup>1</sup>Dedkov, Volodina, and Gubareva, 2007; <sup>1</sup>Volodina, 2007; <sup>1</sup>Atayev and Volodina, 2020); **Kaluga Oblast** (<sup>1</sup>Sionova, 2003; <sup>1</sup>Sionova, 2006); **Karachay-Cherkess Republic** (<sup>1</sup>Kalamees and Botashev, 2000); **Karelia** (<sup>1</sup>Wasser, 1980; <sup>1</sup>Bondartseva et al., 2001; <sup>1</sup>Predtechenskaya, 2013; <sup>1</sup>Krutov et al., 2014; <sup>1</sup>Savelev and Kikeeva, 2018); **Kirov Oblast** (<sup>1</sup>Stavishenko, Luginina, Kirillov, and Egoshina, 2019); **Komi Republic** (<sup>1</sup>Palamarchuk and Kirillov, 2017); **Krasnodar Krai** (<sup>1</sup>Vassiljeva, 1939; <sup>1</sup>Vaasma, Kalamees, and Raitviir, 1986); **Kursk Oblast** (<sup>1</sup>Baranov, 2002); **Leningrad Oblast** (<sup>1</sup>Thesleff, 1920; <sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Morozova and Kovalenko, 2000; <sup>1</sup>Popov et al., 2007); **Lipetsk Oblast** (<sup>1</sup>Alferova, 1977; <sup>1</sup>Sarycheva, 1999; <sup>1</sup>Sarycheva et al., 2009; <sup>1</sup>Sarycheva, 2011; <sup>1</sup>Sarycheva, 2014a; <sup>1</sup>Sarycheva, 2016; <sup>1</sup>Sarycheva, Starodubtseva, and Sapelnikova, 2017); **Mari El Republic** (<sup>1</sup>Prokhorov, 2007); **Mordovia** (<sup>1</sup>Ivoilov and Bolshakov, 2011a); **Moscow** (<sup>1</sup>Bucholtz, 1897b; <sup>1</sup>Bucholtz, 1897c; <sup>1</sup>Mosolov, 1906); **Moscow Oblast** (<sup>1</sup>Gorlenko, Sidorova, and Sidorova, 1989; <sup>1</sup>Levitskaya, 1995c; <sup>1</sup>Levitskaya, 2013); **North Ossetia** (<sup>1</sup>Nikolayev, 2001); **Novgorod Oblast** (<sup>1</sup>Kovalenko, Morozova, Nezdojminogo, and Popov, 2005; <sup>1</sup>Popov et al., 2013); **Orenburg Oblast** (<sup>1</sup>Korshikova, 2006; <sup>1</sup>Desyatova, 2008); **Oryol Oblast** (<sup>1</sup>Radygina, Derzhavina, and Tsutsupa, 2014); **Penza Oblast** (<sup>1</sup>Ivanov, 1982; <sup>1</sup>Ivanov, 1999); **Perm Krai** (<sup>1</sup>Perevedentseva, 2008); **Pskov Oblast** (<sup>1</sup>Popov, 2001a; <sup>1</sup>Popov et al., 2013); **Rostov Oblast** (<sup>1</sup>Morozova et al., 2008; <sup>1</sup>Zmitrovich et al., 2008; <sup>1</sup>Rusanov, Rebriev, and Bulgakov, 2018); **Ryazan Oblast** (<sup>1</sup>Volosnova, 2005; <sup>1</sup>Volosnova, 2014); **Saint Petersburg** (<sup>2</sup>Weinmann, 1828; <sup>2</sup>Weinmann, 1836; <sup>2</sup>Weinmann, 1837; <sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Kotkova, Morozova, and Popov, 2007; <sup>1</sup>Morozova and Smirnov, 2011; <sup>1</sup>Morozova, Kovalenko, Rebriev, and Malysheva, 2014; <sup>1</sup>Zhukova, Morozova, Volobuev, and Bryantseva, 2017; <sup>1</sup>Morozova et al., 2020); **Samara Oblast**

(<sup>1</sup>Malysheva and Malysheva, 2004; <sup>1</sup>Malysheva and Malysheva, 2008); **Sevastopol** (<sup>1</sup>Sarkina, 2020c); **Sverdlovsk Oblast** (<sup>1</sup>Stepanova and Sirko, 1977); **Tatarstan** (<sup>1</sup>Vassiljeva, 1977); **Tula Oblast** (<sup>1</sup>Svetasheva, 2004); **Tver Oblast** (<sup>1</sup>Kurochkin, 1993; <sup>1</sup>Kurochkin and Medvedev, 2015; <sup>1</sup>Kurochkin, 2016); **Udmurt Republic** (<sup>1</sup>Tychinin, 1990; <sup>1</sup>Tychinin and Kuzmina, 2003); **Ulyanovsk Oblast** (<sup>1</sup>Ilyukhin, 2009; <sup>1</sup>Ilyukhin, 2010a); **Volgograd Oblast** (<sup>1</sup>Stauchan and Vedenev, 2015); **Vologda Oblast** (<sup>1</sup>Kirillova, 2006; <sup>1</sup>Kirillova, 2007); **Voronezh Oblast** (<sup>1</sup>Chastukhin, 1952; <sup>1</sup>Chastukhin and Nikolaevskaya, 1953; <sup>1</sup>Chastukhin and Nikolaevskaya, 1969); **Yaroslavl Oblast** (<sup>1</sup>Lazareva, 1998a; <sup>1</sup>Lazareva, 1998b); **Arid territories** (<sup>1</sup>Rebriev, Rusanov, et al., 2012).

SIBERIA: **Altai Republic** (<sup>1</sup>Zhukov, 1979; <sup>1</sup>Wasser, 1980; <sup>1</sup>Gorbunova, 1997; <sup>1</sup>Gorbunova, 2001b; <sup>1</sup>Gorbunova, 2008; <sup>1</sup>Gorbunova, 2017b); **Buryatia** (<sup>3</sup>Petrov, 1991); **Irkutsk Oblast** (<sup>3,4,5</sup>Petrov, 1986; <sup>1</sup>Kutafjeva and Astapenko, 1987; <sup>4</sup>Petrov, 1989; <sup>1</sup>Astapenko, 1990a; <sup>3,4,5</sup>Petrov, 1991; <sup>1</sup>Muzyka, 2002; <sup>3,5</sup>Petrov, 2008); **Khakassia** (<sup>1</sup>Zauzolkova and Gorbunova, 2013; <sup>1</sup>Zauzolkova, 2015); **Khanty-Mansi Autonomous Okrug** (<sup>1</sup>Filippova and Bulyonkova, 2017a; <sup>1</sup>Filippova and Bulyonkova, 2017b); **Krasnoyarsk Krai** (<sup>1</sup>Perova, 1970; <sup>1</sup>Beglyanova, 1972a; <sup>1</sup>Wasser, 1980; <sup>1</sup>Zauzolkova, 2012; <sup>1</sup>Zauzolkova, 2015; <sup>1</sup>Malysheva, Malysheva, Kiyashko, et al., 2017); **Novosibirsk Oblast** (<sup>1</sup>Zhukov, 1980; <sup>1</sup>Gorbunova, 2007; <sup>1</sup>Perova and Gorbunova, 2007; <sup>1</sup>Koropachinskiy and Banaev, 2014); **Tomsk Oblast** (<sup>1</sup>Perova, 1972; <sup>1</sup>Kudashova, Gashkov, and Kutafjeva, 2013); **Yamalo-Nenets Autonomous Okrug** (<sup>1</sup>Tarchevskaya, 1990).

FAR EAST: **Amur Oblast** (<sup>1</sup>Taranina, 2005); **Jewish Autonomous Oblast** (<sup>1</sup>Bulakh, Govorova, Nazarova, and Vassiljeva, 2007; <sup>1</sup>Bau, Bulakh, and Govorova, 2011); **Khabarovsk Krai** (<sup>1</sup>Azbukina et al., 1986; <sup>1</sup>Bau, Bulakh, Zhuang, and Li, 2007; <sup>1</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Erofeeva and Bulakh, 2015a); **Magadan Oblast** (<sup>1</sup>Sazanova, 2005; <sup>1</sup>Sazanova, 2009a); **Primorsky Krai** (<sup>1</sup>Vassiljeva, 1972; <sup>1</sup>Vassiljeva, 1973; <sup>1</sup>Bunkina and Nazarova, 1978; <sup>1</sup>Wasser, 1980; <sup>1</sup>Azbukina et al., 1984; <sup>1</sup>Azbukina et al., 2006; <sup>1</sup>Bau, Bulakh, Zhuang, and Li, 2007; <sup>1</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Bulakh et al., 2016); **Sakhalin Oblast** (<sup>1</sup>Vassiljeva and Nazarova, 1972).

### ***Lepiota dryadicola* Kühner<sup>1</sup>**

≡ *Lepiota cortinarius* var. *dryadicola* (Kühner) Bon<sup>2</sup>

EASTERN EUROPE: **Yamalo-Nenets Autonomous Okrug** (<sup>2</sup>Peintner, 1998; <sup>1</sup>Karatygin, Nezdoininogo, Novozhilov, and Zhurbenko, 1999; <sup>2</sup>Nezdoininogo, 2001).

### ***Lepiota echinella* Quél. & G.E. Bernard<sup>1</sup>**

≡ *Cystoderma echinellum* (Quél. & G.E. Bernard) Singer<sup>2</sup> ≡ *Lepiota echinella* var. *echinella* Quél. & G.E. Bernard<sup>3</sup>  
= *Lepiota rhodorhiza* P.D. Orton<sup>4</sup> = *Lepiota setulosa* J.E. Lange<sup>5</sup>

EASTERN EUROPE: **Adygea** (<sup>2</sup>Singer, 1938b; <sup>2</sup>Vassiljeva, 1939); **Crimea** (<sup>5</sup>Dudka et al., 2004; <sup>5</sup>Sarkina, 2010b; <sup>5</sup>Sarkina, 2011); **Kaliningrad Oblast** (<sup>5</sup>Dedkov, Volodina, and Gubareva, 2007; <sup>5</sup>Volodina, 2007); **Karachay-Cherkess Republic** (<sup>3</sup>Malysheva and Svetasheva, 2011); **Lipetsk Oblast** (<sup>5</sup>Sarycheva, 1999; <sup>1</sup>Sarycheva et al., 2009; <sup>1</sup>Sarycheva, 2011; <sup>1</sup>Sarycheva, 2014a; <sup>1</sup>Sarycheva, 2016); **Moscow** (<sup>1</sup>Muchnik et al., 2020); **Novgorod Oblast** (<sup>4</sup>Kovalenko, Morozova, Nezdoininogo, and Popov, 2005; <sup>4</sup>Popov et al., 2013); **Orenburg Oblast** (<sup>5</sup>Desyatova, 2007; <sup>5</sup>Desyatova, 2008); **Penza Oblast** (<sup>5</sup>Ivanov, 1988a); **Ryazan Oblast** (<sup>5</sup>Volosnova, 1997; <sup>1</sup>Volosnova, 2014); **Saint Petersburg** (<sup>1</sup>Morozova and Smirnov, 2011); **Samara Oblast** (<sup>5</sup>Malysheva and Malysheva, 2006; <sup>3</sup>Malysheva and Malysheva, 2008); **Udmurt Republic** (<sup>1</sup>Kapitonov, 2013).

SIBERIA: **Tomsk Oblast** (<sup>5</sup>Perova and Gorbunova, 2001; <sup>1</sup>Kudashova, Gashkov, and Kutafjeva, 2013); **Altai** (<sup>5</sup>Zhukov, 1979).

FAR EAST: **Jewish Autonomous Oblast** (<sup>5</sup>Bulakh, Govorova, Nazarova, and Vassiljeva, 2007; <sup>1</sup>Bau, Bulakh, and Govorova, 2011); **Khabarovsk Krai** (<sup>4</sup>Azbukina et al., 1986; <sup>4</sup>Bau, Bulakh, and Govorova, 2011); **Primorsky Krai** (<sup>4</sup>Vassiljeva, 1972; <sup>4,5</sup>Vassiljeva, 1973; <sup>5</sup>Wasser, 1980).

### ***Lepiota erminea* (Fr.) P. Kumm.<sup>1</sup>**

= *Lepiota alba* (Bres.) Sacc.<sup>2</sup>

EASTERN EUROPE: **Belgorod Oblast** (<sup>2</sup>Bedenko, 1980); **Crimea** (<sup>2</sup>Sarkina, 2011; <sup>2</sup>Sarkina and Prydiuk, 2012; <sup>1</sup>Sarkina, 2020a); **Komi Republic** (<sup>1</sup>Palamarchuk, 2012); **Krasnodar Krai** (<sup>2</sup>Vassiljeva, 1939); **Lipetsk Oblast** (<sup>2</sup>Sarycheva, 1999; <sup>1</sup>Sarycheva et al., 2009; <sup>1</sup>Sarycheva, 2011; <sup>2</sup>Sarycheva, 2014a; <sup>1</sup>Sarycheva, 2016); **Moscow Oblast** (<sup>2</sup>Levitskaya, 1995c; <sup>2</sup>Levitskaya, 2013); **Orenburg Oblast** (<sup>2</sup>Korshikova, 2005; <sup>2</sup>Desyatova, 2007; <sup>2</sup>Desyatova, 2008); **Penza Oblast** (<sup>2</sup>Ivanov, 1988a; <sup>2</sup>Ivanov, 1999); **Perm Krai** (<sup>1</sup>Perevedentseva, 2008); **Pskov Oblast** (<sup>2</sup>Popov et al., 2013); **Rostov Oblast** (<sup>1</sup>Rebriev, 2018); **Ryazan Oblast** (<sup>2</sup>Malysheva and Volosnova, 2008; <sup>2</sup>Volosnova, 2014); **Samara Oblast** (<sup>2</sup>Malysheva and Malysheva, 2004; <sup>2</sup>Malysheva and Malysheva, 2008); **Sevastopol** (<sup>2</sup>Sarkina, 2016b; <sup>1</sup>Sarkina, 2020b); **Tatarstan** (<sup>1</sup>Potapov, 2016a); **Tula Oblast** (<sup>2</sup>Svetasheva, 2004; <sup>1</sup>Svetasheva, 2013); **Ulyanovsk**

**Oblast** (<sup>2</sup>Ilyukhin, 2010a; <sup>2</sup>Ilyukhin, 2010b); **Volgograd Oblast** (<sup>2</sup>Burova and Nezdoininogo, 1982); **Voronezh Oblast** (<sup>1</sup>Selochnik, 2015); **Arid territories** (<sup>1</sup>Rebriev, Rusanov, et al., 2012).

SIBERIA: **Altai Krai** (<sup>1</sup>Gorbunova, 2006; <sup>2</sup>Gorbunova and Perova, 2006; <sup>1</sup>Gorbunova, 2018a); **Altai Republic** (<sup>2</sup>Gorbunova, 1996; <sup>2</sup>Gorbunova, 1997; <sup>2</sup>Gorbunova, 2001b; <sup>2</sup>Gorbunova, 2003; <sup>1</sup>Gorbunova, 2006; <sup>1</sup>Gorbunova, 2010); **Irkutsk Oblast** (<sup>2</sup>Kutafjeva, 1983; <sup>2</sup>Petrov, 1991; <sup>2</sup>Petrov, 2008); **Khakassia** (<sup>1</sup>Gorbunova and Majnagasheva, 2013; <sup>1</sup>Zauzolkova, 2015; <sup>1</sup>Zauzolkova and Gorbunova, 2016); **Krasnoyarsk Krai** (<sup>1,2</sup>Beglyanova, 1972a; <sup>1,2</sup>Wasser, 1980; <sup>1</sup>Kosheleva and Kutafjeva, 2008a; <sup>1</sup>Malysheva, Malysheva, Kiyashko, et al., 2017; <sup>1</sup>Krom and Kapitonov, 2019); **Kurgan Oblast** (<sup>1</sup>Bystrushkin, 2016); **Novosibirsk Oblast** (<sup>2</sup>Perova, 1977; <sup>1</sup>Gorbunova, 2006; <sup>1</sup>Gorbunova, 2007; <sup>1</sup>Perova and Gorbunova, 2007; <sup>1</sup>Koropachinskiy and Banaev, 2014); **Tomsk Oblast** (<sup>1</sup>Kudashova, Gashkov, and Kutafjeva, 2013).

FAR EAST: **Amur Oblast** (<sup>1</sup>Taranina, 2005); **Magadan Oblast** (<sup>1</sup>Sazanova, 2009a); **Primorsky Krai** (<sup>1</sup>Vassiljeva, 1973; <sup>1</sup>Wasser, 1980; <sup>2</sup>Bau, Bulakh, Zhuang, and Li, 2007; <sup>1</sup>Bau, Bulakh, and Govorova, 2011).

### ***Lepiota farinolens* Bon & G. Rioussset**

SIBERIA: **Altai Republic** (Gorbunova, 2020).

### ***Lepiota felina* (Pers.) P. Karst.**

EASTERN EUROPE: **Karachay-Cherkess Republic** (Malysheva and Svetasheva, 2011; Onipchenko et al., 2013); **Komi Republic** (Palamarchuk, 2016a; Palamarchuk, 2016b); **Leningrad Oblast** (Thesleff, 1920; Kovalenko and Morozova, 1999a; Popov et al., 2007); **Novgorod Oblast** (Kalinina, 2019); **Penza Oblast** (Ivanov, 1989); **Perm Krai** (Perevedentseva, 2008); **Rostov Oblast** (Rusanov, Rebriev, and Bulgakov, 2018); **Ryazan Oblast** (Volosnova, 2014); **Sverdlovsk Oblast** (Marina, 2006); **Arid territories** (Rebriev, Rusanov, et al., 2012).

SIBERIA: **Altai Krai** (Gorbunova, 2018a); **Altai Republic** (Gorbunova, 2001b; Perova and Gorbunova, 2001); **Buryatia** (Nezdoininogo, 1973; Wasser, 1980; Petrov, 1991); **Irkutsk Oblast** (Petrov, 1986; Kutafjeva and Astapenko, 1988; Petrov, 1989; Petrov, 1991; Petrov, 2008); **Khanty-Mansi Autonomous Okrug** (Filippova and Bulyonkova, 2017a; Filippova and Bulyonkova, 2017b); **Krasnoyarsk Krai** (Beglyanova, 1972a; Wasser, 1980; Malysheva, Malysheva, Kiyashko, et al., 2017); **Novosibirsk Oblast** (Perova and Gorbunova, 2001; Perova and Gorbunova, 2007); **Tomsk Oblast** (Perova, 1972; Perova and Gorbunova, 2001; Kudashova, Gashkov, and Kutafjeva, 2013).

FAR EAST: **Khabarovsk Krai** (Azbukina et al., 1986; Azbukina et al., 1989; Bau, Bulakh, and Govorova, 2011; Erofeeva and Bulakh, 2015a); **Primorsky Krai** (Vassiljeva, 1972; Vassiljeva, 1973; Bunkina and Nazarova, 1978; Wasser, 1980; Azbukina et al., 1984; Bardunov et al., 2002; Azbukina et al., 2006; Bau, Bulakh, and Govorova, 2011; Bulakh et al., 2016).

### ***Lepiota grangei* (Eyre) Kühner**

EASTERN EUROPE: **Leningrad Oblast** (Geltman et al., 2018; Geltman, 2018b); **Moscow Oblast** (Voronina et al., 2014); **Perm Krai** (Perevedentseva, 2008).

SIBERIA: **Novosibirsk Oblast** (Gorbunova, 2012; Koropachinskiy and Banaev, 2014).

FAR EAST: **Primorsky Krai** (Vassiljeva, 1973; Bunkina and Nazarova, 1978; Wasser, 1980; Kovalenko and Nezdoininogo, 1989; Azbukina et al., 2006; Bau, Bulakh, and Govorova, 2011).

### ***Lepiota griseovirens* Maire**

SIBERIA: **Novosibirsk Oblast** (Koropachinskiy and Banaev, 2014).

FAR EAST: **Primorsky Krai** (Kovalenko and Nezdoininogo, 1989).

### ***Lepiota helveola* Bres.**

EASTERN EUROPE: **Crimea** (Sarkina, 2010b; Sarkina, 2014b; Sarkina and Mironova, 2015); **Kabardino-Balkarian Republic** (Krapivina et al., 2020); **Krasnodar Krai** (Vassiljeva, 1939); **Volgograd Oblast** (Burova and Nezdoininogo, 1982); **Arid territories** (Rebriev, Rusanov, et al., 2012).

SIBERIA: **Altai Krai** (Gorbunova and Perova, 2006; Gorbunova, 2006); **Irkutsk Oblast** (Petrov, 1991; Petrov, 2008).

### ***Lepiota hymenoderma* D.A. Reid**

EASTERN EUROPE: **Penza Oblast** (Ivanov, 1989).

***Lepiota ignivolvata* Bousset & Joss. ex Joss.**≡ *Lepiota ignivolvata* Bousset & Joss.<sup>1</sup>EASTERN EUROPE: **Crimea** (<sup>1</sup>Dudka et al., 2004; <sup>1</sup>Sarkina, 2011).***Lepiota kuehneri* Huijsman ex Hora<sup>1</sup>**≡ *Lepiota kuehneri* Huijsman<sup>2</sup>SIBERIA: **Altai Krai** (<sup>1</sup>Gorbunova, 2018a); **Altai Republic** (<sup>1</sup>Kovalenko, 1992; <sup>2</sup>Perova and Gorbunova, 2001).***Lepiota lepida* Guinb. & M. Bodin**FAR EAST: **Primorsky Krai** (Bulakh et al., 2016).***Lepiota lilacea* Bres.**EASTERN EUROPE: **Belgorod Oblast** (Bedenko, 1980); **Crimea** (Wasser, 1980; Sarkina, 2001; Dudka et al., 2004; Sarkina, 2010b; Sarkina, 2013; Sarkina, 2014b); **Rostov Oblast** (Rusanov, Rebriev, and Bulgakov, 2018); **Sevastopol** (Sarkina, 2016b); **Udmurt Republic** (Kapitonov, 2013); **Arid territories** (Rebriev, Rusanov, et al., 2012).FAR EAST: **Amur Oblast** (Kochunova, 2019); **Primorsky Krai** (Vassiljeva, 1973; Wasser, 1980).***Lepiota magnispora* Murrill<sup>1</sup>**= *Lepiota ventriosospora* D.A. Reid<sup>2</sup>EASTERN EUROPE: **Crimea** (<sup>2</sup>Dudka et al., 2004; <sup>2</sup>Sarkina, 2011; <sup>2</sup>Sarkina and Prydiuk, 2012); **Kaliningrad Oblast** (<sup>2</sup>Dedkov, Volodina, and Gubareva, 2007; <sup>2</sup>Volodina, 2007); **Kaluga Oblast** (<sup>2</sup>Sionova, 2012); **Karachay-Cherkess Republic** (<sup>2</sup>Kalamees and Botashev, 2000); **Karelia** (<sup>2</sup>Bondartseva et al., 2001; <sup>1</sup>Predtechenskaya and Ruokolainen, 2013; <sup>1</sup>Krutov et al., 2014); **Kirov Oblast** (<sup>1</sup>Kirillov, 2011; <sup>1</sup>Kirillov, Perevedentseva, and Egoshina, 2011); **Komi Republic** (<sup>1</sup>Palamarchuk, 2012; <sup>1</sup>Palamarchuk and Kirillov, 2017; <sup>1</sup>Palamarchuk, 2017); **Leningrad Oblast** (<sup>2</sup>Stolyarskaya, 1989; <sup>2</sup>Kovalenko and Morozova, 1999a; <sup>2</sup>Popov et al., 2007; <sup>1</sup>Zmitrovich et al., 2015); **Moscow Oblast** (<sup>2</sup>Levitskaya, 1995c; <sup>2</sup>Levitskaya, 2013; <sup>1</sup>Voronina et al., 2014); **Novgorod Oblast** (<sup>2</sup>Morozova, 2012; <sup>1</sup>Popov et al., 2013); **Orenburg Oblast** (<sup>2</sup>Korshikova, 2006; <sup>2</sup>Desyatova, 2007; <sup>2</sup>Desyatova, 2008); **Penza Oblast** (<sup>2</sup>Ivanov, 1982); **Perm Krai** (<sup>1</sup>Perevedentseva, 2008; <sup>1</sup>Belkovskaya et al., 2014); **Ryazan Oblast** (<sup>2</sup>Volosnova, 2005; <sup>1</sup>Volosnova, 2014); **Saint Petersburg** (<sup>2</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Morozova and Smirnov, 2011; <sup>1</sup>Morozova et al., 2020); **Sverdlovsk Oblast** (<sup>2</sup>Marina, 2006); **Tula Oblast** (<sup>2</sup>Svetasheva, 2004); **Tver Oblast** (<sup>2</sup>Kurochkin, 1993); **Udmurt Republic** (<sup>2</sup>Tychinin and Kuzmina, 2003); **Ulyanovsk Oblast** (<sup>2</sup>Ilyukhin, 2009; <sup>2</sup>Ilyukhin, 2010a); **Vologda Oblast** (<sup>1</sup>Kirillova, 2007); **Yaroslavl Oblast** (<sup>2</sup>Lazareva, 1998a; <sup>2</sup>Lazareva, 1998b); **Arid territories** (<sup>1</sup>Rebriev, Rusanov, et al., 2012).SIBERIA: **Altai Krai** (<sup>1</sup>Gorbunova, 2018a); **Altai Republic** (<sup>2</sup>Gorbunova, 2001b; <sup>2</sup>Perova and Gorbunova, 2001); **Buryatia** (<sup>2</sup>Nezdojminogo, 1970a; <sup>2</sup>Wasser, 1980; <sup>2</sup>Petrov, 1991); **Irkutsk Oblast** (<sup>2</sup>Kutafjeva and Astapenko, 1988; <sup>2</sup>Astapenko, 1990a; <sup>1</sup>Muzyka and Penzina, 2017); **Khakassia** (<sup>1</sup>Zauzolkova and Gorbunova, 2013; <sup>1</sup>Zauzolkova, 2015); **Khanty-Mansi Autonomous Okrug** (<sup>1</sup>Filippova, Bulyonkova, and Lapshina, 2015); **Krasnoyarsk Krai** (<sup>2</sup>Beglyanova, 1972a; <sup>2</sup>Wasser, 1980; <sup>1</sup>Zauzolkova, 2012; <sup>1</sup>Zauzolkova, 2015; <sup>1</sup>Malysheva, Malysheva, Kiyashko, et al., 2017; <sup>1</sup>Krom and Kapitonov, 2019); **Novosibirsk Oblast** (<sup>1</sup>Koropachinskiy and Banaev, 2014); **Tomsk Oblast** (<sup>2</sup>Kosheleva and Kutafjeva, 2004; <sup>1</sup>Kudashova, Gashkov, and Kutafjeva, 2013).FAR EAST: **Amur Oblast** (<sup>1</sup>Taranina, 2005); **Jewish Autonomous Oblast** (<sup>2</sup>Bulakh, Govorova, Nazarova, and Vassiljeva, 2007; <sup>1</sup>Bau, Bulakh, and Govorova, 2011); **Khabarovsk Krai** (<sup>1</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Bulakh, 2013; <sup>1</sup>Bogacheva, Bulakh, Bukharova, and Egorova, 2015; <sup>1</sup>Erofeeva and Bulakh, 2015a); **Primorsky Krai** (<sup>2</sup>Azbukina et al., 2006; <sup>1</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Bulakh et al., 2016).***Lepiota mesomorpha* (Bull.) Gillet**≡ *Agaricus mesomorphus* Bull.<sup>1</sup>EASTERN EUROPE: **Saint Petersburg** (<sup>1</sup>Weinmann, 1828; <sup>1</sup>Weinmann, 1836; <sup>1</sup>Weinmann, 1837).***Lepiota metulispora* (Berk. & Broome) Sacc.**FAR EAST: **Khabarovsk Krai** (Azbukina et al., 1986); **Primorsky Krai** (Vassiljeva, 1972; Vassiljeva, 1973; Bunkina and Nazarova, 1978; Azbukina et al., 1984).***Lepiota micropholis* (Berk. & Broome) Sacc.**SIBERIA: **Tomsk Oblast** (Kudashova, Gashkov, and Vaishlya, 2016a).



***Lepiota neophana* Morgan**

FAR EAST: **Primorsky Krai** (Vassiljeva, 1973; Bunkina and Nazarova, 1978; Azbukina et al., 2006; Bau, Bulakh, and Govorova, 2011).

***Lepiota ochraceofulva* P.D. Orton**

EASTERN EUROPE: **Moscow Oblast** (Voronina et al., 2014).

***Lepiota oreadiformis* Velen.**

EASTERN EUROPE: **Karelia** (Krutov et al., 2014); **Komi Republic** (Palamarchuk, 2012; Palamarchuk and Kirillov, 2017); **Moscow Oblast** (Wasser, 1980); **Novgorod Oblast** (Kovalenko, Morozova, Nezdjominogo, and Popov, 2005; Popov et al., 2013); **Penza Oblast** (Ivanov, 1985); **Rostov Oblast** (Morozova et al., 2008; Rebriev, 2018); **Ryazan Oblast** (Malysheva and Volosnova, 2008; Volosnova, 2014); **Tula Oblast** (Svetasheva, 2004); **Ulyanovsk Oblast** (Ilyukhin, 2010a); **Yaroslavl Oblast** (Lazareva, 1998a; Lazareva, 1998b); **Arid territories** (Rebriev, Rusanov, et al., 2012).

SIBERIA: **Altai Republic** (Gorbunova, 2001b; Perova and Gorbunova, 2001); **Irkutsk Oblast** (Petrov, 1991; Petrov, 2008); **Krasnoyarsk Krai** (Beglyanova, 1972a; Wasser, 1980); **Novosibirsk Oblast** (Perova, 1977; Perova and Gorbunova, 2001; Perova and Gorbunova, 2007); **Tomsk Oblast** (Perova and Gorbunova, 2001; Kudashova, Gashkov, and Kutafjeva, 2013).

FAR EAST: **Primorsky Krai** (Bulakh et al., 2016).

***Lepiota pallida* Locq. ex Bon & Candusso**

≡ *Lepiota pallida* Locq.<sup>1</sup>

EASTERN EUROPE: **Penza Oblast** (<sup>1</sup>Ivanov, 1999).

***Lepiota parvannulata* (Lasch) Gillet<sup>1</sup>**

≡ *Agaricus parvannulatus* Lasch<sup>2</sup>

EASTERN EUROPE: **Leningrad Oblast** (<sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Popov et al., 2007).

SIBERIA: **Krasnoyarsk Krai** (<sup>2</sup>Thümen, 1877; <sup>1</sup>Kalchbrenner, 1878; <sup>1</sup>Beglyanova, 1972a; <sup>1</sup>Zauzolkova, 2015).

FAR EAST: **Primorsky Krai** (<sup>1</sup>Bulakh et al., 2016).

***Lepiota psalion* Huijser & Vellinga**

SIBERIA: **Krasnoyarsk Krai** (Malysheva, Malysheva, Kiyashko, et al., 2017).

***Lepiota pseudofelina* J.E. Lange**

SIBERIA: **Krasnoyarsk Krai** (Beglyanova, 1972a; Wasser, 1980).

FAR EAST: **Primorsky Krai** (Vassiljeva, 1973; Bunkina and Nazarova, 1978; Wasser, 1980; Kovalenko and Nezdjominogo, 1989; Azbukina et al., 1990; Bardunov et al., 2002; Azbukina et al., 2006; Bau, Bulakh, and Govorova, 2011).

***Lepiota pseudolilacea* Huijsman<sup>1</sup>**

≡ *Lepiota pseudohelveola* Kühner<sup>2</sup> ≡ *Lepiota pseudohelveola* Kühner ex Hora<sup>3</sup>

EASTERN EUROPE: **Krasnodar Krai** (<sup>3</sup>Kovalenko, 1980a; <sup>3</sup>Kovalenko, 1980b); **Moscow Oblast** (<sup>3</sup>Levitskaya, 2006; <sup>3</sup>Levitskaya, 2013); **Penza Oblast** (<sup>3</sup>Ivanov, 1982).

SIBERIA: **Irkutsk Oblast** (<sup>3</sup>Petrov, 1991; <sup>3</sup>Petrov, 2008).

FAR EAST: **Jewish Autonomous Oblast** (<sup>2</sup>Bulakh, Govorova, Nazarova, and Vassiljeva, 2007; <sup>1</sup>Bau, Bulakh, and Govorova, 2011); **Khabarovsk Krai** (<sup>3</sup>Azbukina et al., 1986; <sup>1</sup>Bau, Bulakh, and Govorova, 2011); **Primorsky Krai** (<sup>3</sup>Vassiljeva, 1972; <sup>3</sup>Vassiljeva, 1973; <sup>3</sup>Bunkina and Nazarova, 1978; <sup>3</sup>Wasser, 1980; <sup>2</sup>Azbukina et al., 1984; <sup>3</sup>Azbukina et al., 2006; <sup>1</sup>Bau, Bulakh, and Govorova, 2011).

***Lepiota rufipes* Morgan**

EASTERN EUROPE: **Crimea** (Sarkina, 2010b); **Penza Oblast** (Ivanov, 1989); **Volgograd Oblast** (Burova and Nezdjominogo, 1980); **Arid territories** (Rebriev, Rusanov, et al., 2012).

FAR EAST: **Primorsky Krai** (Vassiljeva, 1972; Vassiljeva, 1973; Bunkina and Nazarova, 1978; Wasser, 1980; Azbukina et al., 2006; Bau, Bulakh, and Govorova, 2011).

***Lepiota saponella* M. Bodin & Priou**

EASTERN EUROPE: **Arid territories** (Rebriev, Rusanov, et al., 2012).

***Lepiota subalba* Kühner ex P.D. Orton<sup>1</sup>**

≡ *Lepiota subalba* Kühner<sup>2</sup>

EASTERN EUROPE: **Perm Krai** (<sup>1</sup>Perevedentseva, 2008); **Rostov Oblast** (<sup>1</sup>Rusanov, Rebriev, and Bulgakov, 2018); **Arid territories** (<sup>1</sup>Rebriev, Rusanov, et al., 2012).

SIBERIA: **Altai Republic** (<sup>1</sup>Gorbunova, 2001b; <sup>1</sup>Perova and Gorbunova, 2001); **Krasnoyarsk Krai** (<sup>1</sup>Beglyanova, 1972a).

FAR EAST: **Primorsky Krai** (<sup>1</sup>Vassiljeva, 1972; <sup>1</sup>Vassiljeva, 1973; <sup>1</sup>Bunkina and Nazarova, 1978; <sup>2</sup>Azbukina et al., 1984; <sup>1</sup>Azbukina et al., 2006; <sup>1</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Bulakh et al., 2016).

***Lepiota subgracilis* Kühner**

EASTERN EUROPE: **Belgorod Oblast** (Bedenko, 1980); **Moscow** (Burova, 1968); **Samara Oblast** (Malysheva and Malysheva, 2006; Malysheva and Malysheva, 2007).

SIBERIA: **Altai Republic** (Gorbunova, 2001a); **Krasnoyarsk Krai** (Beglyanova, 1972a).

FAR EAST: **Amur Oblast** (Azbukina et al., 1998); **Primorsky Krai** (Vassiljeva, 1972; Vassiljeva, 1973).

***Lepiota subincarnata* J.E. Lange**

EASTERN EUROPE: **Kaliningrad Oblast** (Atayev and Volodina, 2020); **Karelia** (Predtechenskaya, 2015); **Krasnodar Krai** (Shumkova, Krivorotov, and Gayday, 2018); **Moscow Oblast** (Levitskaya, 2013); **Pskov Oblast** (Popov et al., 2013); **Sevastopol** (Sarkina, 2016b); **Volgograd Oblast** (Burova and Nezdjominogo, 1980; Burova and Nezdjominogo, 1982); **Arid territories** (Rebriev, Rusanov, et al., 2012).

FAR EAST: **Primorsky Krai** (Vassiljeva, 1973; Bunkina and Nazarova, 1978; Azbukina et al., 2006; Bau, Bulakh, and Govorova, 2011; Bulakh et al., 2016; Bogacheva, Bulakh, Bukharova, and Egorova, 2020).

***Lepiota tomentella* J.E. Lange**

EASTERN EUROPE: **Karachay-Cherkess Republic** (Malysheva and Svetasheva, 2011); **Krasnodar Krai** (Kovalenko, 1980a; Kovalenko, 1980b; Litvinskaya, 2007; Litvinskaya, 2017); **Leningrad Oblast** (Nezdjominogo, 1967; Wasser, 1980; Kovalenko and Morozova, 1999a; Tzvelev, 2000; Popov et al., 2007; Geltman et al., 2018; Geltman, 2018b); **Perm Krai** (Perevedentseva, 2008); **Samara Oblast** (Malysheva and Malysheva, 2005b; Malysheva and Malysheva, 2007; Malysheva and Malysheva, 2008); **Tula Oblast** (Svetasheva, 2004; Shcherbakov, 2010); **Ulyanovsk Oblast** (Ilyukhin, 2010a).

SIBERIA: **Altai Krai** (Gorbunova, 2018a); **Altai Republic** (Kovalenko, 1992; Perova and Gorbunova, 2001); **Krasnoyarsk Krai** (Beglyanova, 1972a; Wasser, 1980); **Tomsk Oblast** (Perova and Gorbunova, 2001; Kudashova, Gashkov, and Kutafjeva, 2013).

FAR EAST: **Khabarovsk Krai** (Azbukina et al., 1986; Bau, Bulakh, and Govorova, 2011); **Primorsky Krai** (Vassiljeva, 1973; Bunkina and Nazarova, 1978; Wasser, 1980; Azbukina et al., 2006; Bau, Bulakh, and Govorova, 2011; Bogacheva, Bulakh, Bukharova, and Egorova, 2020).

***Lepiota virescens* (Speg.) Morgan**

FAR EAST: **Khabarovsk Krai** (Erofeeva and Bulakh, 2015a); **Primorsky Krai** (Vassiljeva, 1972; Vassiljeva, 1973; Bunkina and Nazarova, 1978; Azbukina et al., 2006; Bau, Bulakh, and Govorova, 2011).

***Lepiota wasserii* Bon**

= *Lepiota clypeolaria* var. *latispora* Kühner ex Wasser<sup>1</sup> = *Lepiota kuehneriana* Locq.<sup>2</sup> = *Lepiota subgracilis* Wasser<sup>3</sup>

EASTERN EUROPE: **Crimea** (<sup>3</sup>Sarkina, 2010b; <sup>3</sup>Sarkina, 2013); **Kaliningrad Oblast** (<sup>2</sup>Volodina, 2007); **Lipetsk Oblast** (<sup>3</sup>Sarycheva, 2016); **Orenburg Oblast** (<sup>1</sup>Desyatova, 2007); **Samara Oblast** (<sup>3</sup>Malysheva and Malysheva, 2008); **Volgograd Oblast** (<sup>1</sup>Burova and Nezdjominogo, 1980).

SIBERIA: **Krasnoyarsk Krai** (<sup>3</sup>Wasser, 1980).

FAR EAST: **Primorsky Krai** (<sup>3</sup>Wasser, 1980).

***Lepiota xanthophylla* P.D. Orton**

EASTERN EUROPE: **Perm Krai** (Perevedentseva, 2008).

FAR EAST: **Khabarovsk Krai** (Bau, Bulakh, and Govorova, 2011).

***Lepista amara* (Alb. & Schwein.) Maire**

≡ *Agaricus amarus* (Alb. & Schwein.) Fr.<sup>1</sup> ≡ *Leucopaxillus amarus* (Alb. & Schwein.) Kühner<sup>2</sup>

EASTERN EUROPE: **Crimea** (<sup>2</sup>Sarkina, 2001; <sup>2</sup>Dudka et al., 2004; <sup>2</sup>Sarkina, 2010b; <sup>2</sup>Sarkina, 2011; <sup>2</sup>Sarkina and Prydiuk, 2012; <sup>2</sup>Sarkina and Stavishenko, 2019); **Krasnodar Krai** (<sup>2</sup>Vassiljeva, 1939); **Leningrad Oblast** (<sup>2</sup>Kovalenko and Morozova, 1999a; <sup>2</sup>Popov et al., 2007); **Ryazan Oblast** (<sup>2</sup>Volosnova, 2014); **Saint Petersburg** (<sup>1</sup>Weinmann, 1836; <sup>1</sup>Weinmann, 1837); **Sverdlovsk Oblast** (<sup>2</sup>Stepanova and Sirko, 1977); **Tatarstan** (<sup>2</sup>Vassiljeva, 1977); **Udmurt Republic** (<sup>2</sup>Tychinin and Kuzmina, 2003).

SIBERIA: **Altai Krai** (<sup>2</sup>Gorbunova and Perova, 2006).

FAR EAST: **Khabarovsk Krai** (<sup>2</sup>Azbukina et al., 1986; <sup>2</sup>Azbukina et al., 1989); **Primorsky Krai** (<sup>2</sup>Vassiljeva, 1973; <sup>2</sup>Bunkina and Nazarova, 1978).

***Lepista densifolia* (J. Favre) Singer & Cléménçon**

EASTERN EUROPE: **Moscow Oblast** (Levitskaya, 1995b; Vishnevsky, 1998; Levitskaya, 2013; Voronina et al., 2014); **Perm Krai** (Perevedentseva, Shilkova, and Botalov, 2011); **Ryazan Oblast** (Volosnova, 1997; Volosnova, 2005; Volosnova, 2014); **Samara Oblast** (Malysheva and Malysheva, 2008).

SIBERIA: **Khakassia** (Zauzolkova, 2015; Zauzolkova and Gorbunova, 2016); **Tomsk Oblast** (Kudashova, Gashkov, and Kutafjeva, 2013).

FAR EAST: **Khabarovsk Krai** (Azbukina et al., 1989); **Primorsky Krai** (Vassiljeva, 1973; Bulakh et al., 2016).

***Lepista fasciculata* Harmaja**

SIBERIA: **Tomsk Oblast** (Kudashova, Gashkov, and Kutafjeva, 2013).

***Lepista glaucocana* (Bres.) Singer**

EASTERN EUROPE: **Leningrad Oblast** (Kalamees and Kovalenko, 1984; Kovalenko and Morozova, 1999a; Popov et al., 2007); **Moscow Oblast** (Sidorova, Alexandrova, and Voronina, 2017); **Orenburg Oblast** (Desyatova, 2007; Desyatova, 2008); **Saint Petersburg** (Morozova et al., 2020); **Sverdlovsk Oblast** (Stepanova and Sirko, 1977; Marina, 2006).

SIBERIA: **Irkutsk Oblast** (Petrov, 1984; Kutafjeva and Astapenko, 1988; Petrov, 1991; Petrov, 2008); **Khakassia** (Zauzolkova and Gorbunova, 2013; Zauzolkova, 2015); **Khanty-Mansi Autonomous Okrug** (Filippova, Bulyonkova, and Lapshina, 2015); **Krasnoyarsk Krai** (Beglyanova, 1972a; Krom and Kapitonov, 2019); **Novosibirsk Oblast** (Perova, 1982; Perova and Gorbunova, 2001; Perova and Gorbunova, 2007; Koropachinskiy and Banaev, 2014); **Tomsk Oblast** (Agaphonova, Kutafjeva, and Gashkov, 2007; Agaphonova, Kutafjeva, and Gashkov, 2009b; Kudashova, Gashkov, and Kutafjeva, 2013; Kudashova, Gashkov, and Vaishlya, 2016b).

FAR EAST: **Amur Oblast** (Taranina, 2005); **Jewish Autonomous Oblast** (Bulakh, Govorova, Nazarova, and Vassiljeva, 2007; Bau, Bulakh, and Govorova, 2011); **Khabarovsk Krai** (Azbukina et al., 1986; Bau, Bulakh, and Govorova, 2011); **Magadan Oblast** (Nazarova, 1976; Sazanova, 2005; Sazanova, 2009a); **Primorsky Krai** (Vassiljeva, 1972; Vassiljeva, 1973; Bunkina and Nazarova, 1978; Azbukina et al., 1984; Azbukina et al., 1990; Bardunov et al., 2002; Azbukina et al., 2006; Bau, Bulakh, and Govorova, 2011; Bulakh et al., 2016).

***Lepista irina* (Fr.) H.E. Bigelow<sup>1</sup>**

≡ *Lepista irina* var. *irina* (Fr.) H.E. Bigelow<sup>2</sup> ≡ *Tricholoma irinum* (Fr.) P. Kumm.<sup>3</sup>

EASTERN EUROPE: **Crimea** (<sup>1</sup>Sarkina and Mironova, 2015); **Kaliningrad Oblast** (<sup>2</sup>Dedkov, Volodina, and Gubareva, 2007); **Leningrad Oblast** (<sup>1</sup>Morozova and Kovalenko, 2000; <sup>1</sup>Popov et al., 2007); **Moscow Oblast** (<sup>3</sup>Gorlenko, Sidorova, and Sidorova, 1989; <sup>1</sup>Levitskaya, 1995b; <sup>1</sup>Vishnevsky, 1998; <sup>1</sup>Levitskaya, 2013); **Perm Krai** (<sup>1</sup>Perevedentseva, 2008; <sup>1</sup>Botalov, 2017); **Rostov Oblast** (<sup>1</sup>Morozova et al., 2008); **Ryazan Oblast** (<sup>1</sup>Volosnova, 1997; <sup>1</sup>Volosnova, 2014); **Saint Petersburg** (<sup>1</sup>Morozova, Kovalenko, Rebriev, and Malysheva, 2014; <sup>1</sup>Morozova et al., 2020); **Samara Oblast** (<sup>1</sup>Malysheva and Malysheva, 2005b; <sup>1</sup>Malysheva and Malysheva, 2008); **Tula Oblast** (<sup>1</sup>Svetasheva, 2001; <sup>1</sup>Svetasheva, 2004); **Udmurt Republic** (<sup>1</sup>Kapitonov, 2013); **Vologda Oblast** (<sup>1</sup>Kirillova, 2007; <sup>1</sup>Kirillova, 2009); **Voronezh Oblast** (<sup>3</sup>Bedenko, 1987); **Arid territories** (<sup>1</sup>Rebriev, Rusanov, et al., 2012).

SIBERIA: **Altai Krai** (<sup>1</sup>Gorbunova and Perova, 2006); **Irkutsk Oblast** (<sup>1,3</sup>Kutafjeva and Astapenko, 1987; <sup>1</sup>Astapenko, 1990b); **Khakassia** (<sup>1</sup>Zauzolkova and Gorbunova, 2013; <sup>1</sup>Zauzolkova, 2015); **Krasnoyarsk Krai** (<sup>1</sup>Zauzolkova, 2015); **Novosibirsk Oblast** (<sup>1</sup>Koropachinskiy and Banaev, 2014); **Tomsk Oblast** (<sup>1</sup>Kudashova, Gashkov, and Kutafjeva, 2013); **Tyva Republic** (<sup>1</sup>Gorbunova, 2015).

***Lepista luscina* (Fr.) Singer<sup>1</sup>**

≡ *Clitocybe luscina* (Fr.) P. Karst.<sup>2</sup>

EASTERN EUROPE: **Adygea** (<sup>2</sup>Vassiljeva, 1939); **Moscow Oblast** (<sup>1</sup>Levitskaya, 1995c; <sup>1</sup>Vishnevsky, 1998; <sup>1</sup>Levitskaya, 2013); **Novgorod Oblast** (<sup>1</sup>Kovalenko, Morozova, Nezdjminogo, and Popov, 2005; <sup>1</sup>Popov et al., 2013); **Penza Oblast** (<sup>1</sup>Ivanov, 1999); **Rostov Oblast** (<sup>1</sup>Vyshchepan, 1992; <sup>1</sup>Rusanov, Rebriev, and Bulgakov, 2018); **Samara Oblast** (<sup>1</sup>Malysheva and Malysheva, 2006; <sup>1</sup>Malysheva and Malysheva, 2008); **Tula Oblast** (<sup>1</sup>Svetasheva, 2004; <sup>1</sup>Svetasheva, 2005b; <sup>1</sup>Shcherbakov, 2010; <sup>1</sup>Svetasheva, 2013); **Ulyanovsk Oblast** (<sup>1</sup>Ilyukhin, 2009; <sup>1</sup>Ilyukhin, 2010a); **Arid territories** (<sup>1</sup>Rebriev, Rusanov, et al., 2012).

SIBERIA: **Altai Krai** (<sup>1</sup>Gorbunova and Perova, 2006); **Altai Republic** (<sup>1</sup>Gorbunova, 2019); **Buryatia** (<sup>1</sup>Nezdjminogo, 1970a; <sup>1</sup>Petrov, 1991); **Irkutsk Oblast** (<sup>1</sup>Petrov, 1984; <sup>1</sup>Petrov, 1991; <sup>1</sup>Petrov, 2008); **Khakassia** (<sup>1</sup>Zauzolkova, 2015; <sup>1</sup>Zauzolkova and Gorbunova, 2016); **Novosibirsk Oblast** (<sup>1</sup>Zaytseva, 1971; <sup>1</sup>Perova and Gorbunova, 2001; <sup>1</sup>Koropachinskiy and Banaev, 2014).

***Lepista metachroides* (Harmaja) Harmaja<sup>1</sup>**

≡ *Clitocybe metachroides* Harmaja<sup>2</sup>

EASTERN EUROPE: **Karelia** (<sup>2</sup>Krutov et al., 2014); **Leningrad Oblast** (<sup>2</sup>Stolyarskaya, 1989; <sup>2</sup>Kovalenko and Morozova, 1999a; <sup>2</sup>Popov et al., 2007; <sup>1</sup>Zmitrovich et al., 2015); **Samara Oblast** (<sup>2</sup>Malysheva and Malysheva, 2006; <sup>2</sup>Malysheva and Malysheva, 2007; <sup>2</sup>Malysheva and Malysheva, 2008).

***Lepista multififormis* (Romell) Gulden**

EASTERN EUROPE: **Yamalo-Nenets Autonomous Okrug** (Knudsen and Mukhin, 1998; Karatygin, Nezdjminogo, Novozhilov, and Zhurbenko, 1999; Nezdjminogo, 2001).

SIBERIA: **Krasnoyarsk Krai** (Nezdjminogo and Kuvaev, 1993; Nezdjminogo and Zhurbenko, 1996; Nezdjminogo, 1997a; Karatygin, Nezdjminogo, Novozhilov, and Zhurbenko, 1999); **Sakha Republic** (Karatygin, Nezdjminogo, Novozhilov, and Zhurbenko, 1999; Nezdjminogo, 2003).

***Lepista nuda* (Bull.) Cooke<sup>1</sup>**

≡ *Agaricus nudus* Bull.<sup>2</sup> ≡ *Rhodopaxillus nudus* (Bull.) Maire<sup>3</sup> ≡ *Tricholoma nudum* (Bull.) P. Kumm.<sup>4</sup> = *Lepista nuda* var. *lilacina* (Quél.) Singer<sup>5</sup>

EASTERN EUROPE: **Astrakhan Oblast** (<sup>1</sup>Pilipenko et al., 2014); **Belgorod Oblast** (<sup>1</sup>Bedenko, 1979a); **Bryansk Oblast** (<sup>1</sup>Kruglikov, 2007); **Chechen Republic** (<sup>1</sup>Taysumov, Krapivina, Umarov, and Astamirova, 2012; <sup>1</sup>Taysumov, Krapivina, and Kushaliev, 2016); **Chelyabinsk Oblast** (<sup>4</sup>Aleksandrovskaya and Lobanova, 1968); **Crimea** (<sup>3</sup>Zerova, 1962; <sup>1</sup>Sarkina, 2001; <sup>1</sup>Dudka et al., 2004; <sup>1</sup>Sarkina, 2010b; <sup>1</sup>Sarkina, 2011; <sup>1</sup>Sarkina and Prydiuk, 2012; <sup>1</sup>Sarkina, 2014b; <sup>1</sup>Sarkina, 2016a; <sup>1</sup>Sarkina and Stavishenko, 2019); **Kabardino-Balkarian Republic** (<sup>1</sup>Shkhagapsoev and Krapivina, 2003; <sup>1</sup>Shkhagapsoev and Krapivina, 2004); **Kaliningrad Oblast** (<sup>1</sup>Dedkov, Volodina, and Gubareva, 2007; <sup>1</sup>Volodina, 2007; <sup>1</sup>Atayev and Volodina, 2020); **Kaluga Oblast** (<sup>1</sup>Sionova, 2003; <sup>1</sup>Sionova, 2012); **Karelia** (<sup>1</sup>Bondartseva et al., 2001; <sup>1</sup>Ivanter and Kuznetsov, 2007; <sup>1</sup>Krutov et al., 2014; <sup>1</sup>Savelev and Kikeeva, 2018; <sup>1</sup>Kuznetsov, 2020); **Kirov Oblast** (<sup>1</sup>Kirillov, 2011; <sup>1</sup>Kirillov, Perevedentseva, and Egoshina, 2011); **Komi Republic** (<sup>1</sup>Taskaev, 2009; <sup>1</sup>Palamarchuk and Kirillov, 2017); **Krasnodar Krai** (<sup>1</sup>Kovalenko, 1980a; <sup>1</sup>Kovalenko, 1980b; <sup>1</sup>Shumkova, Krivorotov, and Gayday, 2018); **Kursk Oblast** (<sup>1</sup>Bedenko, 1987; <sup>1</sup>Baranov, 2002); **Leningrad Oblast** (<sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Popov et al., 2007); **Lipetsk Oblast** (<sup>1</sup>Alferova, 1977; <sup>1</sup>Rtishcheva, 1999; <sup>1</sup>Sarycheva, 1999; <sup>1</sup>Afanasyev, Rtishcheva, and Starodubtseva, 2007; <sup>1</sup>Sarycheva et al., 2009; <sup>1</sup>Sarycheva, 2011; <sup>1</sup>Sarycheva, 2014a; <sup>1</sup>Sarycheva, 2016; <sup>1</sup>Sarycheva, Starodubtseva, and Sapelnikova, 2017); **Mari El Republic** (<sup>1</sup>Prokhorov, 2007); **Mordovia** (<sup>3</sup>Kuznetsov, 1960; <sup>1</sup>Ivoilov and Bolshakov, 2011a); **Moscow** (<sup>4</sup>Hennings, 1905; <sup>2</sup>Mosolov, 1906); **Moscow Oblast** (<sup>1</sup>Gorlenko, Sidorova, and Sidorova, 1989; <sup>1</sup>Levitskaya, 1995b; <sup>1</sup>Vishnevsky, 1998; <sup>1</sup>Levitskaya, 2013; <sup>1</sup>Voronina et al., 2014; <sup>1</sup>Sidorova, Alexandrova, and Voronina, 2017); **North Ossetia** (<sup>1</sup>Nikolayev, 2001); **Orenburg Oblast** (<sup>1</sup>Desyatova, 2008); **Penza Oblast** (<sup>1</sup>Ivanov, 1981a); **Perm Krai** (<sup>1</sup>Perevedentseva, 2008); **Rostov Oblast** (<sup>1</sup>Rusanov et al., 2004; <sup>1</sup>Zmitrovich et al., 2008); **Ryazan Oblast** (<sup>1</sup>Volosnova, 1997; <sup>1</sup>Volosnova, 2014); **Saint Petersburg** (<sup>2</sup>Weinmann, 1828; <sup>2</sup>Weinmann, 1836; <sup>2</sup>Weinmann, 1837; <sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Psurtseva, Kiyashko, Gachkova, and Belova, 2007; <sup>1</sup>Morozova and Smirnov, 2011; <sup>1</sup>Morozova et al., 2020); **Samara Oblast** (<sup>1</sup>Malysheva and Malysheva, 2004; <sup>1</sup>Malysheva and Malysheva, 2008); **Sevastopol** (<sup>1</sup>Sarkina, 2016b; <sup>1</sup>Sarkina, 2020c); **Sverdlovsk Oblast** (<sup>1</sup>Stepanova and Sirko, 1977; <sup>1</sup>Marina, 2006); **Tatarstan** (<sup>1</sup>Vassiljeva, 1977; <sup>1</sup>Potapov, 2015b); **Tula Oblast** (<sup>1</sup>Svetasheva, 2001; <sup>1</sup>Svetasheva, 2004); **Tver Oblast** (<sup>1</sup>Kurochkin, 1993); **Udmurt Republic** (<sup>1</sup>Tychinin, 1990; <sup>1</sup>Tychinin and Kuzmina, 2003); **Ulyanovsk Oblast** (<sup>1</sup>Ilyukhin, 2009; <sup>1</sup>Ilyukhin, 2010a); **Volgograd Oblast** (<sup>1</sup>Dudka and Vedeneyev, 2014); **Vologda Oblast** (<sup>4</sup>Kutova, 1957; <sup>1</sup>Kirillova, 2007; <sup>1</sup>Kirillova, 2009); **Voronezh Oblast**

(<sup>1</sup>Bedenko, 1987; <sup>1</sup>Rtishcheva, 1999; <sup>1</sup>Afanasyev, Rtishcheva, and Starodubtseva, 2007; <sup>1</sup>Selochnik, 2015; <sup>1</sup>Sarycheva, Starodubtseva, and Sapelnikova, 2017; <sup>1</sup>Kohergina and Furmenkova, 2019); **Yaroslavl Oblast** (<sup>1</sup>Lazareva, 1998a); **Arid territories** (<sup>1</sup>Rebriev, Rusanov, et al., 2012).

SIBERIA: **Altai Krai** (<sup>1</sup>Gorbunova and Perova, 2006); **Altai Republic** (<sup>3</sup>Singer, 1943; <sup>1</sup>Gorbunova, 1997; <sup>1</sup>Gorbunova, 2001b; <sup>1</sup>Perova and Gorbunova, 2001); **Irkutsk Oblast** (<sup>1</sup>Kutafjeva, 1983; <sup>1</sup>Gorbunova and Stepantsova, 2015; <sup>1</sup>Muzyka and Penzina, 2017); **Khakassia** (<sup>1</sup>Zauzolkova, 2015); **Khanty-Mansi Autonomous Okrug** (<sup>1</sup>Makarova, Makarov, Zvyagina, and Bobrikov, 2015); **Krasnoyarsk Krai** (<sup>1</sup>Beglyanova, 1972a; <sup>5</sup>Krom and Kapitonov, 2019); **Novosibirsk Oblast** (<sup>1</sup>Perova and Gorbunova, 2001; <sup>1</sup>Koropachinskiy and Banaev, 2014); **Sverdlovsk Oblast** (<sup>1</sup>Stepanova and Sirko, 1977); **Tomsk Oblast** (<sup>1</sup>Perova, 1972; <sup>4</sup>Milovidova, 1980; <sup>1</sup>Perova and Gorbunova, 2001; <sup>1</sup>Kudashova, Gashkov, and Kutafjeva, 2013; <sup>1</sup>Vaishlya et al., 2017).

FAR EAST: **Amur Oblast** (<sup>1</sup>Gordienko, Petrova, and Tarasov, 1981; <sup>1</sup>Kochunova, 2019); **Khabarovsk Krai** (<sup>1</sup>Erofeeva and Bulakh, 2015a); **Primorsky Krai** (<sup>1</sup>Vassiljeva, 1972; <sup>1</sup>Vassiljeva, 1973; <sup>1</sup>Shalapugina, 1976; <sup>1</sup>Bunkina and Nazarova, 1978; <sup>1</sup>Azbukina et al., 1990; <sup>1</sup>Bardunov et al., 2002; <sup>1</sup>Azbukina et al., 2006; <sup>1</sup>Bau, Bulakh, Zhuang, and Li, 2007; <sup>1</sup>Bau, Bulakh, and Govorova, 2011).

### ***Lepista ovispora* (J.E. Lange) Gulden<sup>1</sup>**

≡ *Lyophyllum ovisporum* (J.E. Lange) D.A. Reid<sup>2</sup>

EASTERN EUROPE: **Moscow Oblast** (<sup>2</sup>Gorlenko, Sidorova, and Sidorova, 1989; <sup>1</sup>Levitskaya, 1998; <sup>1</sup>Vishnevsky, 1998; <sup>1</sup>Levitskaya, 2013).

### ***Lepista panaeolus* (Fr.) P. Karst.<sup>1</sup>**

≡ *Tricholoma panaeolus* (Fr.) Quél.<sup>2</sup> = *Rhodopaxillus lepista* (Fr.) Singer<sup>3</sup>

EASTERN EUROPE: **Kaliningrad Oblast** (<sup>1</sup>Dedkov, Volodina, and Gubareva, 2007); **Karachay-Cherkess Republic** (<sup>2</sup>Hollós, 1902; <sup>2</sup>Hollós, 1905; <sup>2</sup>Filarszky, 1907).

SIBERIA: **Altai Republic** (<sup>3</sup>Singer, 1943); **Khanty-Mansi Autonomous Okrug** (<sup>1</sup>Zvyagina and Baykalova, 2017).

### ***Lepista personata* (Fr.) Cooke<sup>1</sup>**

≡ *Agaricus personatus* Fr.<sup>2</sup> ≡ *Tricholoma personatum* (Fr.) P. Kumm.<sup>3</sup> = *Lepista saeva* (Fr.) P.D. Orton<sup>4</sup> = *Lepista saeva* var. *anserina* (Fr.) Kalamees & A.I. Ivanov<sup>5</sup> = *Lepista saeva* var. *saeva* (Fr.) P.D. Orton<sup>6</sup> = *Rhodopaxillus saevus* (Fr.) Maire<sup>7</sup>

EASTERN EUROPE: **Belgorod Oblast** (<sup>1</sup>Bedenko, 1980); **Bryansk Oblast** (<sup>4</sup>Kruglikov, 2007); **Chechen Republic** (<sup>1</sup>Taysumov, Krapivina, and Kushaliyeva, 2016); **Crimea** (<sup>4</sup>Sarkina, 2001; <sup>4</sup>Dudka et al., 2004; <sup>4</sup>Sarkina and Prydiuk, 2012; <sup>1</sup>Sarkina and Mironova, 2015); **Kabardino-Balkarian Republic** (<sup>1,7</sup>Shkhagapsoev and Krapivina, 2003); **Kaliningrad Oblast** (<sup>1</sup>Dedkov, Volodina, and Gubareva, 2007; <sup>1</sup>Volodina, 2007; <sup>1</sup>Atayev and Volodina, 2020); **Kursk Oblast** (<sup>1</sup>Bedenko, 1987; <sup>1</sup>Baranov, 2002); **Leningrad Oblast** (<sup>3</sup>Thesleff, 1920; <sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Popov et al., 2007); **Lipetsk Oblast** (<sup>1</sup>Rtishcheva, 1999; <sup>4</sup>Afanasyev, Rtishcheva, and Starodubtseva, 2007; <sup>1</sup>Sarycheva et al., 2009; <sup>1</sup>Sarycheva, 2011; <sup>1</sup>Sarycheva, 2014a; <sup>1</sup>Sarycheva, 2016; <sup>1</sup>Sarycheva, Starodubtseva, and Sapelnikova, 2017); **Mordovia** (<sup>1</sup>Ivoilov and Bolshakov, 2011a); **Moscow Oblast** (<sup>1</sup>Levitskaya, 1995b; <sup>1</sup>Vishnevsky, 1998; <sup>1</sup>Levitskaya, 2013); **North Ossetia** (<sup>1</sup>Nikolayev, 2001); **Penza Oblast** (<sup>1</sup>Ivanov, 1992; <sup>5,6</sup>Kalamees and Ivanov, 1992); **Perm Krai** (<sup>1</sup>Stepanova and Sirko, 1977; <sup>1</sup>Perevedentseva, 2008); **Rostov Oblast** (<sup>1</sup>Vyshchepan, 1992; <sup>4</sup>Morozova et al., 2008; <sup>1</sup>Rebriev and Svetasheva, 2010; <sup>1</sup>Shiryayev, Rebriev, and Knudsen, 2017; <sup>1</sup>Rebriev, 2018; <sup>1</sup>Rusanov, Rebriev, and Bulgakov, 2018); **Ryazan Oblast** (<sup>4</sup>Volosnova, 2005; <sup>1</sup>Volosnova, 2014); **Saint Petersburg** (<sup>2</sup>Weinmann, 1828; <sup>2</sup>Weinmann, 1836; <sup>2</sup>Weinmann, 1837); **Sevastopol** (<sup>1</sup>Sarkina, 2016b; <sup>1</sup>Sarkina, 2020b; <sup>1</sup>Sarkina, 2020c); **Sverdlovsk Oblast** (<sup>1</sup>Stepanova and Sirko, 1977); **Tatarstan** (<sup>1</sup>Potapov, 2016b); **Tula Oblast** (<sup>1</sup>Svetasheva, 2004); **Udmurt Republic** (<sup>7</sup>Tychinin and Kuzmina, 2003; <sup>1</sup>Kapitonov, 2008); **Volgograd Oblast** (<sup>1</sup>Burova and Nezdoyminogo, 1982; <sup>1</sup>Dudka and Vedeneyev, 2014); **Voronezh Oblast** (<sup>1</sup>Bedenko, 1987; <sup>1</sup>Rtishcheva, 1999; <sup>4</sup>Afanasyev, Rtishcheva, and Starodubtseva, 2007; <sup>1</sup>Sarycheva, Starodubtseva, and Sapelnikova, 2017); **Arid territories** (<sup>1</sup>Rebriev, Rusanov, et al., 2012).

SIBERIA: **Altai Krai** (<sup>1</sup>Gorbunova and Perova, 2006); **Khakassia** (<sup>1</sup>Zauzolkova and Gorbunova, 2013; <sup>1</sup>Zauzolkova, 2015); **Krasnoyarsk Krai** (<sup>2</sup>Thümen, 1877; <sup>3</sup>Kalchbrenner, 1878; <sup>1</sup>Beglyanova, 1972a; <sup>1</sup>Kosheleva and Kutafjeva, 2008a; <sup>1</sup>Zauzolkova, 2015; <sup>1</sup>Malysheva, Malysheva, Kiyashko, et al., 2017); **Novosibirsk Oblast** (<sup>1</sup>Perova and Gorbunova, 2001; <sup>1</sup>Koropachinskiy and Banaev, 2014); **Tomsk Oblast** (<sup>1</sup>Perova and Gorbunova, 2001; <sup>1</sup>Kudashova, Gashkov, and Kutafjeva, 2013; <sup>1</sup>Vaishlya et al., 2017).

***Lepista pseudoectypa* (M. Lange) Gulden**

SIBERIA: **Sakha Republic** (Nezdojminogo, 1997a; Karatygin, Nezdojminogo, Novozhilov, and Zhurbenko, 1999).

***Lepista regularis* (Peck) Harmaja<sup>1</sup>**

≡ *Clitocybe regularis* Peck<sup>2</sup>

EASTERN EUROPE: **Karelia** (<sup>1</sup>Bondartseva et al., 2001; <sup>1</sup>Krutov et al., 2014); **Novgorod Oblast** (<sup>1</sup>Svetasheva et al., 2017).

SIBERIA: **Khanty-Mansi Autonomous Okrug** (<sup>1</sup>Zvyagina and Baykalova, 2017; <sup>2</sup>Filippova and Bulyonkova, 2017a; <sup>2</sup>Filippova and Bulyonkova, 2017b).

***Lepista rickenii* Singer<sup>1</sup>**

≡ *Tricholoma rickenii* (Singer) Pilát<sup>2</sup>

EASTERN EUROPE: **Saint Petersburg** (<sup>1</sup>Singer, 1948a; <sup>1</sup>Kovalenko and Morozova, 1999a); **Tula Oblast** (<sup>1</sup>Shcherbakov, 2010).

SIBERIA: **Buryatia** (<sup>2</sup>Nezdojminogo, 1970a; <sup>2</sup>Petrov, 1991).

***Lepista sordida* (Schumach.) Singer<sup>1</sup>**

≡ *Tricholoma sordidum* (Schumach.) P. Kumm.<sup>2</sup> = *Lepista sordida* var. *lilacea* (Quél.) Bon<sup>3</sup>

EASTERN EUROPE: **Belgorod Oblast** (<sup>1</sup>Psurtseva, Belova, and Ryabusheva, 2003); **Crimea** (<sup>1</sup>Sarkina, 2010b; <sup>1</sup>Sarkina, 2014b; <sup>1</sup>Sarkina and Mironova, 2015); **Kaliningrad Oblast** (<sup>1</sup>Atayev and Volodina, 2020); **Karachay-Cherkess Republic** (<sup>1</sup>Onipchenko and Kaverina, 1989; <sup>1</sup>Kalamees and Botashev, 2000); **Komi Republic** (<sup>1</sup>Palamarchuk and Kirillov, 2017); **Leningrad Oblast** (<sup>2</sup>Thesleff, 1920; <sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Popov et al., 2007; <sup>1</sup>Zmitrovich et al., 2015); **Lipetsk Oblast** (<sup>1</sup>Sarycheva et al., 2009; <sup>1</sup>Sarycheva, 2011; <sup>1</sup>Sarycheva, 2016); **Moscow Oblast** (<sup>1</sup>Vishnevsky, 1998; <sup>1</sup>Sidorova, Alexandrova, and Voronina, 2017); **Penza Oblast** (<sup>1</sup>Ivanov, 1981a; <sup>3</sup>Ivanov, 1999); **Perm Krai** (<sup>1</sup>Perevedentseva, 2008); **Rostov Oblast** (<sup>1</sup>Rusanov, Rebriev, and Bulgakov, 2018); **Ryazan Oblast** (<sup>1</sup>Volosnova, 2005; <sup>1</sup>Volosnova, 2014); **Saint Petersburg** (<sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Morozova, Kovalenko, Rebriev, and Malysheva, 2014); **Saratov Oblast** (<sup>1</sup>Nagumanov, 2015); **Sevastopol** (<sup>1</sup>Sarkina, 2016b); **Sverdlovsk Oblast** (<sup>1</sup>Marina, 2006); **Tatarstan** (<sup>1</sup>Potapov, 2015b; <sup>1</sup>Potapov, 2016b); **Tver Oblast** (<sup>1</sup>Kurochkin, 1993); **Udmurt Republic** (<sup>1</sup>Tychinin and Kuzmina, 2003); **Voronezh Oblast** (<sup>1</sup>Selochnik, 2015); **Arid territories** (<sup>1</sup>Rebriev, Rusanov, et al., 2012).

SIBERIA: **Altai Republic** (<sup>1</sup>Gorbunova, 2001a); **Irkutsk Oblast** (<sup>1</sup>Kutafjeva, 1983; <sup>1</sup>Petrov, 1984; <sup>1</sup>Muzyka, 2002; <sup>1</sup>Petrov, 2008); **Khakassia** (<sup>1</sup>Gorbunova and Majnagasheva, 2013); **Khanty-Mansi Autonomous Okrug** (<sup>1</sup>Filippova and Bulyonkova, 2017a; <sup>1</sup>Filippova and Bulyonkova, 2017b); **Krasnoyarsk Krai** (<sup>1</sup>Beglyanova, 1972a; <sup>1</sup>Zauzolkova, 2015); **Novosibirsk Oblast** (<sup>1</sup>Nozdrenko, 1970; <sup>1</sup>Perova, 1977; <sup>1</sup>Perova and Gorbunova, 2001; <sup>1</sup>Koropachinskiy and Banaev, 2014); **Tomsk Oblast** (<sup>1</sup>Agaphonova, Kutafjeva, and Gashkov, 2007; <sup>1</sup>Agaphonova, Kutafjeva, and Gashkov, 2009b; <sup>1</sup>Kudashova, Gashkov, and Kutafjeva, 2013).

FAR EAST: **Amur Oblast** (<sup>1</sup>Kochunova, 2019); **Magadan Oblast** (<sup>1</sup>Rebriev, Bulakh, Sazanova, and Shiryaev, 2020); **Primorsky Krai** (<sup>1</sup>Vassiljeva, 1973; <sup>1</sup>Bunkina and Nazarova, 1978; <sup>1</sup>Azbukina et al., 2006; <sup>1</sup>Bau, Bulakh, Zhuang, and Li, 2007; <sup>1</sup>Bau, Bulakh, and Govorova, 2011).

***Lepista subconnexa* (Murrill) Harmaja**

EASTERN EUROPE: **Komi Republic** (Palamarchuk, 2016a; Palamarchuk, 2016b).

***Lepista tomentosa* M.M. Moser**

EASTERN EUROPE: **Chelyabinsk Oblast** (Psurtseva, Kiyashko, Gachkova, and Belova, 2007).

***Lepista vernicosa* (Fr.) Bon**

≡ *Clitocybe vernicosa* (Fr.) Gillet<sup>1</sup>

EASTERN EUROPE: **Moscow Oblast** (<sup>1</sup>Vishnevsky, 1998).

SIBERIA: **Sayans** (<sup>1</sup>Saccardo, 1896).

***Leratiomyces laetissimus* (Hauskn. & Singer) Borov., J. Stríbrný, Noordel., Gryndler & Oborník**

≡ *Psilocybe laetissima* Hauskn. & Singer<sup>1</sup>

EASTERN EUROPE: **Rostov Oblast** (<sup>1</sup>Morozova et al., 2008); **Arid territories** (<sup>1</sup>Rebriev, Rusanov, et al., 2012).

***Leratiomyces magnivelaris* (Peck) Bridge & Spooner<sup>1</sup>**

≡ *Psilocybe magnivelaris* (Peck) Høil.<sup>2</sup> ≡ *Stropharia magnivelaris* Peck<sup>3</sup> ≡ *Stropholoma magnivelaris* (Peck) Ryman<sup>4</sup>

EASTERN EUROPE: **Komi Republic** (<sup>2</sup>Palamarchuk (Bobretsova), 2009; <sup>3</sup>Palamarchuk, 2012); **Leningrad Oblast** (<sup>2</sup>Popov et al., 2007); **Saint Petersburg** (<sup>2</sup>Kovalenko and Morozova, 1999a; <sup>2</sup>Morozova, 1999; <sup>2</sup>Psurtseva, Kiyashko, Gachkova, and Belova, 2007); **Yamalo-Nenets Autonomous Okrug** (<sup>2</sup>Nezdojminogo, 1994; <sup>2</sup>Karatygin, Nezdojminogo, Novozhilov, and Zhurbenko, 1999).

SIBERIA: **Khanty-Mansi Autonomous Okrug** (<sup>4</sup>Shepeleva et al., 2014); **Krasnoyarsk Krai** (<sup>1</sup>Krom and Kapitonov, 2019); **Sakha Republic** (<sup>2</sup>Nezdojminogo, 1994; <sup>2</sup>Nezdojminogo, 1997a; <sup>2</sup>Karatygin, Nezdojminogo, Novozhilov, and Zhurbenko, 1999); **Yamalo-Nenets Autonomous Okrug** (<sup>4</sup>Kapitonov, 2015).

***Leratiomyces percevalii* (Berk. & Broome) Bridge & Spooner<sup>1</sup>**

≡ *Psilocybe percevalii* (Berk. & Broome) P.D. Orton<sup>2</sup> ≡ *Stropharia percevalii* (Berk. & Broome) Sacc.<sup>3</sup>

EASTERN EUROPE: **Karelia** (<sup>3</sup>Freindling, 1949; <sup>2</sup>Bondartseva et al., 2001; <sup>1</sup>Krutov et al., 2014); **Vologda Oblast** (<sup>2</sup>Kirillova, 2007); **Yamalo-Nenets Autonomous Okrug** (<sup>3</sup>Kazantseva, 1966); **Arid territories** (<sup>1</sup>Rebriev, Rusanov, et al., 2012).

***Leratiomyces squamosus* (Pers.) Bridge & Spooner<sup>1</sup>**

≡ *Agaricus squamosus* Pers.<sup>2</sup> ≡ *Leratiomyces squamosus* var. *squamosus* (Pers.) Bridge & Spooner<sup>3</sup> ≡ *Psalliota squamosa* (Pers.) P. Kumm.<sup>4</sup> ≡ *Psilocybe squamosa* (Pers.) P.D. Orton<sup>5</sup> ≡ *Stropharia squamosa* (Pers.) Qué.<sup>6</sup> = *Psilocybe thrausta* (Kalchbr.) Bon<sup>7</sup> = *Stropharia thrausta* (Kalchbr.) Sacc.<sup>8</sup>

EASTERN EUROPE: **Belgorod Oblast** (<sup>6</sup>Bedenko, 1980); **Crimea** (<sup>6</sup>Moser, 1993; <sup>6</sup>Sarkina, 2001; <sup>6</sup>Dudka et al., 2004; <sup>6</sup>Sarkina, 2011; <sup>5</sup>Sarkina and Prydiuk, 2012); **Kaliningrad Oblast** (<sup>5</sup>Dedkov, Volodina, and Gubareva, 2007); **Karelia** (<sup>3</sup>Krutov et al., 2014); **Kursk Oblast** (<sup>7</sup>Baranov, 2002); **Leningrad Oblast** (<sup>6</sup>Thesleff, 1920; <sup>5</sup>Kovalenko and Morozova, 1999a; <sup>5</sup>Morozova and Kovalenko, 2000; <sup>5</sup>Tzvelev, 2000; <sup>5</sup>Popov et al., 2007; <sup>1</sup>Zmitrovich et al., 2015; <sup>5</sup>Geltman et al., 2018; <sup>5</sup>Kalinina, 2018); **Moscow** (<sup>6</sup>Hennings, 1905; <sup>4</sup>Mosolov, 1906; <sup>1</sup>Muchnik et al., 2020); **Murmansk Oblast** (<sup>8</sup>Mikhailovskii, 1975a; <sup>6</sup>Mikhailovskii, 1975b; <sup>5</sup>Karatygin, Nezdojminogo, Novozhilov, and Zhurbenko, 1999); **Novgorod Oblast** (<sup>5</sup>Morozova, 2012; <sup>5</sup>Popov et al., 2013); **Perm Krai** (<sup>6,8</sup>Perevedentseva, 2008; <sup>3</sup>Belkovskaya et al., 2014); **Saint Petersburg** (<sup>2</sup>Weinmann, 1836; <sup>5</sup>Kovalenko and Morozova, 1999a); **Sevastopol** (<sup>5</sup>Sarkina, 2016b); **Sverdlovsk Oblast** (<sup>5</sup>Marina, 2006); **Tula Oblast** (<sup>8</sup>Svetasheva, 2004; <sup>7</sup>Svetasheva, 2005b; <sup>7</sup>Shcherbakov, 2010).

SIBERIA: **Altai Krai** (<sup>1</sup>Gorbunova, 2018a); **Altai Republic** (<sup>6</sup>Gorbunova, 2008); **Khakassia** (<sup>6</sup>Beglyanova, 1972a); **Krasnoyarsk Krai** (<sup>6</sup>Beglyanova, 1972a); **Novosibirsk Oblast** (<sup>3</sup>Koropachinskiy and Banaev, 2014).

FAR EAST: **Chukotka Autonomous Okrug** (<sup>6,8</sup>Sazanova, 1993); **Magadan Oblast** (<sup>6</sup>Nazarova, 1976; <sup>6</sup>Sazanova, 1996; <sup>6</sup>Sazanova, 2005; <sup>1</sup>Sazanova, 2009a; <sup>3</sup>Sazanova, 2011; <sup>1</sup>Sazanova, 2016).

***Leucoagaricus americanus* (Peck) Vellinga<sup>1</sup>**

≡ *Leucocoprinus americanus* (Peck) Redhead<sup>2</sup> = *Leucocoprinus bresadolae* (Schulzer) M.M. Moser<sup>3</sup> = *Leucocoprinus bresadolae* (Schulzer) Wasser<sup>4</sup>

EASTERN EUROPE: **Adygea** (<sup>3</sup>Sopina, 2001a); **Crimea** (<sup>1</sup>Sarkina, 2014b); **Perm Krai** (<sup>1</sup>Perevedentseva, 2008).

SIBERIA: **Altai Republic** (<sup>1</sup>Gorbunova, 2019).

FAR EAST: **Amur Oblast** (<sup>1</sup>Kochunova, 2019); **Primorsky Krai** (<sup>4</sup>Wasser, 1980; <sup>4</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>4</sup>Bardunov et al., 2002; <sup>3</sup>Azbukina et al., 2006; <sup>1</sup>Kozhevnikov, 2008; <sup>2</sup>Bau, Bulakh, and Govorova, 2011).

***Leucoagaricus badhamii* (Berk. & Broome) Singer<sup>1</sup>**

≡ *Leucocoprinus badhamii* (Berk. & Broome) Locq.<sup>2</sup> = *Lepiota meleagroides* Huijsman<sup>3</sup>

EASTERN EUROPE: **Krasnodar Krai** (<sup>2</sup>Vassiljeva, 1939); **Rostov Oblast** (<sup>2</sup>Morozova et al., 2008; <sup>2</sup>Fedyaeva, 2014); **Samara Oblast** (<sup>2</sup>Malysheva and Malysheva, 2005b; <sup>1</sup>Malysheva and Malysheva, 2008); **Stavropol Krai** (<sup>1</sup>Potapov, 2013); **Tatarstan** (<sup>1</sup>Potapov, 2013; <sup>2</sup>Potapov, Galeyev, and Zhukov, 2013; <sup>2</sup>Potapov, 2015b; <sup>2</sup>Nazirov, Gorshkov, Ivanov, and Rogova, 2016); **Udmurt Republic** (<sup>1</sup>Kapitonov, 2008); **Volgograd Oblast** (<sup>2</sup>Rebriev, Popov, Pridyuk, and Svetasheva, 2014); **Arid territories** (<sup>2</sup>Rebriev, Rusanov, et al., 2012).

FAR EAST: **Primorsky Krai** (<sup>3</sup>Vassiljeva, 1972; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>2</sup>Bardunov et al., 2002; <sup>2</sup>Azbukina et al., 2006; <sup>2</sup>Bau, Bulakh, and Govorova, 2011).

***Leucoagaricus barssii* (Zeller) Vellinga<sup>1</sup>**= *Leucoagaricus macrorrhizus* Locq. ex E. Horak<sup>2</sup>EASTERN EUROPE: **Rostov Oblast** (<sup>1</sup>Fedyeva, 2014; <sup>1</sup>Rebriev, 2018); **Volgograd Oblast** (<sup>2</sup>Burova and Nezdojminogo, 1982; <sup>1</sup>Rebriev, Popov, Pridyuk, and Svetasheva, 2014); **Arid territories** (<sup>1</sup>Rebriev, Rusanov, et al., 2012).SIBERIA: **Tomsk Oblast** (<sup>1</sup>Kudashova, Gashkov, and Kutafjeva, 2013; <sup>1</sup>Kudashova, Gashkov, and Vaishlya, 2016b).***Leucoagaricus bohusii* (Wasser) Bon**≡ *Leucocoprinus bohusii* Wasser<sup>1</sup>EASTERN EUROPE: **Rostov Oblast** (<sup>1</sup>Vyshchepan, 1992); **Arid territories** (<sup>1</sup>Rebriev, Rusanov, et al., 2012).***Leucoagaricus brunneocingulatus* (P.D. Orton) Bon**EASTERN EUROPE: **Volgograd Oblast** (Rebriev, Popov, Pridyuk, and Svetasheva, 2014; Rebriev, Popov, and Svetasheva, 2015; Svetasheva, 2015).***Leucoagaricus carneifolius* (Gillet) Wasser**EASTERN EUROPE: **Crimea** (Sarkina, 2014b; Sarkina and Mironova, 2015); **Rostov Oblast** (Rebriev, 2018); **Sevastopol** (Sarkina, 2016b); **Volgograd Oblast** (Rebriev, Popov, Pridyuk, and Svetasheva, 2014); **Arid territories** (Rebriev, Rusanov, et al., 2012).SIBERIA: **Tomsk Oblast** (Agaphonova, Kutafjeva, and Gashkov, 2009b; Kudashova, Gashkov, and Kutafjeva, 2013; Kudashova, Gashkov, and Vaishlya, 2016b).***Leucoagaricus cinerascens* (Quél.) Bon & Boiffard**EASTERN EUROPE: **Crimea** (Sarkina and Mironova, 2015); **Rostov Oblast** (Fedyeva, 2014; Rusanov, Rebriev, and Bulgakov, 2018); **Sevastopol** (Sarkina, 2016b); **Tula Oblast** (Svetasheva, 2004); **Volgograd Oblast** (Rebriev, Popov, Pridyuk, and Svetasheva, 2014); **Arid territories** (Rebriev, Rusanov, et al., 2012).SIBERIA: **Tomsk Oblast** (Kudashova, Gashkov, and Kutafjeva, 2013; Kudashova, Gashkov, and Vaishlya, 2016b).***Leucoagaricus cinereolilacinus* (Barbier) Bon & Boiffard**≡ *Leucoagaricus leucothites* f. *cinereolilacina* (Barbier) Wasser<sup>1</sup>EASTERN EUROPE: **Penza Oblast** (<sup>1</sup>Ivanov, 1988a).***Leucoagaricus coerulescens* (Peck) J.F. Liang, Zhu L. Yang & J. Xu**FAR EAST: **Primorsky Krai** (Bulakh et al., 2016).***Leucoagaricus croceovelutinus* (Bon & Boiffard) Bon**EASTERN EUROPE: **Volgograd Oblast** (Rebriev, Popov, Pridyuk, and Svetasheva, 2014; Rebriev, Popov, and Svetasheva, 2015; Svetasheva, 2015).***Leucoagaricus georginae* (W.G. Sm.) Candusso<sup>1</sup>**≡ *Lepiota georginae* (W.G. Sm.) Sacc.<sup>2</sup> ≡ *Leucocoprinus georginae* (W.G. Sm.) M.M. Moser<sup>3</sup>FAR EAST: **Primorsky Krai** (<sup>2</sup>Vassiljeva, 1972; <sup>2</sup>Vassiljeva, 1973; <sup>2</sup>Bunkina and Nazarova, 1978; <sup>3</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>3</sup>Azbukina et al., 2006; <sup>1</sup>Bau, Bulakh, and Govorova, 2011).***Leucoagaricus lateritiopurpureus* (Lj.N. Vassiljeva) E.F. Malysheva, Svetash. & Bulakh<sup>1</sup>**≡ *Lepiota lateritiopurpurea* Lj.N. Vassiljeva<sup>2</sup>FAR EAST: **Jewish Autonomous Oblast** (<sup>2</sup>Erofeeva and Bulakh, 2015b); **Primorsky Krai** (<sup>2</sup>Vassiljeva, 1972; <sup>2</sup>Vassiljeva, 1973; <sup>2</sup>Bunkina and Nazarova, 1978; <sup>2</sup>Azbukina et al., 1984; <sup>2</sup>Azbukina et al., 1990; <sup>2</sup>Bardunov et al., 2002; <sup>2</sup>Azbukina et al., 2006; <sup>2</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Malysheva, Svetasheva, and Bulakh, 2013).***Leucoagaricus leucothites* (Vittad.) Wasser<sup>1</sup>**≡ *Lepiota leucothites* (Vittad.) P.D. Orton<sup>2</sup> ≡ *Leucoagaricus leucothites* var. *leucothites* (Vittad.) Wasser<sup>3</sup> = *Lepiota holosericea* Gillet<sup>4</sup> = *Lepiota naucina* (Fr.) P. Kumm.<sup>5</sup> = *Leucoagaricus holosericeus* (Gillet) M.M. Moser<sup>6</sup> = *Leucoagaricus naucinus* (Fr.) Singer<sup>7</sup>



EASTERN EUROPE: **Belgorod Oblast** (<sup>2</sup>Bedenko, 1980); **Crimea** (<sup>5</sup>Zerova, 1962; <sup>1</sup>Wasser, 1980; <sup>2</sup>Sarkina, 2001; <sup>1</sup>Dudka et al., 2004; <sup>1</sup>Sarkina, 2006; <sup>1</sup>Sarkina, 2010b; <sup>1</sup>Sarkina, 2011; <sup>1</sup>Sarkina and Prydiuk, 2012; <sup>1,6</sup>Sarkina and Mironova, 2015); **Ivanovo Oblast** (<sup>1</sup>Wasser, 1980; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990); **Kabardino-Balkarian Republic** (<sup>7</sup>Shkhagapsoev and Krapivina, 2004); **Kaliningrad Oblast** (<sup>7</sup>Dedkov, Volodina, and Gubareva, 2007; <sup>7</sup>Volodina, 2007; <sup>1</sup>Atayev and Volodina, 2020); **Krasnodar Krai** (<sup>7</sup>Kovalenko, 1980a; <sup>1</sup>Kovalenko, 1980b); **Kursk Oblast** (<sup>1</sup>Baranov, 2002); **Leningrad Oblast** (<sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Popov et al., 2007); **Lipetsk Oblast** (<sup>1</sup>Sarycheva, 1999; <sup>1</sup>Sarycheva et al., 2009; <sup>1</sup>Sarycheva, 2011; <sup>1</sup>Sarycheva, 2014a; <sup>1</sup>Sarycheva, 2016; <sup>1</sup>Sarycheva, Starodubtseva, and Sapelnikova, 2017); **Mordovia** (<sup>1</sup>Bolshakov and Ivoilov, 2012a; <sup>1</sup>Bolshakov and Ivoilov, 2012b); **Moscow Oblast** (<sup>1</sup>Wasser, 1980; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1</sup>Levitskaya, 2013); **Orenburg Oblast** (<sup>6</sup>Desyatova, 2008); **Penza Oblast** (<sup>7</sup>Ivanov, 1982; <sup>1</sup>Psurtseva, Kiyashko, Gachkova, and Belova, 2007); **Perm Krai** (<sup>4</sup>Naoumoff, 1915); **Pskov Oblast** (<sup>1</sup>Morozova et al., 2015); **Rostov Oblast** (<sup>1</sup>Vyshchepan, 1992; <sup>1</sup>Rusanov et al., 2004; <sup>1,7</sup>Zmitrovich et al., 2008; <sup>1</sup>Fedyaeva, 2014; <sup>1</sup>Rusanov, Rebriev, and Bulgakov, 2018); **Ryazan Oblast** (<sup>1</sup>Malysheva and Volosnova, 2008; <sup>1</sup>Volosnova, 2014); **Saint Petersburg** (<sup>1</sup>Morozova, Kovalenko, Rebriev, and Malysheva, 2014; <sup>1</sup>Morozova et al., 2020); **Sevastopol** (<sup>1</sup>Sarkina and Belyaeva, 2013; <sup>1</sup>Sarkina, 2016b; <sup>1</sup>Sarkina, 2020b); **Smolensk Oblast** (<sup>5</sup>Jaczewski, 1896; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990); **Sverdlovsk Oblast** (<sup>1</sup>Shiryayeva, 2015a; <sup>1</sup>Shiryayeva and Palamarchuk, 2019); **Tatarstan** (<sup>1</sup>Potapov, Galeyev, and Zhukov, 2013; <sup>1</sup>Potapov, 2015b); **Udmurt Republic** (<sup>1</sup>Kapitonov, 2008); **Volgograd Oblast** (<sup>1</sup>Stauchan and Vedeneyev, 2015); **Vologda Oblast** (<sup>6</sup>Wasser, 1980; <sup>6</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990); **Arid territories** (<sup>3</sup>Rebriev, Rusanov, et al., 2012).

SIBERIA: **Altai Krai** (<sup>1</sup>Gorbunova and Perova, 2006; <sup>1</sup>Gorbunova, 2006); **Altai Republic** (<sup>1</sup>Wasser, 1980; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1</sup>Gorbunova, 2006); **Khakassia** (<sup>1</sup>Zauzolkova, 2015; <sup>1</sup>Zauzolkova and Gorbunova, 2016); **Novosibirsk Oblast** (<sup>1</sup>Gorbunova, 2006; <sup>1</sup>Gorbunova, 2007).

FAR EAST: **Amur Oblast** (<sup>1</sup>Kochunova, 2019); **Primorsky Krai** (<sup>4</sup>Naoumoff, 1914; <sup>7</sup>Vassiljeva, 1973; <sup>1,6</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>7</sup>Bau, Bulakh, and Govorova, 2011).

#### ***Leucoagaricus littoralis* (Menier) Bon & Boiffard**

= *Leucoagaricus sublittoralis* (Kühner ex Hora) Singer<sup>1</sup>

EASTERN EUROPE: **Crimea** (<sup>1</sup>Sarkina and Mironova, 2015); **Rostov Oblast** (<sup>1</sup>Fedyaeva, 2014); **Arid territories** (<sup>1</sup>Rebriev, Rusanov, et al., 2012).

#### ***Leucoagaricus menieri* (Sacc.) Singer**

EASTERN EUROPE: **Volgograd Oblast** (Svetasheva, 2015).

#### ***Leucoagaricus moseri* (Wasser) Wasser**

EASTERN EUROPE: **Rostov Oblast** (Vyshchepan, 1992; Fedyaeva, 2014); **Volgograd Oblast** (Burova and Nezdojminogo, 1980); **Arid territories** (Rebriev, Rusanov, et al., 2012).

#### ***Leucoagaricus nympharum* (Kalchbr.) Bon<sup>1</sup>**

≡ *Agaricus nympharum* Kalchbr.<sup>2</sup> ≡ *Lepiota nympharum* (Kalchbr.) Kalchbr.<sup>3</sup> = *Macrolepiota puellaris* (Fr.) M.M. Moser<sup>4</sup>

EASTERN EUROPE: **Astrakhan Oblast** (<sup>4</sup>Pilipenko et al., 2014); **Bashkortostan** (<sup>4</sup>Mirkin, 2011); **Belgorod Oblast** (<sup>4</sup>Bedenko, 1980); **Bryansk Oblast** (<sup>4</sup>Fedotov, 2004; <sup>4</sup>Kruglikov, 2007; <sup>1</sup>Bulokhov, Panasenko, Semenishchenkov, and Sitnikova, 2016); **Crimea** (<sup>4</sup>Sarkina, 2001; <sup>4</sup>Sarkina, Prydiuk, and Heluta, 2003; <sup>4</sup>Dudka et al., 2004; <sup>1</sup>Sarkina, 2010b; <sup>1</sup>Sarkina, 2013; <sup>1</sup>Sarkina and Stavishenko, 2019); **Kaliningrad Oblast** (<sup>4</sup>Dedkov, Volodina, and Gubareva, 2007; <sup>4</sup>Dedkov and Grishanov, 2010); **Karachay-Cherkess Republic** (<sup>1</sup>Malysheva and Svetasheva, 2011); **Mordovia** (<sup>1</sup>Silaeva et al., 2013; <sup>1</sup>Ivoilov and Bolshakov, 2014; <sup>1</sup>Silaeva, 2017); **Perm Krai** (<sup>1</sup>Perevedentseva, 2008); **Saratov Oblast** (<sup>4</sup>Shlyakhtin, 2006); **Sevastopol** (<sup>1</sup>Sarkina, 2020c); **Tatarstan** (<sup>1</sup>Potapov, Galeyev, and Zhukov, 2013; <sup>1</sup>Potapov, 2015b; <sup>1</sup>Nazirov, Gorshkov, Ivanov, and Rogova, 2016); **Udmurt Republic** (<sup>4</sup>Tychinin and Kuzmina, 2003); **Arid territories** (<sup>1</sup>Rebriev, Rusanov, et al., 2012).

SIBERIA: **Altai Republic** (<sup>4</sup>Gorbunova, 2001b; <sup>4</sup>Perova and Gorbunova, 2001; <sup>1</sup>Psurtseva, Kiyashko, Gachkova, and Belova, 2007; <sup>4</sup>Gorbunova, 2008; <sup>1</sup>Gorbunova, 2017b; <sup>1</sup>Maneev, Achimova, Sedelnikova, and Gorbunova, 2017); **Kemerovo Oblast** (<sup>1</sup>Kupriyanov, 2012); **Khakassia** (<sup>1</sup>Zauzolkova, 2015; <sup>1</sup>Zauzolkova and Gorbunova, 2016); **Krasnoyarsk Krai** (<sup>2</sup>Thümen, 1878; <sup>3</sup>Kalchbrenner, 1878; <sup>3</sup>Beglyanova, 1972a; <sup>1</sup>Malysheva, Malysheva, Kiyashko, et al., 2017; <sup>1</sup>Krom and Kapitonov, 2019); **Tyva Republic** (<sup>1</sup>Ondar and Shaulo, 2018).

FAR EAST: **Khabarovsk Krai** (<sup>4</sup>Azbukina et al., 1986; <sup>4</sup>Azbukina et al., 1989; <sup>4</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1</sup>Voronov, 2008; <sup>1</sup>Bau, Bulakh, and Govorova, 2011; <sup>4</sup>Ermolin et al., 2018); **Primorsky**

**Krai** (<sup>4</sup>Vassiljeva, 1973; <sup>4</sup>Shalapugina, 1976; <sup>4</sup>Bunkina and Nazarova, 1978; <sup>4</sup>Wasser, 1980; <sup>4</sup>Azbukina et al., 1984; <sup>4</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>4</sup>Azbukina et al., 2006; <sup>1</sup>Kozhevnikov, 2008; <sup>1</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Bulakh et al., 2016); **Sakhalin Oblast** (<sup>4</sup>Vassiljeva and Nazarova, 1972; <sup>4</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>4</sup>Eremin, 2005; <sup>1</sup>Eremin, 2019).

***Leucoagaricus pilatianus* (Demoulin) Bon & Boiffard**

EASTERN EUROPE: **Rostov Oblast** (Fedyaeva, 2014; Rusanov, Rebriev, and Bulgakov, 2018); **Samara Oblast** (Malysheva and Malysheva, 2006; Malysheva and Malysheva, 2007; Malysheva and Malysheva, 2008); **Arid territories** (Rebriev, Rusanov, et al., 2012).

***Leucoagaricus proximus* E.F. Malysheva, Svetash. & Bulakh**

FAR EAST: **Primorsky Krai** (Malysheva, Svetasheva, and Bulakh, 2013).

***Leucoagaricus purpureolilacinus* Huijsman**

EASTERN EUROPE: **Volgograd Oblast** (Rebriev, Popov, and Svetasheva, 2015; Svetasheva, 2015).

***Leucoagaricus roseilividus* (Murrill) E. Ludw.**

= *Leucoagaricus marriageae* (D.A. Reid) Bon<sup>1</sup>

EASTERN EUROPE: **Volgograd Oblast** (<sup>1</sup>Rebriev, Popov, and Svetasheva, 2015; <sup>1</sup>Svetasheva, 2015).

***Leucoagaricus rubrobrunneus* E.F. Malysheva, Svetash. & Bulakh**

FAR EAST: **Jewish Autonomous Oblast** (Erofeeva and Bulakh, 2015b); **Primorsky Krai** (Malysheva, Svetasheva, and Bulakh, 2013; Bulakh et al., 2016).

***Leucoagaricus rubrotinctus* (Peck) Singer**

FAR EAST: **Jewish Autonomous Oblast** (Bulakh, 2008; Bogacheva et al., 2018); **Primorsky Krai** (Bulakh, 2008; Bau, Bulakh, and Govorova, 2011; Malysheva, Svetasheva, and Bulakh, 2013; Bogacheva et al., 2018).

***Leucoagaricus serenus* (Fr.) Bon & Boiffard<sup>1</sup>**

≡ *Lepiota serena* (Fr.) Sacc.<sup>2</sup>

FAR EAST: **Primorsky Krai** (<sup>2</sup>Vassiljeva, 1973; <sup>2</sup>Bunkina and Nazarova, 1978; <sup>2</sup>Wasser, 1980; <sup>2</sup>Azbukina et al., 1990; <sup>2</sup>Bardunov et al., 2002; <sup>2</sup>Azbukina et al., 2006; <sup>1</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Bulakh et al., 2016; <sup>1</sup>Bogacheva, Bulakh, Bukharova, and Egorova, 2020).

***Leucoagaricus sericifer* (Locq.) Vellinga<sup>1</sup>**

≡ *Lepiota sericifera* (Locq.) Locq.<sup>2</sup> ≡ *Sericeomyces sericifer* (Locq.) Døssing<sup>3</sup>

EASTERN EUROPE: **Rostov Oblast** (<sup>1</sup>Morozova et al., 2008; <sup>1</sup>Fedyaeva, 2014); **Samara Oblast** (<sup>3</sup>Malysheva and Malysheva, 2005b; <sup>1</sup>Malysheva and Malysheva, 2008); **Ulyanovsk Oblast** (<sup>1</sup>Ilyukhin, 2010a; <sup>1</sup>Ilyukhin, 2010b); **Arid territories** (<sup>1</sup>Rebriev, Rusanov, et al., 2012).

SIBERIA: **Krasnoyarsk Krai** (<sup>2</sup>Beglyanova, 1972a); **Tomsk Oblast** (<sup>1</sup>Kudashova, Gashkov, and Kutafjeva, 2013).

FAR EAST: **Primorsky Krai** (<sup>1</sup>Bulakh et al., 2016).

***Leucoagaricus subcretaceus* Bon**

≡ *Leucoagaricus leucothites* var. *subcretaceus* (Bon) P. Roux & Guy García<sup>1</sup>

EASTERN EUROPE: **Arid territories** (<sup>1</sup>Rebriev, Rusanov, et al., 2012).

***Leucoagaricus subvolvatus* (Malençon & Bertault) Bon**

EASTERN EUROPE: **Volgograd Oblast** (Svetasheva, 2015).

***Leucoagaricus vassiljevae* E.F. Malysheva, Svetash. & Bulakh**

FAR EAST: **Primorsky Krai** (Malysheva, Svetasheva, and Bulakh, 2013; Bulakh et al., 2016).

***Leucoagaricus wichanskyi* (Pilát) Bon & Boiffard**

EASTERN EUROPE: **Crimea** (Sarkina, 2010b; Sarkina, 2013); **Rostov Oblast** (Fedyaeva, 2014; Rusanov, Rebriev, and Bulgakov, 2018); **Arid territories** (Rebriev, Rusanov, et al., 2012).

***Leucocalocybe mongolica* (S. Imai) X.D. Yu & Y.J. Yao<sup>1</sup>**≡ *Tricholoma mongolicum* S. Imai<sup>2</sup>SIBERIA: **Altai Republic** (<sup>2</sup>Singer, 1939; <sup>2</sup>Singer, 1943); **Irkutsk Oblast** (<sup>2</sup>Petrov, 1991; <sup>2</sup>Petrov, 2008); **Tomsk Oblast** (<sup>1</sup>Vaishlya et al., 2017).***Leucocoprinus birnbaumii* (Corda) Singer**EASTERN EUROPE: **Belgorod Oblast** (Bedenko, 1980); **Crimea** (Sarkina, 2014b); **Murmansk Oblast** (Wasser, 1980; Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990); **Perm Krai** (Perevedentseva, 2008); **Rostov Oblast** (Rusanov, Rebriev, and Bulgakov, 2018); **Arid territories** (Rebriev, Rusanov, et al., 2012).SIBERIA: **Tomsk Oblast** (Kudashova, Gashkov, and Kutafjeva, 2013; Kudashova, Gashkov, and Vaishlya, 2016b).FAR EAST: **Primorsky Krai** (Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990).***Leucocoprinus brebissonii* (Godey) Locq.**SIBERIA: **Altai Republic** (Gorbunova, 2006); **Irkutsk Oblast** (Petrov, 1991; Petrov, 2008).***Leucocoprinus cepistipes* (Sowerby) Pat.<sup>1</sup>**≡ *Agaricus cepistipes* Sowerby<sup>2</sup> ≡ *Lepiota cepistipes* (Sowerby) P. Kumm.<sup>3</sup>EASTERN EUROPE: **Belgorod Oblast** (<sup>1</sup>Bedenko, 1980); **Kaliningrad Oblast** (<sup>1</sup>Dedkov, Volodina, and Gubareva, 2007); **Leningrad Oblast** (<sup>3</sup>Thesleff, 1920; <sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Popov et al., 2007); **Saint Petersburg** (<sup>2</sup>Weinmann, 1836; <sup>2</sup>Weinmann, 1837).SIBERIA: **Khakassia** (<sup>1</sup>Beglyanova, 1972a; <sup>3</sup>Beglyanova, 1972b); **Krasnoyarsk Krai** (<sup>1</sup>Wasser, 1980).FAR EAST: **Amur Oblast** (<sup>1</sup>Kochunova, 2019).***Leucocoprinus cretaceus* (Bull.) Locq.<sup>1</sup>**≡ *Agaricus cretaceus* Bull.<sup>2</sup> ≡ *Leucoagaricus cretaceus* (Bull.) M.M. Moser<sup>3</sup> ≡ *Leucocoprinus cretatus* Locq. ex Lanzoni<sup>4</sup>EASTERN EUROPE: **Moscow Oblast** (<sup>3</sup>Levitskaya, 1995c); **Perm Krai** (<sup>1</sup>Perevedentseva, 2008); **Rostov Oblast** (<sup>4</sup>Vyshchepan, 1992; <sup>1</sup>Rusanov, Rebriev, and Bulgakov, 2018); **Saint Petersburg** (<sup>2</sup>Weinmann, 1837); **Arid territories** (<sup>1</sup>Rebriev, Rusanov, et al., 2012).***Leucocoprinus cygneus* (J.E. Lange) Bon<sup>1</sup>**≡ *Lepiota cygnea* J.E. Lange<sup>2</sup>SIBERIA: **Irkutsk Oblast** (<sup>2</sup>Petrov, 1991; <sup>2</sup>Petrov, 2008).FAR EAST: **Khabarovsk Krai** (<sup>2</sup>Azbukina et al., 1986; <sup>1</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Bogacheva et al., 2018); **Primorsky Krai** (<sup>2</sup>Vassiljeva, 1972; <sup>2</sup>Vassiljeva, 1973; <sup>2</sup>Bunkina and Nazarova, 1978; <sup>2</sup>Wasser, 1980; <sup>2</sup>Azbukina et al., 1984; <sup>2</sup>Azbukina et al., 2006; <sup>1</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Bulakh et al., 2016; <sup>1</sup>Bogacheva et al., 2018; <sup>1</sup>Bogacheva, Bulakh, Bukharova, and Egorova, 2020).***Leucocoprinus ianthinus* (Sacc.) P. Mohr**EASTERN EUROPE: **Volgograd Oblast** (Rebriev, Popov, Pridyuk, and Svetasheva, 2014; Rebriev, Popov, and Svetasheva, 2015; Svetasheva, 2015).***Leucocoprinus melanoloma* (Singer) Singer**≡ *Hiatula melanoloma* Singer<sup>1</sup>EASTERN EUROPE: **Saint Petersburg** (<sup>1</sup>Singer, 1938b; <sup>1</sup>Singer, 1943).***Leucocoprinus minutulus* Singer**EASTERN EUROPE: **Krasnodar Krai** (Vassiljeva, 1939; Singer, 1941).***Leucocoprinus straminellus* (Bagl.) Narducci & Caroti<sup>1</sup>**= *Leucocoprinus denudatus* (Sacc.) Singer<sup>2</sup>EASTERN EUROPE: **Leningrad Oblast** (<sup>2</sup>Wasser, 1980; <sup>2</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>2</sup>Kovalenko and Morozova, 1999a; <sup>2</sup>Popov et al., 2007).SIBERIA: **Altai Republic** (<sup>2</sup>Wasser, 1980; <sup>2</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990).FAR EAST: **Primorsky Krai** (<sup>2</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1</sup>Bau, Bulakh, and Govorova, 2011).

***Leucocortinarius bulbiger* (Alb. & Schwein.) Singer<sup>1</sup>**

≡ *Agaricus bulbiger* Alb. & Schwein.<sup>2</sup> ≡ *Armillaria bulbigera* (Alb. & Schwein.) P. Kumm.<sup>3</sup>

EASTERN EUROPE: **Belgorod Oblast** (<sup>1</sup>Bedenko, 1980); **Chelyabinsk Oblast** (<sup>1</sup>Sirko and Stepanova, 1977; <sup>1</sup>Stepanova and Sirko, 1977; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdjominogo, 1990; <sup>1</sup>Nezdjominogo, 1996); **Crimea** (<sup>1</sup>Prydiuk, 2002; <sup>1</sup>Dudka et al., 2004; <sup>1</sup>Sarkina, 2011; <sup>1</sup>Sarkina and Prydiuk, 2012); **Kaliningrad Oblast** (<sup>1</sup>Dedkov, Volodina, and Gubareva, 2007; <sup>1</sup>Dedkov and Grishanov, 2010; <sup>1</sup>Atayev and Volodina, 2020); **Kaluga Oblast** (<sup>1</sup>Sionova, 2006); **Karelia** (<sup>1</sup>Bondartseva et al., 2001; <sup>1</sup>Krutov et al., 2014); **Kirov Oblast** (<sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdjominogo, 1990; <sup>1</sup>Nezdjominogo, 1996; <sup>1</sup>Kirillov, 2011; <sup>1</sup>Kirillov, Perevedentseva, and Egoshina, 2011); **Komi Republic** (<sup>1</sup>Dyogteva, 2019; <sup>1</sup>Palamarchuk et al., 2019; <sup>1</sup>Palamarchuk, 2020a); **Leningrad Oblast** (<sup>3</sup>Thesleff, 1920; <sup>1</sup>Kalamees and Kovalenko, 1984; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdjominogo, 1990; <sup>1</sup>Nezdjominogo, 1996; <sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Tzvelev, 2000; <sup>1</sup>Popov et al., 2007; <sup>1</sup>Geltman et al., 2018; <sup>1</sup>Geltman, 2018b); **Lipetsk Oblast** (<sup>1</sup>Rtishcheva, 1999; <sup>1</sup>Afanasyev, Rtishcheva, and Starodubtseva, 2007; <sup>1</sup>Sarycheva et al., 2009; <sup>1</sup>Sarycheva, 2011; <sup>1</sup>Sarycheva, 2014a; <sup>1</sup>Sarycheva, 2016); **Mordovia** (<sup>1</sup>Bolshakov, 2015); **Moscow Oblast** (<sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdjominogo, 1990; <sup>1</sup>Levitskaya, 1995c; <sup>1</sup>Nezdjominogo, 1996; <sup>1</sup>Levitskaya, 2013; <sup>1</sup>Voronina et al., 2014); **Novgorod Oblast** (<sup>1</sup>Kovalenko, Morozova, Nezdjominogo, and Popov, 2005; <sup>1</sup>Popov et al., 2013; <sup>1</sup>Vetkin et al., 2015); **Penza Oblast** (<sup>1</sup>Ivanov, 1982; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdjominogo, 1990; <sup>1</sup>Nezdjominogo, 1996); **Perm Krai** (<sup>1</sup>Perevedentseva, Nezdjominogo, and Kovalenko, 1990; <sup>1</sup>Perevedentseva, 2008); **Pskov Oblast** (<sup>1</sup>Kolmakov and Popov, 2005; <sup>1</sup>Popov et al., 2013; <sup>1</sup>Aleksandrov et al., 2014); **Ryazan Oblast** (<sup>1</sup>Volosnova, 2014); **Saint Petersburg** (<sup>2</sup>Weinmann, 1836; <sup>2</sup>Weinmann, 1837; <sup>1</sup>Morozova and Smirnov, 2011; <sup>1</sup>Geltman, 2018a; <sup>1</sup>Morozova et al., 2020); **Samara Oblast** (<sup>1</sup>Malysheva and Malysheva, 2004; <sup>1</sup>Malysheva and Malysheva, 2008); **Saratov Oblast** (<sup>3</sup>Kazakevich and Prisyazhnyuk, 1932; <sup>1</sup>Nagumanov, 2015); **Sverdlovsk Oblast** (<sup>1</sup>Marina, 2006; <sup>1</sup>Korytin, 2018); **Tatarstan** (<sup>1</sup>Vassiljeva, 1977; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdjominogo, 1990; <sup>1</sup>Nezdjominogo, 1996; <sup>1</sup>Potapov, Galeyev, and Zhukov, 2013; <sup>1</sup>Potapov, 2015b); **Udmurt Republic** (<sup>1</sup>Tychinin and Kuzmina, 2003); **Voronezh Oblast** (<sup>1</sup>Rtishcheva, 1999; <sup>1</sup>Afanasyev, Rtishcheva, and Starodubtseva, 2007; <sup>1</sup>Agafonov, 2011; <sup>1</sup>Sarycheva, Starodubtseva, and Sapelnikova, 2017; <sup>1</sup>Agafonov, 2018); **Yaroslavl Oblast** (<sup>1</sup>Lazareva, 1998a; <sup>1</sup>Lazareva, 2002); **Arid territories** (<sup>1</sup>Rebriev, Rusanov, et al., 2012).

SIBERIA: **Altai Krai** (<sup>1</sup>Gorbunova and Perova, 2006; <sup>1</sup>Gorbunova, 2018a); **Altai Republic** (<sup>1</sup>Gorbunova, 1996; <sup>1</sup>Gorbunova, 1997; <sup>1</sup>Gorbunova, 2001a; <sup>1</sup>Gorbunova, 2001b; <sup>1</sup>Gorbunova, 2008); **Irkutsk Oblast** (<sup>1</sup>Petrov, Nezdjominogo, and Bulakh, 1987; <sup>1</sup>Astapenko, 1990b; <sup>1</sup>Petrov, 1991; <sup>1</sup>Petrov, 2008; <sup>1</sup>Gorbunova and Stepantsova, 2015); **Khakassia** (<sup>1</sup>Zauzolkova and Gorbunova, 2013; <sup>1</sup>Zauzolkova, 2015); **Khanty-Mansi Autonomous Okrug** (<sup>1</sup>Zvyagina and Baykalova, 2017); **Krasnoyarsk Krai** (<sup>1</sup>Beglyanova, 1972a; <sup>1</sup>Nezdjominogo, 1982a; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdjominogo, 1990; <sup>1</sup>Nezdjominogo, 1996; <sup>1</sup>Pavlov et al., 2007; <sup>1</sup>Kryuchkova, 2009; <sup>1</sup>Zauzolkova, 2012; <sup>1</sup>Zauzolkova, 2015; <sup>1</sup>Malysheva, Malysheva, Kiyashko, et al., 2017; <sup>1</sup>Krom and Kapitonov, 2019); **Novosibirsk Oblast** (<sup>1</sup>Perova and Gorbunova, 2007; <sup>1</sup>Koropachinskiy and Banaev, 2014); **Tomsk Oblast** (<sup>1</sup>Perova, 1972; <sup>1</sup>Kudashova, Gashkov, and Kutafjeva, 2013; <sup>1</sup>Vaishlya et al., 2017).

FAR EAST: **Amur Oblast** (<sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdjominogo, 1990; <sup>1</sup>Nezdjominogo, 1996; <sup>1</sup>Azbukina et al., 1998); **Khabarovsk Krai** (<sup>1</sup>Erofeeva and Bulakh, 2015a); **Primorsky Krai** (<sup>1</sup>Vassiljeva, 1973; <sup>1</sup>Shalapugina, 1976; <sup>1</sup>Bunkina and Nazarova, 1978; <sup>1</sup>Azbukina et al., 1984; <sup>1</sup>Azbukina et al., 1990; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdjominogo, 1990; <sup>1</sup>Nezdjominogo, 1996; <sup>1</sup>Bardunov et al., 2002; <sup>1</sup>Azbukina et al., 2006; <sup>1</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Bulakh et al., 2016).

***Leucocybe candicans* (Pers.) Vizzini, P. Alvarado, G. Moreno & Consiglio<sup>1</sup>**

≡ *Agaricus candicans* Pers.<sup>2</sup> ≡ *Clitocybe candicans* (Pers.) P. Kumm.<sup>3</sup> = *Clitocybe tuba* (Fr.) Gillet<sup>4</sup>

EASTERN EUROPE: **Adygea** (<sup>3</sup>Vaasma, Kalamees, and Raitviir, 1986); **Belgorod Oblast** (<sup>3</sup>Bedenko, 1980); **Chelyabinsk Oblast** (<sup>3</sup>Aleksandrovskaya and Lobanova, 1968; <sup>3</sup>Psurtsseva, Kiyashko, Gachkova, and Belova, 2007); **Crimea** (<sup>3</sup>Sarkina, 2001; <sup>3</sup>Dudka et al., 2004; <sup>3</sup>Sarkina and Prydiuk, 2012; <sup>3</sup>Sarkina and Mironova, 2015); **Kaliningrad Oblast** (<sup>3</sup>Dedkov, Volodina, and Gubareva, 2007; <sup>3</sup>Volodina, 2007); **Kaluga Oblast** (<sup>3</sup>Sionova, 2003); **Karachay-Cherkess Republic** (<sup>3</sup>Kalamees and Botashev, 2000); **Karelia** (<sup>3</sup>Krutov et al., 2014); **Kirov Oblast** (<sup>3</sup>Kirillov and Luginina, 2011; <sup>3</sup>Kirillov, 2011; <sup>3</sup>Kirillov, Perevedentseva, and Egoshina, 2011; <sup>3</sup>Stavishenko, Luginina, Kirillov, and Egoshina, 2019); **Leningrad Oblast** (<sup>3,4</sup>Thesleff, 1920; <sup>4</sup>Nezdjominogo, 1967; <sup>3</sup>Harmaja, 1969; <sup>4</sup>Chastukhin and Nikolaevskaya, 1969; <sup>4</sup>Stolyarskaya, 1989; <sup>3</sup>Kovalenko and Morozova, 1999a; <sup>3</sup>Popov et al., 2007; <sup>1</sup>Zmitrovich et al., 2015); **Lipetsk Oblast** (<sup>3</sup>Alferova, 1977; <sup>3</sup>Rtishcheva, 1999; <sup>3</sup>Sarycheva, 1999; <sup>3</sup>Afanasyev, Rtishcheva, and Starodubtseva, 2007; <sup>3</sup>Sarycheva et al., 2009; <sup>3</sup>Sarycheva, 2011; <sup>3</sup>Sarycheva, 2014a; <sup>3</sup>Sarycheva, 2016; <sup>3</sup>Sarycheva, Starodubtseva, and Sapelnikova, 2017); **Mordovia** (<sup>3</sup>Kuznetsov, 1960; <sup>3</sup>Ivoilov and Bolshakov, 2011a); **Moscow Oblast** (<sup>3</sup>Gorlenko, Sidorova, and Sidorova, 1989; <sup>3</sup>Levitskaya, 1998; <sup>3</sup>Vishnevsky, 1998; <sup>3</sup>Levitskaya, 2013; <sup>3</sup>Voronina et al.,

2014); **Murmansk Oblast** (<sup>3,4</sup>Pystina, Pavlova, and Shestakova, 1969); **Penza Oblast** (<sup>3</sup>Ivanov, 1981a); **Perm Krai** (<sup>3</sup>Perevedentseva, 2008; <sup>3</sup>Belkovskaya et al., 2014; <sup>3</sup>Perevedentseva and Shishigin, 2014; <sup>3</sup>Botalov, 2017; <sup>3</sup>Botalov and Perevedentseva, 2020); **Pskov Oblast** (<sup>3</sup>Kalinina, Bolshakov, and Bulyonkova, 2020); **Ryazan Oblast** (<sup>3</sup>Volosnova, 1997; <sup>3</sup>Volosnova, 2014); **Saint Petersburg** (<sup>2</sup>Weinmann, 1828; <sup>2</sup>Weinmann, 1836; <sup>2</sup>Weinmann, 1837; <sup>3</sup>Kovalenko and Morozova, 1999a; <sup>3</sup>Morozova and Smirnov, 2011; <sup>3</sup>Morozova, Kovalenko, Rebriev, and Malysheva, 2014); **Samara Oblast** (<sup>3</sup>Malysheva and Malysheva, 2005b; <sup>3</sup>Malysheva and Malysheva, 2007; <sup>3</sup>Malysheva and Malysheva, 2008); **Sverdlovsk Oblast** (<sup>3</sup>Stepanova and Sirko, 1977; <sup>3</sup>Marina, 2006); **Tula Oblast** (<sup>3</sup>Svetasheva, 2004; <sup>3</sup>Svetasheva, 2008); **Tver Oblast** (<sup>3</sup>Kurochkin, 1993); **Udmurt Republic** (<sup>3</sup>Tychinin and Kuzmina, 2003); **Ulyanovsk Oblast** (<sup>3</sup>Ilyukhin, 2009; <sup>3</sup>Ilyukhin, 2010a); **Volgograd Oblast** (<sup>3</sup>Burova and Nezdojminogo, 1982); **Vologda Oblast** (<sup>3</sup>Kutova, 1957; <sup>3</sup>Kirillova, 2007; <sup>3</sup>Kirillova, 2009); **Voronezh Oblast** (<sup>3</sup>Chastukhin, 1952; <sup>3</sup>Chastukhin and Nikolaevskaya, 1953; <sup>3</sup>Chastukhin and Nikolaevskaya, 1969; <sup>3</sup>Rtishcheva, 1999; <sup>3</sup>Afanasyev, Rtishcheva, and Starodubtseva, 2007; <sup>3</sup>Sarycheva, Starodubtseva, and Sapelnikova, 2017); **Yamalo-Nenets Autonomous Okrug** (<sup>3</sup>Stepanova and Sirko, 1977; <sup>3</sup>Karatygin, Nezdojminogo, Novozhilov, and Zhurbenko, 1999; <sup>3</sup>Nezdojminogo, 2001); **Yaroslavl Oblast** (<sup>3</sup>Lazareva, 1997; <sup>3</sup>Lazareva, 1998a); **Arid territories** (<sup>3</sup>Rebriev, Rusanov, et al., 2012).

SIBERIA: **Altai Republic** (<sup>4</sup>Singer, 1943; <sup>3</sup>Gorbunova, 2001a; <sup>1</sup>Gorbunova, 2019); **Buryatia** (<sup>3</sup>Nezdojminogo, 1970a; <sup>3</sup>Petrov, 1991); **Irkutsk Oblast** (<sup>3</sup>Kutafjeva, 1983; <sup>3</sup>Petrov, 1984; <sup>3</sup>Petrov, 1991; <sup>3</sup>Muzyka, 2002; <sup>3</sup>Bardunov et al., 2005; <sup>3</sup>Petrov, 2008; <sup>3</sup>Muzyka and Penzina, 2017); **Khakassia** (<sup>3</sup>Beglyanova, 1972a; <sup>3</sup>Zauzolkova, 2015); **Khanty-Mansi Autonomous Okrug** (<sup>3</sup>Filippova and Bulyonkova, 2017a; <sup>3</sup>Filippova and Bulyonkova, 2017b); **Krasnoyarsk Krai** (<sup>3</sup>Beglyanova, 1972a; <sup>3</sup>Pavlov et al., 2007; <sup>3</sup>Kosheleva and Kutafjeva, 2008a); **Novosibirsk Oblast** (<sup>3,4</sup>Perova and Gorbunova, 2001; <sup>3</sup>Perova and Gorbunova, 2007; <sup>3</sup>Koropachinskiy and Banaev, 2014); **Sakha Republic** (<sup>3</sup>Birkenhof, 1936); **Tomsk Oblast** (<sup>3</sup>Perova, 1972; <sup>3</sup>Milovidova, 1980; <sup>3</sup>Perova and Gorbunova, 2001; <sup>3</sup>Kudashova, Gashkov, and Kutafjeva, 2013); **Yamalo-Nenets Autonomous Okrug** (<sup>3</sup>Karatygin, Nezdojminogo, Novozhilov, and Zhurbenko, 1999).

FAR EAST: **Jewish Autonomous Oblast** (<sup>3</sup>Bulakh, Govorova, Nazarova, and Vassiljeva, 2007; <sup>3</sup>Bau, Bulakh, and Govorova, 2011); **Khabarovsk Krai** (<sup>3</sup>Azbukina et al., 1989); **Primorsky Krai** (<sup>3</sup>Vassiljeva, 1973; <sup>3</sup>Bunkina and Nazarova, 1978; <sup>3,4</sup>Azbukina et al., 1984; <sup>3</sup>Azbukina et al., 2006; <sup>3</sup>Bau, Bulakh, and Govorova, 2011; <sup>3</sup>Bulakh et al., 2016; <sup>1</sup>Bogacheva, Bulakh, Bukharova, and Egorova, 2020).

***Leucocybe connata* (Schumach.) Vizzini, P. Alvarado, G. Moreno & Consiglio<sup>1</sup>**

≡ *Lyophyllum connatum* (Schumach.) Singer<sup>2</sup>

EASTERN EUROPE: **Adygea** (<sup>2</sup>Vaasma, Kalamees, and Raitviir, 1986); **Belgorod Oblast** (<sup>2</sup>Bedenko, 1979a; <sup>2</sup>Kalamees, 2004); **Chechen Republic** (<sup>2</sup>Taysumov, Krapivina, and Kushaliev, 2016); **Crimea** (<sup>2</sup>Sarkina, 2001; <sup>2</sup>Dudka et al., 2004; <sup>2</sup>Sarkina, 2011; <sup>2</sup>Sarkina and Prydiuk, 2012); **Kabardino-Balkarian Republic** (<sup>2</sup>Shkhagapsoev and Krapivina, 2003; <sup>2</sup>Shkhagapsoev and Krapivina, 2004); **Kaliningrad Oblast** (<sup>2</sup>Dedkov, Volodina, and Gubareva, 2007); **Kaluga Oblast** (<sup>2</sup>Sionova, 2003); **Karachay-Cherkess Republic** (<sup>2</sup>Kalamees and Botashev, 2000); **Karelia** (<sup>2</sup>Bondartseva et al., 2001; <sup>2</sup>Predtechenskaya and Ruokolainen, 2013; <sup>2</sup>Predtechenskaya, 2013; <sup>2</sup>Krutov et al., 2014; <sup>2</sup>Predtechenskaya and Ruokolainen, 2014; <sup>2</sup>Predtechenskaya, 2015; <sup>1</sup>Savelev and Kikeeva, 2018); **Komi Republic** (<sup>2</sup>Bobretsova, 2004; <sup>2</sup>Palamarchuk, 2011b; <sup>2</sup>Palamarchuk, 2012; <sup>2</sup>Palamarchuk and Kirillov, 2017); **Krasnodar Krai** (<sup>2</sup>Vassiljeva, 1939; <sup>2</sup>Kalamees, 2004); **Kursk Oblast** (<sup>2</sup>Ryabova and Ignatenko, 1981); **Leningrad Oblast** (<sup>2</sup>Stolyarskaya, 1993; <sup>2</sup>Kovalenko and Morozova, 1999a; <sup>2</sup>Kalamees, 2004; <sup>2</sup>Popov et al., 2007; <sup>1</sup>Zmitrovich et al., 2015); **Lipetsk Oblast** (<sup>2</sup>Sarycheva, 1999; <sup>2</sup>Sarycheva et al., 2009; <sup>2</sup>Sarycheva, 2011; <sup>2</sup>Sarycheva, 2014a; <sup>2</sup>Sarycheva, 2016); **Mordovia** (<sup>2</sup>Ivoilov and Bolshakov, 2011a); **Moscow** (<sup>2</sup>Samoilov and Morozova, 2011); **Moscow Oblast** (<sup>2</sup>Gorlenko, Sidorova, and Sidorova, 1989; <sup>2</sup>Levitskaya, 1995b; <sup>2</sup>Vishnevsky, 1998; <sup>2</sup>Kalamees, 2004; <sup>2</sup>Levitskaya, 2013; <sup>2</sup>Voronina et al., 2014; <sup>1</sup>Sidorova, Alexandrova, and Voronina, 2017); **Murmansk Oblast** (<sup>2</sup>Kalamees, 2004); **North Ossetia** (<sup>2</sup>Nikolayev, 2001); **Orenburg Oblast** (<sup>2</sup>Desyatova, 2008); **Perm Krai** (<sup>2</sup>Perevedentseva, 2008); **Pskov Oblast** (<sup>2</sup>Popov et al., 2013); **Ryazan Oblast** (<sup>2</sup>Volosnova, 2005; <sup>2</sup>Volosnova, 2014); **Saint Petersburg** (<sup>2</sup>Kovalenko and Morozova, 1999a; <sup>2</sup>Morozova and Kovalenko, 2000; <sup>2</sup>Kalamees, 2004; <sup>2</sup>Kotkova, Morozova, and Popov, 2006; <sup>2</sup>Psurtseva, Kiyashko, Gachkova, and Belova, 2007; <sup>2</sup>Morozova and Smirnov, 2011; <sup>2</sup>Morozova, Kovalenko, Rebriev, and Malysheva, 2014; <sup>2</sup>Morozova et al., 2020); **Samara Oblast** (<sup>2</sup>Malysheva and Malysheva, 2008); **Sverdlovsk Oblast** (<sup>2</sup>Marina, 2006); **Tula Oblast** (<sup>2</sup>Svetasheva, 2004); **Tver Oblast** (<sup>2</sup>Kurochkin, 1993; <sup>2</sup>Mukhina, 2011a; <sup>2</sup>Mukhina, 2011b; <sup>2</sup>Kotkova, 2014; <sup>2</sup>Kurochkin and Medvedev, 2015; <sup>2</sup>Kurochkin, 2016); **Udmurt Republic** (<sup>2</sup>Tychinin and Kuzmina, 2003); **Ulyanovsk Oblast** (<sup>2</sup>Ilyukhin, 2009; <sup>2</sup>Ilyukhin, 2010a); **Vologda Oblast** (<sup>2</sup>Kirillova, 2007; <sup>2</sup>Kirillova, 2009); **Yaroslavl Oblast** (<sup>2</sup>Lazareva, 1998a); **Arid territories** (<sup>2</sup>Rebriev, Rusanov, et al., 2012).

SIBERIA: **Altai Krai** (<sup>1</sup>Gorbunova, 2018a); **Altai Republic** (<sup>2</sup>Kovalenko, 1992; <sup>2</sup>Gorbunova, 1997; <sup>2</sup>Perova and Gorbunova, 2001; <sup>2</sup>Gorbunova, 2003; <sup>2</sup>Kalamees, 2004; <sup>2</sup>Gorbunova, 2010); **Buryatia** (<sup>2</sup>Nezdojminogo, 1970a;

<sup>2</sup>Petrov, 1991; <sup>2</sup>Kalamees, 2004); **Irkutsk Oblast** (<sup>2</sup>Astapenko and Kutafjeva, 1990; <sup>2</sup>Kalamees, 2004; <sup>2</sup>Bardunov et al., 2005; <sup>2</sup>Petrov, 2008; <sup>2</sup>Gorbunova and Stepantsova, 2015); **Krasnoyarsk Krai** (<sup>2</sup>Beglyanova, 1972a; <sup>2</sup>Kalamees, 2004; <sup>2</sup>Zauzolkova, 2012; <sup>2</sup>Zauzolkova, 2015); **Novosibirsk Oblast** (<sup>2</sup>Perova and Gorbunova, 2001; <sup>2</sup>Koropachinskiy and Banaev, 2014); **Sakha Republic** (<sup>2</sup>Kalamees, 2004); **Tomsk Oblast** (<sup>2</sup>Milovidova, 1980; <sup>2</sup>Agaphonova, Kutafjeva, and Gashkov, 2007; <sup>2</sup>Kudashova, Gashkov, and Kutafjeva, 2013).

FAR EAST: **Amur Oblast** (<sup>2</sup>Taranina, 2005); **Jewish Autonomous Oblast** (<sup>2</sup>Bulakh, Govorova, Nazarova, and Vassiljeva, 2007; <sup>2</sup>Bau, Bulakh, and Govorova, 2011); **Khabarovsk Krai** (<sup>2</sup>Azbukina et al., 1986; <sup>2</sup>Kalamees, 2004; <sup>2</sup>Bau, Bulakh, and Govorova, 2011); **Magadan Oblast** (<sup>2</sup>Sazanova, 2005; <sup>2</sup>Sazanova, 2009a); **Primorsky Krai** (<sup>2</sup>Vassiljeva, 1973; <sup>2</sup>Shalapugina, 1976; <sup>2</sup>Bunkina and Nazarova, 1978; <sup>2</sup>Azbukina et al., 1984; <sup>2</sup>Kalamees, 2004; <sup>2</sup>Azbukina et al., 2006; <sup>2</sup>Bau, Bulakh, and Govorova, 2011; <sup>2</sup>Bulakh et al., 2016).

***Leucocybe houghtonii* (W. Phillips) Halama & Pencakowski**

≡ *Clitocybe houghtonii* (W. Phillips) Dennis<sup>1</sup>

EASTERN EUROPE: **Kaluga Oblast** (<sup>1</sup>Antokhina et al., 2015); **Karachay-Cherkess Republic** (<sup>1</sup>Malysheva and Svetasheva, 2011; <sup>1</sup>Onipchenko et al., 2013); **Saint Petersburg** (<sup>1</sup>Morozova, Kovalenko, Rebriev, and Malysheva, 2014; <sup>1</sup>Geltman, 2018a; <sup>1</sup>Morozova et al., 2020); **Tula Oblast** (<sup>1</sup>Svetasheva, 2004; <sup>1</sup>Svetasheva, 2005b; <sup>1</sup>Svetasheva, 2008; <sup>1</sup>Shcherbakov, 2010; <sup>1</sup>Svetasheva, 2018); **Arid territories** (<sup>1</sup>Rebriev, Rusanov, et al., 2012).

***Leucopaxillus albissimus* (Peck) Singer<sup>1</sup>**

= *Leucopaxillus albissimus* f. *euparadoxus* Singer & A.H. Sm.<sup>2</sup>

EASTERN EUROPE: **Krasnodar Krai** (<sup>2</sup>Singer and Smith, 1943); **Mordovia** (<sup>2</sup>Singer and Smith, 1943); **Ryazan Oblast** (<sup>1</sup>Volosnova, 2014).

FAR EAST: **Primorsky Krai** (<sup>1</sup>Bulakh et al., 2016).

***Leucopaxillus alboalutaceus* (F.H. Møller & Jul. Schäff.) F.H. Møller**

FAR EAST: **Khabarovsk Krai** (Bau, Bulakh, and Govorova, 2011); **Primorsky Krai** (Bulakh, 1977; Azbukina et al., 1984; Azbukina et al., 2006; Bau, Bulakh, and Govorova, 2011).

***Leucopaxillus cerealis* (Lasch) Singer**

EASTERN EUROPE: **Komi Republic** (Palamarchuk, 2011a; Palamarchuk, 2012); **Ryazan Oblast** (Volosnova, 2014).

FAR EAST: **Khabarovsk Krai** (Azbukina et al., 1986; Bau, Bulakh, and Govorova, 2011); **Primorsky Krai** (Vassiljeva, 1973; Bunkina and Nazarova, 1978; Azbukina et al., 2006; Bau, Bulakh, and Govorova, 2011).

***Leucopaxillus compactus* (P. Karst.) Neuhoff**

SIBERIA: **Khakassia** (Zauzolkova and Gorbunova, 2013; Zauzolkova, 2015).

***Leucopaxillus cutefractus* Noordel.**

EASTERN EUROPE: **Samara Oblast** (Malysheva and Malysheva, 2008); **Tatarstan** (Potapov, 2016b); **Arid territories** (Rebriev, Rusanov, et al., 2012).

SIBERIA: **Altai Republic** (Svetasheva et al., 2019); **Krasnoyarsk Krai** (Malysheva, Malysheva, Kiyashko, et al., 2017).

***Leucopaxillus gentianeus* (Quél.) Kotl.**

EASTERN EUROPE: **Adygea** (Vaasma, Kalamees, and Raitviir, 1986); **Penza Oblast** (Ivanov, 1989); **Perm Krai** (Perevedentseva, 2008); **Samara Oblast** (Malysheva and Malysheva, 2008); **Tatarstan** (Potapov, 2015b; Potapov, 2016b).

SIBERIA: **Irkutsk Oblast** (Gorbunova and Stepantsova, 2015); **Krasnoyarsk Krai** (Zauzolkova, 2015; Zauzolkova and Gorbunova, 2016; Malysheva, Malysheva, Kiyashko, et al., 2017).

FAR EAST: **Jewish Autonomous Oblast** (Bulakh, Govorova, Nazarova, and Vassiljeva, 2007; Bau, Bulakh, and Govorova, 2011); **Khabarovsk Krai** (Bau, Bulakh, and Govorova, 2011; Bulakh, 2013; Bogacheva, Bulakh, Bukharova, and Egorova, 2015); **Primorsky Krai** (Azbukina et al., 2006; Bau, Bulakh, and Govorova, 2011; Bulakh et al., 2016).

***Leucopaxillus lentus* (H. Post) Singer**

EASTERN EUROPE: **Kaliningrad Oblast** (Singer, 1943).

***Leucopaxillus nauseosodulcis* (P. Karst.) Singer & A.H. Sm.**

FAR EAST: **Khabarovsk Krai** (Azbukina et al., 1986; Bau, Bulakh, and Govorova, 2011; Erofeeva and Bulakh, 2015a); **Primorsky Krai** (Vassiljeva, 1973; Azbukina et al., 1984; Azbukina et al., 2006; Bau, Bulakh, and Govorova, 2011; Bulakh et al., 2016).

***Leucopaxillus paradoxus* (Costantin & L.M. Dufour) Boursier**

EASTERN EUROPE: **Crimea** (Dudka et al., 2004; Sarkina, 2011; Sarkina and Stavishenko, 2019); **Kaliningrad Oblast** (Volodina, 2007); **Krasnodar Krai** (Vassiljeva, 1939); **Mordovia** (Singer, 1943; Kuznetsov, 1960; Ivoilov and Bolshakov, 2011a); **Tatarstan** (Singer, 1943; Vassiljeva, 1977); **Arid territories** (Rebriev, Rusanov, et al., 2012); **Northern Caucasus** (Singer, 1943).

SIBERIA: **Altai Republic** (Gorbunova, 2001b; Perova and Gorbunova, 2001); **Irkutsk Oblast** (Kutafjeva, 1983); **Krasnoyarsk Krai** (Beglyanova, 1972a); **Novosibirsk Oblast** (Perova and Gorbunova, 2001); **Tomsk Oblast** (Agaphonova, Kutafjeva, and Gashkov, 2009b; Kudashova, Gashkov, and Kutafjeva, 2013; Kudashova, Gashkov, and Vaishlya, 2016b).

FAR EAST: **Khabarovsk Krai** (Azbukina et al., 1989); **Primorsky Krai** (Bau, Bulakh, and Govorova, 2011).

***Leucopaxillus tricolor* (Peck) Kühner**

EASTERN EUROPE: **Crimea** (Dovgal and Korzhenevsky, 2018); **Penza Oblast** (Ivanov, 1992; Ivanov, 2013a); **Ryazan Oblast** (Volosnova, 2005; Volosnova, 2014); **Sevastopol** (Sarkina, 2016b; Dovgal and Korzhenevsky, 2018; Sarkina, 2020c).

SIBERIA: **Irkutsk Oblast** (Astapenko and Kutafjeva, 1990); **Krasnoyarsk Krai** (Kutafjeva and Polenok, 2005).

FAR EAST: **Primorsky Krai** (Bau, Bulakh, and Govorova, 2011).

***Leucopholiota lignicola* (P. Karst.) Harmaja<sup>1</sup>**

≡ *Amylolepiota lignicola* (P. Karst.) Harmaja<sup>2</sup> ≡ *Cystolepiota lignicola* (P. Karst.) Nezdajm.<sup>3</sup> ≡ *Lepiota lignicola* P. Karst.<sup>4</sup>

EASTERN EUROPE: **Adygea** (<sup>4</sup>Sopina, 2000; <sup>4</sup>Sopina, 2001a; <sup>2</sup>Zamotajlov, Sirotyuk (Kuvaeva), Akatova, and Lipka, 2012); **Nenets Autonomous Okrug** (<sup>4</sup>Matveyeva, 2006; <sup>1</sup>Matveyeva, 2020).

SIBERIA: **Altai Republic** (<sup>3</sup>Nezdajminogo, 1980a; <sup>4</sup>Petrov, 1981; <sup>4</sup>Gorbunova, 1997; <sup>4</sup>Gorbunova, 2001a; <sup>4</sup>Gorbunova, 2001b; <sup>4</sup>Perova and Gorbunova, 2001; <sup>1</sup>Gorbunova, 2017b; <sup>1</sup>Maneev, Achimova, Sedelnikova, and Gorbunova, 2017); **Buryatia** (<sup>1</sup>Pronin, 2013); **Irkutsk Oblast** (<sup>4</sup>Petrov, 1981; <sup>4</sup>Petrov, 1986; <sup>4</sup>Astapenko and Kutafjeva, 1990; <sup>4</sup>Astapenko, 1990a; <sup>4</sup>Petrov, 1991; <sup>4</sup>Muzyka, 2002; <sup>4</sup>Petrov, 2008; <sup>4</sup>Gaykova and Popov, 2010; <sup>1</sup>Trofimova, Popov, and Merkacheva, 2020); **Kemerovo Oblast** (<sup>1</sup>Kupriyanov, 2012); **Khakassia** (<sup>4</sup>Ankipovich, 2012); **Krasnoyarsk Krai** (<sup>3</sup>Nezdajminogo, 1980a; <sup>4</sup>Petrov, 1981; <sup>3</sup>Nezdajminogo, 1982a; <sup>3</sup>Lapitskaya, 1993; <sup>4</sup>Stepanov, 2012; <sup>1</sup>Kryuchkova, 2015; <sup>1</sup>Malysheva, Malysheva, Kiyashko, et al., 2017; <sup>1</sup>Krom and Kapitonov, 2019); **Zabaykalsky Krai** (<sup>4</sup>Karsten, 1906; <sup>4</sup>Polyakov, Popova, and Afonina, 2017).

FAR EAST: **Amur Oblast** (<sup>3</sup>Bulakh, Govorova, and Taranina, 2003; <sup>1</sup>Kochunova, 2016); **Jewish Autonomous Oblast** (<sup>3</sup>Bulakh, Govorova, Nazarova, and Vassiljeva, 2007; <sup>3</sup>Bau, Bulakh, and Govorova, 2011); **Khabarovsk Krai** (<sup>4</sup>Azbukina et al., 1989); **Primorsky Krai** (<sup>4</sup>Vassiljeva, 1973; <sup>4</sup>Bunkina and Nazarova, 1978; <sup>3</sup>Nezdajminogo, 1980a; <sup>4</sup>Petrov, 1981; <sup>4</sup>Azbukina et al., 1984; <sup>3</sup>Azbukina et al., 2006; <sup>4</sup>Kozhevnikov, 2008; <sup>3</sup>Bau, Bulakh, and Govorova, 2011).

***Lichenomphalia alpina* (Britzelm.) Redhead, Lutzoni, Moncalvo & Vilgalys<sup>1</sup>**

≡ *Omphalina alpina* (Britzelm.) Bresinsky & Stangl<sup>2</sup>

EASTERN EUROPE: **Arkhangelsk Oblast** (<sup>1</sup>Ezhov, Gavrilo, and Zmitrovich, 2014; <sup>1</sup>Zmitrovich and Ezhov, 2015; <sup>1</sup>Ezhov, Zmitrovich, and Ershov, 2016; <sup>1</sup>Shiryayev, Zmitrovich, and Ezhov, 2018); **Komi Republic** (<sup>1</sup>Palamarchuk, 2016a; <sup>1</sup>Palamarchuk, 2016b; <sup>1</sup>Palamarchuk, 2020a); **Murmansk Oblast** (<sup>1</sup>Urbanavichus, Urbanavichene, and Melekhin, 2007); **Perm Krai** (<sup>2</sup>Shkaraba, Perevedentseva, and Moshkina, 1990; <sup>2</sup>Perevedentseva, 2008).

SIBERIA: **Altai Republic** (<sup>1</sup>Gorbunova, 2010; <sup>1</sup>Gorbunova, 2017a); **Krasnoyarsk Krai** (<sup>1</sup>Zmitrovich and Ezhov, 2015; <sup>1</sup>Gorbunova, 2016; <sup>1</sup>Shiryayev, Zmitrovich, and Ezhov, 2018; <sup>1</sup>Krom and Kapitonov, 2019).

FAR EAST: **Magadan Oblast** (<sup>1</sup>Sazanova, 2009a; <sup>1</sup>Sazanova, 2009b; <sup>1</sup>Sazanova, 2011; <sup>1</sup>Sazanova, 2012; <sup>1</sup>Sazanova, 2016).

***Lichenomphalia hudsoniana* (H.S. Jenn.) Redhead, Lutzoni, Moncalvo & Vilgalys<sup>1</sup>**

≡ *Omphalina hudsoniana* (H.S. Jenn.) H.E. Bigelow<sup>2</sup> = *Omphalina luteolilacina* (J. Favre) D.M. Hend.<sup>3</sup> = *Phytoconis viridis* (Ach.) Redhead & Kuyper<sup>4</sup>

EASTERN EUROPE: **Karelia** (<sup>1</sup>Ivanter and Kuznetsov, 2007; <sup>1</sup>Kuznetsov, 2020); **Komi Republic** (<sup>1</sup>Taskaev, 2009; <sup>1</sup>Palamarchuk, 2011b; <sup>1</sup>Palamarchuk, 2016a; <sup>1</sup>Palamarchuk, 2016b; <sup>1</sup>Dyogteva, 2019); **Murmansk Oblast** (<sup>1</sup>Urbanavichus and Urbanavichene, 2005; <sup>1</sup>Konstantinova, Koryakin, Makarova, and Bianki, 2014); **Nenets Autonomous Okrug** (<sup>2</sup>Matveyeva, 2006; <sup>1</sup>Matveyeva, 2020); **Perm Krai** (<sup>1</sup>Shepel', 2008; <sup>2</sup>Perevedentseva, 2008; <sup>1</sup>Belkovskaya et al., 2014; <sup>1</sup>Baklanov, 2018); **Yamalo-Nenets Autonomous Okrug** (<sup>2</sup>Knudsen and Mukhin, 1998; <sup>4</sup>Karatygin, Nezdoininogo, Novozhilov, and Zhurbenko, 1999; <sup>1</sup>Ektova and Zamyatin, 2010).

SIBERIA: **Altai Republic** (<sup>1</sup>Gorbunova, 2010; <sup>1</sup>Maneev, Achimova, Sedelnikova, and Gorbunova, 2017); **Buryatia** (<sup>3</sup>Petrov, 1991; <sup>1</sup>Pronin, 2013); **Irkutsk Oblast** (<sup>3</sup>Petrov, 1991; <sup>3</sup>Petrov, 2008; <sup>1</sup>Gaykova and Popov, 2010; <sup>1</sup>Trofimova, Popov, and Merkacheva, 2020); **Khanty-Mansi Autonomous Okrug** (<sup>1</sup>Zvyagina, 2012; <sup>1</sup>Vasin and Vasina, 2013); **Krasnoyarsk Krai** (<sup>3</sup>Vassilkov, 1971b; <sup>4</sup>Nezdoininogo, 1997a; <sup>4</sup>Karatygin, Nezdoininogo, Novozhilov, and Zhurbenko, 1999; <sup>2</sup>Nezdoininogo, 2003; <sup>1</sup>Stepanov, 2012; <sup>1</sup>Gorbunova, 2016); **Sakha Republic** (<sup>4</sup>Karatygin, Nezdoininogo, Novozhilov, and Zhurbenko, 1999; <sup>2</sup>Nezdoininogo, 2003; <sup>1</sup>Danilova, 2017); **Yamalo-Nenets Autonomous Okrug** (<sup>1</sup>Ektova and Zamyatin, 2010).

FAR EAST: **Chukotka Autonomous Okrug** (<sup>4</sup>Karatygin, Nezdoininogo, Novozhilov, and Zhurbenko, 1999); **Jewish Autonomous Oblast** (<sup>2</sup>Shlotgauer and Rubtsova, 2006; <sup>1</sup>Shlotgauer and Rubtsova, 2019); **Kamchatka Krai** (<sup>1</sup>Chernyagina, 2018); **Khabarovsk Krai** (<sup>2</sup>Voronov, 2008; <sup>2</sup>Ermolin et al., 2018).

### *Lichenomphalia luteovitellina* (Pilát & Nannf.) Redhead, Lutzoni, Moncalvo & Vilgalys

≡ *Omphalina luteovitellina* (Pilát & Nannf.) M. Lange<sup>1</sup> ≡ *Phytoconis luteovitellina* (Pilát & Nannf.) Redhead & Kuyper<sup>2</sup>

EASTERN EUROPE: **Murmansk Oblast** (<sup>1</sup>Mikhailovskii, 1975b; <sup>2</sup>Nezdoininogo, 1997b; <sup>2</sup>Karatygin, Nezdoininogo, Novozhilov, and Zhurbenko, 1999); **Yamalo-Nenets Autonomous Okrug** (<sup>2</sup>Karatygin, Nezdoininogo, Novozhilov, and Zhurbenko, 1999; <sup>1</sup>Nezdoininogo, 2001).

SIBERIA: **Buryatia** (<sup>1</sup>Nezdoininogo, 1970a; <sup>1</sup>Petrov, 1991); **Irkutsk Oblast** (<sup>1</sup>Petrov, 1991; <sup>1</sup>Petrov, 2008); **Krasnoyarsk Krai** (<sup>1</sup>Beglyanova, 1972a; <sup>1</sup>Beglyanova, 1972c; <sup>1</sup>Stepanova and Tomilin, 1973; <sup>2</sup>Nezdoininogo and Kuvaev, 1993; <sup>2</sup>Nezdoininogo, 1997a; <sup>2</sup>Karatygin, Nezdoininogo, Novozhilov, and Zhurbenko, 1999; <sup>1</sup>Nezdoininogo, 2002); **Sakha Republic** (<sup>2</sup>Karatygin, Nezdoininogo, Novozhilov, and Zhurbenko, 1999).

FAR EAST: **Chukotka Autonomous Okrug** (<sup>1</sup>Sazanova, 1993; <sup>2</sup>Nezdoininogo, 1997a; <sup>2</sup>Karatygin, Nezdoininogo, Novozhilov, and Zhurbenko, 1999); **Kamchatka Krai** (<sup>2</sup>Karatygin, Nezdoininogo, Novozhilov, and Zhurbenko, 1999); **Magadan Oblast** (<sup>1</sup>Nazarova, 1976; <sup>2</sup>Sazanova, 2005); **Primorsky Krai** (<sup>1</sup>Bunkina and Nazarova, 1978; <sup>2</sup>Azbukina et al., 2006; <sup>1</sup>Bau, Bulakh, and Govorova, 2011).

### *Lichenomphalia umbellifera* (L.) Redhead, Lutzoni, Moncalvo & Vilgalys<sup>1</sup>

≡ *Agaricus umbellifer* L.<sup>2</sup> ≡ *Omphalia umbellifera* (L.) P. Kumm.<sup>3</sup> ≡ *Omphalina umbellifera* (L.) Quél.<sup>4</sup> = *Agaricus ericetorum* Pers.<sup>5</sup> = *Gerronema ericetorum* (Pers.) Singer<sup>6</sup> = *Omphalina ericetorum* (Pers.) M. Lange<sup>7</sup> = *Phytoconis ericetorum* (Pers.) Redhead & Kuyper<sup>8</sup>

EASTERN EUROPE: **Arkhangelsk Oblast** (<sup>8</sup>Karatygin, Nezdoininogo, Novozhilov, and Zhurbenko, 1999; <sup>7</sup>Nezdoininogo, 2002; <sup>1</sup>Ezhov, Gavrilov, and Zmitrovich, 2014; <sup>1</sup>Zmitrovich and Ezhov, 2015; <sup>1</sup>Ezhov, Zmitrovich, and Ershov, 2016; <sup>1</sup>Shiryayev, Zmitrovich, and Ezhov, 2018); **Belgorod Oblast** (<sup>7</sup>Bedenko, 1980); **Crimea** (<sup>7</sup>Sarkina, 2010b; <sup>7</sup>Sarkina and Prydiuk, 2012); **Kabardino-Balkarian Republic** (<sup>7</sup>Shkhagapsoev and Krapivina, 2003; <sup>7</sup>Shkhagapsoev and Krapivina, 2004; <sup>4</sup>Krapivina et al., 2020); **Kaliningrad Oblast** (<sup>8</sup>Dedkov, Volodina, and Gubareva, 2007; <sup>8</sup>Volodina, 2007); **Karelia** (<sup>3</sup>Freindling, 1949; <sup>7</sup>Czerepanova, Perfiljeva, and Tobias, 1982; <sup>4</sup>Kovalenko, Morozova, Fomina, and Särkisilta, 1998; <sup>8</sup>Bondartseva et al., 2001); **Komi Republic** (<sup>8</sup>Bobretsova, 2004; <sup>8</sup>Palamarchuk, 2011b; <sup>1</sup>Palamarchuk, 2012; <sup>1</sup>Palamarchuk, 2016a; <sup>1</sup>Palamarchuk, 2016b; <sup>1</sup>Palamarchuk and Kirillov, 2017; <sup>1</sup>Palamarchuk, 2017); **Krasnodar Krai** (<sup>3</sup>Vassiljeva, 1939); **Leningrad Oblast** (<sup>3</sup>Thesleff, 1920; <sup>7</sup>Chastukhin and Nikolaevskaya, 1969; <sup>7</sup>Stolyarskaya, 1989; <sup>8</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Popov et al., 2007; <sup>1</sup>Zmitrovich et al., 2015); **Lipetsk Oblast** (<sup>7</sup>Sarycheva, 1999; <sup>4</sup>Afanasyev, Rtishcheva, and Starodubtseva, 2007; <sup>1</sup>Sarycheva et al., 2009; <sup>1</sup>Sarycheva, 2011; <sup>1</sup>Sarycheva, 2016); **Mordovia** (<sup>3</sup>Chastukhin, 1948a; <sup>7</sup>Chastukhin and Nikolaevskaya, 1969; <sup>1</sup>Ivoilov and Bolshakov, 2011a; <sup>4</sup>Chastukhin, 2011; <sup>1</sup>Bolshakov and Ivoilov, 2012b); **Moscow** (<sup>2</sup>Bucholtz, 1897a; <sup>2</sup>Bucholtz, 1897b; <sup>2</sup>Bucholtz, 1897c; <sup>2</sup>Mosolov, 1906); **Moscow Oblast** (<sup>7</sup>Gorlenko, Sidorova, and Sidorova, 1989; <sup>4</sup>Vishnevsky, 1998; <sup>8</sup>Levitskaya, 2013); **Murmansk Oblast** (<sup>2</sup>Karsten, 1866; <sup>2</sup>Karsten, 1876; <sup>3</sup>Karsten, 1889; <sup>7</sup>Pystina, Pavlova, and Shestakova, 1969; <sup>7</sup>Mikhailovskii, 1975b; <sup>8</sup>Nezdoininogo, 1997b; <sup>8</sup>Karatygin, Nezdoininogo, Novozhilov, and Zhurbenko, 1999; <sup>1</sup>Urbanavichus and Urbanavichene, 2005); **Nenets Autonomous Okrug** (<sup>8</sup>Karatygin, Nezdoininogo, Novozhilov, and Zhurbenko, 1999); **North Ossetia** (<sup>7</sup>Nikolayev, 2001); **Orenburg Oblast** (<sup>1</sup>Desyatova, 2007); **Perm Krai** (<sup>7</sup>Perevedentseva, 2008; <sup>1</sup>Belkovskaya et al., 2014; <sup>4</sup>Botalov, 2017); **Pskov Oblast** (<sup>4</sup>Kovalenko and Morozova, 1999b; <sup>8</sup>Kolmakov and Popov,



2005; <sup>1</sup>Popov et al., 2013); **Saint Petersburg** (<sup>5</sup>Weinmann, 1828; <sup>2</sup>Weinmann, 1836; <sup>2,5</sup>Weinmann, 1837; <sup>8</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Morozova and Smirnov, 2011; <sup>1</sup>Himmelbrant, Stepanchikova, and Tagirdzhanova, 2016); **Sverdlovsk Oblast** (<sup>3</sup>Tomilin, 1965; <sup>7</sup>Stepanova and Sirko, 1977; <sup>1</sup>Marina, 2006); **Tatarstan** (<sup>7</sup>Vassiljeva, 1977); **Tver Oblast** (<sup>7</sup>Kurochkin, 1993; <sup>4</sup>Mukhina and Garibova, 2010; <sup>1</sup>Himmelbrant, Notov, and Stepanchikova, 2011; <sup>4</sup>Mukhina, 2011a; <sup>4</sup>Mukhina, 2011b; <sup>1</sup>Kotkova, 2014); **Udmurt Republic** (<sup>7</sup>Tychinin and Kuzmina, 2003); **Vologda Oblast** (<sup>1</sup>Kirilova, 2007; <sup>1</sup>Kirilova, 2009); **Voronezh Oblast** (<sup>4</sup>Afanasyev, Rtishcheva, and Starodubtseva, 2007; <sup>1</sup>Sarycheva, Starodubtseva, and Sapelnikova, 2017); **Yamalo-Nenets Autonomous Okrug** (<sup>4</sup>Kazantseva, 1966; <sup>4</sup>Stepanova and Sirko, 1970; <sup>7</sup>Stepanova and Sirko, 1977; <sup>8</sup>Karatygin, Nezdojminogo, Novozhilov, and Zhurbenko, 1999; <sup>7</sup>Nezdojminogo, 2001).

SIBERIA: **Altai Krai** (<sup>8</sup>Gorbunova and Perova, 2006); **Altai Republic** (<sup>7</sup>Gorbunova, 1997; <sup>7</sup>Gorbunova, 2001b; <sup>8</sup>Gorbunova, 2003; <sup>1</sup>Gorbunova, 2010); **Buryatia** (<sup>7</sup>Nezdojminogo, 1970a; <sup>1</sup>Urbanavichene and Urbanavichus, 2009); **Irkutsk Oblast** (<sup>7</sup>Kutafjeva, 1983; <sup>7</sup>Petrov, 1984; <sup>7</sup>Petrov, 1989; <sup>7</sup>Astapenko, 1990a; <sup>7</sup>Muzyka, 2002; <sup>7</sup>Bardunov et al., 2005; <sup>7</sup>Petrov, 2008; <sup>4</sup>Muzyka, 2009; <sup>1</sup>Gorbunova and Stepanova, 2015); **Khakassia** (<sup>7</sup>Beglyanova, 1972a); **Khanty-Mansi Autonomous Okrug** (<sup>1</sup>Zvyagina and Baykalova, 2012; <sup>1</sup>Filippova and Thormann, 2014; <sup>1</sup>Filippova, 2014; <sup>1</sup>Filippova, Mourgues, and Philippe, 2014; <sup>1</sup>Filippova, Bulyonkova, and Lapshina, 2015; <sup>1</sup>Filippova and Bulyonkova, 2017a; <sup>1</sup>Filippova and Bulyonkova, 2017b; <sup>1</sup>Zvyagina and Baykalova, 2017); **Krasnoyarsk Krai** (<sup>3</sup>Perova, 1970; <sup>7</sup>Vassilkov, 1971b; <sup>7</sup>Beglyanova, 1972a; <sup>7</sup>Beglyanova, 1972c; <sup>7</sup>Stepanova and Tomilin, 1973; <sup>7</sup>Nezdojminogo, 1976a; <sup>8</sup>Nezdojminogo and Kuvaev, 1993; <sup>8</sup>Nezdojminogo, 1997a; <sup>8</sup>Karatygin, Nezdojminogo, Novozhilov, and Zhurbenko, 1999; <sup>7</sup>Nezdojminogo, 2002; <sup>1</sup>Zauzolkova, 2012; <sup>1</sup>Zauzolkova, 2015; <sup>1</sup>Zmitrovich and Ezhov, 2015; <sup>1</sup>Gorbunova, 2016; <sup>1</sup>Malysheva, Malysheva, Kiyashko, et al., 2017; <sup>1</sup>Shiryaev, Zmitrovich, and Ezhov, 2018; <sup>1</sup>Krom and Kapitonov, 2019); **Novosibirsk Oblast** (<sup>7</sup>Perova and Gorbunova, 2007); **Sakha Republic** (<sup>8</sup>Nezdojminogo, 1997a; <sup>8</sup>Karatygin, Nezdojminogo, Novozhilov, and Zhurbenko, 1999); **Tomsk Oblast** (<sup>1</sup>Kudashova, Gashkov, and Kutafjeva, 2013); **Yamalo-Nenets Autonomous Okrug** (<sup>7</sup>Tarchevskaya, 1990; <sup>8</sup>Karatygin, Nezdojminogo, Novozhilov, and Zhurbenko, 1999; <sup>1</sup>Kapitonov, 2015); **Zabaykalsky Krai** (<sup>3</sup>Karsten, 1906).

FAR EAST: **Amur Oblast** (<sup>4</sup>Nazarova, 1986; <sup>7</sup>Azbukina et al., 1998; <sup>1</sup>Kochunova, 2016); **Chukotka Autonomous Okrug** (<sup>2</sup>Berkeley and Curtis, 1978; <sup>7</sup>Sazanova, 1993; <sup>8</sup>Karatygin, Nezdojminogo, Novozhilov, and Zhurbenko, 1999); **Jewish Autonomous Oblast** (<sup>1</sup>Erofeeva, Bukharova, and Bulakh, 2019); **Kamchatka Krai** (<sup>8</sup>Karatygin, Nezdojminogo, Novozhilov, and Zhurbenko, 1999); **Khabarovsk Krai** (<sup>4</sup>Azbukina et al., 1986; <sup>7</sup>Azbukina et al., 1989; <sup>7</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Bulakh, 2013; <sup>1</sup>Bogacheva, Bulakh, Bukharova, and Egorova, 2015; <sup>1</sup>Erofeeva and Bulakh, 2015a); **Magadan Oblast** (<sup>7</sup>Nazarova, 1976; <sup>7</sup>Sazanova, 1996; <sup>8</sup>Sazanova, 2005; <sup>1</sup>Sazanova, 2009a; <sup>1</sup>Sazanova, 2009b; <sup>1</sup>Sazanova, 2011; <sup>1</sup>Sazanova, 2012; <sup>1</sup>Sazanova, 2016); **Primorsky Krai** (<sup>4</sup>Vassiljeva, 1973; <sup>6</sup>Azbukina et al., 1984; <sup>8</sup>Bardunov et al., 2002; <sup>8</sup>Azbukina et al., 2006; <sup>7</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Bulakh et al., 2016; <sup>4</sup>Bogacheva, Bulakh, Bukharova, and Egorova, 2020); **Sakhalin Oblast** (<sup>4</sup>Vassiljeva and Nazarova, 1972; <sup>7</sup>Bulakh, Govorova, and Bogatov, 1999).

***Lichenomphalia velutina* (Quél.) Redhead, Lutzoni, Moncalvo & Vilgalys<sup>1</sup>**

≡ *Omphalina velutina* (Quél.) Quél.<sup>2</sup> ≡ *Phytoconis velutina* (Quél.) Redhead & Kuyper<sup>3</sup> = *Omphalina grisella* (P. Karst.) M.M. Moser<sup>4</sup>

EASTERN EUROPE: **Arkhangelsk Oblast** (<sup>1</sup>Shiryaev, Zmitrovich, and Ezhov, 2018); **Karachay-Cherkess Republic** (<sup>1</sup>Malysheva and Svetasheva, 2011); **Leningrad Oblast** (<sup>1</sup>Malysheva, Malysheva, Shchepin, and Novozhilov, 2018); **Murmansk Oblast** (<sup>3</sup>Nezdojminogo, 1997b; <sup>3</sup>Karatygin, Nezdojminogo, Novozhilov, and Zhurbenko, 1999).

SIBERIA: **Altai Republic** (<sup>4</sup>Gorbunova, 2003; <sup>1</sup>Gorbunova, 2010); **Irkutsk Oblast** (<sup>4</sup>Kutafjeva, 1983); **Khakassia** (<sup>4</sup>Beglyanova, 1972a); **Khanty-Mansi Autonomous Okrug** (<sup>1</sup>Zvyagina and Baykalova, 2012); **Krasnoyarsk Krai** (<sup>4</sup>Beglyanova, 1972a; <sup>2</sup>Beglyanova, 1972c; <sup>3</sup>Nezdojminogo and Zhurbenko, 1996; <sup>3</sup>Nezdojminogo, 1997a; <sup>3</sup>Karatygin, Nezdojminogo, Novozhilov, and Zhurbenko, 1999; <sup>2</sup>Nezdojminogo, 2002; <sup>1</sup>Zmitrovich and Ezhov, 2015; <sup>1</sup>Gorbunova, 2016; <sup>1</sup>Shiryaev, Zmitrovich, and Ezhov, 2018); **Novosibirsk Oblast** (<sup>4</sup>Perova, 1977); **Tomsk Oblast** (<sup>1</sup>Kudashova, Gashkov, and Kutafjeva, 2013).

FAR EAST: **Khabarovsk Krai** (<sup>4</sup>Azbukina et al., 1986; <sup>1</sup>Bau, Bulakh, and Govorova, 2011); **Magadan Oblast** (<sup>4</sup>Nazarova, 1976; <sup>1</sup>Sazanova, 2009a); **Primorsky Krai** (<sup>4</sup>Vassiljeva, 1973; <sup>3</sup>Bardunov et al., 2002; <sup>1</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Bulakh et al., 2016).

***Lignomphalia lignicola* (Lj.N. Vassiljeva) Antonín, Borovička, Holec & Kolařík<sup>1</sup>**

≡ *Clitocybula lignicola* (Lj.N. Vassiljeva) E.F. Malysheva & O.V. Morozova<sup>2</sup> ≡ *Pseudoomphalina lignicola* Lj.N. Vassiljeva<sup>3</sup>

EASTERN EUROPE: **Komi Republic** (<sup>2</sup>Palamarchuk and Kirillov, 2016; <sup>2</sup>Palamarchuk, 2016a; <sup>2</sup>Palamarchuk, 2016b; <sup>2</sup>Dyogteva, 2019; <sup>2</sup>Palamarchuk et al., 2019); **Vologda Oblast** (<sup>2</sup>Shiryaeva, 2016).

SIBERIA: **Altai Republic** (<sup>2</sup>Malysheva, Morozova, and Contu, 2011); **Buryatia** (<sup>2</sup>Malysheva, Morozova, and Contu, 2011; <sup>2</sup>Petrov, 2013; <sup>2</sup>Pronin, 2013); **Irkutsk Oblast** (<sup>3</sup>Petrov, 1981; <sup>3</sup>Petrov, 1984; <sup>3</sup>Astapenko, 1990a; <sup>3</sup>Petrov, 1991; <sup>3</sup>Petrov, 2008; <sup>3</sup>Gaykova and Popov, 2010; <sup>2</sup>Malysheva, Morozova, and Contu, 2011; <sup>2</sup>Petrov, 2013; <sup>2</sup>Trofimova, Popov, and Merkacheva, 2020); **Krasnoyarsk Krai** (<sup>3</sup>Petrov, 1981; <sup>3</sup>Nezdojminogo, 1982a; <sup>2</sup>Malysheva, Morozova, and Contu, 2011; <sup>2</sup>Malysheva, Malysheva, Kiyashko, et al., 2017); **Zabaykalsky Krai** (<sup>2</sup>Polyakov, Popova, and Afonina, 2017).

FAR EAST: **Amur Oblast** (<sup>2</sup>Malysheva, Morozova, and Contu, 2011); **Jewish Autonomous Oblast** (<sup>3</sup>Bulakh, Govorova, Nazarova, and Vassiljeva, 2007; <sup>2</sup>Malysheva, Morozova, and Contu, 2011; <sup>3</sup>Bau, Bulakh, and Govorova, 2011); **Khabarovsk Krai** (<sup>3</sup>Azbukina et al., 1989; <sup>2</sup>Malysheva, Morozova, and Contu, 2011; <sup>2</sup>Erofeeva and Bulakh, 2016); **Primorsky Krai** (<sup>3</sup>Vassiljeva, 1972; <sup>3</sup>Vassiljeva, 1973; <sup>3</sup>Bunkina and Nazarova, 1978; <sup>3</sup>Bardunov et al., 2002; <sup>3</sup>Azbukina et al., 2006; <sup>2</sup>Malysheva, Morozova, and Contu, 2011; <sup>3</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Antonín et al., 2019); **Sakhalin Oblast** (<sup>3</sup>Vassiljeva and Nazarova, 1972; <sup>2</sup>Malysheva, Morozova, and Contu, 2011; <sup>1</sup>Antonín et al., 2019); FAR EAST (<sup>3</sup>Petrov, 1981).

***Lignomyces vetlinianus* (Domański) R.H. Petersen & Zmitr.**

EASTERN EUROPE: **Komi Republic** (Palamarchuk, 2020b); **Leningrad Oblast** (Bolshakov et al., 2020); **Moscow Oblast** (Petersen et al., 2015); **Novgorod Oblast** (Petersen et al., 2015); **Sverdlovsk Oblast** (Stavishenko and Zmitrovich, 2017).

***Limacella delicata* (Fr.) Earle ex Konrad & Maubl.<sup>1</sup>**

≡ *Limacella delicata* var. *delicata* (Fr.) Earle ex Konrad & Maubl.<sup>2</sup> = *Limacella delicata* var. *glioderma* (Fr.) Gminder<sup>3</sup> = *Limacella glioderma* (Fr.) Maire<sup>4</sup>

EASTERN EUROPE: **Crimea** (<sup>1</sup>Sarkina, 2001; <sup>1</sup>Dudka et al., 2004; <sup>1</sup>Sarkina, 2010b; <sup>1</sup>Sarkina, 2013); **Kaluga Oblast** (<sup>4</sup>Sionova, 2009; <sup>4</sup>Sionova, 2012; <sup>4</sup>Antokhina et al., 2015); **Karelia** (<sup>4</sup>Bondartseva et al., 2001; <sup>3</sup>Krutov et al., 2014); **Leningrad Oblast** (<sup>4</sup>Tzvelev, 2000; <sup>4</sup>Popov et al., 2007; <sup>4</sup>Geltman et al., 2018; <sup>4</sup>Geltman, 2018b); **Moscow Oblast** (<sup>4</sup>Levitskaya, 1995a; <sup>4</sup>Levitskaya, 2013); **Penza Oblast** (<sup>4</sup>Ivanov, 1989); **Perm Krai** (<sup>4</sup>Stepanova and Sirko, 1977; <sup>3</sup>Perevedentseva, 2008); **Rostov Oblast** (<sup>3</sup>Rusanov, Rebriev, and Bulgakov, 2018); **Saint Petersburg** (<sup>4</sup>Kovalenko and Morozova, 1999a; <sup>4</sup>Noskov, 2004; <sup>4</sup>Geltman, 2018a; <sup>4</sup>Morozova et al., 2020); **Samara Oblast** (<sup>4</sup>Malysheva and Malysheva, 2008); **Sverdlovsk Oblast** (<sup>4</sup>Marina, 2006); **Tula Oblast** (<sup>4</sup>Svetasheva, 2004; <sup>4</sup>Svetasheva, 2005b; <sup>4</sup>Shcherbakov, 2010); **Udmurt Republic** (<sup>1</sup>Kapitonov, 2013); **Ulyanovsk Oblast** (<sup>4</sup>Ilyukhin, 2010a; <sup>4</sup>Ilyukhin, 2010b); **Arid territories** (<sup>3</sup>Rebriev, Rusanov, et al., 2012).

SIBERIA: **Altai Krai** (<sup>4</sup>Gorbunova and Perova, 2006; <sup>4</sup>Gorbunova, 2018a); **Altai Republic** (<sup>4</sup>Gorbunova, 2001b; <sup>4</sup>Perova and Gorbunova, 2001); **Irkutsk Oblast** (<sup>4</sup>Bardunov et al., 2005; <sup>3</sup>Petrov, 2013); **Khanty-Mansi Autonomous Okrug** (<sup>3</sup>Filippova, Bulyonkova, and Lapshina, 2015); **Krasnoyarsk Krai** (<sup>1</sup>Malysheva, Malysheva, Kiyashko, et al., 2017); **Novosibirsk Oblast** (<sup>1,4</sup>Perova and Gorbunova, 2001; <sup>2,3</sup>Perova and Gorbunova, 2007; <sup>3</sup>Koropachinskiy and Banaev, 2014); **Tomsk Oblast** (<sup>4</sup>Perova and Gorbunova, 2001; <sup>3</sup>Kudashova, Gashkov, and Kutafjeva, 2013).

FAR EAST: **Jewish Autonomous Oblast** (<sup>4</sup>Bulakh, Govorova, Nazarova, and Vassiljeva, 2007; <sup>3</sup>Bau, Bulakh, and Govorova, 2011); **Khabarovsk Krai** (<sup>4</sup>Azbukina et al., 1989; <sup>3</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Erofeeva and Bulakh, 2015a); **Primorsky Krai** (<sup>4</sup>Vassiljeva, 1973; <sup>4</sup>Bunkina and Nazarova, 1978; <sup>4</sup>Azbukina et al., 1984; <sup>4</sup>Azbukina et al., 2006; <sup>3</sup>Bau, Bulakh, and Govorova, 2011; <sup>4</sup>Bulakh et al., 2016).

***Limacella subfurnacea* Contu**

EASTERN EUROPE: **Crimea** (Sarkina, 2014b); **Sevastopol** (Sarkina, 2020b).

***Limacellopsis guttata* (Pers.) Zhu L. Yang, Q. Cai & Y.Y. Cui**

≡ *Limacella guttata* (Pers.) Konrad & Maubl.<sup>1</sup>

EASTERN EUROPE: **Crimea** (<sup>1</sup>Dudka et al., 2004); **Kaliningrad Oblast** (<sup>1</sup>Dedkov, Volodina, and Gubareva, 2007; <sup>1</sup>Dedkov and Grishanov, 2010); **Kaluga Oblast** (<sup>1</sup>Sionova, 2012); **Leningrad Oblast** (<sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Popov et al., 2007; <sup>1</sup>Geltman et al., 2018; <sup>1</sup>Geltman, 2018b); **Moscow Oblast** (<sup>1</sup>Gorlenko, Sidorova, and Sidorova, 1989); **Perm Krai** (<sup>1</sup>Perevedentseva, 2008); **Pskov Oblast** (<sup>1</sup>Kolmakov and Popov, 2005; <sup>1</sup>Popov et al., 2013; <sup>1</sup>Aleksandrov et al., 2014); **Saint Petersburg** (<sup>1</sup>Morozova and Smirnov, 2011; <sup>1</sup>Geltman, 2018a; <sup>1</sup>Morozova et al., 2020); **Udmurt Republic** (<sup>1</sup>Tychinin and Kuzmina, 2003); **Yaroslavl Oblast** (<sup>1</sup>Lazareva, 1998a; <sup>1</sup>Lazareva, 1998b); **Arid territories** (<sup>1</sup>Rebriev, Rusanov, et al., 2012).

SIBERIA: **Novosibirsk Oblast** (<sup>1</sup>Gorbunova, 2007).

FAR EAST: **Amur Oblast** (<sup>1</sup>Kochunova, 2019).

***Loreleia marchantiae* (Singer & Cléménçon) Redhead, Moncalvo, Vilgalys & Lutzoni**

FAR EAST: **Amur Oblast** (Kochunova, 2019); **Magadan Oblast** (Sazanova, 2009a; Sazanova, 2009b; Sazanova, 2011; Sazanova, 2012).

***Loreleia postii* (Fr.) Redhead, Moncalvo, Vilgalys & Lutzoni<sup>1</sup>**

≡ *Gerronema postii* (Fr.) Singer<sup>2</sup> ≡ *Omphalina postii* (Fr.) Singer<sup>3</sup>

EASTERN EUROPE: **Moscow Oblast** (<sup>3</sup>Vishnevsky, 1998; <sup>1</sup>Voronina et al., 2012; <sup>1</sup>Voronina et al., 2014); **Perm Krai** (<sup>2</sup>Perevedentseva, 2008); **Rostov Oblast** (<sup>1</sup>Shiryaev, Rebriev, and Knudsen, 2017; <sup>1</sup>Rebriev, 2018); **Sverdlovsk Oblast** (<sup>2</sup>Marina, 2006); **Tatarstan** (<sup>2</sup>Vassiljeva, 1977); **Tver Oblast** (<sup>2</sup>Kurochkin, 1993); **Yamalo-Nenets Autonomous Okrug** (<sup>2</sup>Stepanova and Sirko, 1977).

SIBERIA: **Altai Republic** (<sup>3</sup>Gorbunova, 2008); **Irkutsk Oblast** (<sup>2</sup>Petrov, 1984; <sup>2</sup>Petrov, 1991); **Tomsk Oblast** (<sup>2</sup>Perova and Gorbunova, 2001; <sup>1</sup>Kudashova, Gashkov, and Kutafjeva, 2013).

FAR EAST: **Jewish Autonomous Oblast** (<sup>1</sup>Erofeeva, Bukharova, and Bulakh, 2019); **Magadan Oblast** (<sup>2</sup>Sazanova, 2005; <sup>1</sup>Sazanova, 2009a).

***Lyophyllum admissum* (Britzelm.) Consiglio & Contu**

≡ *Clitocybe admissa* (Britzelm.) Kühner & Romagn.<sup>1</sup>

FAR EAST: **Sakhalin Oblast** (<sup>1</sup>Vassiljeva and Nazarova, 1972).

***Lyophyllum amygdalosporum* Kalamees**

FAR EAST: **Primorsky Krai** (Kalamees, 2004).

***Lyophyllum caeruleascens* Cléménçon ex Kibby**

≡ *Lyophyllum caeruleascens* Cléménçon<sup>1</sup>

SIBERIA: **Tomsk Oblast** (<sup>1</sup>Kudashova, Gashkov, and Kutafjeva, 2013; <sup>1</sup>Kudashova, Gashkov, and Vaishlya, 2016b).

***Lyophyllum capniocephalum* (Bull.) Kühner**

SIBERIA: **Krasnoyarsk Krai** (Kutafjeva and Polenok, 2005).

***Lyophyllum crassifolium* (Sacc.) Singer**

EASTERN EUROPE: **Moscow Oblast** (Levitskaya, 2006; Levitskaya, 2013); **Penza Oblast** (Ivanov, 1983); **Tula Oblast** (Svetasheva, 2004; Svetasheva, 2005b; Svetasheva, 2013); **Yaroslavl Oblast** (Lazareva, 1998a).

***Lyophyllum decastes* (Fr.) Singer<sup>1</sup>**

≡ *Agaricus decastes* Fr.<sup>2</sup> = *Agaricus fumosus* Pers.<sup>3</sup> = *Clitocybe fumosa* (Pers.) P. Kumm.<sup>4</sup> = *Lyophyllum fumosum* (Pers.) P.D. Orton<sup>5</sup> = *Tricholoma aggregatum* (Schaeff.) Ricken<sup>6</sup> = *Tricholoma conglobatum* (Vittad.) Sacc.<sup>7</sup>

EASTERN EUROPE: **Adygea** (<sup>1</sup>Vaasma, Kalamees, and Raitviir, 1986); **Belgorod Oblast** (<sup>1,5</sup>Bedenko, 1979a; <sup>1,5</sup>Kalamees, 2004); **Chelyabinsk Oblast** (<sup>4</sup>Aleksandrovskaia and Lobanova, 1968); **Crimea** (<sup>1</sup>Sarkina, 2001; <sup>1,5</sup>Dudka et al., 2004; <sup>1</sup>Sarkina, 2010b; <sup>5</sup>Sarkina, 2011; <sup>1</sup>Sarkina, 2014b); **Kabardino-Balkarian Republic** (<sup>1</sup>Shkhagapsoev and Krapivina, 2004); **Kaliningrad Oblast** (<sup>1,5</sup>Dedkov, Volodina, and Gubareva, 2007; <sup>1</sup>Volodina, 2007; <sup>1</sup>Atayev and Volodina, 2020); **Karelia** (<sup>1,5</sup>Bondartseva et al., 2001; <sup>1</sup>Predtechenskaya and Ruokolainen, 2013; <sup>1,5</sup>Krutov et al., 2014; <sup>1</sup>Predtechenskaya, 2015; <sup>1</sup>Savelev and Kikeeva, 2018; <sup>5</sup>Savelev and Kikeeva, 2020); **Kirov Oblast** (<sup>1</sup>Stavishenko, Luginina, Kirillov, and Egoshina, 2019); **Komi Republic** (<sup>1,5</sup>Bobretsova, 2004; <sup>1,5</sup>Palamarchuk, 2012; <sup>1</sup>Palamarchuk and Kirillov, 2017; <sup>1</sup>Palamarchuk, 2017); **Krasnodar Krai** (<sup>1,5</sup>Kovalenko, 1980a; <sup>1,5</sup>Kovalenko, 1980b; <sup>1,5</sup>Kalamees, 2004); **Kursk Oblast** (<sup>6</sup>Ryabova and Ignatenko, 1981; <sup>1,5</sup>Bedenko, 1987; <sup>5</sup>Soshnina, 2014); **Leningrad Oblast** (<sup>4</sup>Thesleff, 1920; <sup>5</sup>Kalamees and Kovalenko, 1984; <sup>5</sup>Stolyarskaya, 1993; <sup>1,5</sup>Kovalenko and Morozova, 1999a; <sup>5</sup>Kalamees, 2004; <sup>1</sup>Morozova, 2007; <sup>1,5</sup>Popov et al., 2007; <sup>5</sup>Zmitrovich et al., 2015); **Lipetsk Oblast** (<sup>1,5</sup>Sarycheva et al., 2009; <sup>1,5</sup>Sarycheva, 2011; <sup>1,5</sup>Sarycheva, 2014a; <sup>1,5</sup>Sarycheva, 2016); **Mari El Republic** (<sup>1,5</sup>Kalamees, 2004); **Mordovia** (<sup>4</sup>Chastukhin, 1948a; <sup>5</sup>Chastukhin and Nikolaevskaya, 1969; <sup>1</sup>Ivoilov and Bolshakov, 2011a; <sup>4</sup>Chastukhin, 2011); **Moscow Oblast** (<sup>1,5</sup>Gorlenko, Sidorova, and Sidorova, 1989; <sup>1,5</sup>Vishnevsky, 1998; <sup>1</sup>Levitskaya, 2006; <sup>1</sup>Levitskaya, 2013); **Murmansk Oblast** (<sup>1</sup>Pystina, Pavlova, and Shestakova, 1969; <sup>1,5</sup>Kalamees, 2004); **Nenets Autonomous Okrug** (<sup>1</sup>Matveyeva, 2006; <sup>1</sup>Matveyeva, 2020); **North Ossetia** (<sup>1</sup>Nikolayev, 2001); **Penza Oblast** (<sup>1</sup>Ivanov, 1983; <sup>5</sup>Ivanov and Nezdoininogo, 1990); **Perm Krai** (<sup>5</sup>Kalamees, 2004; <sup>1,5</sup>Perevedentseva, 2008; <sup>5</sup>Shepel', 2008; <sup>1</sup>Belkovskaya et al., 2014); **Pskov Oblast** (<sup>1</sup>Popov et al., 2013); **Rostov Oblast** (<sup>1</sup>Vyshchepan, 1992; <sup>1</sup>Rusanov et al., 2004; <sup>1</sup>Zmitrovich et

al., 2008); **Ryazan Oblast** (<sup>1</sup>Volosnova, 1997; <sup>1</sup>Volosnova, 2014); **Saint Petersburg** (<sup>3</sup>Weinmann, 1828; <sup>2,3</sup>Weinmann, 1836; <sup>2,3</sup>Weinmann, 1837; <sup>1,5</sup>Kovalenko and Morozova, 1999a; <sup>1,5</sup>Kalamees, 2004; <sup>1,5</sup>Psurtseva, Kiyashko, Gachkova, and Belova, 2007; <sup>1,5</sup>Morozova and Smirnov, 2011; <sup>1</sup>Morozova, Kovalenko, Rebriev, and Malysheva, 2014; <sup>1,5</sup>Morozova et al., 2020); **Sevastopol** (<sup>1</sup>Sarkina, 2016b); **Sverdlovsk Oblast** (<sup>5</sup>Tomilin, 1965; <sup>5</sup>Stepanova and Sirko, 1977); **Tula Oblast** (<sup>1</sup>Svetasheva, 2004; <sup>1</sup>Svetasheva, 2013); **Tver Oblast** (<sup>1</sup>Kurochkin, 1993; <sup>1</sup>Mukhina, 2011a; <sup>1</sup>Mukhina, 2011b; <sup>1</sup>Kotkova, 2014; <sup>1</sup>Kurochkin and Medvedev, 2015; <sup>1</sup>Kurochkin, 2016); **Udmurt Republic** (<sup>1</sup>Tychinin, 1990; <sup>1,5</sup>Tychinin and Kuzmina, 2003); **Vologda Oblast** (<sup>1</sup>Kirillova, 2007; <sup>1</sup>Kirillova, 2009); **Voronezh Oblast** (<sup>1,5</sup>Bedenko, 1987; <sup>1</sup>Sarycheva, Starodubtseva, and Sapelnikova, 2017); **Yamalo-Nenets Autonomous Okrug** (<sup>5</sup>Kalamees, 2004); **Yaroslavl Oblast** (<sup>1</sup>Lazareva, 1998a); **Arid territories** (<sup>1</sup>Rebriev, Rusanov, et al., 2012).

SIBERIA: **Altai Krai** (<sup>1</sup>Gorbunova, 2018a); **Buryatia** (<sup>1,5</sup>Nezdojminogo, 1970a); **Irkutsk Oblast** (<sup>1</sup>Kutafjeva, 1983; <sup>1,5</sup>Petrov, 1984; <sup>1</sup>Muzyka, 2002; <sup>1</sup>Kalamees, 2004; <sup>1,5</sup>Petrov, 2008; <sup>1,5</sup>Muzyka, 2009; <sup>5</sup>Muzyka and Penzina, 2017); **Khakassia** (<sup>1</sup>Zauzolkova, 2015; <sup>1</sup>Zauzolkova and Gorbunova, 2016); **Khanty-Mansi Autonomous Okrug** (<sup>1</sup>Zvyagina, Baykalova, and Gorbunova, 2007; <sup>5</sup>Filippova, Bulyonkova, and Lapshina, 2015); **Krasnoyarsk Krai** (<sup>1,5</sup>Beglyanova, 1972a; <sup>5</sup>Nezdojminogo, 1976a; <sup>1,5</sup>Lapitskaya, 1993; <sup>1,5</sup>Kalamees, 2004; <sup>1,5</sup>Zauzolkova, 2015; <sup>1</sup>Zauzolkova and Gorbunova, 2016; <sup>1</sup>Krom and Kapitonov, 2019); **Novosibirsk Oblast** (<sup>1</sup>Nozdrenko, 1970; <sup>1</sup>Perova and Gorbunova, 2001; <sup>1</sup>Gorbunova, 2007; <sup>1</sup>Koropachinskiy and Banaev, 2014); **Omsk Oblast** (<sup>7</sup>Pilát, 1934); **Sakha Republic** (<sup>4</sup>Birkenhof, 1936); **Tomsk Oblast** (<sup>6</sup>Milovidova, 1980; <sup>1</sup>Agaphonova, Kutafjeva, and Gashkov, 2007; <sup>1,5</sup>Kudashova, Gashkov, and Kutafjeva, 2013; <sup>1,5</sup>Vaishlya et al., 2017); **Baikalia** (<sup>1</sup>Psurtseva, Kiyashko, Gachkova, and Belova, 2007).

FAR EAST: **Amur Oblast** (<sup>1</sup>Bulakh, Govorova, and Taranina, 2003; <sup>1</sup>Taranina, 2005; <sup>1</sup>Bogacheva et al., 2018); **Chukotka Autonomous Okrug** (<sup>1</sup>Sazanova, 1993); **Jewish Autonomous Oblast** (<sup>1</sup>Bogacheva et al., 2018); **Magadan Oblast** (<sup>1</sup>Nazarova, 1976; <sup>1</sup>Sazanova, 1996; <sup>1</sup>Sazanova, 2005; <sup>1</sup>Sazanova, 2009a; <sup>1</sup>Sazanova, 2011); **Primorsky Krai** (<sup>1</sup>Vassiljeva, 1973; <sup>1</sup>Azbukina et al., 1984; <sup>1</sup>Azbukina et al., 1990; <sup>1</sup>Bardunov et al., 2002; <sup>1</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Bulakh et al., 2016; <sup>1</sup>Bogacheva et al., 2018); **Sakhalin Oblast** (<sup>5</sup>Kalamees, 2004).

#### *Lyophyllum eustygium* (Cooke) Cléménçon

EASTERN EUROPE: **Tula Oblast** (Shcherbakov, 2010).

FAR EAST: **Magadan Oblast** (Sazanova, 2016).

#### *Lyophyllum immundum* (Berk.) Kühner

EASTERN EUROPE: **Bryansk Oblast** (Kruglikov, 2007); **Crimea** (Sarkina, 2001; Dudka et al., 2004; Sarkina, 2010b; Sarkina and Prydiuk, 2012); **Kabardino-Balkarian Republic** (Shkhagapsoev and Krapivina, 2004); **Krasnodar Krai** (Kovalenko, 1980a; Kovalenko, 1980b); **Ryazan Oblast** (Volosnova, 2005); **Sevastopol** (Sarkina, 2016b; Sarkina, 2020c).

SIBERIA: **Altai Krai** (Gorbunova and Perova, 2006).

#### *Lyophyllum infumatum* (Bres.) Kühner

EASTERN EUROPE: **Crimea** (Sarkina, 2010b); **Leningrad Oblast** (Malysheva, Malysheva, Shchepin, and Novozhilov, 2018); **Penza Oblast** (Ivanov, 1983).

SIBERIA: **Altai Republic** (Gorbunova, 2001b; Perova and Gorbunova, 2001); **Irkutsk Oblast** (Kutafjeva, 1983; Kalamees, 2004); **Khakassia** (Zauzolkova and Gorbunova, 2013; Zauzolkova, 2015); **Krasnoyarsk Krai** (Pavlov et al., 2007).

FAR EAST: **Khabarovsk Krai** (Azbukina et al., 1986; Azbukina et al., 1989; Kalamees, 2004; Bau, Bulakh, and Govorova, 2011); **Primorsky Krai** (Vassiljeva, 1973; Azbukina et al., 1984; Azbukina et al., 1990; Bardunov et al., 2002; Bau, Bulakh, and Govorova, 2011); **Sakhalin Oblast** (Vassiljeva and Nazarova, 1972; Kalamees, 2004).

#### *Lyophyllum konradianum* (Maire) Kühner & Romagn.

EASTERN EUROPE: **Karachay-Cherkess Republic** (Kalamees and Botashev, 2000); **Karelia** (Bondartseva et al., 2001; Krutov et al., 2014).

FAR EAST: **Primorsky Krai** (Kalamees, 2004).

#### *Lyophyllum loricaum* (Fr.) Kühner

EASTERN EUROPE: **Kaliningrad Oblast** (Dedkov, Volodina, and Gubareva, 2007); **Mari El Republic** (Kalamees, 2004); **Moscow Oblast** (Gorlenko, Sidorova, and Sidorova, 1989; Vishnevsky, 1998); **Perm Krai** (Psurtseva, Kiyashko, Gachkova, and Belova, 2007; Perevedentseva, 2008); **Rostov Oblast** (Rusanov, Rebriev, and Bulgakov,

2018); **Saint Petersburg** (Kalamees, 2004; Morozova, Kovalenko, Rebriev, and Malysheva, 2014); **Arid territories** (Rebriev, Rusanov, et al., 2012).

SIBERIA: **Irkutsk Oblast** (Kalamees, 2004); **Krasnoyarsk Krai** (Beglyanova, 1972a; Beglyanova, 1972b).

***Lyophyllum oldae* (Svrček) Cléménçon**

≡ *Tephrocycbe oldae* Svrček<sup>1</sup>

EASTERN EUROPE: **Moscow Oblast** (<sup>1</sup>Levitskaya, 1998).

***Lyophyllum paelochroum* Cléménçon**

EASTERN EUROPE: **Arid territories** (Rebriev, Rusanov, et al., 2012).

***Lyophyllum pallidum* Cléménçon & A.H. Sm.**

FAR EAST: **Primorsky Krai** (Kalamees, 2004).

***Lyophyllum rhopalopodium* Cléménçon**

EASTERN EUROPE: **Sevastopol** (Sarkina, 2020c).

***Lyophyllum semitale* (Fr.) Kühner<sup>1</sup>**

≡ *Collybia semitalis* (Fr.) Quél.<sup>2</sup>

EASTERN EUROPE: **Karelia** (<sup>1</sup>Freindling, 1949; <sup>1</sup>Bondartseva et al., 2001; <sup>1</sup>Krutov et al., 2014); **Leningrad Oblast** (<sup>2</sup>Thesleff, 1920; <sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Kalamees, 2004; <sup>1</sup>Morozova, 2007; <sup>1</sup>Popov et al., 2007); **Ulyanovsk Oblast** (<sup>1</sup>Ilyukhin, 2010a; <sup>1</sup>Ilyukhin, 2010b).

SIBERIA: **Khakassia** (<sup>1</sup>Zauzolkova and Gorbunova, 2013; <sup>1</sup>Zauzolkova, 2015); **Tomsk Oblast** (<sup>1</sup>Perova and Gorbunova, 2001; <sup>1</sup>Kudashova, Gashkov, and Kutafjeva, 2013).

FAR EAST: **Khabarovsk Krai** (<sup>1</sup>Kalamees, 2004; <sup>1</sup>Bau, Bulakh, and Govorova, 2011); **Magadan Oblast** (<sup>1</sup>Sazanova, 2015); **Primorsky Krai** (<sup>1</sup>Kalamees, 2004; <sup>1</sup>Bau, Bulakh, and Govorova, 2011).

***Lyophyllum sykosporum* Hongo & Cléménçon**

FAR EAST: **Primorsky Krai** (Kalamees, 2004).

***Lyophyllum transforme* (Sacc.) Singer**

EASTERN EUROPE: **Krasnodar Krai** (Vaasma, Kalamees, and Raitviir, 1986; Kalamees, 2004).

***Macrocyttidia cucumis* (Pers.) Joss.<sup>1</sup>**

≡ *Macrocyttidia cucumis* var. *cucumis* (Pers.) Joss.<sup>2</sup> = *Macrocyttidia cucumis* f. *minor* Joss.<sup>3</sup> = *Macrocyttidia cucumis* var. *latifolia* (J.E. Lange) Imazeki & Hongo<sup>4</sup> = *Macrocyttidia cucumis* var. *leucospora* (J.E. Lange) Imazeki & Hongo<sup>5</sup>

EASTERN EUROPE: **Adygea** (<sup>1</sup>Vaasma, Kalamees, and Raitviir, 1986); **Crimea** (<sup>1</sup>Sarkina, 2001; <sup>1</sup>Dudka et al., 2004; <sup>1</sup>Sarkina, 2010b); **Kaliningrad Oblast** (<sup>1</sup>Dedkov, Volodina, and Gubareva, 2007; <sup>1</sup>Volodina, 2007; <sup>1</sup>Atayev and Volodina, 2020); **Komi Republic** (<sup>4</sup>Palamarchuk, 2020b); **Krasnodar Krai** (<sup>1</sup>Kovalenko, 1980a; <sup>1</sup>Kovalenko, 1980b); **Leningrad Oblast** (<sup>1</sup>Nezdojminogo, 1967; <sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Morozova, 2007; <sup>1</sup>Popov et al., 2007); **Moscow Oblast** (<sup>2</sup>Levitskaya, 2006; <sup>1</sup>Voronina et al., 2012; <sup>1</sup>Levitskaya, 2013; <sup>1</sup>Voronina et al., 2014); **Novgorod Oblast** (<sup>4,5</sup>Kovalenko, Morozova, Nezdojminogo, and Popov, 2005; <sup>4,5</sup>Popov et al., 2013); **Penza Oblast** (<sup>1</sup>Ivanov, 1983); **Perm Krai** (<sup>1</sup>Perevedentseva, 2008); **Pskov Oblast** (<sup>2,3</sup>Popov et al., 2013); **Ryazan Oblast** (<sup>1</sup>Volosnova, 2014); **Saint Petersburg** (<sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Morozova, Kovalenko, Rebriev, and Malysheva, 2014); **Tatarstan** (<sup>1</sup>Vassiljeva, 1977; <sup>1</sup>Potapov, 2015b); **Tver Oblast** (<sup>1</sup>Kurochkin, 1993; <sup>1</sup>Mukhina, 2011a; <sup>1</sup>Mukhina, 2011b; <sup>1</sup>Kotkova, 2014); **Udmurt Republic** (<sup>1</sup>Kapitonov, 2013); **Vologda Oblast** (<sup>1</sup>Kirillova, 2007; <sup>1</sup>Kirillova, 2009); **Yaroslavl Oblast** (<sup>2</sup>Lazareva, 1998a).

SIBERIA: **Altai Republic** (<sup>1</sup>Gorbunova, 2001b; <sup>1</sup>Perova and Gorbunova, 2001); **Irkutsk Oblast** (<sup>1</sup>Petrov, 1984; <sup>1</sup>Astapenko and Kutafjeva, 1990; <sup>1</sup>Petrov, 1991; <sup>1</sup>Petrov, 2008); **Krasnoyarsk Krai** (<sup>1</sup>Zauzolkova, 2015; <sup>1</sup>Zauzolkova and Gorbunova, 2016; <sup>1</sup>Krom and Kapitonov, 2019); **Novosibirsk Oblast** (<sup>1</sup>Koropachinskiy and Banaev, 2014); **Sverdlovsk Oblast** (<sup>1</sup>Stepanova and Sirko, 1977); **Tomsk Oblast** (<sup>1</sup>Perova and Gorbunova, 2001; <sup>1</sup>Kudashova, Gashkov, and Kutafjeva, 2013; <sup>1</sup>Kudashova, Gashkov, and Vaishlya, 2016b); **Tyva Republic** (<sup>1</sup>Gorbunova, 2015).

FAR EAST: **Amur Oblast** (<sup>1</sup>Kochunova and Erofeeva, 2017; <sup>1</sup>Kochunova, 2019); **Jewish Autonomous Oblast** (<sup>1</sup>Bulakh, Govorova, Nazarova, and Vassiljeva, 2007; <sup>1</sup>Bau, Bulakh, and Govorova, 2011); **Khabarovsk Krai**

(<sup>1</sup>Azbukina et al., 1986; <sup>1</sup>Bau, Bulakh, and Govorova, 2011); **Primorsky Krai** (<sup>1</sup>Vassiljeva, 1972; <sup>1</sup>Vassiljeva, 1973; <sup>1</sup>Bunkina and Nazarova, 1978; <sup>1</sup>Azbukina et al., 1984; <sup>1</sup>Azbukina et al., 2006; <sup>1</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Bulakh et al., 2016).

***Macrolepiota campestris* Lebedeva ex Samgina**

SIBERIA: **Altai Krai** (Gorbunova, 2006); **Altai Republic** (Gorbunova, 2006); **Khakassia** (Gorbunova and Majnagasheva, 2013; Zauzolkova, 2015); **Novosibirsk Oblast** (Gorbunova, 2006; Gorbunova, 2007).

***Macrolepiota excoriata* (Schaeff.) Wasser<sup>1</sup>**

≡ *Agaricus excoriatus* Schaeff.<sup>2</sup> ≡ *Lepiota excoriata* (Schaeff.) P. Kumm.<sup>3</sup> ≡ *Leucoagaricus excoriatus* (Schaeff.) Singer<sup>4</sup> ≡ *Macrolepiota excoriata* (Schaeff.) M.M. Moser<sup>5</sup>

EASTERN EUROPE: **Astrakhan Oblast** (<sup>5</sup>Rebriev, Aleksandrova, et al., 2012); **Bashkortostan** (<sup>5</sup>Stepanova and Sirko, 1977; <sup>1</sup>Wasser, 1980); **Belgorod Oblast** (<sup>4</sup>Bedenko, 1979a); **Bryansk Oblast** (<sup>5</sup>Kruglikov, 2007); **Chelyabinsk Oblast** (<sup>5</sup>Stepanova and Sirko, 1977); **Crimea** (<sup>1</sup>Wasser, 1980; <sup>1</sup>Sarkina, 2001; <sup>1</sup>Dudka et al., 2004; <sup>1</sup>Sarkina, 2006; <sup>1</sup>Sarkina, 2011; <sup>1</sup>Sarkina and Prydiuk, 2012; <sup>1</sup>Sarkina and Mironova, 2015; <sup>1</sup>Sarkina and Stavishenko, 2019; <sup>1</sup>Sarkina, 2020a); **Dagestan** (<sup>1</sup>Wasser, 1980); **Kabardino-Balkarian Republic** (<sup>3</sup>Shkhagapsoev and Krapivina, 2004); **Kaliningrad Oblast** (<sup>5</sup>Dedkov, Volodina, and Gubareva, 2007); **Kaluga Oblast** (<sup>5</sup>Sionova, 2003; <sup>1</sup>Antokhina et al., 2015); **Krasnodar Krai** (<sup>1</sup>Kovalenko, 1980a; <sup>1</sup>Kovalenko, 1980b); **Kursk Oblast** (<sup>3</sup>Ryabova and Ignatenko, 1981; <sup>5</sup>Soshnina, 2001); **Leningrad Oblast** (<sup>2</sup>Weinmann, 1836; <sup>2</sup>Weinmann, 1837; <sup>3</sup>Thesleff, 1920; <sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Popov et al., 2007); **Lipetsk Oblast** (<sup>5</sup>Alferova, 1977; <sup>1</sup>Rtishcheva, 1999; <sup>5</sup>Sarycheva, 1999; <sup>1</sup>Afanasyev, Rtishcheva, and Starodubtseva, 2007; <sup>5</sup>Sarycheva et al., 2009; <sup>5</sup>Sarycheva, 2011; <sup>5</sup>Sarycheva, 2014a; <sup>5</sup>Sarycheva, 2016; <sup>1</sup>Sarycheva, Starodubtseva, and Sapelnikova, 2017); **Mari El Republic** (<sup>1</sup>Wasser, 1980); **Mordovia** (<sup>1</sup>Ivoilov and Bolshakov, 2011a); **Moscow** (<sup>3</sup>Bucholtz, 1897a); **Moscow Oblast** (<sup>1</sup>Levitskaya, 1998; <sup>1</sup>Levitskaya, 2013); **North Ossetia** (<sup>1</sup>Nikolayev, 2001); **Orenburg Oblast** (<sup>5</sup>Desyatova, 2007; <sup>5</sup>Desyatova, 2008); **Oryol Oblast** (<sup>1</sup>Radygina, Derzhavina, and Tsutsupa, 2014); **Penza Oblast** (<sup>1</sup>Ivanov, 1982; <sup>1</sup>Ivanov, 1999); **Perm Krai** (<sup>5</sup>Perevedentseva, 2008); **Pskov Oblast** (<sup>1</sup>Popov et al., 2013; <sup>1</sup>Morozova et al., 2015); **Rostov Oblast** (<sup>5</sup>Shiryayev, Rebriev, and Knudsen, 2017; <sup>1</sup>Rusanov, Rebriev, and Bulgakov, 2018; <sup>5</sup>Rebriev, 2018); **Ryazan Oblast** (<sup>1</sup>Volosnova, 1997; <sup>1</sup>Volosnova, 2014); **Samara Oblast** (<sup>1</sup>Malysheva and Malysheva, 2008); **Saratov Oblast** (<sup>1</sup>Nagumanov, 2015); **Smolensk Oblast** (<sup>3</sup>Jaczewski, 1898); **Stavropol Krai** (<sup>3</sup>Lebedeva, 1930); **Tatarstan** (<sup>1</sup>Vassiljeva, 1977; <sup>1</sup>Wasser, 1980); **Tula Oblast** (<sup>1</sup>Svetasheva, 2004); **Tver Oblast** (<sup>1</sup>Kurochkin, 1993); **Udmurt Republic** (<sup>5</sup>Tychinin, 1990; <sup>5</sup>Tychinin and Kuzmina, 2003); **Ulyanovsk Oblast** (<sup>5</sup>Ilyukhin, 2009; <sup>5</sup>Ilyukhin, 2010a; <sup>5</sup>Artemyeva, Maslennikov, and Korepov, 2015); **Volgograd Oblast** (<sup>1</sup>Burova and Nezdoyminogo, 1980; <sup>1</sup>Burova and Nezdoyminogo, 1982); **Vologda Oblast** (<sup>3</sup>Kutova, 1957); **Voronezh Oblast** (<sup>3</sup>Chastukhin, 1952; <sup>3</sup>Chastukhin and Nikolaevskaya, 1953; <sup>3</sup>Chastukhin and Nikolaevskaya, 1969; <sup>1</sup>Rtishcheva, 1999; <sup>1</sup>Afanasyev, Rtishcheva, and Starodubtseva, 2007; <sup>1</sup>Sarycheva, Starodubtseva, and Sapelnikova, 2017); **Arid territories** (<sup>5</sup>Rebriev, Rusanov, et al., 2012).

SIBERIA: **Altai Krai** (<sup>5</sup>Gorbunova and Perova, 2006; <sup>5</sup>Gorbunova, 2006; <sup>1</sup>Gorbunova, 2018b); **Altai Republic** (<sup>1</sup>Wasser, 1980; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdoyminogo, 1990; <sup>1</sup>Gorbunova, 1996; <sup>1</sup>Gorbunova, 1997; <sup>1</sup>Gorbunova, 2001b; <sup>1</sup>Gorbunova, 2003; <sup>5</sup>Gorbunova, 2006; <sup>1</sup>Gorbunova, 2010); **Buryatia** (<sup>1</sup>Wasser, 1980; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdoyminogo, 1990; <sup>1</sup>Petrov, 1991); **Irkutsk Oblast** (<sup>1</sup>Kutafjeva, 1983; <sup>1</sup>Petrov, 1986; <sup>1</sup>Petrov, 1991; <sup>5</sup>Petrov, 2008; <sup>1</sup>Muzyka, 2009); **Khakassia** (<sup>1</sup>Beglyanova, 1972a; <sup>1</sup>Gorbunova and Majnagasheva, 2013; <sup>1</sup>Zauzolkova and Gorbunova, 2013; <sup>1</sup>Zauzolkova, 2015); **Krasnoyarsk Krai** (<sup>2</sup>Thümen, 1880a; <sup>1</sup>Beglyanova, 1972a; <sup>1</sup>Wasser, 1980; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdoyminogo, 1990; <sup>5</sup>Kosheleva and Kutafjeva, 2008a); **Novosibirsk Oblast** (<sup>3</sup>Zaytseva, 1971; <sup>5</sup>Perova, 1977; <sup>5</sup>Gorbunova, 2006; <sup>5</sup>Gorbunova, 2007; <sup>5</sup>Perova and Gorbunova, 2007; <sup>1</sup>Koropachinskiy and Banaev, 2014); **Tomsk Oblast** (<sup>5</sup>Milovidova, 1980; <sup>1</sup>Kudashova, Gashkov, and Kutafjeva, 2013); **Zabaykalsky Krai** (<sup>3</sup>Karsten, 1911).

FAR EAST: **Amur Oblast** (<sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdoyminogo, 1990; <sup>1</sup>Kochunova, 2019); **Khabarovsk Krai** (<sup>1</sup>Wasser, 1980); **Primorsky Krai** (<sup>5</sup>Vassiljeva, 1973; <sup>1</sup>Wasser, 1980; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdoyminogo, 1990; <sup>5</sup>Azbukina et al., 2006; <sup>5</sup>Bau, Bulakh, and Govorova, 2011); **Sakhalin Oblast** (<sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdoyminogo, 1990).

***Macrolepiota mastoidea* (Fr.) Singer<sup>1</sup>**

≡ *Lepiota mastoidea* (Fr.) P. Kumm.<sup>2</sup> ≡ *Leucocoprinus mastoideus* (Fr.) Locq.<sup>3</sup> = *Lepiota rickenii* Velen.<sup>4</sup> = *Macrolepiota affinis* (Velen.) Bon<sup>5</sup> = *Macrolepiota gracilentia* (Krombh.) Wasser<sup>6</sup> = *Macrolepiota konradii* (Huijsman ex P.D. Orton) M.M. Moser<sup>7</sup>

EASTERN EUROPE: **Adygea** (<sup>7</sup>Sopina, 2001a); **Belgorod Oblast** (<sup>1</sup>Bedenko, 1980); **Crimea** (<sup>2</sup>Zerova, 1962; <sup>1</sup>Wasser, 1980; <sup>1,7</sup>Sarkina, 2001; <sup>1,7</sup>Dudka et al., 2004; <sup>1,7</sup>Sarkina, 2010b; <sup>1,7</sup>Sarkina, 2011; <sup>1,7</sup>Sarkina and Prydiuk, 2012; <sup>1</sup>Sarkina, 2013; <sup>1,7</sup>Sarkina and Mironova, 2015; <sup>1</sup>Sarkina and Stavishenko, 2019); **Kabardino-Balkarian Republic** (<sup>1</sup>Shkhagapsoev and Krapivina, 2004); **Kaliningrad Oblast** (<sup>1,6</sup>Dedkov, Volodina, and Gubareva, 2007; <sup>1,6</sup>Dedkov and Grishanov, 2010); **Krasnodar Krai** (<sup>3</sup>Vassiljeva, 1939; <sup>7</sup>Kovalenko, 1980a; <sup>7</sup>Kovalenko, 1980b; <sup>7</sup>Bulakh, Wasser, Nazarova, and Nezdoinog, 1990; <sup>1</sup>Psurtseva, Kiyashko, Gachkova, and Belova, 2007; <sup>1</sup>Shumkova, Krivorotov, and Gayday, 2018); **Leningrad Oblast** (<sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdoinog, 1990; <sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1,4</sup>Popov et al., 2007); **Lipetsk Oblast** (<sup>7</sup>Sarycheva et al., 2009; <sup>7</sup>Sarycheva, 2016); **Moscow Oblast** (<sup>6</sup>Wasser, 1980; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdoinog, 1990; <sup>6</sup>Bulakh, Wasser, Nazarova, and Nezdoinog, 1990; <sup>1</sup>Levitskaya, 1995c; <sup>1</sup>Levitskaya, 2013); **Orenburg Oblast** (<sup>1</sup>Desyatova, 2008); **Penza Oblast** (<sup>7</sup>Ivanov, 1986; <sup>1</sup>Ivanov, 1989); **Perm Krai** (<sup>7</sup>Perevedentseva, 2008); **Rostov Oblast** (<sup>5</sup>Rusanov, Rebriev, and Bulgakov, 2018); **Saratov Oblast** (<sup>1</sup>Nagumanov, 2015); **Sevastopol** (<sup>1</sup>Sarkina, 2016b; <sup>1</sup>Sarkina, 2020c); **Tula Oblast** (<sup>1,7</sup>Svetasheva, 2004); **Udmurt Republic** (<sup>7</sup>Kapitonov, 2013); **Vladimir Oblast** (<sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdoinog, 1990); **Voronezh Oblast** (<sup>1</sup>Agafonov, 2011; <sup>1</sup>Agafonov, 2018); **Arid territories** (<sup>5,7</sup>Rebriev, Rusanov, et al., 2012).

SIBERIA: **Altai Krai** (<sup>1</sup>Gorbunova and Perova, 2006); **Altai Republic** (<sup>6</sup>Wasser, 1980; <sup>6</sup>Bulakh, Wasser, Nazarova, and Nezdoinog, 1990; <sup>1</sup>Kovalenko, 1992; <sup>1</sup>Perova and Gorbunova, 2001); **Irkutsk Oblast** (<sup>6</sup>Petrov, 2008); **Khakassia** (<sup>1</sup>Saccardo, 1896; <sup>1</sup>Zauzolkova, 2015; <sup>1</sup>Zauzolkova and Gorbunova, 2016); **Novosibirsk Oblast** (<sup>1</sup>Koropachinskiy and Banaev, 2014); **Sakha Republic** (<sup>1</sup>Wasser, 1980; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdoinog, 1990).

FAR EAST: **Kamchatka Krai** (<sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdoinog, 1990); **Khabarovsk Krai** (<sup>6</sup>Bulakh, Wasser, Nazarova, and Nezdoinog, 1990; <sup>6</sup>Bau, Bulakh, and Govorova, 2011; <sup>7</sup>Erofeeva and Bulakh, 2015a; <sup>6</sup>Bogacheva et al., 2018); **Primorsky Krai** (<sup>1,7</sup>Vassiljeva, 1973; <sup>7</sup>Bunkina and Nazarova, 1978; <sup>1,7</sup>Wasser, 1980; <sup>1,6,7</sup>Bulakh, Wasser, Nazarova, and Nezdoinog, 1990; <sup>6,7</sup>Azbukina et al., 1990; <sup>6,7</sup>Bardunov et al., 2002; <sup>6,7</sup>Azbukina et al., 2006; <sup>1,6,7</sup>Bau, Bulakh, and Govorova, 2011; <sup>1,7</sup>Bulakh et al., 2016; <sup>1,6,7</sup>Bogacheva et al., 2018); **Sakhalin Oblast** (<sup>7</sup>Bulakh, Wasser, Nazarova, and Nezdoinog, 1990).

#### ***Macrolepiota permixta* (Barla) Pacioni<sup>1</sup>**

≡ *Leucocoprinus permixtus* (Barla) Locq.<sup>2</sup>

EASTERN EUROPE: **Adygea** (<sup>2</sup>Vassiljeva, 1939); **Krasnodar Krai** (<sup>1</sup>Kovalenko, 1980a; <sup>1</sup>Kovalenko, 1980b).

#### ***Macrolepiota procera* (Scop.) Singer<sup>1</sup>**

≡ *Agaricus procerus* Scop.<sup>2</sup> ≡ *Lepiota procera* (Scop.) Gray<sup>3</sup> ≡ *Leucocoprinus procerus* (Scop.) Pat.<sup>4</sup> ≡ *Macrolepiota procera* var. *procera* (Scop.) Singer<sup>5</sup> = *Macrolepiota procera* var. *pseudo-olivascens* Bellù & Lanzoni<sup>6</sup>

EASTERN EUROPE: **Adygea** (<sup>4</sup>Vassiljeva, 1939; <sup>1</sup>Vaasma, Kalamees, and Raitviir, 1986; <sup>1</sup>Sopina, 2001a); **Arkhangelsk Oblast** (<sup>3</sup>Lebedeva, 1933); **Bashkortostan** (<sup>1</sup>Stepanova and Sirko, 1977); **Belgorod Oblast** (<sup>1</sup>Bedenko, 1979a; <sup>3</sup>Ryabova and Ignatenko, 1981; <sup>3</sup>Soshnina, 1995; <sup>1</sup>Psurtseva, Belova, and Ryabusheva, 2003); **Bryansk Oblast** (<sup>1</sup>Kruglikov, 2007); **Chechen Republic** (<sup>1</sup>Taysumov, Krapivina, Umarov, and Astamirova, 2012); **Chelyabinsk Oblast** (<sup>3</sup>Aleksandrovskaya and Lobanova, 1968); **Chuvash Republic** (<sup>1</sup>Marfin, 2001); **Crimea** (<sup>2</sup>Weinmann, 1836; <sup>1</sup>Wasser, 1980; <sup>1</sup>Sarkina, 2001; <sup>1</sup>Dudka et al., 2004; <sup>1</sup>Sarkina, 2010b; <sup>1</sup>Sarkina, 2011; <sup>1</sup>Sarkina and Prydiuk, 2012; <sup>1</sup>Sarkina, 2013; <sup>1</sup>Sarkina and Mironova, 2015; <sup>1</sup>Sarkina and Stavishenko, 2019); **Kabardino-Balkarian Republic** (<sup>1</sup>Shkhagapsoev and Krapivina, 2003; <sup>1</sup>Shkhagapsoev and Krapivina, 2004); **Kaliningrad Oblast** (<sup>1</sup>Dedkov, Volodina, and Gubareva, 2007; <sup>1</sup>Volodina, 2007); **Kaluga Oblast** (<sup>1</sup>Sionova, 2003; <sup>1</sup>Sionova, 2006); **Karachay-Cherkess Republic** (<sup>1</sup>Kalamees and Botashev, 2000); **Karelia** (<sup>1</sup>Ivanter and Kuznetsov, 2007; <sup>5</sup>Predtechenskaya and Ruokolainen, 2013; <sup>5</sup>Krutov et al., 2014; <sup>1</sup>Savelev and Kikeeva, 2018; <sup>1</sup>Kuznetsov, 2020); **Kirov Oblast** (<sup>1</sup>Kirillov, 2011; <sup>1</sup>Kirillov, Perevedentseva, and Egoshina, 2011; <sup>1</sup>Stavishenko, Luginina, Kirillov, and Egoshina, 2019); **Komi Republic** (<sup>1</sup>Taskaev, 2009); **Krasnodar Krai** (<sup>1</sup>Kovalenko, 1980a; <sup>1</sup>Kovalenko, 1980b); **Kursk Oblast** (<sup>3</sup>Ryabova and Ignatenko, 1981; <sup>1</sup>Soshnina, 2001; <sup>1</sup>Baranov, 2002; <sup>1</sup>Soshnina, 2005; <sup>1</sup>Soshnina, 2014); **Leningrad Oblast** (<sup>3</sup>Thesleff, 1920; <sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Morozova, 2007; <sup>1</sup>Popov et al., 2007; <sup>1</sup>Psurtseva, Kiyashko, Gachkova, and Belova, 2007; <sup>1</sup>Zmitrovich et al., 2015; <sup>1</sup>Kalinina, 2018); **Lipetsk Oblast** (<sup>1</sup>Alferova, 1977; <sup>1</sup>Rtishcheva, 1999; <sup>1</sup>Sarycheva, 1999; <sup>1</sup>Afanasyev, Rtishcheva, and Starodubtseva, 2007; <sup>1</sup>Sarycheva et al., 2009; <sup>1</sup>Sarycheva, 2011; <sup>1</sup>Sarycheva, 2014a; <sup>1</sup>Sarycheva, 2016; <sup>1</sup>Sarycheva, Starodubtseva, and Sapelnikova, 2017); **Mari El Republic** (<sup>1</sup>Prokhorov, 2007); **Mordovia** (<sup>3</sup>Chastukhin, 1948a; <sup>3</sup>Kuznetsov, 1960; <sup>3</sup>Chastukhin and Nikolaevskaya, 1969; <sup>1</sup>Ivoilov and Bolshakov, 2011a; <sup>3</sup>Chastukhin, 2011); **Moscow** (<sup>3</sup>Bucholtz, 1897a; <sup>3</sup>Mosolov, 1906); **Moscow Oblast** (<sup>1</sup>Gorlenko, Sidorova, and Sidorova, 1989; <sup>1</sup>Levitskaya, 1995c; <sup>5</sup>Voronina et al., 2012; <sup>1</sup>Levitskaya, 2013; <sup>1</sup>Voronina et al., 2014; <sup>1</sup>Sidorova, Alexandrova, and Voronina, 2017); **North Ossetia** (<sup>1</sup>Nikolayev, 2001); **Novgorod Oblast** (<sup>1</sup>Morozova, 2012; <sup>1</sup>Popov et al., 2013; <sup>1</sup>Baklan, 2015); **Orenburg Oblast** (<sup>1</sup>Korshikova, 2006; <sup>1</sup>Desyatova, 2008); **Penza Oblast** (<sup>3</sup>Vet, 1943; <sup>1</sup>Ivanov, 1982; <sup>1</sup>Ivanov, 1999); **Perm Krai**

(<sup>3</sup>Naoumoff, 1915; <sup>1</sup>Stepanova and Sirko, 1977; <sup>1</sup>Psurtseva, Kiyashko, Gachkova, and Belova, 2007; <sup>1</sup>Perevedentseva, 2008; <sup>1</sup>Belkovskaya et al., 2014); **Pskov Oblast** (<sup>1</sup>Popov, 2001a; <sup>1</sup>Popov et al., 2013); **Rostov Oblast** (<sup>1</sup>Rusanov et al., 2004; <sup>1</sup>Morozova et al., 2008; <sup>1</sup>Zmitrovich et al., 2008); **Ryazan Oblast** (<sup>1</sup>Volosnova, 1997; <sup>1</sup>Volosnova, 2014); **Saint Petersburg** (<sup>2</sup>Weinmann, 1828; <sup>2</sup>Weinmann, 1837; <sup>1</sup>Morozova and Smirnov, 2011; <sup>1</sup>Morozova et al., 2020); **Samara Oblast** (<sup>1</sup>Malysheva and Malysheva, 2004; <sup>1</sup>Malysheva and Malysheva, 2008); **Saratov Oblast** (<sup>3</sup>Komirnyaya, 1952; <sup>1</sup>Komirnyaya, 1970); **Sevastopol** (<sup>1</sup>Sarkina, 2016b; <sup>1</sup>Sarkina, 2020b; <sup>1</sup>Sarkina, 2020c); **Sverdlovsk Oblast** (<sup>1</sup>Stepanova and Sirko, 1977; <sup>1</sup>Marina, 2006; <sup>1</sup>Shiryayeva, 2015a); **Tatarstan** (<sup>3</sup>Alexeeff, 1927; <sup>1</sup>Vassiljeva, 1977; <sup>1</sup>Potapov, 2015b); **Tula Oblast** (<sup>1</sup>Svetasheva, 2001; <sup>1</sup>Svetasheva, 2004); **Tver Oblast** (<sup>1</sup>Kurochkin, 1993; <sup>1</sup>Kurochkin, 2016); **Udmurt Republic** (<sup>1</sup>Tychinin, 1990; <sup>1</sup>Tychinin and Kuzmina, 2003); **Ulyanovsk Oblast** (<sup>1</sup>Ilyukhin, 2009; <sup>1</sup>Ilyukhin, 2010a); **Vladimir Oblast** (<sup>2</sup>Weinmann, 1836; <sup>1</sup>Mishulin, Blinov, and Gushchina, 2018); **Volgograd Oblast** (<sup>1</sup>Dudka and Vedenev, 2014; <sup>6</sup>Svetasheva, 2015); **Vologda Oblast** (<sup>3</sup>Kutova, 1957; <sup>1</sup>Kirillova, 2007; <sup>1</sup>Suslova et al., 2013); **Voronezh Oblast** (<sup>3</sup>Chastukhin and Nikolaevskaya, 1953; <sup>3</sup>Chastukhin and Nikolaevskaya, 1969; <sup>1</sup>Rtishcheva, 1999; <sup>1</sup>Afanasyev, Rtishcheva, and Starodubtseva, 2007; <sup>1</sup>Selochnik, 2015; <sup>1</sup>Sarycheva, Starodubtseva, and Sapelnikova, 2017); **Yaroslavl Oblast** (<sup>1</sup>Lazareva, 1997; <sup>1</sup>Lazareva, 1998a); **Arid territories** (<sup>1</sup>Rebriev, Rusanov, et al., 2012).

SIBERIA: **Altai Republic** (<sup>1</sup>Wasser, 1980; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990); **Khakassia** (<sup>1</sup>Beglyanova, 1972a); **Krasnoyarsk Krai** (<sup>1</sup>Beglyanova, 1972a; <sup>1</sup>Wasser, 1980; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990); **Kurgan Oblast** (<sup>1</sup>Stepanova and Sirko, 1977); **Sverdlovsk Oblast** (<sup>1</sup>Stepanova and Sirko, 1977); **Tomsk Oblast** (<sup>1</sup>Milovidova, 1980; <sup>1</sup>Kudashova, Gashkov, and Kutafjeva, 2013; <sup>1</sup>Kudashova, Gashkov, and Vaishlya, 2016b; <sup>1</sup>Vaishlya et al., 2017).

FAR EAST: **Amur Oblast** (<sup>1</sup>Bulakh, Govorova, and Taranina, 2003; <sup>1</sup>Taranina, 2005; <sup>1</sup>Bogacheva et al., 2018; <sup>1</sup>Kochunova, 2019); **Jewish Autonomous Oblast** (<sup>1</sup>Bau, Bulakh, Zhuang, and Li, 2007; <sup>1</sup>Bulakh, Govorova, Nazarova, and Vassiljeva, 2007; <sup>1</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Bogacheva et al., 2018); **Khabarovsk Krai** (<sup>1</sup>Azbukina et al., 1986; <sup>1</sup>Azbukina et al., 1989; <sup>1</sup>Bau, Bulakh, Zhuang, and Li, 2007; <sup>1</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Bogacheva et al., 2018); **Primorsky Krai** (<sup>1</sup>Vassiljeva, 1972; <sup>1</sup>Vassiljeva, 1973; <sup>1</sup>Bunkina and Nazarova, 1978; <sup>1</sup>Wasser, 1980; <sup>1</sup>Azbukina et al., 1984; <sup>1</sup>Azbukina et al., 1990; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1</sup>Bardunov et al., 2002; <sup>1</sup>Azbukina et al., 2006; <sup>1</sup>Psurtseva, Kiyashko, Gachkova, and Belova, 2007; <sup>1</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Bulakh et al., 2016; <sup>1</sup>Bogacheva et al., 2018).

#### ***Macrolepiota prominens* (Sacc.) M.M. Moser**

EASTERN EUROPE: **Belgorod Oblast** (Bedenko, 1980; Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990).

SIBERIA: **Tomsk Oblast** (Kudashova, Gashkov, and Vaishlya, 2016a; Kudashova, Gashkov, and Vaishlya, 2016b).

FAR EAST: **Kamchatka Krai** (Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990); **Primorsky Krai** (Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; Azbukina et al., 2006; Bau, Bulakh, and Govorova, 2011; Bulakh et al., 2016; Bogacheva et al., 2018); **Sakhalin Oblast** (Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990).

#### ***Mallocybe agardhii* (N. Lund) Matheny & Esteve-Rav.**

≡ *Inocybe agardhii* (N. Lund) P.D. Orton<sup>1</sup> ≡ *Pholiota agardhii* (N. Lund) M.M. Moser<sup>2</sup>

EASTERN EUROPE: **Komi Republic** (<sup>1</sup>Palamarchuk, 2016a; <sup>1</sup>Palamarchuk, 2016b; <sup>1</sup>Palamarchuk and Kirillov, 2017); **Leningrad Oblast** (<sup>1</sup>Morozova, 2002; <sup>1</sup>Popov et al., 2007); **Penza Oblast** (<sup>1</sup>Ivanov and Nezdojminogo, 1990; <sup>1</sup>Nezdojminogo, 1996); **Ryazan Oblast** (<sup>1</sup>Volosnova, 2014); **Tatarstan** (<sup>1</sup>Nezdojminogo, 1996).

SIBERIA: **Altai Republic** (<sup>1</sup>Gorbunova, 2003; <sup>1</sup>Gorbunova, 2010; <sup>1</sup>Gorbunova, 2017a); **Irkutsk Oblast** (<sup>1</sup>Kutafjeva, 1984; <sup>1</sup>Nezdojminogo, 1996; <sup>1</sup>Petrov, 2013); **Khakassia** (<sup>1</sup>Beglyanova, 1972a; <sup>1</sup>Zauzolkova, 2015); **Krasnoyarsk Krai** (<sup>1</sup>Beglyanova, 1972a; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1</sup>Nezdojminogo, 1993b; <sup>1</sup>Nezdojminogo, 1996; <sup>1</sup>Karatygin, Nezdojminogo, Novozhilov, and Zhurbenko, 1999); **Tomsk Oblast** (<sup>1</sup>Perova and Gorbunova, 2001; <sup>1</sup>Kudashova, Gashkov, and Kutafjeva, 2013).

FAR EAST: **Primorsky Krai** (<sup>2</sup>Vassiljeva, 1973; <sup>1</sup>Kovalenko and Nezdojminogo, 1989; <sup>1</sup>Azbukina et al., 1990; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1</sup>Nezdojminogo, 1996; <sup>1</sup>Bardunov et al., 2002; <sup>1</sup>Bulakh et al., 2016).

#### ***Mallocybe arthrocytis* (Kühner) Matheny & Esteve-Rav.**

≡ *Inocybe arthrocytis* Kühner<sup>1</sup>

SIBERIA: **Altai Republic** (<sup>1</sup>Gorbunova, 2019); **Krasnoyarsk Krai** (<sup>1</sup>Gorbunova, 2016).

#### ***Mallocybe fulvipes* (Kühner) Matheny & Esteve-Rav.**

≡ *Inocybe fulvipes* Kühner<sup>1</sup>

SIBERIA: **Krasnoyarsk Krai** (<sup>1</sup>Gorbunova, 2016).



***Mallocybe fuscomarginata* (Kühner) Matheny & Esteve-Rav.**≡ *Inocybe fuscomarginata* Kühner<sup>1</sup>

EASTERN EUROPE: **Adygea** (<sup>1</sup>Sopina, 2001a); **Komi Republic** (<sup>1</sup>Palamarchuk, 2012; <sup>1</sup>Palamarchuk, 2016a; <sup>1</sup>Palamarchuk, 2016b); **Leningrad Oblast** (<sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Popov et al., 2007); **Penza Oblast** (<sup>1</sup>Ivanov and Nezdojminogo, 1990; <sup>1</sup>Nezdojminogo, 1996); **Samara Oblast** (<sup>1</sup>Malysheva and Malysheva, 2005b; <sup>1</sup>Malysheva and Malysheva, 2008); **Tatarstan** (<sup>1</sup>Vassiljeva, 1977; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1</sup>Nezdojminogo, 1996); **Vologda Oblast** (<sup>1</sup>Kirillova, 2007).

SIBERIA: **Altai Republic** (<sup>1</sup>Gorbunova, 2003; <sup>1</sup>Gorbunova, 2010); **Irkutsk Oblast** (<sup>1</sup>Nezdojminogo, 1996; <sup>1</sup>Petrov, 2008); **Krasnoyarsk Krai** (<sup>1</sup>Beglyanova, 1972a; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1</sup>Nezdojminogo, 1993b; <sup>1</sup>Nezdojminogo and Zhurbenko, 1996; <sup>1</sup>Nezdojminogo, 1996; <sup>1</sup>Nezdojminogo, 1997a; <sup>1</sup>Karatygin, Nezdojminogo, Novozhilov, and Zhurbenko, 1999; <sup>1</sup>Kosheleva and Kutafjeva, 2008a); **Novosibirsk Oblast** (<sup>1</sup>Perova, 1982; <sup>1</sup>Perova and Gorbunova, 2001; <sup>1</sup>Perova and Gorbunova, 2007); **Sakha Republic** (<sup>1</sup>Nezdojminogo, 1993b; <sup>1</sup>Nezdojminogo, 1996; <sup>1</sup>Nezdojminogo, 1997a; <sup>1</sup>Karatygin, Nezdojminogo, Novozhilov, and Zhurbenko, 1999; <sup>1</sup>Nezdojminogo, 2003); **Tomsk Oblast** (<sup>1</sup>Perova, 1972; <sup>1</sup>Perova and Gorbunova, 2001; <sup>1</sup>Kudashova, Gashkov, and Kutafjeva, 2013).

FAR EAST: **Amur Oblast** (<sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1</sup>Nezdojminogo, 1996); **Chukotka Autonomous Okrug** (<sup>1</sup>Nezdojminogo, 1993b; <sup>1</sup>Nezdojminogo, 1996; <sup>1</sup>Karatygin, Nezdojminogo, Novozhilov, and Zhurbenko, 1999); **Primorsky Krai** (<sup>1</sup>Bau, Bulakh, and Govorova, 2011).

***Mallocybe gymnocarpa* (Kühner) Matheny & Esteve-Rav.**≡ *Inocybe gymnocarpa* Kühner<sup>1</sup>SIBERIA: **Sakha Republic** (<sup>1</sup>Nezdojminogo, 2003).***Mallocybe heimii* (Bon) Matheny & Esteve-Rav.**≡ *Inocybe heimii* Bon<sup>1</sup>EASTERN EUROPE: **Arid territories** (<sup>1</sup>Rebriev, Rusanov, et al., 2012).***Mallocybe leucoblema* (Kühner) Matheny & Esteve-Rav.**≡ *Inocybe leucoblema* Kühner<sup>1</sup>

SIBERIA: **Altai Republic** (<sup>1</sup>Gorbunova, 2003); **Khakassia** (<sup>1</sup>Gorbunova and Majnagasheva, 2013); **Krasnoyarsk Krai** (<sup>1</sup>Nezdojminogo and Kuvaev, 1993; <sup>1</sup>Nezdojminogo, 1993b; <sup>1</sup>Nezdojminogo and Zhurbenko, 1996; <sup>1</sup>Nezdojminogo, 1996; <sup>1</sup>Nezdojminogo, 1997a; <sup>1</sup>Karatygin, Nezdojminogo, Novozhilov, and Zhurbenko, 1999; <sup>1</sup>Zauzolkova, 2015; <sup>1</sup>Gorbunova, 2016); **Sakha Republic** (<sup>1</sup>Nezdojminogo, 2003).

***Mallocybe malenconii* (R. Heim) Matheny & Esteve-Rav.**≡ *Inocybe malenconii* R. Heim<sup>1</sup>

EASTERN EUROPE: **Novgorod Oblast** (<sup>1</sup>Kovalenko, Morozova, Nezdojminogo, and Popov, 2005; <sup>1</sup>Popov et al., 2013); **Penza Oblast** (<sup>1</sup>Ivanov and Nezdojminogo, 1990).

SIBERIA: **Altai Republic** (<sup>1</sup>Gorbunova, 2019); **Buryatia** (<sup>1</sup>Nezdojminogo and Petrov, 1999); **Krasnoyarsk Krai** (<sup>1</sup>Gorbunova, 2016).

FAR EAST: **Amur Oblast** (<sup>1</sup>Nazarova, 1986); **Kamchatka Krai** (<sup>1</sup>Peintner and Horak, 2002); **Khabarovsk Krai** (<sup>1</sup>Azbukina et al., 1986; <sup>1</sup>Azbukina et al., 1989); **Primorsky Krai** (<sup>1</sup>Vassiljeva, 1973; <sup>1</sup>Bulakh et al., 2016).

***Mallocybe perbrevis* (Weinm.) Matheny & Esteve-Rav.**≡ *Agaricus perbrevis* Weinm.<sup>1</sup> ≡ *Inocybe perbrevis* (Weinm.) Gillet<sup>2</sup>

EASTERN EUROPE: **Krasnodar Krai** (<sup>2</sup>Vassiljeva, 1939); **Saint Petersburg** (<sup>1</sup>Weinmann, 1836); **Sverdlovsk Oblast** (<sup>2</sup>Stepanova and Sirko, 1977); **Tatarstan** (<sup>2</sup>Vassiljeva, 1977).

SIBERIA: **Sakha Republic** (<sup>2</sup>Nezdojminogo, 2003).***Mallocybe peronata* (J. Favre) Matheny & Esteve-Rav.**≡ *Inocybe dulcamara* f. *peronata* J. Favre<sup>1</sup>

FAR EAST: **Chukotka Autonomous Okrug** (<sup>1</sup>Nezdojminogo, 1993b; <sup>1</sup>Nezdojminogo, 1997a; <sup>1</sup>Karatygin, Nezdojminogo, Novozhilov, and Zhurbenko, 1999).

***Mallocybe pygmaea* (J. Favre) Matheny & Esteve-Rav.**

≡ *Inocybe dulcamara* f. *pygmaea* J. Favre<sup>1</sup>

SIBERIA: **Krasnoyarsk Krai** (<sup>1</sup>Vassilkov, 1971b; <sup>1</sup>Nezdojminogo, 1993b; <sup>1</sup>Karatygin, Nezdojminogo, Novozhilov, and Zhurbenko, 1999); **Sakha Republic** (<sup>1</sup>Nezdojminogo, 1993b).

***Mallocybe squamosoannulata* (J. Favre) Matheny & Esteve-Rav.**

≡ *Inocybe dulcamara* var. *squamosoannulata* (J. Favre) Schmid-Heckel<sup>1</sup>

SIBERIA: **Sakha Republic** (<sup>1</sup>Nezdojminogo, 2003).

***Mallocybe substraminipes* (Kühner) Matheny & Esteve-Rav.**

≡ *Inocybe substraminipes* Kühner<sup>1</sup>

SIBERIA: **Krasnoyarsk Krai** (<sup>1</sup>Malysheva, Malysheva, Kiyashko, et al., 2017).

***Mallocybe terrigena* (Fr.) Matheny, Vizzini & Esteve-Rav.**

≡ *Inocybe terrigena* (Fr.) Kuyper<sup>1</sup> ≡ *Inocybe terrigena* (Fr.) Kühner<sup>2</sup>

EASTERN EUROPE: **Belgorod Oblast** (<sup>2</sup>Bedenko, 1980; <sup>1</sup>Nezdojminogo, 1996); **Komi Republic** (<sup>1</sup>Nezdojminogo, 1996; <sup>1</sup>Karatygin, Nezdojminogo, Novozhilov, and Zhurbenko, 1999); **Leningrad Oblast** (<sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Morozova and Kovalenko, 2000; <sup>1</sup>Tzvelev, 2000; <sup>1</sup>Popov et al., 2007; <sup>1</sup>Geltman et al., 2018; <sup>1</sup>Geltman, 2018b); **Moscow Oblast** (<sup>1</sup>Levitskaya, 2006; <sup>1</sup>Levitskaya, 2013); **Murmansk Oblast** (<sup>1</sup>Nezdojminogo, 1996); **Ulyanovsk Oblast** (<sup>2</sup>Ilyukhin, 2010a).

SIBERIA: **Irkutsk Oblast** (<sup>2</sup>Petrov, Nezdojminogo, and Bulakh, 1987); **Sakha Republic** (<sup>1</sup>Nezdojminogo, 2003); **Tomsk Oblast** (<sup>1</sup>Perova and Gorbunova, 2001; <sup>2</sup>Kudashova, Gashkov, and Kutafjeva, 2013; <sup>2</sup>Vaishlya et al., 2017).

***Mallocybe umbrinofusca* (Kühner) Matheny & Esteve-Rav.**

≡ *Inocybe umbrinofusca* Kühner<sup>1</sup>

SIBERIA: **Sakha Republic** (<sup>1</sup>Nezdojminogo, 2003).

***Marasmiellus alliiodorus* (Mont.) Singer**

FAR EAST: **Sakhalin Oblast** (Bulakh, 2003).

***Marasmiellus boreo-orientalis* Kiyashko**

FAR EAST: **Kamchatka Krai** (Haelewaters et al., 2020).

***Marasmiellus candidus* (Fr.) Singer<sup>1</sup>**

≡ *Marasmius candidus* Fr.<sup>2</sup> = *Marasmiellus albocorticis* Secr. ex Singer<sup>3</sup>

EASTERN EUROPE: **Adygea** (<sup>1</sup>Sopina, 2004b); **Belgorod Oblast** (<sup>3</sup>Bedenko, 1979a); **Karelia** (<sup>1</sup>Bondartseva et al., 2001; <sup>1</sup>Krutov et al., 2014); **Krasnodar Krai** (<sup>2</sup>Siemaszko, 1923; <sup>2</sup>Vassiljeva, 1939); **Leningrad Oblast** (<sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Popov et al., 2007); **Moscow** (<sup>2</sup>Burova, 1968); **Moscow Oblast** (<sup>1</sup>Vishnevsky, 1998; <sup>1</sup>Levitskaya, 2006; <sup>1</sup>Levitskaya, 2013); **Smolensk Oblast** (<sup>2</sup>Jaczevski, 1898).

SIBERIA: **Altai Krai** (<sup>1</sup>Gorbunova and Chubarova, 2008; <sup>1</sup>Gorbunova, Vlasenko, and Tzhubarova, 2011).

FAR EAST: **Amur Oblast** (<sup>1</sup>Taranina, 2005); **Jewish Autonomous Oblast** (<sup>1</sup>Bulakh, 2003; <sup>1</sup>Bulakh, Govorova, Nazarova, and Vassiljeva, 2007; <sup>1</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Erofeeva, Bukharova, and Bulakh, 2019); **Khabarovsk Krai** (<sup>1</sup>Bulakh, 2003; <sup>1</sup>Bau, Bulakh, Zhuang, and Li, 2007; <sup>1</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Erofeeva and Bulakh, 2015a); **Primorsky Krai** (<sup>1</sup>Bardunov et al., 2002; <sup>1</sup>Bulakh, 2003; <sup>1</sup>Azbukina et al., 2006; <sup>1</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Bogacheva et al., 2018; <sup>1</sup>Bogacheva, Bulakh, Bukharova, and Egorova, 2020).

***Marasmiellus clusilis* (Sacc.) D.A. Reid**

≡ *Clitocybe clusilis* (Fr.) Singer<sup>1</sup> ≡ *Collybia clusilis* (Fr.) P. Karst.<sup>2</sup>

EASTERN EUROPE: **Leningrad Oblast** (<sup>2</sup>Thesleff, 1920; <sup>1</sup>Singer, 1943).

***Marasmiellus confluens* (Pers.) J.S. Oliveira**

≡ *Agaricus confluens* Pers.<sup>1</sup> ≡ *Collybia confluens* (Pers.) P. Kumm.<sup>2</sup> ≡ *Gymnopus confluens* (Pers.) Antonín, Halling & Noordel.<sup>3</sup> ≡ *Marasmius confluens* (Pers.) P. Karst.<sup>4</sup> = *Marasmius archyropus* (Pers.) Fr.<sup>5</sup>

EASTERN EUROPE: **Adygea** (<sup>4</sup>Vassiljeva, 1939; <sup>2</sup>Vaasma, Kalamees, and Raitviir, 1986); **Arkhangelsk Oblast** (<sup>2</sup>Lebedeva, 1933); **Chelyabinsk Oblast** (<sup>2</sup>Sirko and Stepanova, 1977; <sup>2</sup>Stepanova and Sirko, 1977); **Crimea** (<sup>4</sup>Zerova,

1962; <sup>2</sup>Moser, 1993; <sup>2</sup>Sarkina, 2001; <sup>2</sup>Dudka et al., 2004; <sup>2</sup>Sarkina, 2010b; <sup>2</sup>Sarkina, 2011; <sup>2</sup>Sarkina and Prydiuk, 2012; <sup>3</sup>Sarkina, 2014b; <sup>3</sup>Sarkina and Mironova, 2015); **Dagestan** (<sup>5</sup>Hollós, 1902; <sup>5</sup>Hollós, 1905; <sup>5</sup>Filarszky, 1907); **Kabardino-Balkarian Republic** (<sup>2</sup>Shkhagapsoev and Krapivina, 2004); **Kaliningrad Oblast** (<sup>2</sup>Hennings, 1895; <sup>2</sup>Dedkov, Volodina, and Gubareva, 2007; <sup>2</sup>Volodina, 2007); **Kaluga Oblast** (<sup>2</sup>Sionova, 2003); **Karachay-Cherkess Republic** (<sup>3</sup>Kalamees and Botashev, 2000); **Karelia** (<sup>2</sup>Freindling, 1949; <sup>2</sup>Bondartseva et al., 2001; <sup>3</sup>Predtechenskaya and Ruokolainen, 2013; <sup>3</sup>Predtechenskaya, 2013; <sup>3</sup>Krutov et al., 2014; <sup>3</sup>Predtechenskaya and Ruokolainen, 2014; <sup>3</sup>Savelev and Kikeeva, 2020); **Kirov Oblast** (<sup>3</sup>Kirillov, 2011; <sup>3</sup>Kirillov, Perevedentseva, and Egoshina, 2011; <sup>3</sup>Stavishenko, Luginina, Kirillov, and Egoshina, 2019); **Komi Republic** (<sup>3</sup>Palamarchuk, 2016a; <sup>3</sup>Palamarchuk, 2016b; <sup>3</sup>Palamarchuk and Kirillov, 2017); **Krasnodar Krai** (<sup>4</sup>Vassiljeva, 1939; <sup>2</sup>Kovalenko, 1980a; <sup>2</sup>Kovalenko, 1980b; <sup>2</sup>Psurtseva, Kiyashko, Gachkova, and Belova, 2007); **Kursk Oblast** (<sup>2</sup>Bedenko, 1987); **Leningrad Oblast** (<sup>2</sup>Thesleff, 1920; <sup>2</sup>Nezdojminogo, 1967; <sup>2</sup>Chastukhin and Nikolaevskaya, 1969; <sup>2</sup>Kalamees and Kovalenko, 1984; <sup>2</sup>Kovalenko and Morozova, 1999a; <sup>2</sup>Morozova and Kovalenko, 2000; <sup>2</sup>Psurtseva, Kiyashko, Gachkova, and Belova, 2007; <sup>3</sup>Popov et al., 2007; <sup>3</sup>Zmitrovich et al., 2015; <sup>3</sup>Kalinina, 2018); **Lipetsk Oblast** (<sup>3</sup>Sarycheva et al., 2009; <sup>3</sup>Sarycheva, 2016; <sup>3</sup>Sarycheva, Starodubtseva, and Sapelnikova, 2017); **Moscow Oblast** (<sup>2</sup>Gorlenko, Sidorova, and Sidorova, 1989; <sup>2</sup>Vishnevsky, 1998; <sup>2</sup>Levitskaya, 2006; <sup>3</sup>Voronina et al., 2012; <sup>2</sup>Levitskaya, 2013; <sup>3</sup>Voronina et al., 2014; <sup>3</sup>Sidorova, Alexandrova, and Voronina, 2017); **Novgorod Oblast** (<sup>2</sup>Kovalenko, Morozova, Nezdojminogo, and Popov, 2005; <sup>2</sup>Malysheva, Malysheva, and Zmitrovich, 2007; <sup>3</sup>Popov et al., 2013); **Oryol Oblast** (<sup>2</sup>Radygina, Derzhavina, and Tsutsupa, 2014); **Penza Oblast** (<sup>2</sup>Vet, 1943; <sup>2</sup>Ivanov, 1981a); **Perm Krai** (<sup>3</sup>Perevedentseva, 2008); **Pskov Oblast** (<sup>2</sup>Popov, 2001a; <sup>3</sup>Popov et al., 2013); **Rostov Oblast** (<sup>2</sup>Morozova et al., 2008); **Ryazan Oblast** (<sup>2</sup>Volosnova, 1997; <sup>3</sup>Volosnova, 2014); **Saint Petersburg** (<sup>1</sup>Weinmann, 1828; <sup>1</sup>Weinmann, 1836; <sup>1</sup>Weinmann, 1837; <sup>2</sup>Kovalenko and Morozova, 1999a; <sup>2</sup>Morozova and Kovalenko, 2000; <sup>2</sup>Kotkova, Morozova, and Popov, 2005; <sup>2</sup>Kotkova, Morozova, and Popov, 2006; <sup>2</sup>Morozova and Smirnov, 2011; <sup>3</sup>Morozova, Kovalenko, Rebriev, and Malysheva, 2014; <sup>3</sup>Morozova et al., 2020); **Samara Oblast** (<sup>2</sup>Malysheva and Malysheva, 2005b; <sup>3</sup>Malysheva and Malysheva, 2008); **Saratov Oblast** (<sup>2</sup>Lebedeva, 1927); **Smolensk Oblast** (<sup>2</sup>Burova, 1969); **Sverdlovsk Oblast** (<sup>2</sup>Marina, 2006); **Tatarstan** (<sup>1</sup>Sorokin, 1872; <sup>2</sup>Vassiljeva, 1977); **Tver Oblast** (<sup>2</sup>Chastukhin, 1948b; <sup>2</sup>Chastukhin and Nikolaevskaya, 1969; <sup>2</sup>Kurochkin, 1993; <sup>2</sup>Mukhina and Garibova, 2010; <sup>2</sup>Mukhina, 2011a; <sup>2</sup>Mukhina, 2011b; <sup>3</sup>Kotkova, 2014); **Udmurt Republic** (<sup>2</sup>Tychinin and Kuzmina, 2003); **Ulyanovsk Oblast** (<sup>2</sup>Ilyukhin, 2010a); **Vologda Oblast** (<sup>2</sup>Kirillova, 2007; <sup>2</sup>Kirillova, 2009); **Voronezh Oblast** (<sup>2</sup>Chastukhin, 1952; <sup>2</sup>Chastukhin and Nikolaevskaya, 1953; <sup>2</sup>Chastukhin and Nikolaevskaya, 1969; <sup>2</sup>Bedenko, 1987; <sup>2</sup>Kochergina and Furmenkova, 2019); **Yaroslavl Oblast** (<sup>2</sup>Lazareva, 1997; <sup>2</sup>Lazareva, 1998a); **Arid territories** (<sup>2,3</sup>Rebriev, Rusanov, et al., 2012).

SIBERIA: **Altai Krai** (<sup>2</sup>Gorbunova and Perova, 2006; <sup>2</sup>Gorbunova and Chubarova, 2008; <sup>3</sup>Gorbunova, Vlasenko, and Tzhubarova, 2011); **Altai Republic** (<sup>2</sup>Kovalenko, 1992; <sup>2</sup>Gorbunova, 1996; <sup>2</sup>Gorbunova, 1997; <sup>2</sup>Gorbunova, 2001b); **Buryatia** (<sup>2</sup>Nezdojminogo, 1973); **Irkutsk Oblast** (<sup>2</sup>Kutafjeva, 1983; <sup>2</sup>Petrov, 1984; <sup>2</sup>Petrov, 1989; <sup>2</sup>Astapenko, 1990a; <sup>2</sup>Bardunov et al., 2005; <sup>2</sup>Petrov, 2008; <sup>3</sup>Gorbunova and Stepantsova, 2015; <sup>2</sup>Muzyka and Penzina, 2017); **Khakassia** (<sup>2</sup>Beglyanova, 1972a; <sup>3</sup>Zauzolkova, 2015); **Khanty-Mansi Autonomous Okrug** (<sup>3</sup>Shepeleva et al., 2014; <sup>3</sup>Filippova, Bulyonkova, and Lapshina, 2015; <sup>3</sup>Zvyagina and Vasina, 2015; <sup>3</sup>Filippova and Bulyonkova, 2017a; <sup>3</sup>Filippova and Bulyonkova, 2017b; <sup>3</sup>Zvyagina and Baykalova, 2017); **Krasnoyarsk Krai** (<sup>2</sup>Beglyanova, 1972a; <sup>2</sup>Nezdojminogo, 1976a; <sup>2</sup>Lapitskaya, 1993; <sup>2</sup>Kutafjeva and Kosheleva, 2005; <sup>2</sup>Pavlov et al., 2007; <sup>3</sup>Kosheleva and Kutafjeva, 2008a; <sup>3</sup>Kosheleva and Kutafjeva, 2008b; <sup>3</sup>Kryuchkova, 2009; <sup>3</sup>Zauzolkova, 2012; <sup>3</sup>Zauzolkova, 2015; <sup>3</sup>Gorbunova, 2016; <sup>3</sup>Malysheva, Malysheva, Kiyashko, et al., 2017); **Novosibirsk Oblast** (<sup>2</sup>Perova and Gorbunova, 2007; <sup>3</sup>Koropachinskiy and Banaev, 2014); **Tomsk Oblast** (<sup>2</sup>Perova, 1972; <sup>2</sup>Agaphonova, Kutafjeva, and Gashkov, 2007; <sup>3</sup>Kudashova, Gashkov, and Kutafjeva, 2013); **Tyva Republic** (<sup>3</sup>Gorbunova, 2015).

FAR EAST: **Amur Oblast** (<sup>2</sup>Nazarova, 1986; <sup>2</sup>Azbukina et al., 1998; <sup>2</sup>Bulakh, Govorova, and Taranina, 2003; <sup>3</sup>Taranina, 2005; <sup>3</sup>Kochunova, 2019); **Jewish Autonomous Oblast** (<sup>2</sup>Bulakh, Govorova, Nazarova, and Vassiljeva, 2007; <sup>3</sup>Bau, Bulakh, and Govorova, 2011); **Kamchatka Krai** (<sup>2</sup>Kalamees and Vaasma, 1981); **Khabarovsk Krai** (<sup>2</sup>Azbukina et al., 1986; <sup>2</sup>Azbukina et al., 1989; <sup>2</sup>Bau, Bulakh, Zhuang, and Li, 2007; <sup>3</sup>Bau, Bulakh, and Govorova, 2011; <sup>3</sup>Erofeeva and Bulakh, 2015a); **Magadan Oblast** (<sup>2</sup>Sazanova, 1996; <sup>2</sup>Sazanova, 2005; <sup>3</sup>Sazanova, 2009a; <sup>3</sup>Sazanova, 2011; <sup>3</sup>Sazanova and Golodnova, 2015); **Primorsky Krai** (<sup>2</sup>Vassiljeva, 1972; <sup>2</sup>Vassiljeva, 1973; <sup>2</sup>Bunkina and Nazarova, 1978; <sup>2</sup>Azbukina et al., 1984; <sup>2</sup>Bardunov et al., 2002; <sup>2</sup>Azbukina et al., 2006; <sup>2</sup>Bau, Bulakh, Zhuang, and Li, 2007; <sup>3</sup>Bau, Bulakh, and Govorova, 2011; <sup>3</sup>Bulakh et al., 2016; <sup>3</sup>Bogacheva, Bulakh, Bukharova, and Egorova, 2020); **Sakhalin Oblast** (<sup>2</sup>Vassiljeva and Nazarova, 1972; <sup>2</sup>Bulakh, Govorova, and Bogatov, 1999).

***Marasmiellus epibryus* (Singer) Singer**

≡ *Hemimycena epibrya* Singer<sup>1</sup>

SIBERIA: **Altai Republic** (<sup>1</sup>Singer, 1943).

***Marasmiellus graminis* (Murrill) Singer & Hauskn.**

≡ *Marasmiellus tricolor* var. *graminis* (Murrill) Singer<sup>1</sup>

EASTERN EUROPE: **Arid territories** (<sup>1</sup>Rebriev, Rusanov, et al., 2012).

***Marasmiellus peronatus* (Bolton) J.S. Oliveira**

≡ *Agaricus peronatus* Bolton<sup>1</sup> ≡ *Collybia peronata* (Bolton) P. Kumm.<sup>2</sup> ≡ *Gymnopus peronatus* (Bolton) Gray<sup>3</sup> ≡ *Marasmius peronatus* (Bolton) Fr.<sup>4</sup> = *Agaricus peronatus* var. *tomentellus* (Schumach.) Fr.<sup>5</sup> = *Marasmius urens* (Bull.) Fr.<sup>6</sup>

EASTERN EUROPE: **Belgorod Oblast** (<sup>2</sup>Bedenko, 1979a; <sup>2</sup>Psurtseva, Belova, and Ryabusheva, 2003); **Bryansk Oblast** (<sup>2</sup>Kruglikov, 2007); **Chelyabinsk Oblast** (<sup>2</sup>Stepanova and Sirko, 1977); **Crimea** (<sup>4</sup>Zerova, 1962; <sup>2</sup>Moser, 1993; <sup>2</sup>Sarkina, 2001; <sup>2</sup>Dudka et al., 2004; <sup>2</sup>Sarkina, 2010b; <sup>2</sup>Sarkina, 2011; <sup>2</sup>Sarkina and Prydiuk, 2012; <sup>3</sup>Sarkina, 2014b; <sup>3</sup>Sarkina and Mironova, 2015; <sup>3</sup>Sarkina and Stavishenko, 2019); **Kabardino-Balkarian Republic** (<sup>2</sup>Shkhagapsoev and Krapivina, 2004); **Kaliningrad Oblast** (<sup>6</sup>Hennings, 1895; <sup>2</sup>Dedkov, Volodina, and Gubareva, 2007; <sup>2</sup>Volodina, 2007; <sup>3</sup>Atayev and Volodina, 2020); **Kaluga Oblast** (<sup>2</sup>Sionova, 2003; <sup>2</sup>Sionova, 2006); **Karelia** (<sup>2</sup>Kovalenko, Morozova, Fomina, and Särkisilta, 1998; <sup>2</sup>Psurtseva, Kiyashko, Gachkova, and Belova, 2007; <sup>3</sup>Predtechenskaya and Ruokolainen, 2013; <sup>3</sup>Krutov et al., 2014; <sup>3</sup>Predtechenskaya and Ruokolainen, 2014); **Kirov Oblast** (<sup>3</sup>Kirillov, 2011; <sup>3</sup>Kirillov, Perevedentseva, and Egoshina, 2011; <sup>3</sup>Stavishenko, Luginina, Kirillov, and Egoshina, 2019); **Komi Republic** (<sup>2</sup>Bobretsova, 2004; <sup>2</sup>Palamarchuk, 2011b; <sup>3</sup>Palamarchuk, 2012; <sup>3</sup>Palamarchuk, 2016a; <sup>3</sup>Palamarchuk, 2016b); **Krasnodar Krai** (<sup>2</sup>Vassiljeva, 1939); **Kursk Oblast** (<sup>2</sup>Baranov, 2002); **Leningrad Oblast** (<sup>4,6</sup>Thesleff, 1920; <sup>2</sup>Kalamees and Kovalenko, 1984; <sup>2</sup>Stolyarskaya, 1993; <sup>2</sup>Kovalenko and Morozova, 1999a; <sup>2</sup>Morozova and Kovalenko, 2000; <sup>2</sup>Morozova, 2007; <sup>3</sup>Popov et al., 2007; <sup>3</sup>Zmitrovich et al., 2015); **Lipetsk Oblast** (<sup>2</sup>Alferova, 1977; <sup>2</sup>Sarycheva, 1999; <sup>3</sup>Sarycheva et al., 2009; <sup>3</sup>Sarycheva, 2011; <sup>3</sup>Sarycheva, 2014a; <sup>3</sup>Sarycheva, 2016; <sup>3</sup>Sarycheva, Starodubtseva, and Sapelnikova, 2017); **Mordovia** (<sup>2</sup>Kuznetsov, 1960; <sup>3</sup>Ivoilov and Bolshakov, 2011a); **Moscow Oblast** (<sup>2</sup>Gorlenko, Sidorova, and Sidorova, 1989; <sup>2</sup>Levitskaya, 1995b; <sup>2</sup>Vishnevsky, 1998; <sup>3</sup>Voronina et al., 2012; <sup>2</sup>Levitskaya, 2013; <sup>3</sup>Voronina et al., 2014; <sup>3</sup>Sidorova, Alexandrova, and Voronina, 2017); **Novgorod Oblast** (<sup>2</sup>Kovalenko, Morozova, Nezdojminogo, and Popov, 2005; <sup>2</sup>Psurtseva, Kiyashko, Gachkova, and Belova, 2007; <sup>3</sup>Popov et al., 2013); **Orenburg Oblast** (<sup>2</sup>Desyatova, 2008); **Penza Oblast** (<sup>2</sup>Ivanov, 1981a; <sup>2</sup>Ivanov, 1981b); **Perm Krai** (<sup>3</sup>Perevedentseva, 2008); **Pskov Oblast** (<sup>2</sup>Kovalenko and Morozova, 1999b; <sup>2</sup>Popov, 2001a; <sup>3</sup>Popov et al., 2013); **Rostov Oblast** (<sup>2</sup>Rusanov et al., 2004; <sup>2</sup>Morozova et al., 2008; <sup>2</sup>Zmitrovich et al., 2008); **Ryazan Oblast** (<sup>2</sup>Volosnova, 1997; <sup>3</sup>Volosnova, 2014); **Saint Petersburg** (<sup>1,5</sup>Weinmann, 1836; <sup>1,5</sup>Weinmann, 1837; <sup>2</sup>Kovalenko and Morozova, 1999a; <sup>2</sup>Morozova and Smirnov, 2011; <sup>3</sup>Morozova et al., 2020); **Samara Oblast** (<sup>2</sup>Malysheva and Malysheva, 2004; <sup>2</sup>Malysheva and Malysheva, 2007; <sup>2</sup>Psurtseva, Kiyashko, Gachkova, and Belova, 2007; <sup>3</sup>Malysheva and Malysheva, 2008); **Sevastopol** (<sup>3</sup>Sarkina, 2020c); **Smolensk Oblast** (<sup>4</sup>Jaczewski, 1898); **Tatarstan** (<sup>2</sup>Vassiljeva, 1977); **Tula Oblast** (<sup>2</sup>Svetasheva, 2001; <sup>2</sup>Svetasheva, 2004; <sup>3</sup>Svetasheva, 2013); **Tver Oblast** (<sup>2</sup>Kurochkin, 1993); **Udmurt Republic** (<sup>2</sup>Tychinin and Kuzmina, 2003); **Ulyanovsk Oblast** (<sup>2</sup>Ilyukhin, 2010a); **Vologda Oblast** (<sup>3</sup>Bolshakov et al., 2018); **Voronezh Oblast** (<sup>3</sup>Sarycheva, Starodubtseva, and Sapelnikova, 2017; <sup>3</sup>Kochergina and Furmenkova, 2019); **Yaroslavl Oblast** (<sup>2</sup>Lazareva, 1998a); **Arid territories** (<sup>3</sup>Rebriev, Rusanov, et al., 2012).

SIBERIA: **Altai Krai** (<sup>2</sup>Gorbunova and Chubarova, 2008; <sup>3</sup>Gorbunova, Vlasenko, and Tzhubarova, 2011); **Altai Republic** (<sup>2</sup>Kovalenko, 1992; <sup>2</sup>Perova and Gorbunova, 2001; <sup>3</sup>Gorbunova, 2010); **Buryatia** (<sup>2</sup>Nezdojminogo, 1973; <sup>2</sup>Petrov, 1991); **Irkutsk Oblast** (<sup>2</sup>Kutafjeva, 1983); **Khanty-Mansi Autonomous Okrug** (<sup>3</sup>Filippova and Bulyonkova, 2017a; <sup>3</sup>Filippova and Bulyonkova, 2017b); **Krasnoyarsk Krai** (<sup>2</sup>Beglyanova, 1972a; <sup>2</sup>Nezdojminogo, 1976a; <sup>2</sup>Pavlov et al., 2007; <sup>3</sup>Kosheleva and Kutafjeva, 2008a; <sup>3</sup>Kosheleva and Kutafjeva, 2008b; <sup>2</sup>Kosheleva, 2010; <sup>3</sup>Gorbunova, 2016); **Novosibirsk Oblast** (<sup>2</sup>Perova and Gorbunova, 2001; <sup>2</sup>Perova and Gorbunova, 2007); **Tomsk Oblast** (<sup>2</sup>Perova and Gorbunova, 2001; <sup>3</sup>Kudashova, Gashkov, and Kutafjeva, 2013; <sup>3</sup>Vaishlya et al., 2017).

FAR EAST: **Jewish Autonomous Oblast** (<sup>2</sup>Bulakh, Govorova, Nazarova, and Vassiljeva, 2007; <sup>3</sup>Bau, Bulakh, and Govorova, 2011); **Khabarovsk Krai** (<sup>2</sup>Azbukina et al., 1986; <sup>2</sup>Azbukina et al., 1989; <sup>2</sup>Bau, Bulakh, Zhuang, and Li, 2007; <sup>3</sup>Bau, Bulakh, and Govorova, 2011; <sup>3</sup>Bulakh, 2013; <sup>3</sup>Bogacheva, Bulakh, Bukharova, and Egorova, 2015; <sup>3</sup>Erofeeva and Bulakh, 2015a); **Magadan Oblast** (<sup>2</sup>Nazarova, 1976; <sup>2</sup>Sazanova, 2005; <sup>3</sup>Sazanova, 2009a; <sup>3</sup>Sazanova and Golodnova, 2015); **Primorsky Krai** (<sup>2</sup>Vassiljeva, 1972; <sup>2</sup>Vassiljeva, 1973; <sup>2</sup>Bunkina and Nazarova, 1978; <sup>2</sup>Bardunov et al., 2002; <sup>2</sup>Azbukina et al., 2006; <sup>3</sup>Bau, Bulakh, and Govorova, 2011; <sup>3</sup>Bulakh et al., 2016); **Sakhalin Oblast** (<sup>2</sup>Vassiljeva and Nazarova, 1972).

***Marasmiellus phaeophyllus* (Kühner) Singer**

≡ *Mycena phaeophylla* Kühner<sup>1</sup>

EASTERN EUROPE: **Perm Krai** (<sup>1</sup>Perevedentseva, 2008; <sup>1</sup>Perevedentseva and Shishigin, 2014).

FAR EAST: **Primorsky Krai** (<sup>1</sup>Bulakh, 2007; <sup>1</sup>Bau, Bulakh, and Govorova, 2011).

***Marasmiellus pseudogracilis* (Kühner & Maire) Singer**

≡ *Hemimycena pseudogracilis* (Kühner & Maire) Singer<sup>1</sup> ≡ *Mycena pseudogracilis* Kühner & Maire<sup>2</sup>

SIBERIA: **Tomsk Oblast** (<sup>2</sup>Perova, 1972; <sup>1</sup>Perova and Gorbunova, 2001; <sup>1</sup>Kudashova, Gashkov, and Kutafjeva, 2013).

***Marasmiellus ramealis* (Bull.) Singer<sup>1</sup>**

≡ *Agaricus ramealis* Bull.<sup>2</sup> ≡ *Marasmiellus ramealis* var. *ramealis* (Bull.) Singer<sup>3</sup> ≡ *Marasmius ramealis* (Bull.) Fr.<sup>4</sup>  
= *Marasmiellus amadelphus* (Bull.) Singer<sup>5</sup> = *Marasmius amadelphus* (Bull.) Fr.<sup>6</sup>

EASTERN EUROPE: **Adygea** (<sup>1</sup>Vaasma, Kalamees, and Raitviir, 1986; <sup>1</sup>Psurtseva, Kiyashko, Gachkova, and Belova, 2007); **Bashkortostan** (<sup>1</sup>Stepanova and Sirko, 1977); **Belgorod Oblast** (<sup>4</sup>Nikolayev, 1986); **Bryansk Oblast** (<sup>4</sup>Kruglikov, 2007); **Chechen Republic** (<sup>4</sup>Taysumov, Krapivina, and Kushaliev, 2016); **Crimea** (<sup>6</sup>Sarkina, 2001; <sup>1,5</sup>Dudka et al., 2004; <sup>1,6</sup>Sarkina, 2010b; <sup>1</sup>Sarkina, 2011; <sup>6</sup>Sarkina, 2013; <sup>1</sup>Sarkina and Mironova, 2015; <sup>1</sup>Sarkina and Stavishenko, 2019); **Kabardino-Balkarian Republic** (<sup>4</sup>Shkhagapsoev and Krapivina, 2003; <sup>4</sup>Shkhagapsoev and Krapivina, 2004); **Kaliningrad Oblast** (<sup>1,6</sup>Dedkov, Volodina, and Gubareva, 2007; <sup>1</sup>Volodina, 2007; <sup>1</sup>Atayev and Volodina, 2020); **Kaluga Oblast** (<sup>4</sup>Sionova, 2003); **Karachay-Cherkess Republic** (<sup>4</sup>Hollós, 1902; <sup>4</sup>Hollós, 1905; <sup>4</sup>Filarszky, 1907; <sup>1</sup>Kalamees and Botashev, 2000); **Komi Republic** (<sup>1</sup>Palamarchuk, 2012; <sup>1</sup>Palamarchuk and Kirillov, 2018a); **Krasnodar Krai** (<sup>4</sup>Vassiljeva, 1939; <sup>1</sup>Psurtseva, Kiyashko, Gachkova, and Belova, 2007); **Kursk Oblast** (<sup>4</sup>Bedenko, 1987); **Leningrad Oblast** (<sup>4</sup>Thesleff, 1920; <sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Morozova and Kovalenko, 2000; <sup>1</sup>Morozova, 2007; <sup>1</sup>Popov et al., 2007; <sup>1</sup>Kalinina, 2018); **Lipetsk Oblast** (<sup>4</sup>Rtishcheva, 1999; <sup>4</sup>Sarycheva, 1999; <sup>1</sup>Afanasyev, Rtishcheva, and Starodubtseva, 2007; <sup>1</sup>Sarycheva et al., 2009; <sup>1</sup>Sarycheva, 2011; <sup>1</sup>Sarycheva, 2014a; <sup>1</sup>Sarycheva, 2016; <sup>1</sup>Sarycheva, Starodubtseva, and Sapelnikova, 2017); **Mordovia** (<sup>1</sup>Bolshakov and Ivoilov, 2012a); **Moscow** (<sup>4</sup>Bucholtz, 1897b; <sup>4</sup>Bucholtz, 1897c; <sup>4</sup>Mosolov, 1906); **Moscow Oblast** (<sup>1</sup>Gorlenko, Sidorova, and Sidorova, 1989; <sup>1</sup>Vishnevsky, 1998; <sup>1</sup>Levitskaya, 2006; <sup>1</sup>Levitskaya, 2013); **Nizhny Novgorod Oblast** (<sup>4</sup>Murashkinsky, 1911); **North Ossetia** (<sup>1</sup>Nikolayev, 2001); **Novgorod Oblast** (<sup>1</sup>Morozova, 2012; <sup>1</sup>Popov et al., 2013); **Oryol Oblast** (<sup>1</sup>Volobuev and Tsutsupa, 2009); **Penza Oblast** (<sup>1</sup>Ivanov, 1983); **Perm Krai** (<sup>1</sup>Perevedentseva, 2008); **Pskov Oblast** (<sup>1</sup>Kovalenko, Kolmakov, Morozova, and Popov, 2003; <sup>1</sup>Psurtseva, Kiyashko, Gachkova, and Belova, 2007; <sup>1</sup>Popov et al., 2013); **Ryazan Oblast** (<sup>4</sup>Volosnova, 1997; <sup>1</sup>Volosnova, 2014); **Saint Petersburg** (<sup>2</sup>Weinmann, 1836; <sup>2</sup>Weinmann, 1837; <sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Morozova and Kovalenko, 2000; <sup>1</sup>Kotkova, Morozova, and Popov, 2006; <sup>1</sup>Morozova et al., 2020); **Samara Oblast** (<sup>3</sup>Malysheva and Malysheva, 2006; <sup>1</sup>Malysheva and Malysheva, 2008); **Smolensk Oblast** (<sup>4</sup>Jaczewski, 1898); **Tatarstan** (<sup>4</sup>Vassiljeva, 1977); **Tula Oblast** (<sup>4</sup>Svetasheva, 2001; <sup>1</sup>Svetasheva, 2004; <sup>1</sup>Svetasheva, 2013; <sup>1</sup>Svetasheva, Aleksandrova, Zaytseva, and Solovjova, 2017); **Tver Oblast** (<sup>1</sup>Kurochkin, 1993); **Udmurt Republic** (<sup>4</sup>Tychinin, 1990; <sup>4</sup>Tychinin and Kuzmina, 2003); **Voronezh Oblast** (<sup>4</sup>Chastukhin, 1952; <sup>4</sup>Chastukhin and Nikolaevskaya, 1953; <sup>4</sup>Chastukhin and Nikolaevskaya, 1969; <sup>4</sup>Bedenko, 1987; <sup>4</sup>Rtishcheva, 1999; <sup>1</sup>Afanasyev, Rtishcheva, and Starodubtseva, 2007; <sup>1</sup>Sarycheva, Starodubtseva, and Sapelnikova, 2017); **Yaroslavl Oblast** (<sup>1</sup>Lazareva, 1998a); **Arid territories** (<sup>1</sup>Rebriev, Rusanov, et al., 2012).

SIBERIA: **Altai Krai** (<sup>1</sup>Gorbunova and Chubarova, 2008; <sup>1</sup>Gorbunova, Vlasenko, and Tzhubarova, 2011); **Altai Republic** (<sup>1</sup>Gorbunova, 2001b; <sup>1</sup>Perova and Gorbunova, 2001); **Buryatia** (<sup>4</sup>Sokolova, 1988); **Irkutsk Oblast** (<sup>1</sup>Petrov, 1984; <sup>1</sup>Petrov, 1989; <sup>1</sup>Petrov, 1991; <sup>1</sup>Petrov, 2008); **Khanty-Mansi Autonomous Okrug** (<sup>1</sup>Mukhin, 1993); **Krasnoyarsk Krai** (<sup>5</sup>Beglyanova, 1972a; <sup>1</sup>Kosheleva and Kutafjeva, 2008b; <sup>1</sup>Zauzolkova, 2012; <sup>1</sup>Zauzolkova, 2015; <sup>1</sup>Gorbunova, 2016); **Novosibirsk Oblast** (<sup>1</sup>Gorbunova, 2007; <sup>1</sup>Koropachinskiy and Banaev, 2014); **Tomsk Oblast** (<sup>1</sup>Agaphonova, Kutafjeva, and Gashkov, 2007; <sup>1</sup>Kudashova, Gashkov, and Kutafjeva, 2013); **Yamalo-Nenets Autonomous Okrug** (<sup>1</sup>Mukhin, 1993).

FAR EAST: **Jewish Autonomous Oblast** (<sup>1</sup>Bulakh, Govorova, Nazarova, and Vassiljeva, 2007; <sup>1</sup>Bau, Bulakh, and Govorova, 2011); **Khabarovsk Krai** (<sup>4</sup>Azbukina et al., 1986; <sup>1</sup>Azbukina et al., 1989; <sup>1</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Bulakh, 2013; <sup>1</sup>Bogacheva, Bulakh, Bukharova, and Egorova, 2015; <sup>1</sup>Erofeeva and Bulakh, 2015a); **Primorsky Krai** (<sup>4</sup>Vassiljeva, 1973; <sup>4</sup>Bunkina and Nazarova, 1978; <sup>1</sup>Azbukina et al., 1984; <sup>1</sup>Bardunov et al., 2002; <sup>1</sup>Azbukina et al., 2006; <sup>1</sup>Bau, Bulakh, Zhuang, and Li, 2007; <sup>1</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Bulakh et al., 2016).

***Marasmiellus roseipallens* (Murrill) Singer**

≡ *Mycena roseipallens* (Murrill) Murrill<sup>1</sup>

EASTERN EUROPE: **Leningrad Oblast** (<sup>1</sup>Nezdojminogo, 1967).

FAR EAST: **Primorsky Krai** (<sup>1</sup>Vassiljeva, 1973; <sup>1</sup>Bunkina and Nazarova, 1978).

***Marasmiellus tricolor* (Alb. & Schwein.) Singer<sup>1</sup>**

≡ *Marasmius tricolor* (Alb. & Schwein.) Kühner<sup>2</sup> ≡ *Omphalia tricolor* (Alb. & Schwein.) P. Kumm.<sup>3</sup> = *Marasmiellus languidus* (Lasch) Singer<sup>4</sup>

EASTERN EUROPE: **Crimea** (<sup>1</sup>Sarkina and Mironova, 2015); **Kaliningrad Oblast** (<sup>1</sup>Volodina, 2007); **Pskov Oblast** (<sup>1</sup>Kovalenko, Kolmakov, Morozova, and Popov, 2003; <sup>1</sup>Popov et al., 2013); **Tver Oblast** (<sup>3</sup>Chastukhin, 1948b; <sup>2</sup>Chastukhin and Nikolaevskaya, 1969; <sup>1</sup>Mukhina, 2011a; <sup>1</sup>Kotkova, 2014); **Volgograd Oblast** (<sup>1</sup>Burova and Nezdojminogo, 1980).

SIBERIA: **Krasnoyarsk Krai** (<sup>4</sup>Nezdojminogo, 1982a).

FAR EAST: **Primorsky Krai** (<sup>2</sup>Vassiljeva, 1973; <sup>1</sup>Bau, Bulakh, and Govorova, 2011).

***Marasmiellus vaillantii* (Pers.) Singer**

EASTERN EUROPE: **Kaliningrad Oblast** (Volodina, 2007; Atayev and Volodina, 2020); **Krasnodar Krai** (Psurtseva, Kiyashko, Gachkova, and Belova, 2007); **Leningrad Oblast** (Morozova, 2002; Popov et al., 2007); **Novgorod Oblast** (Kovalenko, Morozova, Nezdojminogo, and Popov, 2005); **Pskov Oblast** (Kovalenko and Morozova, 1999b; Popov et al., 2013); **Tula Oblast** (Svetasheva, 2004).

SIBERIA: **Khanty-Mansi Autonomous Okrug** (Zvyagina and Baykalova, 2017).

FAR EAST: **Primorsky Krai** (Bulakh, 2003; Azbukina et al., 2006; Bau, Bulakh, and Govorova, 2011; Bogacheva et al., 2018); **Sakhalin Oblast** (Bulakh, Govorova, and Bogatov, 1999; Bulakh, 2003).

***Marasmius aurantioferrugineus* Hongo**

FAR EAST: **Primorsky Krai** (Bulakh and Govorova, 2000; Kozhevnikov, 2008).

***Marasmius berteroi* (Lév.) Murrill**

FAR EAST: **Jewish Autonomous Oblast** (Bau, Bulakh, and Govorova, 2011); **Khabarovsk Krai** (Bau, Bulakh, and Govorova, 2011); **Primorsky Krai** (Vassiljeva, 1973; Bunkina and Nazarova, 1978; Azbukina et al., 2006; Bau, Bulakh, and Govorova, 2011).

***Marasmius bulliardii* Quél.<sup>1</sup>**

≡ *Marasmius bulliardii* f. *bulliardii* Quél.<sup>2</sup> ≡ *Marasmius bulliardii* var. *bulliardii* Quél.<sup>3</sup> = *Marasmius bulliardii* f. *acicola* (S. Lundell) Noordel.<sup>4</sup>

EASTERN EUROPE: **Adygea** (<sup>1</sup>Vaasma, Kalamees, and Raitviir, 1986); **Belgorod Oblast** (<sup>1</sup>Bedenko, 1980; <sup>1</sup>Nikolayev, 1986); **Crimea** (<sup>1</sup>Dudka et al., 2004; <sup>1</sup>Sarkina, 2011; <sup>1</sup>Sarkina and Stavishenko, 2019); **Kaliningrad Oblast** (<sup>4</sup>Dedkov, Volodina, and Gubareva, 2007; <sup>1</sup>Atayev and Volodina, 2020); **Kaluga Oblast** (<sup>1</sup>Sionova, 2012); **Karachay-Cherkess Republic** (<sup>1</sup>Kalamees and Botashev, 2000); **Karelia** (<sup>1</sup>Predtechenskaya and Ruokolainen, 2008; <sup>1</sup>Krutov et al., 2014; <sup>1</sup>Predtechenskaya and Ruokolainen, 2014; <sup>1</sup>Predtechenskaya, 2015); **Krasnodar Krai** (<sup>1</sup>Vassiljeva, 1939; <sup>1</sup>Vaasma, Kalamees, and Raitviir, 1986); **Leningrad Oblast** (<sup>1</sup>Stolyarskaya, 1993; <sup>3,4</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Morozova and Kovalenko, 2000; <sup>1</sup>Popov et al., 2007; <sup>1</sup>Kalinina, 2018); **Lipetsk Oblast** (<sup>1</sup>Sarycheva et al., 2009; <sup>1</sup>Sarycheva, 2011; <sup>1</sup>Sarycheva, 2014a; <sup>1</sup>Sarycheva, 2016); **Moscow** (<sup>1</sup>Burova, 1968); **Moscow Oblast** (<sup>4</sup>Vishnevsky, 1998; <sup>1</sup>Levitskaya, 2006; <sup>1</sup>Levitskaya, 2013); **Novgorod Oblast** (<sup>3,4</sup>Kovalenko, Morozova, Nezdojminogo, and Popov, 2005; <sup>1</sup>Psurtseva, Kiyashko, Gachkova, and Belova, 2007; <sup>3</sup>Popov et al., 2013); **Perm Krai** (<sup>1</sup>Perevedentseva, 2008; <sup>1</sup>Perevedentseva and Shishigin, 2014); **Pskov Oblast** (<sup>4</sup>Kovalenko and Morozova, 1999b; <sup>3</sup>Kovalenko, Kolmakov, Morozova, and Popov, 2003; <sup>3</sup>Psurtseva, Kiyashko, Gachkova, and Belova, 2007; <sup>3</sup>Popov et al., 2013); **Ryazan Oblast** (<sup>1</sup>Volosnova, 1997; <sup>1</sup>Volosnova, 2014); **Saint Petersburg** (<sup>4</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Morozova et al., 2020); **Sverdlovsk Oblast** (<sup>1</sup>Tomilin, 1965; <sup>1</sup>Stepanova and Sirko, 1977); **Tatarstan** (<sup>1</sup>Singer, 1943; <sup>1</sup>Vassiljeva, 1977); **Tver Oblast** (<sup>1</sup>Chastukhin, 1948b; <sup>1</sup>Chastukhin and Nikolaevskaya, 1969; <sup>1</sup>Kurochkin, 1993; <sup>1</sup>Mukhina, 2011a; <sup>1</sup>Kotkova, 2014); **Udmurt Republic** (<sup>1</sup>Tychinin and Kuzmina, 2003); **Ulyanovsk Oblast** (<sup>1</sup>Ilyukhin, 2009; <sup>1</sup>Ilyukhin, 2010a); **Voronezh Oblast** (<sup>1</sup>Chastukhin, 1952; <sup>1</sup>Chastukhin and Nikolaevskaya, 1953; <sup>1</sup>Chastukhin and Nikolaevskaya, 1969); **Yaroslavl Oblast** (<sup>2,4</sup>Lazareva, 1998a); **Arid territories** (<sup>1</sup>Rebriev, Rusanov, et al., 2012).

SIBERIA: **Krasnoyarsk Krai** (<sup>1</sup>Kosheleva and Kutafjeva, 2008b; <sup>1</sup>Kosheleva, 2010); **Tomsk Oblast** (<sup>1</sup>Kudashova, Gashkov, and Vaishlya, 2016a).

FAR EAST: **Khabarovsk Krai** (<sup>1</sup>Azbukina et al., 1986; <sup>1</sup>Azbukina et al., 1989; <sup>1</sup>Bulakh, Vassiljeva, and Erofeeva, 2010; <sup>1</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Bulakh, 2013; <sup>1</sup>Bogacheva, Bulakh, Bukharova, and Egorova, 2015; <sup>1</sup>Erofeeva and Bulakh, 2015a); **Primorsky Krai** (<sup>1</sup>Vassiljeva, 1972; <sup>1</sup>Vassiljeva, 1973; <sup>1</sup>Bunkina and Nazarova, 1978; <sup>1</sup>Azbukina et al., 1984; <sup>1</sup>Bardunov et al., 2002; <sup>1</sup>Azbukina et al., 2006; <sup>1</sup>Bau, Bulakh, and Govorova, 2011); **Sakhalin Oblast** (<sup>1</sup>Vassiljeva and Nazarova, 1972).

***Marasmius buxicola* Kalamees**EASTERN EUROPE: **Krasnodar Krai** (Vaasma, Kalamees, and Raitviir, 1986; Kalamees, 1989).***Marasmius carpophilus* Singer**EASTERN EUROPE: **Krasnodar Krai** (Singer, 1937; Vassiljeva, 1939).***Marasmius chordalis* Fr.**EASTERN EUROPE: **Leningrad Oblast** (Thesleff, 1920).SIBERIA: **Altai Republic** (Singer, 1939; Singer, 1943); **Krasnoyarsk Krai** (Beglyanova, 1972a).FAR EAST: **Primorsky Krai** (Bardunov et al., 2002).***Marasmius cohaerens* (Pers.) Cooke & Quél.<sup>1</sup>**= *Marasmius ceratopus* (Pers.) Quél.<sup>2</sup> = *Marasmius cohaerens* var. *mandshuricus* Kiyashko, E.F. Malysheva & Antonín<sup>3</sup>EASTERN EUROPE: **Adygea** (<sup>1</sup>Vaasma, Kalamees, and Raitviir, 1986); **Belgorod Oblast** (<sup>1</sup>Bedenko, 1980); **Chelyabinsk Oblast** (<sup>1</sup>Sirko and Stepanova, 1977; <sup>1</sup>Stepanova and Sirko, 1977); **Crimea** (<sup>1</sup>Sarkina, 2001; <sup>1</sup>Sarkina, 2010b; <sup>1</sup>Sarkina, 2011; <sup>1</sup>Sarkina, 2013); **Kaliningrad Oblast** (<sup>1</sup>Dedkov, Volodina, and Gubareva, 2007; <sup>1</sup>Volodina, 2007); **Karachay-Cherkess Republic** (<sup>1</sup>Kalamees and Botashev, 2000); **Krasnodar Krai** (<sup>2</sup>Vassiljeva, 1939); **Leningrad Oblast** (<sup>1</sup>Popov et al., 2007; <sup>1</sup>Kalinina, 2018); **Moscow** (<sup>1</sup>Burova, 1968); **Moscow Oblast** (<sup>1</sup>Voronina et al., 2014); **Novgorod Oblast** (<sup>1</sup>Kalinina, 2019); **Penza Oblast** (<sup>1</sup>Ivanov, 1988a); **Perm Krai** (<sup>1</sup>Perevedentseva, 2008); **Pskov Oblast** (<sup>1</sup>Popov et al., 2013); **Saint Petersburg** (<sup>1</sup>Morozova et al., 2020); **Samara Oblast** (<sup>1</sup>Malysheva and Malysheva, 2005b; <sup>1</sup>Malysheva and Malysheva, 2008); **Sverdlovsk Oblast** (<sup>1</sup>Stepanova and Sirko, 1977); **Tatarstan** (<sup>1</sup>Vassiljeva, 1977).SIBERIA: **Altai Krai** (<sup>1</sup>Gorbunova, 2018a); **Altai Republic** (<sup>1</sup>Gorbunova, 2001a); **Krasnoyarsk Krai** (<sup>1</sup>Beglyanova, 1972a; <sup>1</sup>Zauzolkova, 2015; <sup>1</sup>Zauzolkova and Gorbunova, 2016; <sup>1</sup>Malysheva, Malysheva, Kiyashko, et al., 2017).FAR EAST: **Amur Oblast** (<sup>1</sup>Azbukina et al., 1998); **Jewish Autonomous Oblast** (<sup>1</sup>Bulakh, Govorova, Nazarova, and Vassiljeva, 2007; <sup>1</sup>Bau, Bulakh, and Govorova, 2011; <sup>3</sup>Kiyashko et al., 2014); **Khabarovsk Krai** (<sup>1</sup>Azbukina et al., 1986; <sup>1</sup>Azbukina et al., 1989; <sup>1</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Erofeeva and Bulakh, 2015a); **Primorsky Krai** (<sup>1</sup>Vassiljeva, 1972; <sup>1</sup>Vassiljeva, 1973; <sup>1</sup>Bunkina and Nazarova, 1978; <sup>1</sup>Azbukina et al., 1984; <sup>1</sup>Azbukina et al., 2006; <sup>1</sup>Bau, Bulakh, and Govorova, 2011; <sup>3</sup>Kiyashko et al., 2014; <sup>1</sup>Bulakh et al., 2016; <sup>3</sup>Bulakh et al., 2016); **Sakhalin Oblast** (<sup>1</sup>Vassiljeva and Nazarova, 1972).***Marasmius collinus* (Scop.) Singer<sup>1</sup>**≡ *Collybia collina* (Scop.) P. Kumm.<sup>2</sup>EASTERN EUROPE: **Chelyabinsk Oblast** (<sup>1</sup>Stepanova and Sirko, 1977); **Kaliningrad Oblast** (<sup>1</sup>Dedkov, Volodina, and Gubareva, 2007); **Leningrad Oblast** (<sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Popov et al., 2007); **Lipetsk Oblast** (<sup>1</sup>Sarycheva et al., 2009; <sup>1</sup>Sarycheva, 2011; <sup>1</sup>Sarycheva, 2016); **Moscow Oblast** (<sup>1</sup>Vishnevsky, 1998); **Penza Oblast** (<sup>1</sup>Ivanov, 1999); **Rostov Oblast** (<sup>1</sup>Rusanov, Rebriev, and Bulgakov, 2018); **Sverdlovsk Oblast** (<sup>1</sup>Stepanova and Sirko, 1977); **Voronezh Oblast** (<sup>2</sup>Chastukhin and Nikolaevskaya, 1953; <sup>1</sup>Chastukhin and Nikolaevskaya, 1969); **Arid territories** (<sup>1</sup>Rebriev, Rusanov, et al., 2012).SIBERIA: **Altai Republic** (<sup>1</sup>Gorbunova, 2006); **Krasnoyarsk Krai** (<sup>1</sup>Beglyanova, 1972a; <sup>1</sup>Kosheleva and Kutafjeva, 2008a).FAR EAST: **Khabarovsk Krai** (<sup>1</sup>Azbukina et al., 1986; <sup>1</sup>Bau, Bulakh, and Govorova, 2011); **Primorsky Krai** (<sup>1</sup>Vassiljeva, 1972; <sup>1</sup>Vassiljeva, 1973; <sup>1</sup>Bau, Bulakh, and Govorova, 2011).***Marasmius curreyi* Berk. & Broome**EASTERN EUROPE: **Leningrad Oblast** (Morozova, 2007; Popov et al., 2007; Psurtseva, Kiyashko, Gachkova, and Belova, 2007; Zmitrovich et al., 2015); **Pskov Oblast** (Kovalenko and Morozova, 1999b; Popov et al., 2013); **Samara Oblast** (Malysheva and Malysheva, 2006; Malysheva and Malysheva, 2007; Malysheva and Malysheva, 2008); **Sverdlovsk Oblast** (Marina, 2006); **Tula Oblast** (Svetasheva, 2004); **Ulyanovsk Oblast** (Ilyukhin, 2010a; Ilyukhin, 2010b); **Vologda Oblast** (Bolshakov et al., 2018); **Arid territories** (Rebriev, Rusanov, et al., 2012).SIBERIA: **Altai Republic** (Gorbunova, 2006); **Krasnoyarsk Krai** (Krom and Kapitonov, 2019).***Marasmius epiphylloides* (Rea) Sacc. & Trotter<sup>1</sup>**= *Marasmius squamula* (Batsch) Penn.<sup>2</sup>EASTERN EUROPE: **Moscow** (<sup>2</sup>Bucholtz, 1897b).SIBERIA: **Khanty-Mansi Autonomous Okrug** (<sup>1</sup>Zvyagina and Baykalova, 2017).

***Marasmius epiphyllus* (Pers.) Fr.<sup>1</sup>**

≡ *Agaricus epiphyllus* Pers.<sup>2</sup> = *Marasmius tenuiparietalis* Singer<sup>3</sup>

EASTERN EUROPE: **Belgorod Oblast** (<sup>1</sup>Bedenko, 1979a; <sup>1</sup>Nikolayev, 1986); **Bryansk Oblast** (<sup>1</sup>Kruglikov, 2007); **Chechen Republic** (<sup>1</sup>Taysumov, Krapivina, and Kushaliev, 2016); **Chelyabinsk Oblast** (<sup>1</sup>Aleksandrovskaya and Lobanova, 1968; <sup>1</sup>Sirko and Stepanova, 1977; <sup>1</sup>Stepanova and Sirko, 1977); **Crimea** (<sup>1</sup>Sarkina, 2001; <sup>1</sup>Dudka et al., 2004; <sup>1</sup>Sarkina, 2006; <sup>1</sup>Sarkina, 2010b; <sup>1</sup>Sarkina and Prydiuk, 2012; <sup>1</sup>Sarkina, 2013; <sup>1</sup>Sarkina, 2014b; <sup>1</sup>Sarkina and Mironova, 2015; <sup>1</sup>Sarkina and Stavishenko, 2019); **Kabardino-Balkarian Republic** (<sup>1</sup>Shkhagapsoev and Krapivina, 2004); **Kaliningrad Oblast** (<sup>1</sup>Dedkov, Volodina, and Gubareva, 2007; <sup>1</sup>Volodina, 2007; <sup>1</sup>Atayev and Volodina, 2020); **Kaluga Oblast** (<sup>1</sup>Sionova, 2003; <sup>1</sup>Sionova, 2012); **Karachay-Cherkess Republic** (<sup>1</sup>Kalamees and Botashev, 2000); **Karelia** (<sup>1</sup>Freindling, 1949; <sup>1</sup>Bondartseva et al., 2001; <sup>1</sup>Krutov et al., 2014; <sup>1</sup>Predtechenskaya and Ruokolainen, 2014); **Kirov Oblast** (<sup>1</sup>Kirillov, 2011; <sup>1</sup>Kirillov, Perevedentseva, and Egoshina, 2011); **Komi Republic** (<sup>1</sup>Palamarchuk and Kirillov, 2017; <sup>1</sup>Palamarchuk and Kirillov, 2018a); **Leningrad Oblast** (<sup>1</sup>Thesleff, 1920; <sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Morozova and Kovalenko, 2000; <sup>1</sup>Morozova, 2007; <sup>1</sup>Popov et al., 2007; <sup>1</sup>Kalinina, 2018); **Lipetsk Oblast** (<sup>1</sup>Rtishcheva, 1999; <sup>1</sup>Sarycheva, 1999; <sup>1</sup>Afanasyev, Rtishcheva, and Starodubtseva, 2007; <sup>1</sup>Sarycheva et al., 2009; <sup>1</sup>Sarycheva, 2011; <sup>1</sup>Sarycheva, 2014a; <sup>1</sup>Sarycheva, 2016; <sup>1</sup>Sarycheva, Starodubtseva, and Sapelnikova, 2017); **Mordovia** (<sup>1</sup>Bolshakov and Ivoilov, 2012a); **Moscow Oblast** (<sup>1</sup>Levitskaya, 1995b; <sup>1</sup>Vishnevsky, 1998; <sup>1</sup>Levitskaya, 2013); **Murmansk Oblast** (<sup>1</sup>Pystina, Pavlova, and Shestakova, 1969); **Nizhny Novgorod Oblast** (<sup>1</sup>Murashkinsky, 1911); **Novgorod Oblast** (<sup>1</sup>Morozova, 2012; <sup>1</sup>Popov et al., 2013); **Orenburg Oblast** (<sup>1</sup>Desyatova, 2008); **Penza Oblast** (<sup>1</sup>Ivanov, 1981a); **Perm Krai** (<sup>1</sup>Perevedentseva, 2008; <sup>1</sup>Perevedentseva and Shishigin, 2014; <sup>1</sup>Botalov, 2017; <sup>1</sup>Botalov and Perevedentseva, 2020); **Pskov Oblast** (<sup>1</sup>Popov et al., 2013); **Rostov Oblast** (<sup>1</sup>Rusanov et al., 2004; <sup>1</sup>Zmitrovich et al., 2008; <sup>1</sup>Rusanov, Rebriev, and Bulgakov, 2018); **Ryazan Oblast** (<sup>1</sup>Volosnova, 2005; <sup>1</sup>Volosnova, 2014); **Saint Petersburg** (<sup>2</sup>Weinmann, 1828; <sup>2</sup>Weinmann, 1836; <sup>2</sup>Weinmann, 1837; <sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Morozova and Kovalenko, 2000; <sup>1</sup>Kotkova, Morozova, and Popov, 2006; <sup>1</sup>Morozova and Smirnov, 2011; <sup>1</sup>Morozova et al., 2020); **Samara Oblast** (<sup>1</sup>Malysheva and Malysheva, 2004; <sup>3</sup>Malysheva and Malysheva, 2007; <sup>1,3</sup>Malysheva and Malysheva, 2008); **Smolensk Oblast** (<sup>1</sup>Jaczevski, 1898); **Sverdlovsk Oblast** (<sup>1</sup>Stepanova and Sirko, 1977; <sup>1</sup>Marina, 2006); **Tatarstan** (<sup>1</sup>Vassiljeva, 1977; <sup>1</sup>Potapov, 2016a); **Tula Oblast** (<sup>1</sup>Svetasheva, 2004); **Tver Oblast** (<sup>1</sup>Tranzschel, 1901; <sup>1</sup>Kurochkin, 1993; <sup>1</sup>Popov et al., 2013); **Udmurt Republic** (<sup>1</sup>Tychinin and Kuzmina, 2003); **Ulyanovsk Oblast** (<sup>1</sup>Ilyukhin, 2009; <sup>1</sup>Ilyukhin, 2010a); **Vologda Oblast** (<sup>1</sup>Kirillova, 2007; <sup>1</sup>Kirillova, 2009); **Voronezh Oblast** (<sup>1</sup>Chastukhin, 1952; <sup>1</sup>Chastukhin and Nikolaevskaya, 1953; <sup>1</sup>Chastukhin and Nikolaevskaya, 1969; <sup>1</sup>Rtishcheva, 1999; <sup>1</sup>Afanasyev, Rtishcheva, and Starodubtseva, 2007; <sup>1</sup>Sarycheva, Starodubtseva, and Sapelnikova, 2017); **Yaroslavl Oblast** (<sup>1</sup>Lazareva, 1998a); **Arid territories** (<sup>1</sup>Rebriev, Rusanov, et al., 2012).

SIBERIA: **Altai Krai** (<sup>1</sup>Gorbunova and Perova, 2006; <sup>1</sup>Gorbunova and Chubarova, 2008; <sup>1</sup>Gorbunova, Vlasenko, and Tzhubarova, 2011); **Altai Republic** (<sup>1</sup>Singer, 1943; <sup>1</sup>Gorbunova, 2008; <sup>1</sup>Gorbunova, 2017b); **Buryatia** (<sup>1</sup>Nezdojminogo, 1973); **Irkutsk Oblast** (<sup>1</sup>Kutafjeva, 1983; <sup>1</sup>Petrov, 1984; <sup>1</sup>Petrov, 1989; <sup>1</sup>Bardunov et al., 2005; <sup>1</sup>Petrov, 2008; <sup>1</sup>Gorbunova and Stepanova, 2015; <sup>1</sup>Muzyka and Penzina, 2017); **Khakassia** (<sup>1</sup>Beglyanova, 1972a); **Khanty-Mansi Autonomous Okrug** (<sup>1</sup>Filippova, Bulyonkova, and Lapshina, 2015; <sup>1</sup>Filippova and Bulyonkova, 2017a; <sup>1</sup>Filippova and Bulyonkova, 2017b); **Krasnoyarsk Krai** (<sup>1</sup>Thümen, 1878; <sup>1</sup>Beglyanova, 1972a; <sup>1</sup>Nezdojminogo, 1976a; <sup>1</sup>Lapitskaya, 1993; <sup>1</sup>Zauzolkova, 2012; <sup>1</sup>Zauzolkova, 2015; <sup>1</sup>Malysheva, Malysheva, Kiyashko, et al., 2017); **Novosibirsk Oblast** (<sup>1</sup>Perova, 1977; <sup>1</sup>Gorbunova, 2007; <sup>1</sup>Perova and Gorbunova, 2007; <sup>1</sup>Koropachinskiy and Banaev, 2014); **Tomsk Oblast** (<sup>1</sup>Milovidova, 1980; <sup>1</sup>Kosheleva and Kutafjeva, 2004; <sup>1</sup>Agaphonova, Kutafjeva, and Gashkov, 2007; <sup>1</sup>Kudashova, Gashkov, and Kutafjeva, 2013); **Yamalo-Nenets Autonomous Okrug** (<sup>1</sup>Tarчевskaya, 1990); **Zabaykalsky Krai** (<sup>1</sup>Karsten, 1911).

FAR EAST: **Jewish Autonomous Oblast** (<sup>1</sup>Bulakh, Govorova, Nazarova, and Vassiljeva, 2007; <sup>1</sup>Bau, Bulakh, and Govorova, 2011); **Kamchatka Krai** (<sup>1</sup>Kalamees and Vaasma, 1981); **Khabarovsk Krai** (<sup>1</sup>Azbukina et al., 1986; <sup>1</sup>Azbukina et al., 1989; <sup>1</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Erofeeva and Bulakh, 2015a); **Magadan Oblast** (<sup>1</sup>Sazanova, 2009a; <sup>1</sup>Sazanova, 2011); **Primorsky Krai** (<sup>1</sup>Vassiljeva, 1972; <sup>1</sup>Vassiljeva, 1973; <sup>1</sup>Bunkina and Nazarova, 1978; <sup>1</sup>Azbukina et al., 1984; <sup>1</sup>Azbukina et al., 1990; <sup>1</sup>Bardunov et al., 2002; <sup>1</sup>Azbukina et al., 2006; <sup>1</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Bulakh et al., 2016); **Sakhalin Oblast** (<sup>1</sup>Vassiljeva and Nazarova, 1972; <sup>1</sup>Bulakh, Govorova, and Bogatov, 1999).

***Marasmius epirhododendron* Kalamees**

EASTERN EUROPE: **Adygea** (Vaasma, Kalamees, and Raitviir, 1986; Kalamees, 1989; Zamotajlov, Sirotyuk (Kuvaeva), Akatova, and Lipka, 2012).



***Marasmius epodius* Bres.<sup>1</sup>**

= *Marasmius anomalus* Lasch<sup>2</sup> = *Marasmius anomalus* f. *anomalus* Lasch<sup>3</sup> = *Marasmius anomalus* var. *anomalus* Lasch<sup>4</sup> = *Marasmius anomalus* var. *microsporus* (Maire) Antonín<sup>5</sup> = *Marasmius littoralis* Quél. & Le Bret.<sup>6</sup>

EASTERN EUROPE: **Kaliningrad Oblast** (<sup>2</sup>Dedkov, Volodina, and Gubareva, 2007); **Krasnodar Krai** (<sup>1</sup>Vassiljeva, 1939); **Moscow Oblast** (<sup>2</sup>Levitskaya, 1995b; <sup>2</sup>Vishnevsky, 1998; <sup>2</sup>Levitskaya, 2013); **Penza Oblast** (<sup>2</sup>Ivanov, 1983); **Ryazan Oblast** (<sup>5</sup>Malysheva and Volosnova, 2008; <sup>5</sup>Volosnova, 2014); **Samara Oblast** (<sup>4,5</sup>Malysheva and Malysheva, 2006; <sup>4,5</sup>Malysheva and Malysheva, 2007; <sup>4,5</sup>Malysheva and Malysheva, 2008); **Sevastopol** (<sup>1</sup>Sarkina, 2016b); **Sverdlovsk Oblast** (<sup>1</sup>Shiryaeva and Palamarchuk, 2019); **Ulyanovsk Oblast** (<sup>3</sup>Ilyukhin, 2010a; <sup>3</sup>Ilyukhin, 2010b).

SIBERIA: **Irkutsk Oblast** (<sup>6</sup>Kutafjeva, 1983); **Novosibirsk Oblast** (<sup>6</sup>Perova, 1977; <sup>6</sup>Perova and Gorbunova, 2001); **Tomsk Oblast** (<sup>6</sup>Perova and Gorbunova, 2001; <sup>2</sup>Kudashova, Gashkov, and Kutafjeva, 2013).

FAR EAST: **Jewish Autonomous Oblast** (<sup>2</sup>Bau, Bulakh, and Govorova, 2011); **Khabarovsk Krai** (<sup>2,6</sup>Azbukina et al., 1986; <sup>2</sup>Azbukina et al., 1989; <sup>2</sup>Bau, Bulakh, and Govorova, 2011); **Primorsky Krai** (<sup>6</sup>Vassiljeva, 1972; <sup>6</sup>Vassiljeva, 1973; <sup>2,6</sup>Bunkina and Nazarova, 1978; <sup>2</sup>Azbukina et al., 1984; <sup>2,6</sup>Azbukina et al., 2006; <sup>2</sup>Bau, Bulakh, and Govorova, 2011).

***Marasmius fagi* (Kalamees) Kalamees<sup>1</sup>**

≡ *Collybia fagi* Kalamees<sup>2</sup>

EASTERN EUROPE: **Adygea** (<sup>2</sup>Vaasma, Kalamees, and Raitviir, 1986; <sup>1</sup>Kalamees, 1989).

***Marasmius fissipes* (Maire) Singer ex Laskibar, Arrilaga & Bon**

EASTERN EUROPE: **Murmansk Oblast** (Mikhailovskii, 1975a).

***Marasmius graminum* (Lib.) Berk.**

EASTERN EUROPE: **Belgorod Oblast** (Bedenko, 1980); **Kaliningrad Oblast** (Volodina, 2007); **Kaluga Oblast** (Sionova, 2003); **Lipetsk Oblast** (Alferova, 1977; Rtishcheva, 1999; Sarycheva, 1999; Afanasyev, Rtishcheva, and Starodubtseva, 2007; Sarycheva et al., 2009; Sarycheva, 2016; Sarycheva, Starodubtseva, and Sapelnikova, 2017); **Moscow Oblast** (Vishnevsky, 1998); **Penza Oblast** (Ivanov, 1983; Ivanov, 1999); **Rostov Oblast** (Vyshchepan, 1992); **Ryazan Oblast** (Volosnova, 2014); **Saint Petersburg** (Singer, 1943; Kovalenko and Morozova, 1999a); **Sevastopol** (Sarkina and Belyaeva, 2013); **Tatarstan** (Vassiljeva, 1977); **Vologda Oblast** (Kirillova, 2007); **Voronezh Oblast** (Rtishcheva, 1999; Afanasyev, Rtishcheva, and Starodubtseva, 2007; Agafonov, 2011; Sarycheva, Starodubtseva, and Sapelnikova, 2017; Agafonov, 2018); **Arid territories** (Rebriev, Rusanov, et al., 2012).

SIBERIA: **Altai Krai** (Gorbunova and Perova, 2006); **Khakassia** (Zauzolkova, 2015; Zauzolkova and Gorbunova, 2016); **Novosibirsk Oblast** (Perova and Gorbunova, 2001; Koropachinskiy and Banaev, 2014); **Tomsk Oblast** (Kudashova, Gashkov, and Vaishlya, 2016a).

FAR EAST: **Khabarovsk Krai** (Bau, Bulakh, and Govorova, 2011); **Primorsky Krai** (Vassiljeva, 1972; Vassiljeva, 1973; Bau, Bulakh, Zhuang, and Li, 2007; Bau, Bulakh, and Govorova, 2011; Bulakh et al., 2016).

***Marasmius hudsonii* (Pers.) Fr.**

EASTERN EUROPE: **Adygea** (Vaasma, Kalamees, and Raitviir, 1986; Psurtseva, Kiyashko, Gachkova, and Belova, 2007; Zamotajlov, Sirotyuk (Kuvaeva), Akatova, and Lipka, 2012).

***Marasmius insolitus* Kiyashko & E.F. Malysheva**

FAR EAST: **Primorsky Krai** (Kiyashko et al., 2014; Bogacheva, Bulakh, Bukharova, and Egorova, 2020).

***Marasmius limosus* Quél.**

EASTERN EUROPE: **Kaliningrad Oblast** (Volodina, 2007); **Karelia** (Krutov et al., 2014); **Komi Republic** (Palamarchuk and Kirillov, 2018a); **Leningrad Oblast** (Kovalenko and Morozova, 1999a; Tzvelev, 2000; Morozova, 2007; Popov et al., 2007; Zmitrovich et al., 2015; Geltman et al., 2018); **Novgorod Oblast** (Kovalenko, Morozova, Nezdojminogo, and Popov, 2005; Psurtseva, Kiyashko, Gachkova, and Belova, 2007; Popov et al., 2013); **Penza Oblast** (Ivanov, 1999); **Pskov Oblast** (Kovalenko, Kolmakov, Morozova, and Popov, 2003; Popov et al., 2013); **Rostov Oblast** (Morozova et al., 2008); **Ryazan Oblast** (Malysheva and Volosnova, 2008; Volosnova, 2014); **Saint Petersburg** (Kotkova, Morozova, and Popov, 2005); **Sverdlovsk Oblast** (Marina, 2006); **Ulyanovsk Oblast** (Ilyukhin, 2010a); **Vologda Oblast** (Kirillova, 2007; Kirillova, 2009; Suslova et al., 2013); **Yaroslavl Oblast** (Lazareva, 1998a); **Arid territories** (Rebriev, Rusanov, et al., 2012).

SIBERIA: **Altai Krai** (Gorbunova and Chubarova, 2008; Gorbunova, Vlasenko, and Tzhubarova, 2011); **Altai Republic** (Singer, 1943).

FAR EAST: **Primorsky Krai** (Vassiljeva, 1972; Vassiljeva, 1973; Bunkina and Nazarova, 1978; Azbukina et al., 1984; Azbukina et al., 2006; Bau, Bulakh, and Govorova, 2011).

***Marasmius macrocystidiosus* Kiyashko & E.F. Malysheva**

FAR EAST: **Primorsky Krai** (Kiyashko et al., 2014; Bulakh et al., 2016; Bogacheva, Bulakh, Bukharova, and Egorova, 2020).

***Marasmius michailowskoensis* Henn.**

EASTERN EUROPE: **Moscow** (Mosolov, 1906).

***Marasmius minutissimus* Peck**

SIBERIA: **Altai Republic** (Singer, 1943).

***Marasmius occultatiformis* Antonín, Ryoo & H.D. Shin**

FAR EAST: **Jewish Autonomous Oblast** (Kiyashko et al., 2014); **Primorsky Krai** (Kiyashko et al., 2014).

***Marasmius ochroleucus* Desjardin & E. Horak**

FAR EAST: **Primorsky Krai** (Kiyashko et al., 2014).

***Marasmius oreades* (Bolton) Fr.<sup>1</sup>**

≡ *Agaricus oreades* Bolton<sup>2</sup> = *Marasmius caryophylleus* (Schaeff.) J. Schröt.<sup>3</sup>

EASTERN EUROPE: **Adygea** (<sup>1</sup>Kovalenko, 1979a; <sup>1</sup>Vaasma, Kalamees, and Raitviir, 1986); **Astrakhan Oblast** (<sup>1</sup>Rebriev, Aleksandrova, et al., 2012); **Belgorod Oblast** (<sup>1</sup>Bedenko, 1979a; <sup>1</sup>Ryabova and Ignatenko, 1981; <sup>1</sup>Soshnina, 1995; <sup>1</sup>Psurtseva, Belova, and Ryabusheva, 2003); **Bryansk Oblast** (<sup>1</sup>Kruglikov, 2007); **Chechen Republic** (<sup>1</sup>Taysumov, Krapivina, Umarov, and Astamirova, 2012; <sup>1</sup>Taysumov, Krapivina, and Kushaliev, 2016); **Chelyabinsk Oblast** (<sup>1</sup>Aleksandrovskaya and Lobanova, 1968; <sup>1</sup>Stepanova and Sirko, 1977); **Chuvash Republic** (<sup>1</sup>Marfin, 2001); **Crimea** (<sup>2</sup>Léveillé, 1842; <sup>1</sup>Sarkina, 2001; <sup>1</sup>Dudka et al., 2004; <sup>1</sup>Sarkina, 2006; <sup>1</sup>Sarkina, 2010b; <sup>1</sup>Sarkina, 2011; <sup>1</sup>Sarkina and Prydiuk, 2012; <sup>1</sup>Sarkina and Mironova, 2015); **Kabardino-Balkarian Republic** (<sup>1</sup>Shkhagapsoev and Krapivina, 2004); **Kaliningrad Oblast** (<sup>3</sup>Hennings, 1895; <sup>1</sup>Dedkov, Volodina, and Gubareva, 2007; <sup>1</sup>Volodina, 2007; <sup>1</sup>Atayev and Volodina, 2020); **Kaluga Oblast** (<sup>1</sup>Sionova, 2003; <sup>1</sup>Sionova, 2006); **Karachay-Cherkess Republic** (<sup>1</sup>Hollós, 1902; <sup>1</sup>Hollós, 1905; <sup>1</sup>Filarszky, 1907; <sup>1</sup>Kalamees and Botashev, 2000); **Karelia** (<sup>1</sup>Freindling, 1949; <sup>1</sup>Kovalenko, Morozova, Fomina, and Särkisilta, 1998; <sup>1</sup>Bondartseva et al., 2001; <sup>1</sup>Krutov et al., 2014; <sup>1</sup>Savelev and Kikeeva, 2018); **Kirov Oblast** (<sup>1</sup>Kirillov, 2011; <sup>1</sup>Kirillov, Perevedentseva, and Egoshina, 2011); **Komi Republic** (<sup>1</sup>Bobretsova, 2004; <sup>1</sup>Palamarchuk, 2012; <sup>1</sup>Palamarchuk and Kirillov, 2017); **Krasnodar Krai** (<sup>1</sup>Kovalenko, 1980a); **Kursk Oblast** (<sup>1</sup>Ryabova and Ignatenko, 1981; <sup>1</sup>Soshnina, 2001; <sup>1</sup>Baranov, 2002; <sup>1</sup>Soshnina, 2005); **Leningrad Oblast** (<sup>1</sup>Thesleff, 1920; <sup>1</sup>Stolyarskaya, 1989; <sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Morozova, 2007; <sup>1</sup>Popov et al., 2007; <sup>1</sup>Psurtseva, Kiyashko, Gachkova, and Belova, 2007; <sup>1</sup>Zmitrovich et al., 2015); **Lipetsk Oblast** (<sup>1</sup>Alferova, 1977; <sup>1</sup>Rtishcheva, 1999; <sup>1</sup>Sarycheva, 1999; <sup>1</sup>Afanasyev, Rtishcheva, and Starodubtseva, 2007; <sup>1</sup>Sarycheva et al., 2009; <sup>1</sup>Sarycheva, 2011; <sup>1</sup>Sarycheva, 2014a; <sup>1</sup>Sarycheva, 2016; <sup>1</sup>Sarycheva, Starodubtseva, and Sapelnikova, 2017); **Mordovia** (<sup>1</sup>Kuznetsov, 1960; <sup>1</sup>Chastukhin, 2011; <sup>1</sup>Ivoilov and Bolshakov, 2011a); **Moscow Oblast** (<sup>1</sup>Gorlenko, Sidorova, and Sidorova, 1989; <sup>1</sup>Levitskaya, 1995b; <sup>1</sup>Vishnevsky, 1998; <sup>1</sup>Levitskaya, 2013; <sup>1</sup>Sidorova, Alexandrova, and Voronina, 2017); **Murmansk Oblast** (<sup>1</sup>Karsten, 1866; <sup>1</sup>Karsten, 1876); **North Ossetia** (<sup>1</sup>Nikolayev, 2001); **Novgorod Oblast** (<sup>1</sup>Kovalenko, Morozova, Nezdjominogo, and Popov, 2005; <sup>1</sup>Psurtseva, Kiyashko, Gachkova, and Belova, 2007; <sup>1</sup>Popov et al., 2013); **Orenburg Oblast** (<sup>1</sup>Korshikova, 2006; <sup>1</sup>Desyatova, 2008); **Oryol Oblast** (<sup>1</sup>Radygina, Derzhavina, and Tsutsupa, 2014); **Penza Oblast** (<sup>1</sup>Ivanov, 1981a; <sup>1</sup>Ivanov, 1999); **Perm Krai** (<sup>1</sup>Psurtseva, Kiyashko, Gachkova, and Belova, 2007; <sup>1</sup>Perevedentseva, 2008; <sup>1</sup>Belkovskaya et al., 2014); **Pskov Oblast** (<sup>1</sup>Popov, 2001a; <sup>1</sup>Psurtseva, Kiyashko, Gachkova, and Belova, 2007; <sup>1</sup>Popov et al., 2013); **Rostov Oblast** (<sup>1</sup>Vyshchepan, 1992; <sup>1</sup>Rusanov et al., 2004; <sup>1</sup>Psurtseva, Kiyashko, Gachkova, and Belova, 2007; <sup>1</sup>Morozova et al., 2008; <sup>1</sup>Zmitrovich et al., 2008; <sup>1</sup>Rebriev and Svetasheva, 2010; <sup>1</sup>Shiryaev, Rebriev, and Knudsen, 2017; <sup>1</sup>Rebriev, 2018; <sup>1</sup>Rusanov, Rebriev, and Bulgakov, 2018); **Ryazan Oblast** (<sup>3</sup>Vanin, 1916; <sup>1</sup>Volosnova, 1997; <sup>1</sup>Volosnova, 2014); **Saint Petersburg** (<sup>2</sup>Weinmann, 1828; <sup>2</sup>Weinmann, 1836; <sup>2</sup>Weinmann, 1837; <sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Morozova and Smirnov, 2011; <sup>1</sup>Zhukova, Morozova, Volobuev, and Bryantseva, 2017; <sup>1</sup>Morozova et al., 2020); **Samara Oblast** (<sup>1</sup>Malysheva and Malysheva, 2004; <sup>1</sup>Malysheva and Malysheva, 2008); **Saratov Oblast** (<sup>1</sup>Lebedeva, 1927; <sup>1</sup>Kazakevich and Prisyazhnyuk, 1932; <sup>1</sup>Komirnaya, 1970); **Sevastopol** (<sup>1</sup>Sarkina, 2016b; <sup>1</sup>Sarkina, 2020b);

<sup>1</sup>Sarkina, 2020c); **Stavropol Krai** (<sup>3</sup>Lebedeva, 1930); **Sverdlovsk Oblast** (<sup>1</sup>Stepanova and Sirko, 1977; <sup>1</sup>Marina, 2006); **Tatarstan** (<sup>1</sup>Vassiljeva, 1977; <sup>1</sup>Potapov, 2015b; <sup>1</sup>Potapov, 2016a); **Tula Oblast** (<sup>1</sup>Svetasheva, 2004; <sup>1</sup>Svetasheva, 2013); **Tver Oblast** (<sup>1</sup>Kurochkin, 1993; <sup>1</sup>Mukhina, 2011a; <sup>1</sup>Mukhina, 2011b; <sup>1</sup>Kotkova, 2014; <sup>1</sup>Kurochkin and Medvedev, 2015; <sup>1</sup>Kurochkin, 2016); **Udmurt Republic** (<sup>1</sup>Tychinin, 1990; <sup>1</sup>Tychinin and Kuzmina, 2003); **Ulyanovsk Oblast** (<sup>1</sup>Ilyukhin, 2009; <sup>1</sup>Ilyukhin, 2010a); **Volgograd Oblast** (<sup>1</sup>Stauchan and Vedeneyev, 2015); **Vologda Oblast** (<sup>1</sup>Kutova, 1957; <sup>1</sup>Kirillova, 2007; <sup>1</sup>Kirillova, 2009); **Voronezh Oblast** (<sup>1</sup>Chastukhin, 1952; <sup>1</sup>Chastukhin and Nikolaevskaya, 1953; <sup>1</sup>Chastukhin and Nikolaevskaya, 1969; <sup>1</sup>Rtishcheva, 1999; <sup>1</sup>Afanasyev, Rtishcheva, and Starodubtseva, 2007; <sup>1</sup>Sarycheva, Starodubtseva, and Sapelnikova, 2017); **Yaroslavl Oblast** (<sup>1</sup>Lazareva, 1997; <sup>1</sup>Lazareva, 1998a); **Arid territories** (<sup>1</sup>Rebriev, Rusanov, et al., 2012); **Northern Caucasus** (<sup>1</sup>Kovalenko, 1980b).

**SIBERIA:** **Altai Krai** (<sup>1</sup>Gorbunova and Perova, 2006; <sup>1</sup>Gorbunova, 2006; <sup>1</sup>Gorbunova and Chubarova, 2008; <sup>1</sup>Gorbunova, Vlasenko, and Tzhubarova, 2011); **Altai Republic** (<sup>1</sup>Gorbunova, 2001b; <sup>1</sup>Perova and Gorbunova, 2001; <sup>1</sup>Gorbunova, 2006; <sup>1</sup>Gorbunova, 2008); **Irkutsk Oblast** (<sup>1</sup>Kutafjeva, 1983; <sup>1</sup>Muzyka, 2002; <sup>1</sup>Petrov, 2008); **Khakassia** (<sup>1</sup>Saccardo, 1896; <sup>1</sup>Beglyanova, 1972a; <sup>1</sup>Gorbunova and Majnagasheva, 2013; <sup>1</sup>Zauzolkova, 2015); **Krasnoyarsk Krai** (<sup>1</sup>Thümen, 1880a; <sup>1</sup>Beglyanova, 1972a; <sup>1</sup>Malysheva, Malysheva, Kiyashko, et al., 2017); **Kurgan Oblast** (<sup>1</sup>Bystrushkin, 2016); **Novosibirsk Oblast** (<sup>1</sup>Perova and Gorbunova, 2001; <sup>1</sup>Gorbunova, 2006; <sup>1</sup>Gorbunova, 2007; <sup>1</sup>Koropachinskiy and Banaev, 2014); **Tomsk Oblast** (<sup>1</sup>Milovidova, 1980; <sup>1</sup>Kosheleva and Kutafjeva, 2004; <sup>1</sup>Agaphonova, Kutafjeva, and Gashkov, 2007; <sup>1</sup>Kudashova, Gashkov, and Kutafjeva, 2013; <sup>1</sup>Vaishlya et al., 2017); **Altai** (<sup>1</sup>Zhukov, 1979).

**FAR EAST:** **Amur Oblast** (<sup>1</sup>Taranina, 2005; <sup>1</sup>Kochunova, 2019); **Jewish Autonomous Oblast** (<sup>1</sup>Bau, Bulakh, Zhuang, and Li, 2007; <sup>1</sup>Bau, Bulakh, and Govorova, 2011); **Primorsky Krai** (<sup>1</sup>Vassiljeva, 1973; <sup>1</sup>Azbukina et al., 2006; <sup>1</sup>Bau, Bulakh, and Govorova, 2011).

### *Marasmius plicatulus* Peck

**FAR EAST:** **Amur Oblast** (Taranina, 2005; Kochunova, 2019); **Jewish Autonomous Oblast** (Bulakh, Govorova, Nazarova, and Vassiljeva, 2007; Bau, Bulakh, and Govorova, 2011); **Primorsky Krai** (Bunkina and Nazarova, 1978; Azbukina et al., 1984; Azbukina et al., 2006; Bau, Bulakh, and Govorova, 2011; Bulakh et al., 2016).

### *Marasmius rhododendrorum* Kalamees

**EASTERN EUROPE:** **Adygea** (Vaasma, Kalamees, and Raitviir, 1986; Kalamees, 1989; Kummer, 2007; Zamotajlov, Sirotyuk (Kuvaeva), Akatova, and Lipka, 2012).

### *Marasmius rotula* (Scop.) Fr.<sup>1</sup>

≡ *Agaricus rotula* Scop.<sup>2</sup>

**EASTERN EUROPE:** **Adygea** (<sup>1</sup>Vaasma, Kalamees, and Raitviir, 1986; <sup>1</sup>Psurtseva, Kiyashko, Gachkova, and Belova, 2007); **Belgorod Oblast** (<sup>1</sup>Brezhnev, 1950; <sup>1</sup>Bedenko, 1979a; <sup>1</sup>Nikolayev, 1986; <sup>1</sup>Psurtseva, Belova, and Ryabusheva, 2003; <sup>1</sup>Psurtseva, Kiyashko, Gachkova, and Belova, 2007); **Bryansk Oblast** (<sup>1</sup>Kruglikov, 2007); **Chechen Republic** (<sup>1</sup>Taysumov, Krapivina, and Kushalieva, 2016); **Chelyabinsk Oblast** (<sup>1</sup>Aleksandrovskaya and Lobanova, 1968; <sup>1</sup>Stepanova and Sirko, 1977); **Crimea** (<sup>2</sup>Léveillé, 1842; <sup>1</sup>Sarkina, 2001; <sup>1</sup>Dudka et al., 2004; <sup>1</sup>Sarkina, 2010b; <sup>1</sup>Sarkina, 2011; <sup>1</sup>Sarkina and Prydiuk, 2012; <sup>1</sup>Sarkina and Mironova, 2015); **Kabardino-Balkarian Republic** (<sup>1</sup>Shkhagapsoev and Krapivina, 2004); **Kaliningrad Oblast** (<sup>1</sup>Dedkov, Volodina, and Gubareva, 2007; <sup>1</sup>Volodina, 2007; <sup>1</sup>Atayev and Volodina, 2020); **Kaluga Oblast** (<sup>1</sup>Sionova, 2003); **Karachay-Cherkess Republic** (<sup>1</sup>Vassiljeva, 1939; <sup>1</sup>Kalamees and Botashev, 2000); **Karelia** (<sup>1</sup>Bondartseva et al., 2001; <sup>1</sup>Predtechenskaya and Ruokolainen, 2013; <sup>1</sup>Predtechenskaya, 2013; <sup>1</sup>Krutov et al., 2014; <sup>1</sup>Predtechenskaya and Ruokolainen, 2014; <sup>1</sup>Predtechenskaya, 2015; <sup>1</sup>Savelev and Kikeeva, 2018); **Kirov Oblast** (<sup>1</sup>Kirillov, 2011; <sup>1</sup>Kirillov, Perevedentseva, and Egoshina, 2011); **Komi Republic** (<sup>1</sup>Palamarchuk, 2012; <sup>1</sup>Palamarchuk and Kirillov, 2017; <sup>1</sup>Palamarchuk and Kirillov, 2018a); **Krasnodar Krai** (<sup>1</sup>Vassiljeva, 1939; <sup>1</sup>Kovalenko, 1980a; <sup>1</sup>Kovalenko, 1980b); **Kursk Oblast** (<sup>1</sup>Ryabova and Ignatenko, 1981; <sup>1</sup>Baranov, 2002); **Leningrad Oblast** (<sup>1</sup>Thesleff, 1920; <sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Morozova and Kovalenko, 2000; <sup>1</sup>Morozova, 2007; <sup>1</sup>Popov et al., 2007; <sup>1</sup>Psurtseva, Kiyashko, Gachkova, and Belova, 2007; <sup>1</sup>Kalinina, 2018); **Lipetsk Oblast** (<sup>1</sup>Alferova, 1977; <sup>1</sup>Sarycheva, 1999; <sup>1</sup>Afanasyev, Rtishcheva, and Starodubtseva, 2007; <sup>1</sup>Sarycheva et al., 2009; <sup>1</sup>Sarycheva, 2011; <sup>1</sup>Sarycheva, 2014a; <sup>1</sup>Sarycheva, 2016; <sup>1</sup>Sarycheva, Starodubtseva, and Sapelnikova, 2017); **Mari El Republic** (<sup>1</sup>Prokhorov, 2007); **Mordovia** (<sup>1</sup>Ivoilov and Bolshakov, 2011a); **Moscow** (<sup>1</sup>Bucholtz, 1897a; <sup>1</sup>Bucholtz, 1897b; <sup>1</sup>Bucholtz, 1897c; <sup>1</sup>Mosolov, 1906); **Moscow Oblast** (<sup>1</sup>Gorlenko, Sidorova, and Sidorova, 1989; <sup>1</sup>Levitskaya, 1995b; <sup>1</sup>Vishnevsky, 1998; <sup>1</sup>Voronina et al., 2012; <sup>1</sup>Levitskaya, 2013; <sup>1</sup>Voronina et al., 2014); **Murmansk Oblast** (<sup>1</sup>Pystina, Pavlova, and Shestakova, 1969); **Nizhny Novgorod Oblast** (<sup>1</sup>Murashkinsky, 1911); **North Ossetia** (<sup>1</sup>Nikolayev, 2001); **Novgorod Oblast** (<sup>1</sup>Kovalenko, Morozova, Nezdjominogo, and Popov, 2005; <sup>1</sup>Popov et al., 2013; <sup>1</sup>Baklan, 2015); **Orenburg Oblast** (<sup>1</sup>Korshikova, 2005; <sup>1</sup>Korshikova, 2006; <sup>1</sup>Desyatova, 2008); **Oryol Oblast** (<sup>1</sup>Volobuev and

Tsutsupa, 2009); **Penza Oblast** (<sup>1</sup>Ivanov, 1981a); **Perm Krai** (<sup>1</sup>Naoumoff, 1915; <sup>1</sup>Perevedentseva, 2008; <sup>1</sup>Belkovskaya et al., 2014; <sup>1</sup>Perevedentseva and Shishigin, 2014; <sup>1</sup>Botalov, Perevedentseva, and Shishigin, 2020); **Pskov Oblast** (<sup>1</sup>Popov, 2001a; <sup>1</sup>Psurtseva, Kiyashko, Gachkova, and Belova, 2007; <sup>1</sup>Popov et al., 2013); **Rostov Oblast** (<sup>1</sup>Rusanov et al., 2004; <sup>1</sup>Morozova et al., 2008; <sup>1</sup>Zmitrovich et al., 2008; <sup>1</sup>Rusanov, Rebriev, and Bulgakov, 2018); **Ryazan Oblast** (<sup>1</sup>Volosnova, 2005; <sup>1</sup>Volosnova, 2014); **Saint Petersburg** (<sup>2</sup>Weinmann, 1828; <sup>2</sup>Weinmann, 1837; <sup>1</sup>Kotkova, Morozova, and Popov, 2007; <sup>1</sup>Morozova and Smirnov, 2011; <sup>1</sup>Morozova, Kovalenko, Rebriev, and Malysheva, 2014; <sup>1</sup>Zhukova, Morozova, Volobuev, and Bryantseva, 2017; <sup>1</sup>Morozova et al., 2020); **Samara Oblast** (<sup>1</sup>Malysheva and Malysheva, 2004; <sup>1</sup>Psurtseva, Kiyashko, Gachkova, and Belova, 2007; <sup>1</sup>Malysheva and Malysheva, 2008); **Smolensk Oblast** (<sup>1</sup>Jaczewski, 1893; <sup>1</sup>Jaczewski, 1895; <sup>1</sup>Burova, 1969); **Tatarstan** (<sup>1</sup>Vassiljeva, 1977; <sup>1</sup>Potapov, Galejev, and Zhukov, 2013; <sup>1</sup>Potapov, 2015b); **Tula Oblast** (<sup>1</sup>Svetasheva, 2001; <sup>1</sup>Svetasheva, 2004; <sup>1</sup>Svetasheva, 2013); **Tver Oblast** (<sup>1</sup>Tranzschel, 1901; <sup>1</sup>Kurochkin, 1993; <sup>1</sup>Popov et al., 2013); **Udmurt Republic** (<sup>1</sup>Tychinin, 1990; <sup>1</sup>Tychinin and Kuzmina, 2003); **Ulyanovsk Oblast** (<sup>1</sup>Ilyukhin, 2009; <sup>1</sup>Ilyukhin, 2010a); **Volgograd Oblast** (<sup>1</sup>Dudka and Vedeneyev, 2015); **Vologda Oblast** (<sup>1</sup>Bolshakov et al., 2018); **Voronezh Oblast** (<sup>1</sup>Rtishcheva, 1999; <sup>1</sup>Afanasyev, Rtishcheva, and Starodubtseva, 2007; <sup>1</sup>Sarycheva, Starodubtseva, and Sapelnikova, 2017; <sup>1</sup>Kochergina and Furmenkova, 2019); **Yaroslavl Oblast** (<sup>1</sup>Lazareva, 1997; <sup>1</sup>Lazareva, 1998a); **Arid territories** (<sup>1</sup>Rebriev, Rusanov, et al., 2012).

SIBERIA: **Altai Krai** (<sup>1</sup>Gorbunova and Chubarova, 2008; <sup>1</sup>Gorbunova, Vlasenko, and Tzhubarova, 2011); **Buryatia** (<sup>1</sup>Nezdojminogo, 1973; <sup>1</sup>Petrov, 1991); **Khanty-Mansi Autonomous Okrug** (<sup>1</sup>Filippova and Bulyonkova, 2017a; <sup>1</sup>Filippova and Bulyonkova, 2017b); **Krasnoyarsk Krai** (<sup>1</sup>Thümen, 1882; <sup>1</sup>Zauzolkova, 2012; <sup>1</sup>Zauzolkova, 2015); **Kurgan Oblast** (<sup>1</sup>Bystrushkin, 2016); **Tomsk Oblast** (<sup>1</sup>Perova, 1972; <sup>1</sup>Perova and Gorbunova, 2001; <sup>1</sup>Kudashova, Gashkov, and Kutafjeva, 2013).

#### ***Marasmius rubi* Kalamees**

EASTERN EUROPE: **Adygea** (Vaasma, Kalamees, and Raitviir, 1986; Kalamees, 1989).

#### ***Marasmius saccharinus* (Batsch) Fr.**

EASTERN EUROPE: **Chelyabinsk Oblast** (Sirko and Stepanova, 1977; Stepanova and Sirko, 1977); **Crimea** (Dudka et al., 2004); **Krasnodar Krai** (Kovalenko, 1980a; Kovalenko, 1980b); **Moscow Oblast** (Levitskaya, 1995b; Vishnevsky, 1998; Levitskaya, 2013); **Perm Krai** (Naoumoff, 1915; Stepanova and Sirko, 1977); **Sverdlovsk Oblast** (Naoumoff, 1915); **Tula Oblast** (Svetasheva, 2004; Shcherbakov, 2010).

SIBERIA: **Krasnoyarsk Krai** (Beglyanova, 1972a); **Sverdlovsk Oblast** (Stepanova and Sirko, 1977).

FAR EAST: **Primorsky Krai** (Bulakh et al., 2016).

#### ***Marasmius sibiricus* Singer**

SIBERIA: **Altai Republic** (Singer, 1943).

#### ***Marasmius splachnoides* (Hornem.) Fr.**

EASTERN EUROPE: **Adygea** (Vaasma, Kalamees, and Raitviir, 1986); **Krasnodar Krai** (Kovalenko, 1980a; Kovalenko, 1980b); **Rostov Oblast** (Rusanov, Rebriev, and Bulgakov, 2018); **Arid territories** (Rebriev, Rusanov, et al., 2012).

FAR EAST: **Primorsky Krai** (Bunkina and Nazarova, 1978; Azbukina et al., 2006; Bau, Bulakh, and Govorova, 2011).

#### ***Marasmius torquescens* Quél.**

EASTERN EUROPE: **Kaliningrad Oblast** (Dedkov, Volodina, and Gubareva, 2007; Volodina, 2007; Atayev and Volodina, 2020); **Krasnodar Krai** (Vassiljeva, 1939); **Leningrad Oblast** (Popov et al., 2007); **Moscow Oblast** (Vishnevsky, 1998; Voronina et al., 2014); **Novgorod Oblast** (Popov et al., 2013); **Penza Oblast** (Ivanov, 1989); **Perm Krai** (Perevedentseva, 2008); **Samara Oblast** (Malysheva and Malysheva, 2005b; Malysheva and Malysheva, 2008); **Tatarstan** (Vassiljeva, 1977); **Tula Oblast** (Svetasheva, 2004; Shcherbakov, 2010); **Ulyanovsk Oblast** (Ilyukhin, 2009; Ilyukhin, 2010a); **Vologda Oblast** (Suslova et al., 2013).

SIBERIA: **Tomsk Oblast** (Kudashova, Gashkov, and Kutafjeva, 2013).

#### ***Marasmius tremulae* Velen.**

EASTERN EUROPE: **Moscow Oblast** (Vishnevsky, 1998); **Ryazan Oblast** (Volosnova, 2005; Volosnova, 2014).

FAR EAST: **Primorsky Krai** (Bulakh, 1977; Bunkina and Nazarova, 1978; Azbukina et al., 1984; Azbukina et al., 2006).

***Marasmius ventalloi* Singer**

EASTERN EUROPE: **Samara Oblast** (Malysheva and Malysheva, 2006; Malysheva and Malysheva, 2007; Malysheva and Malysheva, 2008).

***Marasmius wettsteinii* Sacc. & P. Syd.**

EASTERN EUROPE: **Komi Republic** (Palamarchuk, 2020b); **Krasnodar Krai** (Kiyashko, 2009); **Leningrad Oblast** (Popov et al., 2007; Zmitrovich et al., 2015); **Lipetsk Oblast** (Sarycheva et al., 2009; Sarycheva, 2016); **Moscow Oblast** (Levitskaya, 2006; Levitskaya, 2013); **Novgorod Oblast** (Popov et al., 2013); **Pskov Oblast** (Popov et al., 2013); **Saint Petersburg** (Morozova et al., 2020); **Sverdlovsk Oblast** (Marina, 2006); **Tula Oblast** (Svetasheva, 2004); **Volgda Oblast** (Kirillova, 2007; Kirillova, 2009).

SIBERIA: **Buryatia** (Psurtseva, Kiyashko, Gachkova, and Belova, 2007).

***Marasmius wynneae* Berk. & Broome<sup>1</sup>**

= *Agaricus globularis* Weinm.<sup>2</sup>

EASTERN EUROPE: **Belgorod Oblast** (<sup>1</sup>Bedenko, 1979a); **Crimea** (<sup>1</sup>Moser, 1993; <sup>1</sup>Sarkina, 2001; <sup>1</sup>Dudka et al., 2004; <sup>1</sup>Sarkina, 2010b; <sup>1</sup>Sarkina, 2011; <sup>1</sup>Sarkina and Prydiuk, 2012; <sup>1</sup>Sarkina and Mironova, 2015; <sup>1</sup>Sarkina and Stavishenko, 2019); **Kirov Oblast** (<sup>1</sup>Kirillov, 2011; <sup>1</sup>Kirillov, Perevedentseva, and Egoshina, 2011; <sup>1</sup>Stavishenko, Luginina, Kirillov, and Egoshina, 2019); **Krasnodar Krai** (<sup>1</sup>Psurtseva, Kiyashko, Gachkova, and Belova, 2007); **Kursk Oblast** (<sup>1</sup>Bedenko, 1987; <sup>1</sup>Baranov, 2002); **Leningrad Oblast** (<sup>2</sup>Weinmann, 1835); **Lipetsk Oblast** (<sup>1</sup>Alferova, 1977; <sup>1</sup>Sarycheva, 1999; <sup>1</sup>Sarycheva et al., 2009; <sup>1</sup>Sarycheva, 2011; <sup>1</sup>Sarycheva, 2014a; <sup>1</sup>Sarycheva, 2016); **Moscow Oblast** (<sup>1</sup>Levitskaya, 1995b; <sup>1</sup>Vishnevsky, 1998; <sup>1</sup>Levitskaya, 2013; <sup>1</sup>Voronina et al., 2014); **Penza Oblast** (<sup>1</sup>Ivanov, 1983); **Perm Krai** (<sup>1</sup>Perevedentseva, Nezdojminogo, and Kovalenko, 1990; <sup>1</sup>Perevedentseva, 2008; <sup>1</sup>Perevedentseva and Shishigin, 2014); **Rostov Oblast** (<sup>1</sup>Morozova et al., 2008); **Ryazan Oblast** (<sup>1</sup>Volosnova, 2014); **Saint Petersburg** (<sup>1</sup>Morozova et al., 2020); **Samara Oblast** (<sup>1</sup>Malysheva and Malysheva, 2006; <sup>1</sup>Malysheva and Malysheva, 2007; <sup>1</sup>Psurtseva, Kiyashko, Gachkova, and Belova, 2007; <sup>1</sup>Malysheva and Malysheva, 2008); **Sevastopol** (<sup>1</sup>Sarkina, 2016b; <sup>1</sup>Sarkina, 2020b; <sup>1</sup>Sarkina, 2020c); **Tatarstan** (<sup>1</sup>Vassiljeva, 1977; <sup>1</sup>Potapov, 2016a); **Tula Oblast** (<sup>1</sup>Svetasheva, 2004; <sup>1</sup>Svetasheva, 2013); **Ulyanovsk Oblast** (<sup>1</sup>Ilyukhin, 2009; <sup>1</sup>Ilyukhin, 2010a); **Volgograd Oblast** (<sup>1</sup>Burova and Nezdojminogo, 1982); **Voronezh Oblast** (<sup>1</sup>Bedenko, 1987); **Yaroslavl Oblast** (<sup>1</sup>Lazareva, 1998a); **Arid territories** (<sup>1</sup>Rebriev, Rusanov, et al., 2012).

SIBERIA: **Altai Krai** (<sup>1</sup>Gorbunova and Perova, 2006; <sup>1</sup>Gorbunova, Vlasenko, and Tzhubarova, 2011); **Altai Republic** (<sup>1</sup>Gorbunova, 1996; <sup>1</sup>Gorbunova, 1997; <sup>1</sup>Gorbunova, 2001b; <sup>1</sup>Perova and Gorbunova, 2001); **Irkutsk Oblast** (<sup>1</sup>Petrov, 1984; <sup>1</sup>Petrov, 1989; <sup>1</sup>Astapenko, 1990a; <sup>1</sup>Petrov, 1991; <sup>1</sup>Petrov, 2008; <sup>1</sup>Gorbunova and Stepantsova, 2015); **Khakassia** (<sup>1</sup>Beglyanova, 1972a; <sup>1</sup>Beglyanova, 1972b; <sup>1</sup>Zauzolkova, 2015); **Khanty-Mansi Autonomous Okrug** (<sup>1</sup>Filippova, Bulyonkova, and Lapshina, 2015); **Novosibirsk Oblast** (<sup>1</sup>Gorbunova, 2007; <sup>1</sup>Koropachinskiy and Banaev, 2014); **Tomsk Oblast** (<sup>1</sup>Kudashova, Gashkov, and Kutafjeva, 2013).

FAR EAST: **Khabarovsk Krai** (<sup>1</sup>Azbukina et al., 1986; <sup>1</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Bulakh, 2013; <sup>1</sup>Bogacheva, Bulakh, Bukharova, and Egorova, 2015); **Primorsky Krai** (<sup>1</sup>Vassiljeva, 1972; <sup>1</sup>Vassiljeva, 1973; <sup>1</sup>Bunkina and Nazarova, 1978; <sup>1</sup>Azbukina et al., 1990; <sup>1</sup>Bardunov et al., 2002; <sup>1</sup>Azbukina et al., 2006; <sup>1</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Bulakh et al., 2016; <sup>1</sup>Bogacheva, Bulakh, Bukharova, and Egorova, 2020).

***Megacollybia clitocyboidea* R.H. Petersen, Takehashi & Nagas.**

FAR EAST: **Primorsky Krai** (Hughes et al., 2007).

***Megacollybia marginata* R.H. Petersen, O.V. Morozova & J.L. Mata**

EASTERN EUROPE: **Karachay-Cherkess Republic** (Antonín et al., 2019).

FAR EAST: **Khabarovsk Krai** (Erofeeva and Bulakh, 2016); **Primorsky Krai** (Hughes et al., 2007; Bulakh et al., 2016; Antonín et al., 2019; Bogacheva, Bulakh, Bukharova, and Egorova, 2020).

***Megacollybia platyphylla* (Pers.) Kotl. & Pouzar<sup>1</sup>**

≡ *Agaricus platyphyllus* Pers.<sup>2</sup> ≡ *Collybia platyphylla* (Pers.) P. Kumm.<sup>3</sup> ≡ *Oudemansiella platyphylla* (Pers.) M.M. Moser<sup>4</sup> ≡ *Tricholomopsis platyphylla* (Pers.) Singer<sup>5</sup>

EASTERN EUROPE: **Adygea** (<sup>3</sup>Vassiljeva, 1939; <sup>4</sup>Vaasma, Kalamees, and Raitviir, 1986); **Belgorod Oblast** (<sup>4</sup>Bedenko, 1979a); **Bryansk Oblast** (<sup>3</sup>Kruglikov, 2007); **Chechen Republic** (<sup>4</sup>Taysumov, Krapivina, and Kushaliev, 2016); **Chelyabinsk Oblast** (<sup>4</sup>Stepanova and Sirko, 1977); **Chuvash Republic** (<sup>1</sup>Vladimirova and Potapov, 2018); **Crimea** (<sup>3</sup>Sarkina, 2001; <sup>1</sup>Dudka et al., 2004; <sup>1</sup>Sarkina, 2011; <sup>1</sup>Sarkina and Prydiuk, 2012; <sup>1</sup>Sarkina and Mironova,

2015); **Kabardino-Balkarian Republic** (<sup>4</sup>Shkhagapsoev and Krapivina, 2003; <sup>3,4</sup>Shkhagapsoev and Krapivina, 2004); **Kaliningrad Oblast** (<sup>3</sup>Neuhoff, 1922; <sup>1</sup>Dedkov, Volodina, and Gubareva, 2007; <sup>1</sup>Volodina, 2007); **Kaluga Oblast** (<sup>3</sup>Sionova, 2003); **Karachay-Cherkess Republic** (<sup>3</sup>Vassiljeva, 1939; <sup>1</sup>Kalamees and Botashev, 2000); **Karelia** (<sup>3</sup>Freindling, 1949; <sup>4</sup>Kovalenko, Morozova, Fomina, and Särkisilta, 1998; <sup>1</sup>Bondartseva et al., 2001; <sup>1</sup>Krutov et al., 2014; <sup>1</sup>Savelev and Kikeeva, 2020); **Kirov Oblast** (<sup>1</sup>Kirillov, 2011; <sup>1</sup>Kirillov, Perevedentseva, and Egoshina, 2011); **Komi Republic** (<sup>1</sup>Palamarchuk and Kirillov, 2017); **Krasnodar Krai** (<sup>3</sup>Vassiljeva, 1939; <sup>4</sup>Kovalenko, 1980a; <sup>4</sup>Vaasma, Kalamees, and Raitviir, 1986; <sup>1</sup>Psurtseva, Kiyashko, Gachkova, and Belova, 2007); **Kursk Oblast** (<sup>4</sup>Ryabova and Ignatenko, 1981; <sup>1</sup>Baranov, 2002); **Leningrad Oblast** (<sup>3</sup>Thesleff, 1920; <sup>4</sup>Kalamees and Kovalenko, 1984; <sup>4</sup>Stolyarskaya, 1989; <sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Morozova and Kovalenko, 2000; <sup>1</sup>Hughes et al., 2007; <sup>1</sup>Morozova, 2007; <sup>1</sup>Popov et al., 2007; <sup>1</sup>Psurtseva, Kiyashko, Gachkova, and Belova, 2007; <sup>1</sup>Zmitrovich et al., 2015; <sup>1</sup>Kalinina, 2018); **Lipetsk Oblast** (<sup>1</sup>Sarycheva et al., 2009; <sup>1</sup>Sarycheva, 2011; <sup>1</sup>Sarycheva, 2014a; <sup>1</sup>Sarycheva, 2016); **Mordovia** (<sup>3</sup>Chastukhin, 1948a; <sup>3</sup>Kuznetsov, 1960; <sup>5</sup>Chastukhin and Nikolaevskaya, 1969; <sup>1</sup>Ivoilov and Bolshakov, 2011a; <sup>3</sup>Chastukhin, 2011); **Moscow Oblast** (<sup>4</sup>Gorlenko, Sidorova, and Sidorova, 1989; <sup>4</sup>Levitskaya, 1995b; <sup>1</sup>Vishnevsky, 1998; <sup>1</sup>Voronina et al., 2012; <sup>1</sup>Levitskaya, 2013; <sup>1</sup>Voronina et al., 2014); **North Ossetia** (<sup>1</sup>Nikolayev, 2001); **Novgorod Oblast** (<sup>1</sup>Kovalenko, Morozova, Nezdoininogo, and Popov, 2005; <sup>1</sup>Hughes et al., 2007; <sup>1</sup>Psurtseva, Kiyashko, Gachkova, and Belova, 2007; <sup>1</sup>Popov et al., 2013); **Oryol Oblast** (<sup>1</sup>Radygina, Derzhavina, and Tsutsupa, 2014); **Penza Oblast** (<sup>4</sup>Ivanov, 1981a; <sup>4</sup>Ivanov, 1981b); **Perm Krai** (<sup>1</sup>Perevedentseva, 2008); **Pskov Oblast** (<sup>4</sup>Kovalenko and Morozova, 1999b; <sup>1</sup>Popov, 2001a; <sup>1</sup>Popov et al., 2013); **Rostov Oblast** (<sup>1</sup>Psurtseva, Kiyashko, Gachkova, and Belova, 2007; <sup>1</sup>Morozova et al., 2008); **Ryazan Oblast** (<sup>1</sup>Volosnova, 2014); **Saint Petersburg** (<sup>2</sup>Weinmann, 1828; <sup>2</sup>Weinmann, 1836; <sup>2</sup>Weinmann, 1837; <sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Morozova and Smirnov, 2011; <sup>1</sup>Morozova et al., 2020); **Samara Oblast** (<sup>1</sup>Malysheva and Malysheva, 2004; <sup>1</sup>Hughes et al., 2007; <sup>1</sup>Malysheva and Malysheva, 2008); **Smolensk Oblast** (<sup>3</sup>Jaczevski, 1896); **Sverdlovsk Oblast** (<sup>4</sup>Stepanova and Sirko, 1977; <sup>1</sup>Marina, 2006); **Tatarstan** (<sup>4</sup>Vassiljeva, 1977); **Tula Oblast** (<sup>1</sup>Svetasheva, 2004; <sup>1</sup>Svetasheva, 2013); **Tver Oblast** (<sup>3</sup>Chastukhin, 1948b; <sup>5</sup>Chastukhin and Nikolaevskaya, 1969; <sup>4</sup>Kurochkin, 1993; <sup>1</sup>Mukhina, 2011a; <sup>1</sup>Mukhina, 2011b; <sup>1</sup>Kotkova, 2014; <sup>1</sup>Kurochkin and Medvedev, 2015); **Udmurt Republic** (<sup>4</sup>Tychinin, 1990; <sup>3</sup>Tychinin and Kuzmina, 2003); **Ulyanovsk Oblast** (<sup>1</sup>Ilyukhin, 2009; <sup>1</sup>Ilyukhin, 2010a); **Vologda Oblast** (<sup>1</sup>Kirillova, 2007; <sup>1</sup>Kirillova, 2009); **Voronezh Oblast** (<sup>1</sup>Selochnik, 2015; <sup>1</sup>Sarycheva, Starodubtseva, and Sapelnikova, 2017); **Yaroslavl Oblast** (<sup>4</sup>Lazareva, 1997; <sup>4</sup>Lazareva, 1998a); **Arid territories** (<sup>1</sup>Rebriev, Rusanov, et al., 2012); **Northern Caucasus** (<sup>4</sup>Kovalenko, 1980b).

**SIBERIA: Altai Krai** (<sup>4</sup>Gorbunova and Perova, 2006; <sup>1</sup>Gorbunova and Chubarova, 2008; <sup>1</sup>Gorbunova, Vlasenko, and Tzhubarova, 2011); **Altai Republic** (<sup>5</sup>Singer, 1943; <sup>4</sup>Gorbunova, 2001b; <sup>1</sup>Gorbunova, 2010); **Buryatia** (<sup>1</sup>Petrov, 2013); **Irkutsk Oblast** (<sup>4</sup>Kutafjeva, 1989; <sup>4</sup>Astapenko, 1990a); **Khakassia** (<sup>1</sup>Zauzolkova, 2015); **Khanty-Mansi Autonomous Okrug** (<sup>4</sup>Zvyagina, Baykalova, and Gorbunova, 2007; <sup>1</sup>Zvyagina, 2008; <sup>1</sup>Shepeleva et al., 2014; <sup>1</sup>Filippova and Bulyonkova, 2017a; <sup>1</sup>Filippova and Bulyonkova, 2017b); **Krasnoyarsk Krai** (<sup>4</sup>Beglyanova, 1972a; <sup>5</sup>Nezdoininogo, 1976a; <sup>4</sup>Lapitskaya, 1993; <sup>1</sup>Zauzolkova, 2012; <sup>1</sup>Zauzolkova, 2015; <sup>1</sup>Krom and Kapitonov, 2019); **Kurgan Oblast** (<sup>1</sup>Bystrushkin, 2016); **Novosibirsk Oblast** (<sup>5</sup>Zaytseva, 1971; <sup>4</sup>Perova, 1977; <sup>1</sup>Hughes et al., 2007; <sup>1</sup>Perova and Gorbunova, 2007; <sup>1</sup>Koropachinskiy and Banaev, 2014); **Tomsk Oblast** (<sup>3</sup>Milovidova, 1980; <sup>1</sup>Kudashova, Gashkov, and Kutafjeva, 2013).

**FAR EAST: Khabarovsk Krai** (<sup>4</sup>Azbukina et al., 1986; <sup>4</sup>Azbukina et al., 1989; <sup>1</sup>Bulakh, Vassiljeva, and Erofeeva, 2010; <sup>1</sup>Bau, Bulakh, and Govorova, 2011); **Primorsky Krai** (<sup>4</sup>Vassiljeva, 1972; <sup>4</sup>Vassiljeva, 1973; <sup>4</sup>Shalapugina, 1976; <sup>4</sup>Bunkina and Nazarova, 1978; <sup>4</sup>Azbukina et al., 1984; <sup>1</sup>Bardunov et al., 2002; <sup>1</sup>Azbukina et al., 2006; <sup>1</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Bogacheva, Bulakh, Bukharova, and Egorova, 2020); **Sakhalin Oblast** (<sup>4</sup>Vassiljeva and Nazarova, 1972).

### *Melanoleuca amica* (Fr.) Singer

**EASTERN EUROPE: Belgorod Oblast** (Bedenko, 1980); **Kursk Oblast** (Bedenko, 1987); **Lipetsk Oblast** (Sarycheva et al., 2009; Sarycheva, 2011; Sarycheva, 2014a; Sarycheva, 2016); **Penza Oblast** (Ivanov, 1981a); **Voronezh Oblast** (Bedenko, 1987).

### *Melanoleuca arcuata* (Bull.) Singer<sup>1</sup>

≡ *Agaricus arcuatus* Bull.<sup>2</sup> ≡ *Tricholoma arcuatum* (Bull.) Quél.<sup>3</sup>

**EASTERN EUROPE: Karelia** (<sup>1</sup>Krutov et al., 2014); **Leningrad Oblast** (<sup>3</sup>Thesleff, 1920); **Murmansk Oblast** (<sup>1</sup>Pystina, Pavlova, and Shestakova, 1969); **Penza Oblast** (<sup>1</sup>Ivanov, 1983); **Rostov Oblast** (<sup>1</sup>Rusanov, Rebriev, and Bulgakov, 2018); **Saint Petersburg** (<sup>2</sup>Weinmann, 1836; <sup>2</sup>Weinmann, 1837; <sup>1</sup>Morozova, Kovalenko, Rebriev, and Malysheva, 2014); **Tver Oblast** (<sup>1</sup>Kurochkin, 1993); **Arid territories** (<sup>1</sup>Rebriev, Rusanov, et al., 2012).

**SIBERIA: Altai Republic** (<sup>1</sup>Perova and Gorbunova, 2001); **Khakassia** (<sup>3</sup>Saccardo, 1896).

***Melanoleuca brevipes* (Bull.) Pat.<sup>1</sup>**

≡ *Agaricus brevipes* Bull.<sup>2</sup> ≡ *Tricholoma brevipes* (Bull.) P. Kumm.<sup>3</sup>

EASTERN EUROPE: **Belgorod Oblast** (<sup>1</sup>Bedenko, 1980); **Karelia** (<sup>1</sup>Savelev and Kikeeva, 2018); **Komi Republic** (<sup>1</sup>Palamarchuk and Kirillov, 2017); **Kursk Oblast** (<sup>1</sup>Bedenko, 1987); **Leningrad Oblast** (<sup>3</sup>Thesleff, 1920; <sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Popov et al., 2007); **Lipetsk Oblast** (<sup>1</sup>Sarycheva et al., 2009; <sup>1</sup>Sarycheva, 2016); **Moscow Oblast** (<sup>1</sup>Gorlenko, Sidorova, and Sidorova, 1989; <sup>1</sup>Vishnevsky, 1998; <sup>1</sup>Levitskaya, 2006; <sup>1</sup>Levitskaya, 2013; <sup>1</sup>Sidorova, Alexandrova, and Voronina, 2017); **Orenburg Oblast** (<sup>1</sup>Desyatova, 2008); **Penza Oblast** (<sup>1</sup>Ivanov, 1981a); **Rostov Oblast** (<sup>1</sup>Rusanov, Rebriev, and Bulgakov, 2018); **Ryazan Oblast** (<sup>1</sup>Volosnova, 2005; <sup>1</sup>Volosnova, 2014); **Saint Petersburg** (<sup>2</sup>Weinmann, 1836; <sup>2</sup>Weinmann, 1837; <sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Morozova and Smirnov, 2011; <sup>1</sup>Morozova, Kovalenko, Rebriev, and Malysheva, 2014; <sup>1</sup>Zhukova, Morozova, Volobuev, and Bryantseva, 2017); **Samara Oblast** (<sup>1</sup>Malysheva and Malysheva, 2008); **Smolensk Oblast** (<sup>3</sup>Jaczewski, 1896); **Tatarstan** (<sup>1</sup>Potapov, 2016b); **Tula Oblast** (<sup>1</sup>Svetasheva, 2004); **Tver Oblast** (<sup>1</sup>Kurochkin, 1993; <sup>1</sup>Kurochkin and Medvedev, 2015; <sup>1</sup>Kurochkin, 2016); **Udmurt Republic** (<sup>1</sup>Tychinin and Kuzmina, 2003); **Ulyanovsk Oblast** (<sup>1</sup>Ilyukhin, 2010a); **Voronezh Oblast** (<sup>1</sup>Bedenko, 1987); **Yaroslavl Oblast** (<sup>1</sup>Lazareva, 1998a); **Arid territories** (<sup>1</sup>Rebriev, Rusanov, et al., 2012).

SIBERIA: **Irkutsk Oblast** (<sup>1</sup>Kutafjeva, 1989); **Khakassia** (<sup>1</sup>Zauzolkova and Gorbunova, 2013; <sup>1</sup>Zauzolkova, 2015); **Krasnoyarsk Krai** (<sup>1</sup>Beglyanova, 1972a); **Novosibirsk Oblast** (<sup>1</sup>Nozdrenko, 1970; <sup>1</sup>Perova, 1977; <sup>1</sup>Perova and Gorbunova, 2001; <sup>1</sup>Gorbunova, 2006; <sup>1</sup>Perova and Gorbunova, 2007; <sup>1</sup>Koropachinskiy and Banaev, 2014); **Tomsk Oblast** (<sup>1</sup>Perova, 1972; <sup>1</sup>Perova and Gorbunova, 2001; <sup>1</sup>Kudashova, Gashkov, and Kutafjeva, 2013).

FAR EAST: **Primorsky Krai** (<sup>1</sup>Vassiljeva, 1973; <sup>1</sup>Azbukina et al., 1984; <sup>1</sup>Bau, Bulakh, and Govorova, 2011).

***Melanoleuca candida* Singer**

EASTERN EUROPE: **Rostov Oblast** (Rusanov, Rebriev, and Bulgakov, 2018); **Arid territories** (Rebriev, Rusanov, et al., 2012).

***Melanoleuca cognata* (Fr.) Konrad & Maubl.<sup>1</sup>**

≡ *Melanoleuca cognata* var. *cognata* (Fr.) Konrad & Maubl.<sup>2</sup> = *Melanoleuca cognata* subsp. *altaica* Singer<sup>3</sup>

EASTERN EUROPE: **Belgorod Oblast** (<sup>1</sup>Bedenko, 1980); **Kabardino-Balkarian Republic** (<sup>1</sup>Krapivina et al., 2020); **Kaliningrad Oblast** (<sup>1</sup>Volodina, 2007); **Karelia** (<sup>2</sup>Krutov et al., 2014); **Komi Republic** (<sup>1</sup>Palamarchuk, 2016a; <sup>1</sup>Palamarchuk, 2016b); **Leningrad Oblast** (<sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Popov et al., 2007); **Moscow Oblast** (<sup>1</sup>Gorlenko, Sidorova, and Sidorova, 1989; <sup>1</sup>Vishnevsky, 1998; <sup>1</sup>Voronina et al., 2014); **Novgorod Oblast** (<sup>1</sup>Kovalenko, Morozova, Nezdojminogo, and Popov, 2005; <sup>1</sup>Popov et al., 2013); **Penza Oblast** (<sup>1</sup>Ivanov, 1981a); **Perm Krai** (<sup>1</sup>Perevedentseva, 2008); **Sverdlovsk Oblast** (<sup>1</sup>Marina, 2006); **Yamalo-Nenets Autonomous Okrug** (<sup>1</sup>Karatygin, Nezdojminogo, Novozhilov, and Zhurbenko, 1999).

SIBERIA: **Altai Krai** (<sup>1</sup>Gorbunova, 2018a); **Altai Republic** (<sup>3</sup>Singer, 1943; <sup>1</sup>Gorbunova, 2001b; <sup>1</sup>Gorbunova, 2003; <sup>1</sup>Gorbunova, 2006; <sup>1</sup>Kalamees, 2008; <sup>2</sup>Gorbunova, 2010); **Buryatia** (<sup>1</sup>Nezdojminogo, 1970a); **Irkutsk Oblast** (<sup>1</sup>Petrov, 1984; <sup>1</sup>Astapenko and Kutafjeva, 1990; <sup>1</sup>Petrov, 2008); **Krasnoyarsk Krai** (<sup>1</sup>Vassilkov, 1971b; <sup>1</sup>Beglyanova, 1972a; <sup>1</sup>Nezdojminogo, 1976a; <sup>1</sup>Karatygin, Nezdojminogo, Novozhilov, and Zhurbenko, 1999; <sup>1</sup>Gorbunova, 2016); **Sakha Republic** (<sup>1</sup>Nezdojminogo, 1997a; <sup>1</sup>Karatygin, Nezdojminogo, Novozhilov, and Zhurbenko, 1999; <sup>1</sup>Nezdojminogo, 2003).

FAR EAST: **Chukotka Autonomous Okrug** (<sup>1</sup>Nezdojminogo, 1997a; <sup>1</sup>Karatygin, Nezdojminogo, Novozhilov, and Zhurbenko, 1999).

***Melanoleuca curtipes* (Fr.) Bon**

≡ *Agaricus curtipes* Fr.<sup>1</sup>

EASTERN EUROPE: **Saint Petersburg** (<sup>1</sup>Weinmann, 1828; <sup>1</sup>Weinmann, 1836; <sup>1</sup>Weinmann, 1837).

***Melanoleuca excissa* (Fr.) Singer<sup>1</sup>**

≡ *Melanoleuca excissa* var. *excissa* (Fr.) Singer<sup>2</sup>

EASTERN EUROPE: **Komi Republic** (<sup>1</sup>Palamarchuk, 2020b); **Leningrad Oblast** (<sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Popov et al., 2007); **Ulyanovsk Oblast** (<sup>1</sup>Ilyukhin, 2010a; <sup>1</sup>Ilyukhin, 2010b).

SIBERIA: **Altai Krai** (<sup>1</sup>Gorbunova and Perova, 2006; <sup>2</sup>Gorbunova, 2006; <sup>1</sup>Gorbunova, 2018a); **Altai Republic** (<sup>1</sup>Gorbunova, 2003; <sup>2</sup>Gorbunova, 2006); **Khakassia** (<sup>2</sup>Gorbunova and Majnagasheva, 2013).

***Melanoleuca graminicola* Kühner & Maire**

EASTERN EUROPE: **Novgorod Oblast** (Morozova, Popov, and Fedosova, 2014); **Orenburg Oblast** (Desyatova, 2008); **Perm Krai** (Perevedentseva, 2008); **Pskov Oblast** (Popov et al., 2013); **Samara Oblast** (Malysheva and Malysheva, 2008); **Tver Oblast** (Morozova, Aleksandrova, Popov, and Malysheva, 2016).

SIBERIA: **Altai Republic** (Singer, 1943); **Irkutsk Oblast** (Petrov, 1984; Petrov, 1991; Petrov, 2008; Gorbunova and Stepantsova, 2015); **Krasnoyarsk Krai** (Zauzolkova, 2012; Zauzolkova, 2015); **Novosibirsk Oblast** (Perova and Gorbunova, 2001; Perova and Gorbunova, 2007; Koropachinskiy and Banaev, 2014).

FAR EAST: **Chukotka Autonomous Okrug** (Sazanova, 1993).

***Melanoleuca grammopodia* (Bull.) Murrill<sup>1</sup>**

≡ *Agaricus grammopodius* Bull.<sup>2</sup> ≡ *Tricholoma grammopodium* (Bull.) Quél.<sup>3</sup> = *Melanoleuca grammopodia* var. *minor* Bon<sup>4</sup> = *Melanoleuca subbrevipes* Métrod<sup>5</sup>

EASTERN EUROPE: **Adygea** (<sup>5</sup>Kiyashko, 2009); **Belgorod Oblast** (<sup>1</sup>Bedenko, 1980); **Crimea** (<sup>1</sup>Dudka et al., 2004; <sup>1</sup>Sarkina and Mironova, 2015); **Kabardino-Balkarian Republic** (<sup>1</sup>Shkhagapsoev and Krapivina, 2004); **Kaliningrad Oblast** (<sup>1</sup>Dedkov, Volodina, and Gubareva, 2007; <sup>1</sup>Volodina, 2007); **Leningrad Oblast** (<sup>3</sup>Thesleff, 1920; <sup>1,5</sup>Kovalenko and Morozova, 1999a; <sup>1,5</sup>Popov et al., 2007); **Lipetsk Oblast** (<sup>1</sup>Sarycheva, 1999; <sup>1</sup>Sarycheva et al., 2009; <sup>1</sup>Sarycheva, 2011; <sup>1</sup>Sarycheva, 2014a; <sup>1</sup>Sarycheva, 2016); **Mordovia** (<sup>1</sup>Kuznetsov, 1960; <sup>1</sup>Ivoilov and Bolshakov, 2011a); **Orenburg Oblast** (<sup>1</sup>Desyatova, 2007; <sup>1</sup>Desyatova, 2008); **Penza Oblast** (<sup>1</sup>Ivanov, 1981a; <sup>4</sup>Ivanov, 1999); **Perm Krai** (<sup>1</sup>Perevedentseva, Shilkova, and Botalov, 2011); **Rostov Oblast** (<sup>1</sup>Vyshchepan, 1992; <sup>1</sup>Rusanov, Rebriev, and Bulgakov, 2018); **Ryazan Oblast** (<sup>1</sup>Volosnova, 2014); **Saint Petersburg** (<sup>2</sup>Weinmann, 1828; <sup>2</sup>Weinmann, 1836; <sup>2</sup>Weinmann, 1837); **Samara Oblast** (<sup>1</sup>Malysheva and Malysheva, 2004; <sup>1</sup>Malysheva and Malysheva, 2008); **Sevastopol** (<sup>1</sup>Sarkina, 2016b; <sup>1</sup>Sarkina, 2020c); **Tatarstan** (<sup>1</sup>Vassiljeva, 1977); **Tver Oblast** (<sup>1</sup>Kurochkin, 1993); **Udmurt Republic** (<sup>1</sup>Tychinin and Kuzmina, 2003); **Ulyanovsk Oblast** (<sup>1</sup>Ilyukhin, 2010a); **Voronezh Oblast** (<sup>3</sup>Chastukhin, 1952; <sup>3</sup>Chastukhin and Nikolaevskaya, 1953; <sup>1</sup>Chastukhin and Nikolaevskaya, 1969; <sup>1,5</sup>Bedenko, 1987; <sup>1</sup>Kochergina and Furmenkova, 2019); **Arid territories** (<sup>1</sup>Rebriev, Rusanov, et al., 2012).

SIBERIA: **Altai Krai** (<sup>1</sup>Gorbunova and Perova, 2006); **Altai Republic** (<sup>1</sup>Gorbunova, 1996; <sup>1</sup>Gorbunova, 1997; <sup>1</sup>Gorbunova, 2001a; <sup>1</sup>Gorbunova, 2001b; <sup>1</sup>Perova and Gorbunova, 2001; <sup>1</sup>Gorbunova, 2006); **Buryatia** (<sup>1</sup>Nezdojminogo, 1970a); **Irkutsk Oblast** (<sup>1</sup>Petrov, 1984; <sup>1,5</sup>Kutafjeva, 1989; <sup>1</sup>Petrov, 2008; <sup>1</sup>Gorbunova and Stepantsova, 2015); **Krasnoyarsk Krai** (<sup>1</sup>Beglyanova, 1972a); **Novosibirsk Oblast** (<sup>1</sup>Perova and Gorbunova, 2001; <sup>1</sup>Gorbunova, 2006; <sup>1</sup>Perova and Gorbunova, 2007; <sup>1</sup>Koropachinskiy and Banaev, 2014); **Tomsk Oblast** (<sup>1</sup>Perova and Gorbunova, 2001; <sup>1</sup>Kudashova, Gashkov, and Kutafjeva, 2013).

FAR EAST: **Chukotka Autonomous Okrug** (<sup>2</sup>Berkeley and Curtis, 1978); **Jewish Autonomous Oblast** (<sup>1</sup>Bulakh, Govorova, Nazarova, and Vassiljeva, 2007; <sup>1</sup>Bau, Bulakh, and Govorova, 2011); **Khabarovsk Krai** (<sup>1</sup>Azbukina et al., 1986; <sup>1</sup>Bau, Bulakh, and Govorova, 2011); **Magadan Oblast** (<sup>1</sup>Nazarova, 1976; <sup>1</sup>Sazanova, 2005; <sup>1</sup>Sazanova, 2009a); **Primorsky Krai** (<sup>1</sup>Vassiljeva, 1973; <sup>1</sup>Bunkina and Nazarova, 1978; <sup>1</sup>Azbukina et al., 1984; <sup>1</sup>Bardunov et al., 2002; <sup>1</sup>Azbukina et al., 2006; <sup>1</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Bogacheva, Bulakh, Bukharova, and Egorova, 2020).

***Melanoleuca humilis* (Pers.) Pat.<sup>1</sup>**

≡ *Agaricus humilis* Pers.<sup>2</sup> ≡ *Tricholoma humile* (Pers.) Quél.<sup>3</sup>

EASTERN EUROPE: **Adygea** (<sup>1</sup>Vaasma, Kalamees, and Raitviir, 1986); **Leningrad Oblast** (<sup>3</sup>Thesleff, 1920; <sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Popov et al., 2007); **Moscow Oblast** (<sup>1</sup>Levitskaya, 1995b; <sup>1</sup>Vishnevsky, 1998; <sup>1</sup>Levitskaya, 2013); **Rostov Oblast** (<sup>1</sup>Rebriev, 2018); **Saint Petersburg** (<sup>2</sup>Weinmann, 1828); **Smolensk Oblast** (<sup>3</sup>Jaczewski, 1896); **Tatarstan** (<sup>1</sup>Vassiljeva, 1977); **Arid territories** (<sup>1</sup>Rebriev, Rusanov, et al., 2012).

SIBERIA: **Altai Republic** (<sup>1</sup>Singer, 1943; <sup>1</sup>Gorbunova, 1997; <sup>1</sup>Perova and Gorbunova, 2001); **Irkutsk Oblast** (<sup>1</sup>Kutafjeva, 1989); **Krasnoyarsk Krai** (<sup>2</sup>Thümen, 1878; <sup>1</sup>Beglyanova, 1972a); **Novosibirsk Oblast** (<sup>1</sup>Perova and Gorbunova, 2001; <sup>1</sup>Gorbunova, 2007).

FAR EAST: **Khabarovsk Krai** (<sup>1</sup>Bulakh, 2013; <sup>1</sup>Bogacheva, Bulakh, Bukharova, and Egorova, 2015); **Primorsky Krai** (<sup>1</sup>Vassiljeva, 1973; <sup>1</sup>Bunkina and Nazarova, 1978; <sup>1</sup>Azbukina et al., 2006; <sup>1</sup>Bau, Bulakh, and Govorova, 2011).

***Melanoleuca kavinae* (Pilát & Veselý) Singer**

SIBERIA: **Tomsk Oblast** (Agaphonova, Kutafjeva, and Gashkov, 2007; Agaphonova, Kutafjeva, and Gashkov, 2009b; Kudashova, Gashkov, and Kutafjeva, 2013; Kudashova, Gashkov, and Vaishlya, 2016b).

***Melanoleuca leucophylloides* (Bon) Bon**

≡ *Melanoleuca rasilis* var. *leucophylloides* Bon<sup>1</sup>

EASTERN EUROPE: **Ulyanovsk Oblast** (<sup>1</sup>Ilyukhin, 2010a).



***Melanoleuca melaleuca* (Pers.) Murrill<sup>1</sup>**

≡ *Agaricus melaleucus* Pers.<sup>2</sup> ≡ *Tricholoma melaleucum* (Pers.) P. Kumm.<sup>3</sup>

EASTERN EUROPE: **Belgorod Oblast** (<sup>1</sup>Bedenko, 1980); **Chuvash Republic** (<sup>1</sup>Marfin, 2001); **Crimea** (<sup>1</sup>Sarkina, 2001; <sup>1</sup>Dudka et al., 2004; <sup>1</sup>Sarkina, 2010b; <sup>1</sup>Sarkina, 2011; <sup>1</sup>Sarkina and Prydiuk, 2012; <sup>1</sup>Sarkina, 2013; <sup>1</sup>Sarkina, 2014b; <sup>1</sup>Sarkina and Mironova, 2015; <sup>1</sup>Sarkina, 2016a); **Kaliningrad Oblast** (<sup>1</sup>Dedkov, Volodina, and Gubareva, 2007; <sup>1</sup>Volodina, 2007); **Kaluga Oblast** (<sup>1</sup>Sionova, 2003); **Kirov Oblast** (<sup>1</sup>Kirillov, 2011; <sup>1</sup>Kirillov, Perevedentseva, and Egoshina, 2011); **Komi Republic** (<sup>1</sup>Palamarchuk, 2016a; <sup>1</sup>Palamarchuk, 2016b; <sup>1</sup>Palamarchuk and Kirillov, 2017); **Kursk Oblast** (<sup>1</sup>Bedenko, 1987); **Leningrad Oblast** (<sup>3</sup>Thesleff, 1920; <sup>1</sup>Nezdojminogo, 1967; <sup>1</sup>Chastukhin and Nikolaevskaya, 1969; <sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Popov et al., 2007); **Lipetsk Oblast** (<sup>1</sup>Sarycheva, 1999; <sup>1</sup>Sarycheva et al., 2009; <sup>1</sup>Sarycheva, 2011; <sup>1</sup>Sarycheva, 2014a; <sup>1</sup>Sarycheva, 2016); **Moscow Oblast** (<sup>1</sup>Gorlenko, Sidorova, and Sidorova, 1989; <sup>1</sup>Levitskaya, 1995b; <sup>1</sup>Vishnevsky, 1998; <sup>1</sup>Levitskaya, 2013); **Orenburg Oblast** (<sup>1</sup>Desyatova, 2008); **Perm Krai** (<sup>1</sup>Perevedentseva, 2008; <sup>1</sup>Botalov, 2015; <sup>1</sup>Botalov, 2017); **Pskov Oblast** (<sup>1</sup>Kolmakov and Popov, 2005; <sup>1</sup>Popov et al., 2013); **Rostov Oblast** (<sup>1</sup>Rusanov, Rebriev, and Bulgakov, 2018); **Ryazan Oblast** (<sup>1</sup>Volosnova, 1997; <sup>1</sup>Volosnova, 2014); **Saint Petersburg** (<sup>2</sup>Weinmann, 1828; <sup>2</sup>Weinmann, 1835; <sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Morozova and Smirnov, 2011; <sup>1</sup>Morozova, Kovalenko, Rebriev, and Malysheva, 2014); **Samara Oblast** (<sup>1</sup>Malysheva and Malysheva, 2006; <sup>1</sup>Malysheva and Malysheva, 2008); **Saratov Oblast** (<sup>3</sup>Lebedeva, 1927); **Sevastopol** (<sup>1</sup>Sarkina, 2016b); **Sverdlovsk Oblast** (<sup>1</sup>Marina, 2006); **Tatarstan** (<sup>1</sup>Vassiljeva, 1977); **Tula Oblast** (<sup>1</sup>Svetasheva, 2004); **Tver Oblast** (<sup>1</sup>Kurochkin, 1993); **Udmurt Republic** (<sup>1</sup>Tychinin and Kuzmina, 2003); **Ulyanovsk Oblast** (<sup>1</sup>Ilyukhin, 2010a; <sup>1</sup>Ilyukhin, 2010b); **Voronezh Oblast** (<sup>1</sup>Bedenko, 1987); **Yaroslavl Oblast** (<sup>1</sup>Lazareva, 1998a); **Arid territories** (<sup>1</sup>Rebriev, Rusanov, et al., 2012).

SIBERIA: **Altai Krai** (<sup>1</sup>Gorbunova, 2006); **Altai Republic** (<sup>1</sup>Gorbunova, 1997; <sup>1</sup>Gorbunova, 2001b; <sup>1</sup>Gorbunova, 2006); **Buryatia** (<sup>1</sup>Nezdojminogo, 1970a; <sup>1</sup>Petrov, 1991); **Irkutsk Oblast** (<sup>1</sup>Astapenko and Kutafjeva, 1990; <sup>1</sup>Muzyka, 2002; <sup>1</sup>Muzyka, 2009); **Khakassia** (<sup>1</sup>Zauzolkova, 2015); **Khanty-Mansi Autonomous Okrug** (<sup>1</sup>Filippova and Bulyonkova, 2017a; <sup>1</sup>Filippova and Bulyonkova, 2017b; <sup>1</sup>Zvyagina and Baykalova, 2017); **Krasnoyarsk Krai** (<sup>1</sup>Beglyanova, 1972a; <sup>1</sup>Zauzolkova, 2012; <sup>1</sup>Zauzolkova, 2015; <sup>1</sup>Malysheva, Malysheva, Kiyashko, et al., 2017); **Novosibirsk Oblast** (<sup>1</sup>Perova, 1977; <sup>1</sup>Perova and Gorbunova, 2007); **Tomsk Oblast** (<sup>1</sup>Perova, 1972; <sup>1</sup>Kudashova, Gashkov, and Kutafjeva, 2013).

FAR EAST: **Amur Oblast** (<sup>1</sup>Taranina, 2005); **Jewish Autonomous Oblast** (<sup>1</sup>Bau, Bulakh, Zhuang, and Li, 2007; <sup>1</sup>Bulakh, Govorova, Nazarova, and Vassiljeva, 2007; <sup>1</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Erofeeva, Bukharova, and Bulakh, 2019); **Khabarovsk Krai** (<sup>1</sup>Azbukina et al., 1986; <sup>1</sup>Azbukina et al., 1989; <sup>1</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Erofeeva and Bulakh, 2015a); **Magadan Oblast** (<sup>1</sup>Nazarova, 1976; <sup>1</sup>Sazanova, 2009a); **Primorsky Krai** (<sup>1</sup>Vassiljeva, 1972; <sup>1</sup>Vassiljeva, 1973; <sup>1</sup>Shalapugina, 1976; <sup>1</sup>Bunkina and Nazarova, 1978; <sup>1</sup>Azbukina et al., 1984; <sup>1</sup>Azbukina et al., 1990; <sup>1</sup>Bardunov et al., 2002; <sup>1</sup>Azbukina et al., 2006; <sup>1</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Bulakh et al., 2016; <sup>1</sup>Bogacheva, Bulakh, Bukharova, and Egorova, 2020).

***Melanoleuca microcephala* (P. Karst.) Singer**

SIBERIA: **Khanty-Mansi Autonomous Okrug** (Zvyagina and Baykalova, 2017).

***Melanoleuca oreina* (Fr.) Kühner & Maire<sup>1</sup>**

≡ *Agaricus oreinus* Fr.<sup>2</sup>

EASTERN EUROPE: **Leningrad Oblast** (<sup>2</sup>Weinmann, 1836; <sup>2</sup>Weinmann, 1837; <sup>1</sup>Singer, 1943; <sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Popov et al., 2007); **Moscow Oblast** (<sup>1</sup>Voronina et al., 2012; <sup>1</sup>Voronina et al., 2014).

SIBERIA: **Altai Republic** (<sup>1</sup>Singer, 1943); **Krasnoyarsk Krai** (<sup>1</sup>Beglyanova, 1972a).

***Melanoleuca paedida* (Fr.) Kühner & Maire**

EASTERN EUROPE: **Rostov Oblast** (Rusanov, Rebriev, and Bulgakov, 2018); **Arid territories** (Rebriev, Rusanov, et al., 2012).

***Melanoleuca polioleuca* (Fr.) Kühner & Maire<sup>1</sup>**

≡ *Melanoleuca polioleuca* f. *polioleuca* (Fr.) Kühner & Maire<sup>2</sup> = *Melanoleuca friesii* (Bres.) Bon<sup>3</sup> = *Melanoleuca polioleuca* var. *friesii* (Bres.) Gminder<sup>4</sup> = *Melanoleuca vulgaris* (Pat.) Pat.<sup>5</sup>

EASTERN EUROPE: **Belgorod Oblast** (<sup>1</sup>Bedenko, 1979a); **Bryansk Oblast** (<sup>5</sup>Kruglikov, 2007); **Crimea** (<sup>1</sup>Moser, 1993; <sup>1</sup>Sarkina, 2001; <sup>1</sup>Dudka et al., 2004; <sup>1</sup>Sarkina, 2011; <sup>1</sup>Sarkina and Mironova, 2015); **Karelia** (<sup>1</sup>Krutov et al., 2014); **Komi Republic** (<sup>1</sup>Palamarchuk and Kirillov, 2017; <sup>2</sup>Shiryayeva and Palamarchuk, 2019); **Leningrad Oblast** (<sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Morozova, 2007; <sup>1</sup>Popov et al., 2007; <sup>1</sup>Zmitrovich et al., 2015); **Mordovia**

(<sup>1</sup>Kuznetsov, 1960; <sup>1</sup>Ivoilov and Bolshakov, 2011a); **Moscow Oblast** (<sup>1</sup>Voronina et al., 2012; <sup>1</sup>Voronina et al., 2014); **Novgorod Oblast** (<sup>1</sup>Svetasheva et al., 2017); **Saint Petersburg** (<sup>1</sup>Singer, 1938b; <sup>1</sup>Morozova, Kovalenko, Rebriev, and Malysheva, 2014; <sup>1</sup>Morozova et al., 2020); **Tula Oblast** (<sup>1</sup>Svetasheva, 2004); **Udmurt Republic** (<sup>3</sup>Kapitonov, 2013); **Vologda Oblast** (<sup>1</sup>Kirillova, 2007; <sup>1</sup>Kirillova, 2009).

SIBERIA: **Altai Krai** (<sup>4</sup>Gorbunova, 2018a); **Altai Republic** (<sup>1</sup>Gorbunova, 2003); **Irkutsk Oblast** (<sup>1</sup>Gorbunova and Stepantsova, 2015); **Khakassia** (<sup>1</sup>Zauzolkova, 2015); **Khanty-Mansi Autonomous Okrug** (<sup>3</sup>Filippova, Bulyonkova, and Lapshina, 2015; <sup>1</sup>Filippova and Bulyonkova, 2017a; <sup>1</sup>Filippova and Bulyonkova, 2017b); **Krasnoyarsk Krai** (<sup>1</sup>Beglyanova, 1972a; <sup>1</sup>Nezdojminogo and Zhurbenko, 1996; <sup>1</sup>Nezdojminogo, 1997a; <sup>1</sup>Karatygin, Nezdojminogo, Novozhilov, and Zhurbenko, 1999; <sup>1</sup>Malysheva, Malysheva, Kiyashko, et al., 2017); **Sakha Republic** (<sup>1</sup>Nezdojminogo, 2003); **Tomsk Oblast** (<sup>1</sup>Milovidova, 1980; <sup>1</sup>Kudashova, Gashkov, and Kutafjeva, 2013).

FAR EAST: **Amur Oblast** (<sup>1</sup>Kochunova, 2019).

### ***Melanoleuca rasilis* (Fr.) Singer**

EASTERN EUROPE: **Saint Petersburg** (Morozova et al., 2020); **Arid territories** (Rebriev, Rusanov, et al., 2012).

### ***Melanoleuca resplendens* (Fr.) Murrill<sup>1</sup>**

≡ *Agaricus resplendens* Fr.<sup>2</sup> ≡ *Tricholoma resplendens* (Fr.) P. Karst.<sup>3</sup>

EASTERN EUROPE: **Karelia** (<sup>3</sup>Krutov et al., 2014); **Moscow Oblast** (<sup>3</sup>Levitskaya, 2013); **Murmansk Oblast** (<sup>3</sup>Pystina, Pavlova, and Shestakova, 1969).

SIBERIA: **Irkutsk Oblast** (<sup>3</sup>Petrov, 1984; <sup>3</sup>Petrov, 1991; <sup>3</sup>Petrov, 2008); **Krasnoyarsk Krai** (<sup>2</sup>Thümen, 1878; <sup>3</sup>Beglyanova, 1972a; <sup>1</sup>Zauzolkova, 2015).

### ***Melanoleuca schumacheri* (Fr.) Singer<sup>1</sup>**

≡ *Agaricus schumacheri* Fr.<sup>2</sup> ≡ *Tricholoma schumacheri* (Fr.) Gillet<sup>3</sup>

EASTERN EUROPE: **Leningrad Oblast** (<sup>3</sup>Thesleff, 1920; <sup>1</sup>Morozova and Kovalenko, 2000; <sup>1</sup>Popov et al., 2007); **Saint Petersburg** (<sup>2</sup>Weinmann, 1836; <sup>2</sup>Weinmann, 1837; <sup>1</sup>Kovalenko and Morozova, 1999a); **Arid territories** (<sup>1</sup>Rebriev, Rusanov, et al., 2012).

### ***Melanoleuca strictipes* (P. Karst.) Jul. Schöff.<sup>1</sup>**

≡ *Tricholoma strictipes* P. Karst.<sup>2</sup>

EASTERN EUROPE: **Belgorod Oblast** (<sup>1</sup>Bedenko, 1980); **Crimea** (<sup>1</sup>Sarkina and Mironova, 2015); **Kaluga Oblast** (<sup>1</sup>Sionova, 2003); **Karelia** (<sup>1</sup>Bondartseva et al., 2001; <sup>1</sup>Krutov et al., 2014); **Komi Republic** (<sup>1</sup>Palamarchuk (Bobretsova), 2009; <sup>1</sup>Palamarchuk, 2011b; <sup>1</sup>Palamarchuk, 2012; <sup>1</sup>Palamarchuk, 2016a; <sup>1</sup>Palamarchuk, 2016b); **Leningrad Oblast** (<sup>2</sup>Thesleff, 1920; <sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Popov et al., 2007); **Lipetsk Oblast** (<sup>1</sup>Sarycheva et al., 2009); **Moscow Oblast** (<sup>1</sup>Levitskaya, 1995b; <sup>1</sup>Vishnevsky, 1998; <sup>1</sup>Levitskaya, 2013; <sup>1</sup>Voronina et al., 2014); **Perm Krai** (<sup>1</sup>Perevedentseva, 2008; <sup>1</sup>Belkovskaya et al., 2014); **Pskov Oblast** (<sup>1</sup>Popov et al., 2013); **Rostov Oblast** (<sup>1</sup>Shiryaev, Rebriev, and Knudsen, 2017; <sup>1</sup>Rebriev, 2018; <sup>1</sup>Rusanov, Rebriev, and Bulgakov, 2018); **Sverdlovsk Oblast** (<sup>1</sup>Marina, 2006); **Tula Oblast** (<sup>1</sup>Svetasheva et al., 2017); **Udmurt Republic** (<sup>1</sup>Kapitonov, 2013); **Arid territories** (<sup>1</sup>Rebriev, Rusanov, et al., 2012).

SIBERIA: **Altai Republic** (<sup>1</sup>Gorbunova, 1997; <sup>1</sup>Perova and Gorbunova, 2001; <sup>1</sup>Gorbunova, 2003; <sup>1</sup>Gorbunova, 2010); **Irkutsk Oblast** (<sup>1</sup>Petrov, 1984; <sup>1</sup>Petrov, 1989; <sup>1</sup>Petrov, 1991; <sup>1</sup>Petrov, 2008); **Khanty-Mansi Autonomous Okrug** (<sup>1</sup>Filippova, Bulyonkova, and Lapshina, 2015; <sup>1</sup>Filippova and Bulyonkova, 2017a; <sup>1</sup>Filippova and Bulyonkova, 2017b); **Krasnoyarsk Krai** (<sup>1</sup>Beglyanova, 1972a; <sup>1</sup>Beglyanova, 1972c; <sup>1</sup>Malysheva, Malysheva, Kiyashko, et al., 2017); **Tomsk Oblast** (<sup>1</sup>Kudashova, Gashkov, and Vaishlya, 2016a); **Tyva Republic** (<sup>1</sup>Gorbunova, 2015).

FAR EAST: **Primorsky Krai** (<sup>1</sup>Bau, Bulakh, and Govorova, 2011).

### ***Melanoleuca stridula* (Fr.) Singer<sup>1</sup>**

≡ *Agaricus stridulus* Fr.<sup>2</sup> ≡ *Collybia stridula* (Fr.) P. Karst.<sup>3</sup> ≡ *Oudemansiella stridula* (Fr.) M.M. Moser<sup>4</sup>

EASTERN EUROPE: **Kaliningrad Oblast** (<sup>1</sup>Dedkov, Volodina, and Gubareva, 2007; <sup>1</sup>Volodina, 2007); **Leningrad Oblast** (<sup>3</sup>Thesleff, 1920; <sup>1</sup>Morozova, 2002; <sup>1</sup>Popov et al., 2007); **Moscow Oblast** (<sup>1</sup>Gorlenko, Sidorova, and Sidorova, 1989; <sup>1</sup>Vishnevsky, 1998); **Novgorod Oblast** (<sup>1</sup>Kovalenko, Morozova, Nezdojminogo, and Popov, 2005; <sup>1</sup>Popov et al., 2013); **Samara Oblast** (<sup>1</sup>Malysheva and Malysheva, 2004); **Sverdlovsk Oblast** (<sup>4</sup>Stepanova and Sirko, 1977; <sup>1</sup>Marina, 2006).

SIBERIA: **Altai Republic** (<sup>1</sup>Singer, 1943; <sup>1</sup>Gorbunova, 2019); **Irkutsk Oblast** (<sup>1</sup>Petrov, 1984; <sup>1</sup>Kutafjeva and Astapenko, 1988; <sup>1</sup>Kutafjeva and Astapenko, 1989; <sup>1</sup>Petrov, 1991; <sup>1</sup>Petrov, 2008); **Khakassia** (<sup>1</sup>Beglyanova, 1972a;

<sup>1</sup>Zauzolkova, 2015); **Krasnoyarsk Krai** (<sup>2</sup>Thümen, 1878; <sup>1</sup>Beglyanova, 1972a); **Sakha Republic** (<sup>1</sup>Nezdojminogo, 1997a; <sup>1</sup>Karatygin, Nezdojminogo, Novozhilov, and Zhurbenko, 1999); **Tomsk Oblast** (<sup>1</sup>Kudashova, Gashkov, and Vaishlya, 2016a; <sup>1</sup>Kudashova, Gashkov, and Vaishlya, 2016b); **Tyva Republic** (<sup>1</sup>Gorbunova, 2015).

***Melanoleuca subalpina* (Britzelm.) Bresinsky & Stangl**

EASTERN EUROPE: **Adygea** (Vaasma, Kalamees, and Raitviir, 1986; Sopina, 2004b).

SIBERIA: **Altai Republic** (Gorbunova, 2010; Gorbunova, 2019); **Krasnoyarsk Krai** (Krom and Kapitonov, 2019).

***Melanoleuca subpulverulenta* (Pers.) Singer**

EASTERN EUROPE: **Perm Krai** (Perevedentseva, 2008).

***Melanoleuca verrucipes* (Fr.) Singer**

EASTERN EUROPE: **Karelia** (Singer, 1943; Krutov et al., 2014); **Kursk Oblast** (Bedenko, 1987); **Leningrad Oblast** (Kovalenko and Morozova, 1999a; Popov et al., 2007; Zmitrovich et al., 2015); **Murmansk Oblast** (Singer, 1943; Berlina, 2005); **Ryazan Oblast** (Volosnova, 2005; Volosnova, 2014); **Saint Petersburg** (Morozova and Smirnov, 2011); **Voronezh Oblast** (Bedenko, 1987).

SIBERIA: **Altai Republic** (Singer, 1939; Singer, 1943; Gorbunova, 2001b; Perova and Gorbunova, 2001); **Irkutsk Oblast** (Kutafjeva, 1989); **Novosibirsk Oblast** (Koropachinskiy and Banaev, 2014).

FAR EAST: **Primorsky Krai** (Vassiljeva, 1972; Vassiljeva, 1973; Azbukina et al., 1984; Bau, Bulakh, and Govorova, 2011).

***Melanophyllum eyrei* (Masse) Singer<sup>1</sup>**

≡ *Lepiota eyrei* (Masse) J.E. Lange<sup>2</sup>

EASTERN EUROPE: **Samara Oblast** (<sup>1</sup>Malysheva and Malysheva, 2004; <sup>1</sup>Malysheva and Malysheva, 2008); **Tatarstan** (<sup>2</sup>Vassiljeva, 1977; <sup>1</sup>Nazirov, Gorshkov, Ivanov, and Rogova, 2016); **Ulyanovsk Oblast** (<sup>1</sup>Ilyukhin, 2010a; <sup>1</sup>Ilyukhin, 2010b).

SIBERIA: **Novosibirsk Oblast** (<sup>1</sup>Gorbunova, 2012; <sup>1</sup>Koropachinskiy and Banaev, 2014; <sup>1</sup>Glupov and Shaulo, 2018).

FAR EAST: **Khabarovsk Krai** (<sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990); **Primorsky Krai** (<sup>2</sup>Vassiljeva, 1973; <sup>1</sup>Bunkina and Nazarova, 1978; <sup>1</sup>Wasser, 1980; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1</sup>Bardunov et al., 2002; <sup>1</sup>Azbukina et al., 2006; <sup>1</sup>Bau, Bulakh, and Govorova, 2011); **Sakhalin Oblast** (<sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990).

***Melanophyllum haematospermum* (Bull.) Kreisel<sup>1</sup>**

= *Cystoderma echinatum* (Roth) Singer<sup>2</sup> = *Lepiota echinata* (Roth) Qué<sup>3</sup> = *Melanophyllum echinatum* (Roth) Singer<sup>4</sup> = *Melanophyllum haematospermum* f. *gracile* J.E. Lange ex Migl.<sup>5</sup>

EASTERN EUROPE: **Chuvash Republic** (<sup>1</sup>Gafurova, Ignatov, Tolpysheva, and Svetasheva, 2020); **Karachay-Cherkess Republic** (<sup>4</sup>Kalamees and Botashev, 2000); **Leningrad Oblast** (<sup>4</sup>Wasser, 1980; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Popov et al., 2007); **Lipetsk Oblast** (<sup>1</sup>Sarycheva et al., 2009; <sup>1</sup>Sarycheva, 2014a; <sup>1</sup>Shcherbakov, 2014; <sup>1</sup>Sarycheva, 2016); **Moscow Oblast** (<sup>4</sup>Levitskaya, 1998; <sup>1</sup>Levitskaya, 2013; <sup>1</sup>Voronina et al., 2014); **Novgorod Oblast** (<sup>1</sup>Arslanov, 2014); **Penza Oblast** (<sup>4</sup>Ivanov, 1989); **Perm Krai** (<sup>4</sup>Perevedentseva, 2008); **Pskov Oblast** (<sup>1</sup>Popov et al., 2013; <sup>1</sup>Morozova et al., 2015); **Ryazan Oblast** (<sup>1</sup>Volosnova, 2014); **Saint Petersburg** (<sup>2</sup>Singer, 1937; <sup>1</sup>Morozova et al., 2020); **Samara Oblast** (<sup>1</sup>Malysheva and Malysheva, 2005b; <sup>1</sup>Malysheva and Malysheva, 2008); **Sverdlovsk Oblast** (<sup>1</sup>Marina, 2006); **Tatarstan** (<sup>3</sup>Vassiljeva, 1977); **Tula Oblast** (<sup>1</sup>Svetasheva, 2004; <sup>1</sup>Shcherbakov, 2010); **Ulyanovsk Oblast** (<sup>1</sup>Ilyukhin, 2010a); **Yaroslavl Oblast** (<sup>4</sup>Lazareva, 1998a; <sup>4</sup>Lazareva, 1998b).

SIBERIA: **Altai Republic** (<sup>1</sup>Svetasheva et al., 2019); **Buryatia** (<sup>1</sup>Petrov, 2013); **Krasnoyarsk Krai** (<sup>1</sup>Malysheva, Malysheva, Kiyashko, et al., 2017); **Novosibirsk Oblast** (<sup>4</sup>Yudkin and Shaulo, 2008; <sup>1</sup>Koropachinskiy and Banaev, 2014; <sup>1</sup>Glupov and Shaulo, 2018); **Tomsk Oblast** (<sup>4</sup>Perova and Gorbunova, 2001; <sup>1</sup>Kudashova, Gashkov, and Kutafjeva, 2013; <sup>1</sup>Kudashova, Gashkov, and Vaishlya, 2016b).

FAR EAST: **Primorsky Krai** (<sup>3</sup>Vassiljeva, 1973; <sup>4</sup>Bunkina and Nazarova, 1978; <sup>4</sup>Nazarova, 1978; <sup>4</sup>Wasser, 1980; <sup>4</sup>Azbukina et al., 1984; <sup>1,5</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>4</sup>Azbukina et al., 2006; <sup>4</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Bulakh et al., 2016).

***Meotatomyces dissimulans* (Berk. & Broome) Vizzini<sup>1</sup>**

≡ *Phaeogalera dissimulans* (Berk. & Broome) Holec<sup>2</sup> = *Galerina oedipus* (Sacc.) Clémenton<sup>3</sup> = *Psathyrella oedipus* (Sacc.) Konrad & Maubl.<sup>4</sup>

EASTERN EUROPE: **Karachay-Cherkess Republic** (<sup>2</sup>Malysheva and Svetasheva, 2011); **Krasnodar Krai** (<sup>4</sup>Psurtseva, Kiyashko, Gachkova, and Belova, 2007); **Ryazan Oblast** (<sup>3</sup>Volosnova, 2014); **Sverdlovsk Oblast** (<sup>1</sup>Shiryayeva and Palamarchuk, 2019); **Udmurt Republic** (<sup>2</sup>Kapitonov, 2008).

SIBERIA: **Tomsk Oblast** (<sup>1</sup>Kudashova, Gashkov, and Kutafjeva, 2013; <sup>1</sup>Kudashova, Gashkov, and Vaishlya, 2016b).

***Micromphale todeae* (Henn.) Antonín**

≡ *Marasmius todeae* Henn.<sup>1</sup>

SIBERIA: **Altai Republic** (<sup>1</sup>Singer, 1939).

FAR EAST: **Primorsky Krai** (<sup>1</sup>Azbukina et al., 1984).

***Mucidula brunneomarginata* (Lj.N. Vassiljeva) R.H. Petersen<sup>1</sup>**

≡ *Oudemansiella brunneomarginata* Lj.N. Vassiljeva<sup>2</sup>

FAR EAST: **Primorsky Krai** (<sup>2</sup>Vassiljeva, 1950; <sup>2</sup>Vassiljeva, 1972; <sup>2</sup>Vassiljeva, 1973; <sup>2</sup>Shalapugina, 1976; <sup>2</sup>Bulakh, 1977; <sup>2</sup>Bunkina and Nazarova, 1978; <sup>2</sup>Azbukina et al., 1984; <sup>2</sup>Azbukina et al., 1990; <sup>2</sup>Bardunov et al., 2002; <sup>2</sup>Azbukina et al., 2006; <sup>2</sup>Kozhevnikov, 2008; <sup>2</sup>Bau, Bulakh, and Govorova, 2011; <sup>2</sup>Bulakh et al., 2016; <sup>1</sup>Bogacheva, Bulakh, Bukharova, and Egorova, 2020).

***Mucidula mucida* (Schrad.) Pat.<sup>1</sup>**

≡ *Agaricus mucidus* Schrad.<sup>2</sup> ≡ *Oudemansiella mucida* (Schrad.) Höhn.<sup>3</sup>

EASTERN EUROPE: **Adygea** (<sup>3</sup>Vassiljeva, 1939; <sup>3</sup>Kovalenko, 1980b; <sup>3</sup>Vaasma, Kalamees, and Raitviir, 1986; <sup>3</sup>Psurtseva, Kiyashko, Gachkova, and Belova, 2007); **Bryansk Oblast** (<sup>3</sup>Kruglikov, 2007); **Chechen Republic** (<sup>3</sup>Taysumov, Krapivina, and Kushaliev, 2016); **Crimea** (<sup>1</sup>Zerova, 1962; <sup>3</sup>Moser, 1993; <sup>3</sup>Sarkina, 2001; <sup>3</sup>Dudka et al., 2004; <sup>3</sup>Psurtseva, Kiyashko, Gachkova, and Belova, 2007; <sup>3</sup>Sarkina, 2011; <sup>3</sup>Sarkina and Prydiuk, 2012); **Kabardino-Balkarian Republic** (<sup>3</sup>Shkhagapsoev and Krapivina, 2003; <sup>3</sup>Shkhagapsoev and Krapivina, 2004); **Kaliningrad Oblast** (<sup>3</sup>Dedkov, Volodina, and Gubareva, 2007); **Karachay-Cherkess Republic** (<sup>3</sup>Kalamees and Botashev, 2000); **Krasnodar Krai** (<sup>3</sup>Kovalenko, 1980a; <sup>3</sup>Kovalenko, 1980b; <sup>3</sup>Vaasma, Kalamees, and Raitviir, 1986); **Lipetsk Oblast** (<sup>3</sup>Sarycheva, 2014a; <sup>3</sup>Sarycheva, 2016); **Moscow Oblast** (<sup>3</sup>Vishnevsky, 1998); **Saint Petersburg** (<sup>2</sup>Weinmann, 1836; <sup>2</sup>Weinmann, 1837); **Sevastopol** (<sup>1</sup>Sarkina, 2020c); **Tatarstan** (<sup>3</sup>Vassiljeva, 1977).

SIBERIA: **Krasnoyarsk Krai** (<sup>3</sup>Zauzolkova, 2012; <sup>3</sup>Zauzolkova, 2015).

FAR EAST: **Amur Oblast** (<sup>3</sup>Azbukina et al., 1998); **Jewish Autonomous Oblast** (<sup>3</sup>Bulakh, Govorova, Nazarova, and Vassiljeva, 2007); **Khabarovsk Krai** (<sup>3</sup>Azbukina et al., 1986; <sup>3</sup>Bau, Bulakh, Zhuang, and Li, 2007; <sup>3</sup>Bau, Bulakh, and Govorova, 2011); **Primorsky Krai** (<sup>3</sup>Vassiljeva, 1972; <sup>3</sup>Vassiljeva, 1973; <sup>3</sup>Shalapugina, 1976; <sup>3</sup>Bunkina and Nazarova, 1978; <sup>3</sup>Azbukina et al., 1984; <sup>3</sup>Bardunov et al., 2002; <sup>3</sup>Azbukina et al., 2006; <sup>3</sup>Bau, Bulakh, Zhuang, and Li, 2007; <sup>3</sup>Psurtseva, Kiyashko, Gachkova, and Belova, 2007; <sup>3</sup>Bau, Bulakh, and Govorova, 2011; <sup>3</sup>Bulakh et al., 2016; <sup>1</sup>Bogacheva, Bulakh, Bukharova, and Egorova, 2020); **Sakhalin Oblast** (<sup>3</sup>Bulakh, Govorova, and Bogatov, 1999; <sup>3</sup>Psurtseva, Kiyashko, Gachkova, and Belova, 2007).

***Mycena abramsii* (Murrill) Murrill<sup>1</sup>**

= *Mycena alnetorum* J. Favre<sup>2</sup> = *Mycena praecox* Velen.<sup>3</sup>

EASTERN EUROPE: **Belgorod Oblast** (<sup>3</sup>Bedenko, 1980); **Crimea** (<sup>1</sup>Dudka et al., 2004; <sup>1</sup>Sarkina, 2011); **Kaliningrad Oblast** (<sup>1</sup>Volodina, 2007); **Kaluga Oblast** (<sup>1</sup>Sionova, 2012); **Komi Republic** (<sup>1</sup>Palamarchuk, 2012; <sup>1</sup>Palamarchuk, 2016a; <sup>1</sup>Palamarchuk, 2016b); **Krasnodar Krai** (<sup>1</sup>Psurtseva, Kiyashko, Gachkova, and Belova, 2007); **Kursk Oblast** (<sup>1</sup>Baranov, 2002); **Leningrad Oblast** (<sup>3</sup>Nezdojminogo, 1967; <sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Morozova, 2007; <sup>1</sup>Popov et al., 2007); **Murmansk Oblast** (<sup>1</sup>Mikhailovskii, 1975a); **Novgorod Oblast** (<sup>1</sup>Kovalenko, Morozova, Nezdojminogo, and Popov, 2005; <sup>1</sup>Psurtseva, Kiyashko, Gachkova, and Belova, 2007; <sup>1</sup>Popov et al., 2013); **Orenburg Oblast** (<sup>1</sup>Desyatova, 2008); **Perm Krai** (<sup>1</sup>Perevedentseva, 2008; <sup>1</sup>Perevedentseva and Shishigin, 2014; <sup>1</sup>Botalov, 2017); **Rostov Oblast** (<sup>1</sup>Morozova et al., 2008; <sup>1</sup>Rusanov, Rebriev, and Bulgakov, 2018); **Saint Petersburg** (<sup>1</sup>Morozova and Smirnov, 2011; <sup>1</sup>Morozova et al., 2020); **Samara Oblast** (<sup>1</sup>Malysheva and Malysheva, 2004; <sup>1</sup>Malysheva and Malysheva, 2008); **Sverdlovsk Oblast** (<sup>1</sup>Marina, 2006); **Tatarstan** (<sup>3</sup>Vassiljeva, 1977); **Tula Oblast** (<sup>1</sup>Svetasheva, 2004; <sup>1</sup>Svetasheva, 2013); **Udmurt Republic** (<sup>1</sup>Kapitonov, 2013); **Ulyanovsk Oblast** (<sup>1</sup>Ilyukhin, 2009; <sup>1</sup>Ilyukhin, 2010a); **Vologda Oblast** (<sup>1</sup>Kirillova, 2007; <sup>1</sup>Kirillova, 2009); **Arid territories** (<sup>1,2</sup>Rebriev, Rusanov, et al., 2012).

SIBERIA: **Altai Krai** (<sup>1</sup>Gorbunova, 2018a); **Khakassia** (<sup>1</sup>Zauzolkova, 2015; <sup>1</sup>Zauzolkova and Gorbunova, 2016); **Khanty-Mansi Autonomous Okrug** (<sup>1</sup>Zvyagina and Baykalova, 2017); **Krasnoyarsk Krai** (<sup>3</sup>Beglyanova, 1972a; <sup>1</sup>Zauzolkova, 2015; <sup>1</sup>Zauzolkova and Gorbunova, 2016; <sup>1</sup>Krom and Kapitonov, 2019).

***Mycena acicula* (Schaeff.) P. Kumm.**

EASTERN EUROPE: **Adygea** (Vaasma, Kalamees, and Raitviir, 1986); **Chelyabinsk Oblast** (Stepanova and Sirko, 1977); **Crimea** (Sarkina and Prydiuk, 2012); **Kabardino-Balkarian Republic** (Krapivina et al., 2020); **Kaliningrad Oblast** (Volodina, 2007; Atayev and Volodina, 2020); **Kaluga Oblast** (Sionova, 2012); **Karelia** (Kovalenko, Morozova, Fomina, and Särkisilta, 1998; Krutov et al., 2014; Predtechenskaya and Ruokolainen, 2014); **Komi Republic** (Palamarchuk, 2011a; Palamarchuk, 2012; Palamarchuk, 2016a); **Krasnodar Krai** (Vassiljeva, 1939; Kovalenko, 1980a; Kovalenko, 1980b; Vaasma, Kalamees, and Raitviir, 1986); **Kursk Oblast** (Soshnina, 2014); **Leningrad Oblast** (Kovalenko and Morozova, 1999a; Morozova and Kovalenko, 2000; Morozova, 2007; Popov et al., 2007; Kalinina, 2018); **Lipetsk Oblast** (Alferova, 1977; Sarycheva, 1999; Sarycheva et al., 2009; Sarycheva, 2011; Sarycheva, 2014a; Sarycheva, 2016); **Mordovia** (Chastukhin, 1948a; Chastukhin and Nikolaevskaya, 1969; Chastukhin, 2011; Ivoilov and Bolshakov, 2011a); **Moscow Oblast** (Gorlenko, Sidorova, and Sidorova, 1989; Levitskaya, 1995b; Vishnevsky, 1998; Levitskaya, 2013); **Novgorod Oblast** (Kovalenko, Morozova, Nezdojminogo, and Popov, 2005; Malysheva, Malysheva, and Zmitrovich, 2007; Popov et al., 2013); **Orenburg Oblast** (Korshikova, 2005; Desyatova, 2007; Desyatova, 2008); **Penza Oblast** (Ivanov, 1981a; Ivanov, 1999); **Perm Krai** (Perevedentseva, 2008); **Pskov Oblast** (Kovalenko and Morozova, 1999b; Popov, 2001a; Popov et al., 2013); **Rostov Oblast** (Zmitrovich et al., 2008; Rusanov, Rebriev, and Bulgakov, 2018); **Ryazan Oblast** (Volosnova, 2014); **Saint Petersburg** (Kovalenko and Morozova, 1999a; Morozova and Kovalenko, 2000; Kotkova, Morozova, and Popov, 2006; Morozova and Smirnov, 2011; Morozova, Kovalenko, Rebriev, and Malysheva, 2014; Morozova et al., 2020); **Samara Oblast** (Malysheva and Malysheva, 2005b; Malysheva and Malysheva, 2008); **Sverdlovsk Oblast** (Stepanova and Sirko, 1977; Marina, 2006); **Tatarstan** (Vassiljeva, 1977); **Tula Oblast** (Svetasheva, 2001; Svetasheva, 2004); **Tver Oblast** (Mukhina, 2011a; Mukhina, 2011b; Kotkova, 2014); **Udmurt Republic** (Tychinin and Kuzmina, 2003); **Ulyanovsk Oblast** (Ilyukhin, 2010a); **Volgograd Oblast** (Dudka and Vedeneyev, 2015); **Vologda Oblast** (Kirillova, 2007; Kirillova, 2009); **Voronezh Oblast** (Chastukhin, 1952; Chastukhin and Nikolaevskaya, 1953; Chastukhin and Nikolaevskaya, 1969); **Yaroslavl Oblast** (Lazareva, 1998a); **Arid territories** (Rebriev, Rusanov, et al., 2012).

SIBERIA: **Altai Krai** (Gorbunova and Perova, 2006; Gorbunova and Chubarova, 2008; Gorbunova, Vlasenko, and Tzhubarova, 2011); **Altai Republic** (Kovalenko, 1992; Perova and Gorbunova, 2001); **Buryatia** (Nezdojminogo, 1970a); **Irkutsk Oblast** (Petrov, 1984; Kutafjeva and Astapenko, 1987; Petrov, 1989; Petrov, 2008); **Khakassia** (Zauzolkova, 2015); **Khanty-Mansi Autonomous Okrug** (Filippova and Bulyonkova, 2017a; Filippova and Bulyonkova, 2017b; Zvyagina and Baykalova, 2017); **Krasnoyarsk Krai** (Beglyanova, 1972a; Zauzolkova, 2012; Zauzolkova, 2015; Krom and Kapitonov, 2019); **Novosibirsk Oblast** (Perova, 1977; Perova and Gorbunova, 2007; Koropachinskiy and Banaev, 2014); **Tomsk Oblast** (Kosheleva and Kutafjeva, 2004; Kudashova, Gashkov, and Kutafjeva, 2013); **Yamalo-Nenets Autonomous Okrug** (Tarchevskaya, 1990).

FAR EAST: **Amur Oblast** (Kochunova and Erofeeva, 2017); **Jewish Autonomous Oblast** (Erofeeva and Bulakh, 2015b); **Kamchatka Krai** (Kalamees and Vaasma, 1981); **Khabarovsk Krai** (Azbukina et al., 1986; Azbukina et al., 1989; Bau, Bulakh, and Govorova, 2011); **Magadan Oblast** (Nazarova, 1976; Sazanova, 1996; Sazanova, 2005; Sazanova, 2009a; Sazanova, 2009b; Sazanova, 2011; Sazanova, 2012); **Primorsky Krai** (Vassiljeva, 1972; Vassiljeva, 1973; Bunkina and Nazarova, 1978; Azbukina et al., 1984; Azbukina et al., 1990; Bardunov et al., 2002; Azbukina et al., 2006; Bau, Bulakh, Zhuang, and Li, 2007; Bau, Bulakh, and Govorova, 2011; Bulakh et al., 2016); **Sakhalin Oblast** (Vassiljeva and Nazarova, 1972; Bulakh, Govorova, and Bogatov, 1999).

***Mycena aciculata* (A.H. Sm.) Desjardin & E. Horak**

SIBERIA: **Khanty-Mansi Autonomous Okrug** (Filippova and Bulyonkova, 2017a).

FAR EAST: **Sakhalin Oblast** (Bulakh, 2007).

***Mycena aetites* (Fr.) Quél.**

EASTERN EUROPE: **Crimea** (Dudka et al., 2004; Sarkina, 2010b; Sarkina, 2011; Sarkina, 2013; Sarkina, 2014b; Sarkina and Mironova, 2015); **Kaliningrad Oblast** (Dedkov, Volodina, and Gubareva, 2007; Volodina, 2007; Atayev and Volodina, 2020); **Kirov Oblast** (Kirillov, 2011; Kirillov, Perevedentseva, and Egoshina, 2011; Stavishenko, Luginina, Kirillov, and Egoshina, 2019); **Komi Republic** (Palamarchuk, 2012; Palamarchuk, 2016a; Palamarchuk and Kirillov, 2017); **Kursk Oblast** (Baranov, 2002); **Leningrad Oblast** (Kovalenko and Morozova, 1999a; Popov et al., 2007); **Lipetsk Oblast** (Sarycheva et al., 2009; Sarycheva, 2011; Sarycheva, 2014a; Sarycheva, 2016); **Moscow Oblast**

(Levitskaya, 1995b; Vishnevsky, 1998; Levitskaya, 2013); **Novgorod Oblast** (Arslanov, 2014); **Orenburg Oblast** (Desyatova, 2008); **Penza Oblast** (Ivanov, 1983; Ivanov, 1999); **Perm Krai** (Perevedentseva, 2008; Perevedentseva and Shishigin, 2014); **Pskov Oblast** (Popov et al., 2013); **Tula Oblast** (Svetasheva, 2004); **Ulyanovsk Oblast** (Ilyukhin, 2009); **Voronezh Oblast** (Chastukhin, 1952; Chastukhin and Nikolaevskaya, 1953; Chastukhin and Nikolaevskaya, 1969); **Yaroslavl Oblast** (Lazareva, 1998a).

SIBERIA: **Altai Krai** (Gorbunova, Vlasenko, and Tzhubarova, 2011); **Altai Republic** (Singer, 1943; Gorbunova, 2008; Gorbunova, 2010; Gorbunova, 2017a); **Buryatia** (Nezdojminogo, 1973; Petrov, 1991); **Irkutsk Oblast** (Bardunov et al., 2005); **Khakassia** (Beglyanova, 1972a; Zauzolkova, 2015); **Krasnoyarsk Krai** (Beglyanova, 1972a; Beglyanova, 1972c; Nezdojminogo, 1982a; Gorbunova, 2016); **Novosibirsk Oblast** (Perova, 1977; Perova and Gorbunova, 2001; Perova and Gorbunova, 2007; Koropachinskiy and Banaev, 2014).

FAR EAST: **Sakhalin Oblast** (Vassiljeva and Nazarova, 1972).

### ***Mycena albidolilacea* Kühner & Maire**

EASTERN EUROPE: **Novgorod Oblast** (Song et al., 2019).

### ***Mycena alexandri* Singer**

EASTERN EUROPE: **Kaliningrad Oblast** (Dedkov, Volodina, and Gubareva, 2007; Volodina, 2007); **Komi Republic** (Palamarchuk, 2016a).

### ***Mycena algeriensis* Maire**

EASTERN EUROPE: **Murmansk Oblast** (Mikhailovskii, 1975a); **Orenburg Oblast** (Desyatova, 2007; Desyatova, 2008); **Perm Krai** (Perevedentseva, 2008; Belkovskaya et al., 2014); **Tula Oblast** (Svetasheva, 2004; Svetasheva, 2013).

SIBERIA: **Khanty-Mansi Autonomous Okrug** (Filippova and Bulyonkova, 2017a; Filippova and Bulyonkova, 2017b).

FAR EAST: **Primorsky Krai** (Bulakh and Govorova, 2000).

### ***Mycena alni* Kalamees<sup>1</sup>**

≡ *Mycena niveipes* var. *alni* (Kalamees) Kalamees<sup>2</sup>

EASTERN EUROPE: **Krasnodar Krai** (<sup>1</sup>Vaasma, Kalamees, and Raitviir, 1986; <sup>2</sup>Kalamees, 1989).

### ***Mycena alphitophora* (Berk.) Sacc.<sup>1</sup>**

= *Mycena osmundicola* J.E. Lange<sup>2</sup>

EASTERN EUROPE: **Perm Krai** (<sup>2</sup>Perevedentseva, 2008).

FAR EAST: **Amur Oblast** (<sup>2</sup>Nazarova, 1986); **Jewish Autonomous Oblast** (<sup>1</sup>Bulakh, Govorova, Nazarova, and Vassiljeva, 2007; <sup>1</sup>Bau, Bulakh, and Govorova, 2011); **Khabarovsk Krai** (<sup>1</sup>Bulakh, 2013; <sup>1</sup>Bogacheva, Bulakh, Bukharova, and Egorova, 2015); **Primorsky Krai** (<sup>2</sup>Vassiljeva, 1972; <sup>2</sup>Vassiljeva, 1973; <sup>2</sup>Bunkina and Nazarova, 1978; <sup>2</sup>Azbukina et al., 1984; <sup>1</sup>Azbukina et al., 2006; <sup>1</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Bulakh et al., 2016); **Sakhalin Oblast** (<sup>2</sup>Vassiljeva and Nazarova, 1972).

### ***Mycena amicta* (Fr.) Quél.<sup>1</sup>**

= *Mycena iris* (Berk.) Quél.<sup>2</sup>

EASTERN EUROPE: **Kaliningrad Oblast** (<sup>1</sup>Volodina, 2007); **Karelia** (<sup>1</sup>Kovalenko, Morozova, Fomina, and Särkisilta, 1998; <sup>1</sup>Krutov et al., 2014); **Komi Republic** (<sup>1</sup>Palamarchuk, 2016a); **Krasnodar Krai** (<sup>1</sup>Kovalenko, 1980a; <sup>1</sup>Kovalenko, 1980b); **Leningrad Oblast** (<sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Morozova, 2007; <sup>1</sup>Popov et al., 2007); **Moscow** (<sup>1</sup>Burova, 1968; <sup>2</sup>Burova, 1971); **Moscow Oblast** (<sup>1</sup>Levitskaya, 1998; <sup>1</sup>Levitskaya, 2013); **Novgorod Oblast** (<sup>1</sup>Kovalenko, Morozova, Nezdojminogo, and Popov, 2005; <sup>1</sup>Psurtsseva, Kiyashko, Gachkova, and Belova, 2007; <sup>1</sup>Popov et al., 2013); **Penza Oblast** (<sup>1</sup>Ivanov, 1983); **Perm Krai** (<sup>1</sup>Perevedentseva, 2008; <sup>1</sup>Perevedentseva and Shishigin, 2014; <sup>1</sup>Botalov, 2017; <sup>1</sup>Botalov and Perevedentseva, 2020); **Pskov Oblast** (<sup>1</sup>Popov, 2001a; <sup>1</sup>Popov et al., 2013); **Rostov Oblast** (<sup>1</sup>Morozova et al., 2008); **Ryazan Oblast** (<sup>1</sup>Volosnova, 2014); **Saint Petersburg** (<sup>1</sup>Morozova and Smirnov, 2011; <sup>1</sup>Morozova et al., 2020); **Sverdlovsk Oblast** (<sup>1</sup>Marina, 2006); **Tatarstan** (<sup>1</sup>Vassiljeva, 1977); **Tula Oblast** (<sup>1</sup>Svetasheva, 2001; <sup>1</sup>Svetasheva, 2004); **Vologda Oblast** (<sup>1</sup>Kirillova, 2007; <sup>1</sup>Kirillova, 2009); **Yaroslavl Oblast** (<sup>1</sup>Lazareva, 1998a); **Arid territories** (<sup>1</sup>Rebriev, Rusanov, et al., 2012).

SIBERIA: **Altai Krai** (<sup>1</sup>Gorbunova and Chubarova, 2008; <sup>1</sup>Gorbunova, Vlasenko, and Tzhubarova, 2011); **Altai Republic** (<sup>1</sup>Gorbunova, 2010); **Irkutsk Oblast** (<sup>1</sup>Astapenko and Kutafjeva, 1990); **Khanty-Mansi Autonomous Okrug** (<sup>1</sup>Filippova and Bulyonkova, 2017a; <sup>1</sup>Filippova and Bulyonkova, 2017b); **Krasnoyarsk Krai** (<sup>1</sup>Gorbunova,

2016; <sup>1</sup>Krom and Kapitonov, 2019); **Novosibirsk Oblast** (<sup>1</sup>Koropachinskiy and Banaev, 2014); **Yamalo-Nenets Autonomous Okrug** (<sup>1</sup>Tarчевskaya, 1990).

FAR EAST: **Kamchatka Krai** (<sup>1</sup>Kalamees and Vaasma, 1981); **Primorsky Krai** (<sup>1</sup>Vassiljeva, 1973; <sup>1</sup>Bunkina and Nazarova, 1978; <sup>1</sup>Azbukina et al., 2006; <sup>1</sup>Bau, Bulakh, and Govorova, 2011).

***Mycena arcangeliana* Bres.<sup>1</sup>**

= *Mycena oortiana* Hora<sup>2</sup>

EASTERN EUROPE: **Adygea** (<sup>1</sup>Psurtseva, Kiyashko, Gachkova, and Belova, 2007); **Crimea** (<sup>1</sup>Moser, 1993; <sup>1</sup>Sarkina, 2001; <sup>1</sup>Dudka et al., 2004; <sup>1</sup>Sarkina, 2011; <sup>1</sup>Sarkina and Prydiuk, 2012; <sup>1</sup>Sarkina and Stavishenko, 2019); **Kaliningrad Oblast** (<sup>1</sup>Dedkov, Volodina, and Gubareva, 2007; <sup>1</sup>Volodina, 2007); **Kirov Oblast** (<sup>1</sup>Kirillov, 2011; <sup>1</sup>Kirillov, Perevedentseva, and Egoshina, 2011); **Moscow Oblast** (<sup>1</sup>Levitskaya, 1998; <sup>1</sup>Levitskaya, 2013); **Penza Oblast** (<sup>2</sup>Ivanov, 1999); **Perm Krai** (<sup>1</sup>Perevedentseva, 2008; <sup>1</sup>Belkovskaya et al., 2014; <sup>2</sup>Perevedentseva and Shishigin, 2014; <sup>1</sup>Botalov, 2017); **Samara Oblast** (<sup>1</sup>Malysheva and Malysheva, 2005b; <sup>1</sup>Malysheva and Malysheva, 2008); **Tula Oblast** (<sup>1</sup>Svetasheva, 2004); **Arid territories** (<sup>1</sup>Rebriev, Rusanov, et al., 2012).

***Mycena atrochalybaea* Huijsman**

EASTERN EUROPE: **Belgorod Oblast** (Bedenko, 1979a); **Murmansk Oblast** (Mikhailovskii, 1975a).

***Mycena atrocyanea* (Batsch) Gillet**

EASTERN EUROPE: **Crimea** (Dudka et al., 2004; Sarkina, 2010b; Sarkina, 2011; Sarkina and Prydiuk, 2012; Sarkina and Mironova, 2015); **Leningrad Oblast** (Nezdojminogo, 1967).

SIBERIA: **Krasnoyarsk Krai** (Beglyanova, 1972a; Beglyanova, 1972b; Beglyanova, 1972c).

FAR EAST: **Primorsky Krai** (Vassiljeva, 1973; Bunkina and Nazarova, 1978).

***Mycena atropapillata* Kühner & Maire**

EASTERN EUROPE: **Perm Krai** (Perevedentseva, 2008; Perevedentseva and Shishigin, 2014).

***Mycena atrovirens* Rea**

EASTERN EUROPE: **Chelyabinsk Oblast** (Sirko and Stepanova, 1977).

***Mycena aurantiomarginata* (Fr.) Quél.<sup>1</sup>**

= *Agaricus elegans* Pers.<sup>2</sup> = *Mycena elegans* (Pers.) P. Kumm.<sup>3</sup>

EASTERN EUROPE: **Belgorod Oblast** (<sup>1</sup>Bedenko, 1979a); **Kaliningrad Oblast** (<sup>1</sup>Dedkov, Volodina, and Gubareva, 2007); **Karelia** (<sup>1</sup>Kovalenko, Morozova, Fomina, and Särkisilta, 1998; <sup>1</sup>Bondartseva et al., 2001; <sup>1</sup>Krutov et al., 2014); **Kirov Oblast** (<sup>1</sup>Kirillov, 2011; <sup>1</sup>Kirillov, Perevedentseva, and Egoshina, 2011); **Komi Republic** (<sup>1</sup>Bobretsova, 2004; <sup>1</sup>Palamarchuk, 2012); **Leningrad Oblast** (<sup>3</sup>Thesleff, 1920; <sup>1</sup>Nezdojminogo, 1967; <sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Popov et al., 2007; <sup>1</sup>Zmitrovich et al., 2015); **Moscow Oblast** (<sup>3</sup>Petroff, 1911; <sup>1</sup>Voronina et al., 2014); **Perm Krai** (<sup>1</sup>Perevedentseva and Shishigin, 2014; <sup>1</sup>Botalov, Perevedentseva, and Shishigin, 2020); **Saint Petersburg** (<sup>2</sup>Weinmann, 1828; <sup>2</sup>Weinmann, 1836; <sup>2</sup>Weinmann, 1837; <sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Morozova et al., 2020); **Sverdlovsk Oblast** (<sup>1</sup>Marina, 2006); **Vologda Oblast** (<sup>1</sup>Kirillova, 2007; <sup>1</sup>Kirillova, 2009).

SIBERIA: **Yamalo-Nenets Autonomous Okrug** (<sup>1</sup>Tarчевskaya, 1990).

***Mycena avenacea* (Fr.) Quél.**

EASTERN EUROPE: **Penza Oblast** (Ivanov, 1999); **Ryazan Oblast** (Volosnova, 1997); **Tatarstan** (Vassiljeva, 1977); **Arid territories** (Rebriev, Rusanov, et al., 2012).

SIBERIA: **Irkutsk Oblast** (Petrov, 1984; Petrov, 1991; Petrov, 2008); **Kemerovo Oblast** (Perova and Gorbunova, 2001); **Novosibirsk Oblast** (Perova, 1977; Perova and Gorbunova, 2001; Koropachinskiy and Banaev, 2014).

FAR EAST: **Khabarovsk Krai** (Azbukina et al., 1986); **Primorsky Krai** (Vassiljeva, 1973; Azbukina et al., 1984).

***Mycena belliarum* (Johnst.) P.D. Orton**

EASTERN EUROPE: **Moscow Oblast** (Vishnevsky, 1998).

***Mycena bulbosa* (Cejp) Kühner**

EASTERN EUROPE: **Leningrad Oblast** (Morozova, 2007; Popov et al., 2007); **Sverdlovsk Oblast** (Marina, 2006).

SIBERIA: **Krasnoyarsk Krai** (Gorbunova, 2016).

***Mycena calochroa* Nezdajm.**

SIBERIA: **Buryatia** (Nezdajminogo, 1970b; Nezdajminogo, 1973).

***Mycena capillaripes* Peck**

EASTERN EUROPE: **Kaliningrad Oblast** (Dedkov, Volodina, and Gubareva, 2007; Volodina, 2007); **Karelia** (Krutov et al., 2014); **Leningrad Oblast** (Pavlova, 1969; Kovalenko and Morozova, 1999a; Morozova, 2007; Popov et al., 2007; Zmitrovich et al., 2015); **Moscow Oblast** (Levitskaya, 1995b; Vishnevsky, 1998; Levitskaya, 2013; Voronina et al., 2014); **Novgorod Oblast** (Kovalenko, Morozova, Nezdajminogo, and Popov, 2005; Popov et al., 2013); **Ryazan Oblast** (Volosnova, 2014); **Saint Petersburg** (Morozova and Smirnov, 2011); **Sverdlovsk Oblast** (Marina, 2006); **Tatarstan** (Vassiljeva, 1977); **Volgda Oblast** (Kirillova, 2007; Kirillova, 2009).

SIBERIA: **Khanty-Mansi Autonomous Okrug** (Filippova and Bulyonkova, 2017a; Filippova and Bulyonkova, 2017b); **Krasnoyarsk Krai** (Beglyanova, 1972a); **Tomsk Oblast** (Kudashova, Gashkov, and Vaishlya, 2016a).

FAR EAST: **Jewish Autonomous Oblast** (Bulakh, Govorova, Nazarova, and Vassiljeva, 2007; Bau, Bulakh, and Govorova, 2011); **Khabarovsk Krai** (Azbukina et al., 1986; Bau, Bulakh, and Govorova, 2011); **Primorsky Krai** (Vassiljeva, 1973; Bunkina and Nazarova, 1978; Azbukina et al., 1984; Azbukina et al., 2006; Bau, Bulakh, and Govorova, 2011); **Sakhalin Oblast** (Bulakh, Govorova, and Bogatov, 1999).

***Mycena capillaris* (Schumach.) P. Kumm.<sup>1</sup>**

≡ *Agaricus capillaris* Schumach.<sup>2</sup>

EASTERN EUROPE: **Adygea** (<sup>1</sup>Kiyashko, 2009); **Kaliningrad Oblast** (<sup>1</sup>Atayev and Volodina, 2020); **Kaluga Oblast** (<sup>1</sup>Sionova, 2012); **Leningrad Oblast** (<sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Popov et al., 2007); **Moscow** (<sup>1</sup>Burova, 1968; <sup>1</sup>Burova, 1971); **Moscow Oblast** (<sup>1</sup>Levitskaya, 1998; <sup>1</sup>Levitskaya, 2013); **Saint Petersburg** (<sup>2</sup>Weinmann, 1828; <sup>2</sup>Weinmann, 1836; <sup>2</sup>Weinmann, 1837); **Sverdlovsk Oblast** (<sup>1</sup>Stepanova and Sirko, 1977).

SIBERIA: **Krasnoyarsk Krai** (<sup>1</sup>Beglyanova, 1972a).

***Mycena carolinensis* A.H. Sm. & Hesler**

FAR EAST: **Sakhalin Oblast** (Bulakh, 2007).

***Mycena cedretorum* Maire**

EASTERN EUROPE: **Tatarstan** (Vassiljeva, 1977).

SIBERIA: **Altai Republic** (Singer, 1943).

***Mycena chlorantha* (Fr.) P. Kumm.**

EASTERN EUROPE: **Kaliningrad Oblast** (Volodina, 2007); **Karelia** (Krutov et al., 2014); **Leningrad Oblast** (Kovalenko and Morozova, 1999a; Popov et al., 2007); **Murmansk Oblast** (Pystina, Pavlova, and Shestakova, 1969); **Perm Krai** (Perevedentseva, 2008); **Volgograd Oblast** (Rebriev, Popov, Pridyuk, and Svetasheva, 2014; Svetasheva, Popov, Rebriev, and Pridyuk, 2014).

***Mycena chlorinosma* Singer**

EASTERN EUROPE: **Saint Petersburg** (Singer, 1937).

***Mycena chrysocorypha* Singer**

SIBERIA: **Altai Republic** (Singer, 1938c; Singer, 1943).

***Mycena cinerella* (P. Karst.) P. Karst.**

EASTERN EUROPE: **Chelyabinsk Oblast** (Psurtseva, Kiyashko, Gachkova, and Belova, 2007); **Kabardino-Balkarian Republic** (Krapivina et al., 2020); **Kaliningrad Oblast** (Dedkov, Volodina, and Gubareva, 2007; Volodina, 2007; Atayev and Volodina, 2020); **Kaluga Oblast** (Sionova, 2012); **Karelia** (Freindling, 1949 [as *Omphalia grisea* (Fr.) Quél., redet. in Bondartseva et al., 2001]; Bondartseva et al., 2001; Krutov et al., 2014); **Komi Republic** (Karatygin, Nezdajminogo, Novozhilov, and Zhurbenko, 1999); **Leningrad Oblast** (Nezdajminogo, 1967; Kovalenko and Morozova, 1999a; Popov et al., 2007); **Lipetsk Oblast** (Sarycheva, 2014a); **Moscow** (Burova, 1968); **Moscow Oblast** (Levitskaya, 2006; Levitskaya, 2013; Malysheva, Malysheva, Voronina, et al., 2017; Malysheva, Malysheva, Voronina, and Kovalenko, 2018); **Murmansk Oblast** (Mikhailovskii, 1975b; Nezdajminogo, 1997b; Karatygin, Nezdajminogo, Novozhilov, and Zhurbenko, 1999); **Novgorod Oblast** (Kovalenko, Morozova, Nezdajminogo, and Popov, 2005; Popov et al., 2013); **Pskov Oblast** (Popov, 2001a; Popov et al., 2013); **Saint Petersburg** (Kovalenko and Morozova,



1999a); **Sverdlovsk Oblast** (Marina, 2006); **Tula Oblast** (Svetasheva, 2004; Svetasheva, 2005b); **Udmurt Republic** (Tychinin and Kuzmina, 2003).

SIBERIA: **Irkutsk Oblast** (Gorbunova and Stepantsova, 2015); **Novosibirsk Oblast** (Koropachinskiy and Banaev, 2014); **Sakha Republic** (Karatygin, Nezdoininogo, Novozhilov, and Zhurbenko, 1999); **Tomsk Oblast** (Kudashova, Gashkov, and Vaishlya, 2016a).

FAR EAST: **Primorsky Krai** (Azbukina et al., 1990; Bardunov et al., 2002).

### *Mycena cineroides* V. Hintikka

EASTERN EUROPE: **Leningrad Oblast** (Kovalenko and Morozova, 1999a; Popov et al., 2007); **Samara Oblast** (Malysheva and Malysheva, 2004).

### *Mycena citrinomarginata* Gillet

EASTERN EUROPE: **Adygea** (Sopina, 2004b); **Belgorod Oblast** (Bedenko, 1979a); **Chelyabinsk Oblast** (Psurtseva, Kiyashko, Gachkova, and Belova, 2007); **Crimea** (Zerova, 1962; Sarkina, 2001; Dudka et al., 2004; Sarkina, 2010b; Sarkina, 2011; Sarkina and Prydiuk, 2012; Sarkina and Mironova, 2015); **Kaliningrad Oblast** (Dedkov, Volodina, and Gubareva, 2007; Volodina, 2007); **Kaluga Oblast** (Sionova, 2012); **Karelia** (Kovalenko, Morozova, Fomina, and Särkisilta, 1998; Krutov et al., 2014); **Kirov Oblast** (Stavishenko, Luginina, Kirillov, and Egoshina, 2019); **Krasnodar Krai** (Psurtseva, Kiyashko, Gachkova, and Belova, 2007); **Leningrad Oblast** (Kovalenko and Morozova, 1999a; Morozova, 2007; Popov et al., 2007; Psurtseva, Kiyashko, Gachkova, and Belova, 2007; Zmitrovich et al., 2015); **Mordovia** (Chastukhin, 1948a; Chastukhin and Nikolaevskaya, 1969; Chastukhin, 2011; Ivoilov and Bolshakov, 2011a); **Moscow Oblast** (Gorlenko, Sidorova, and Sidorova, 1989; Levitskaya, 1998; Vishnevsky, 1998; Levitskaya, 2013; Voronina et al., 2014; Malysheva, Malysheva, Voronina, et al., 2017; Malysheva, Malysheva, Voronina, and Kovalenko, 2018); **Murmansk Oblast** (Kalamees and Raitviir, 2006); **Novgorod Oblast** (Kovalenko, Morozova, Nezdoininogo, and Popov, 2005; Psurtseva, Kiyashko, Gachkova, and Belova, 2007; Popov et al., 2013); **Orenburg Oblast** (Desyatova, 2008); **Perm Krai** (Perevedentseva, 2008); **Ryazan Oblast** (Malysheva and Volosnova, 2008); **Saint Petersburg** (Kovalenko and Morozova, 1999a; Morozova and Smirnov, 2011; Morozova et al., 2020); **Samara Oblast** (Malysheva and Malysheva, 2008); **Sevastopol** (Sarkina, 2016b); **Sverdlovsk Oblast** (Marina, 2006); **Tatarstan** (Vassiljeva, 1977); **Tula Oblast** (Svetasheva, 2004; Svetasheva, 2013); **Tver Oblast** (Chastukhin, 1948b; Chastukhin and Nikolaevskaya, 1969; Mukhina, 2011a; Kotkova, 2014); **Vologda Oblast** (Kirillova, 2007; Kirillova, 2009); **Yaroslavl Oblast** (Lazareva, 1998a); **Arid territories** (Rebriev, Rusanov, et al., 2012).

SIBERIA: **Altai Krai** (Gorbunova and Chubarova, 2008; Gorbunova, Vlasenko, and Tzhubarova, 2011); **Altai Republic** (Singer, 1943; Gorbunova, 2010; Gorbunova, 2017a); **Buryatia** (Nezdoininogo, 1973; Petrov, 1991); **Irkutsk Oblast** (Psurtseva, Kiyashko, Gachkova, and Belova, 2007); **Khanty-Mansi Autonomous Okrug** (Filippova, Bulyonkova, and Lapshina, 2015; Filippova and Bulyonkova, 2017a; Filippova and Bulyonkova, 2017b); **Krasnoyarsk Krai** (Beglyanova, 1972a; Beglyanova, 1972c; Nezdoininogo, 1982a; Gorbunova, 2016; Malysheva, Malysheva, Kiyashko, et al., 2017; Krom and Kapitonov, 2019); **Novosibirsk Oblast** (Koropachinskiy and Banaev, 2014); **Tomsk Oblast** (Kudashova, Gashkov, and Vaishlya, 2016a).

FAR EAST: **Chukotka Autonomous Okrug** (Sazanova, 1993); **Khabarovsk Krai** (Bau, Bulakh, and Govorova, 2011; Bulakh, 2013; Bogacheva, Bulakh, Bukharova, and Egorova, 2015); **Primorsky Krai** (Vassiljeva, 1972; Vassiljeva, 1973; Azbukina et al., 1984; Bau, Bulakh, and Govorova, 2011; Bulakh et al., 2016); **Sakhalin Oblast** (Bulakh, Govorova, and Bogatov, 1999).

### *Mycena clavicularis* (Fr.) Gillet

EASTERN EUROPE: **Kaluga Oblast** (Sionova, 2006; Sionova, 2012); **Karelia** (Bondartseva et al., 2001; Krutov et al., 2014); **Komi Republic** (Palamarchuk, 2012; Palamarchuk and Kirillov, 2017; Palamarchuk, 2017); **Leningrad Oblast** (Kovalenko and Morozova, 1999a; Morozova, 2007; Popov et al., 2007; Zmitrovich et al., 2015); **Moscow Oblast** (Levitskaya, 1998; Levitskaya, 2013); **Novgorod Oblast** (Kovalenko, Morozova, Nezdoininogo, and Popov, 2005; Popov et al., 2013); **Perm Krai** (Perevedentseva and Shishigin, 2014; Botalov, 2017; Botalov and Perevedentseva, 2020); **Saint Petersburg** (Morozova and Smirnov, 2011).

SIBERIA: **Khanty-Mansi Autonomous Okrug** (Filippova and Bulyonkova, 2017a; Filippova and Bulyonkova, 2017b); **Krasnoyarsk Krai** (Gorbunova, 2016); **Tomsk Oblast** (Kudashova, Gashkov, and Kutafjeva, 2013).

FAR EAST: **Khabarovsk Krai** (Azbukina et al., 1986; Bau, Bulakh, and Govorova, 2011); **Primorsky Krai** (Azbukina et al., 2006; Bau, Bulakh, and Govorova, 2011).

***Mycena clavularis* (Batsch) Sacc.**

EASTERN EUROPE: **Perm Krai** (Perevedentseva, 2008); **Voronezh Oblast** (Sarycheva, Starodubtseva, and Sapelnikova, 2017).

SIBERIA: **Tomsk Oblast** (Perova and Gorbunova, 2001; Kudashova, Gashkov, and Kutafjeva, 2013).

***Mycena concolor* (J.E. Lange) Kühner**

EASTERN EUROPE: **Kaliningrad Oblast** (Volodina, 2007).

SIBERIA: **Khanty-Mansi Autonomous Okrug** (Filippova and Thormann, 2014; Filippova, 2014; Filippova, Mourgues, and Philippe, 2014); **Tomsk Oblast** (Perova and Gorbunova, 2001; Kudashova, Gashkov, and Kutafjeva, 2013).

***Mycena coracina* Maas Geest.**

FAR EAST: **Jewish Autonomous Oblast** (Bulakh, Govorova, Nazarova, and Vassiljeva, 2007; Bau, Bulakh, and Govorova, 2011); **Primorsky Krai** (Azbukina et al., 2006; Bau, Bulakh, and Govorova, 2011).

***Mycena corticola* (Pers.) Gray<sup>1</sup>**

≡ *Agaricus corticola* Pers.<sup>2</sup> = *Agaricus corticola* var. *albidus* Fr.<sup>3</sup> = *Agaricus corticola* var. *fuscescens* Fr.<sup>4</sup>

EASTERN EUROPE: **Leningrad Oblast** (<sup>1</sup>Thesleff, 1920); **Lipetsk Oblast** (<sup>1</sup>Sarycheva, 1999; <sup>1</sup>Afanasyev, Rtishcheva, and Starodubtseva, 2007; <sup>1</sup>Sarycheva et al., 2009; <sup>1</sup>Sarycheva, 2011; <sup>1</sup>Sarycheva, 2014a; <sup>1</sup>Sarycheva, 2016); **Moscow** (<sup>1</sup>Burova, 1968); **Penza Oblast** (<sup>1</sup>Ivanov, 1983); **Saint Petersburg** (<sup>3,4</sup>Weinmann, 1828; <sup>2</sup>Weinmann, 1836; <sup>2</sup>Weinmann, 1837); **Sverdlovsk Oblast** (<sup>1</sup>Stepanova and Sirko, 1977); **Tver Oblast** (<sup>1</sup>Kurochkin, 1993); **Voronezh Oblast** (<sup>1</sup>Afanasyev, Rtishcheva, and Starodubtseva, 2007; <sup>1</sup>Sarycheva, Starodubtseva, and Sapelnikova, 2017).

SIBERIA: **Novosibirsk Oblast** (<sup>1</sup>Zhukov, 1980; <sup>1</sup>Gorbunova, 2007); **Altai** (<sup>1</sup>Zhukov, 1979).

***Mycena corynephora* Maas Geest.**

EASTERN EUROPE: **Karelia** (Krutov et al., 2014).

FAR EAST: **Primorsky Krai** (Bulakh, 2007).

***Mycena crocata* (Schrad.) P. Kumm.<sup>1</sup>**

≡ *Agaricus crocatus* Schrad.<sup>2</sup>

EASTERN EUROPE: **Adygea** (<sup>1</sup>Kovalenko, 1979a; <sup>1</sup>Kovalenko, 1980b; <sup>1</sup>Vaasma, Kalamees, and Raitviir, 1986; <sup>1</sup>Kummer, 2007; <sup>1</sup>Psurtseva, Kiyashko, Gachkova, and Belova, 2007); **Chechen Republic** (<sup>1</sup>Taysumov, Krapivina, and Kushalieva, 2016); **Crimea** (<sup>1</sup>Moser, 1993; <sup>1</sup>Sarkina, 2001; <sup>1</sup>Dudka et al., 2004; <sup>1</sup>Sarkina, 2011); **Kabardino-Balkarian Republic** (<sup>1</sup>Shkhagapsoev and Krapivina, 2003; <sup>1</sup>Shkhagapsoev and Krapivina, 2004); **Karachay-Cherkess Republic** (<sup>1</sup>Kalamees and Botashev, 2000; <sup>1</sup>Malysheva and Svetasheva, 2011); **Krasnodar Krai** (<sup>1</sup>Vassiljeva, 1939; <sup>1</sup>Kovalenko, 1980a; <sup>1</sup>Kovalenko, 1980b; <sup>1</sup>Vaasma, Kalamees, and Raitviir, 1986; <sup>1</sup>Shumkova, Krivorotov, and Gayday, 2018); **Lipetsk Oblast** (<sup>1</sup>Sarycheva et al., 2009); **Moscow** (<sup>1</sup>Burova, 1971); **Saint Petersburg** (<sup>2</sup>Weinmann, 1836; <sup>2</sup>Weinmann, 1837); **Tver Oblast** (<sup>1</sup>Kurochkin, 1993); **Udmurt Republic** (<sup>1</sup>Tychinin and Kuzmina, 2003).

SIBERIA: **Khakassia** (<sup>1</sup>Beglyanova, 1972a; <sup>1</sup>Zauzolkova, 2015).

***Mycena cyanorhiza* Quél.**

EASTERN EUROPE: **Adygea** (Vaasma, Kalamees, and Raitviir, 1986); **Leningrad Oblast** (Tzvelev, 2000; Popov et al., 2007; Geltman et al., 2018; Geltman, 2018b); **Moscow Oblast** (Levitskaya, 1995b; Vishnevsky, 1998; Levitskaya, 2013); **Saint Petersburg** (Kovalenko and Morozova, 1999a; Noskov, 2004); **Samara Oblast** (Malysheva and Malysheva, 2007; Malysheva and Malysheva, 2008); **Sverdlovsk Oblast** (Marina, 2006); **Vologda Oblast** (Kirillova, 2009).

SIBERIA: **Altai Republic** (Gorbunova, 2010); **Krasnoyarsk Krai** (Gorbunova, 2016); **Novosibirsk Oblast** (Yudkin and Shaulo, 2008; Koropachinskiy and Banaev, 2014; Glupov and Shaulo, 2018); **Tomsk Oblast** (Perova and Gorbunova, 2001; Kudashova, Gashkov, and Kutafjeva, 2013; Kudashova, Gashkov, and Vaishlya, 2016b).

***Mycena detrusa* Maas Geest. & E. Horak**

FAR EAST: **Primorsky Krai** (Bulakh et al., 2016).

***Mycena diosma* Krieglst. & Schwöbel**

EASTERN EUROPE: **Moscow Oblast** (Vishnevsky, 1998).

***Mycena drepanocladi* (Singer) Singer**≡ *Hemimycena drepanocladi* Singer<sup>1</sup>SIBERIA: **Altai Republic** (<sup>1</sup>Singer, 1943).***Mycena dryopteriphila* Lj.N. Vassiljeva & M.M. Nazarova**FAR EAST: **Primorsky Krai** (Vassiljeva, 1972; Vassiljeva, 1973; Bulakh, 1977; Bunkina and Nazarova, 1978; Nazarova, 1978; Azbukina et al., 1984; Azbukina et al., 1990; Bardunov et al., 2002; Azbukina et al., 2006; Bau, Bulakh, and Govorova, 2011).***Mycena egregia* Maas Geest.**FAR EAST: **Primorsky Krai** (Bulakh, 2007; Bau, Bulakh, and Govorova, 2011).***Mycena elegantula* Peck**FAR EAST: **Khabarovsk Krai** (Azbukina et al., 1989); **Primorsky Krai** (Azbukina et al., 1984).***Mycena epipterygia* (Scop.) Gray<sup>1</sup>**≡ *Agaricus epipterygius* Scop.<sup>2</sup> ≡ *Mycena epipterygia* var. *epipterygia* (Scop.) Gray<sup>3</sup> = *Agaricus citrinellus* Pers.<sup>4</sup> = *Agaricus citrinellus* var. *candidus* Weinm.<sup>5</sup> = *Agaricus plicatocrenatus* Fr.<sup>6</sup> = *Mycena citrinella* (Pers.) P. Kumm.<sup>7</sup> = *Mycena epipterygia* var. *badiceps* M. Lange<sup>8</sup> = *Mycena epipterygia* var. *brunneola* J. Favre<sup>9</sup> = *Mycena epipterygia* var. *brunneola* J. Favre ex Maas Geest.<sup>10</sup> = *Mycena epipterygia* var. *lignicola* A.H. Sm.<sup>11</sup> = *Mycena epipterygia* var. *pelliculosa* (Quél.) Maas Geest.<sup>12</sup> = *Mycena epipterygia* var. *viscosa* (Secr. ex Maire) Ricken<sup>13</sup> = *Mycena pelliculosa* Quél.<sup>14</sup> = *Mycena viscosa* Secr. ex Maire<sup>15</sup>EASTERN EUROPE: **Adygea** (<sup>15</sup>Vaasma, Kalamees, and Raitviir, 1986); **Belgorod Oblast** (<sup>15</sup>Bedenko, 1979a); **Bryansk Oblast** (<sup>15</sup>Kruglikov, 2007); **Chechen Republic** (<sup>3,11,15</sup>Taysumov, Krapivina, and Kushalieva, 2016); **Chelyabinsk Oblast** (<sup>1</sup>Aleksandrovskaia and Lobanova, 1968; <sup>15</sup>Sirko and Stepanova, 1977; <sup>1,15</sup>Stepanova and Sirko, 1977; <sup>1</sup>Psurtseva, Kiyashko, Gachkova, and Belova, 2007); **Crimea** (<sup>1</sup>Sarkina, 2001; <sup>1</sup>Dudka et al., 2004; <sup>1</sup>Sarkina, 2010b; <sup>1</sup>Sarkina, 2011; <sup>1</sup>Sarkina and Prydiuk, 2012; <sup>1</sup>Sarkina, 2013; <sup>1</sup>Sarkina and Mironova, 2015; <sup>1</sup>Sarkina and Stavishenko, 2019); **Kabardino-Balkarian Republic** (<sup>3,11,15</sup>Shkhagapsoev and Krapivina, 2004); **Kaliningrad Oblast** (<sup>15</sup>Volodina, 2007; <sup>1</sup>Dedkov, Volodina, and Gubareva, 2007; <sup>1</sup>Atayev and Volodina, 2020); **Kaluga Oblast** (<sup>1</sup>Sionova, 2003; <sup>1</sup>Sionova, 2006; <sup>13</sup>Sionova, 2012); **Karachay-Cherkess Republic** (<sup>3,13</sup>Kalamees and Botashev, 2000); **Karelia** (<sup>1</sup>Freindling, 1949; <sup>3</sup>Kovalenko, Morozova, Fomina, and Särkisilta, 1998; <sup>1</sup>Bondartseva et al., 2001; <sup>1</sup>Predtechenskaya and Ruokolainen, 2013; <sup>1,9</sup>Krutov et al., 2014; <sup>1</sup>Predtechenskaya, 2015; <sup>1</sup>Savelev and Kikeeva, 2018); **Kirov Oblast** (<sup>3</sup>Kirillov, 2011; <sup>3</sup>Kirillov, Perevedentseva, and Egoshina, 2011; <sup>1</sup>Stavishenko, Luginina, Kirillov, and Egoshina, 2019); **Komi Republic** (<sup>1</sup>Karatygin, Nezdoininogo, Novozhilov, and Zhurbenko, 1999; <sup>3</sup>Bobretsova, 2004; <sup>8</sup>Palamarchuk, 2011b; <sup>1,8</sup>Palamarchuk, 2012; <sup>1,8</sup>Palamarchuk, 2016a; <sup>8</sup>Palamarchuk, 2016b; <sup>1</sup>Palamarchuk and Kirillov, 2017; <sup>8</sup>Palamarchuk and Kirillov, 2017); **Krasnodar Krai** (<sup>1,15</sup>Vassiljeva, 1939; <sup>1</sup>Kovalenko, 1980a; <sup>1</sup>Kovalenko, 1980b; <sup>15</sup>Vaasma, Kalamees, and Raitviir, 1986; <sup>1</sup>Psurtseva, Kiyashko, Gachkova, and Belova, 2007); **Leningrad Oblast** (<sup>1,7</sup>Thesleff, 1920; <sup>1</sup>Chastukhin and Nikolaevskaya, 1969; <sup>1</sup>Stolyarskaya, 1989; <sup>3,10,13</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Morozova and Kovalenko, 2000; <sup>1</sup>Morozova, 2007; <sup>3,9,13</sup>Popov et al., 2007; <sup>1,13</sup>Psurtseva, Kiyashko, Gachkova, and Belova, 2007; <sup>10,13</sup>Zmitrovich et al., 2015); **Lipetsk Oblast** (<sup>1</sup>Sarycheva et al., 2009; <sup>1</sup>Sarycheva, 2011; <sup>1</sup>Sarycheva, 2014a; <sup>1</sup>Sarycheva, 2016); **Mordovia** (<sup>1</sup>Chastukhin, 1948a; <sup>1</sup>Chastukhin and Nikolaevskaya, 1969; <sup>1</sup>Chastukhin, 2011; <sup>1</sup>Ivoilov and Bolshakov, 2011a); **Moscow** (<sup>1</sup>Burova, 1968; <sup>1</sup>Burova, 1971); **Moscow Oblast** (<sup>1,7,15</sup>Gorlenko, Sidorova, and Sidorova, 1989; <sup>1</sup>Levitskaya, 1995b; <sup>3,7,13</sup>Vishnevsky, 1998; <sup>13</sup>Psurtseva, Kiyashko, Gachkova, and Belova, 2007; <sup>3,8,13</sup>Levitskaya, 2013; <sup>1</sup>Voronina et al., 2014; <sup>1</sup>Sidorova, Alexandrova, and Voronina, 2017); **Murmansk Oblast** (<sup>1</sup>Pystina, Pavlova, and Shestakova, 1969; <sup>1</sup>Mikhailovskii, 1975b; <sup>1</sup>Karatygin, Nezdoininogo, Novozhilov, and Zhurbenko, 1999); **Nizhny Novgorod Oblast** (<sup>1</sup>Murashkinsky, 1911); **Novgorod Oblast** (<sup>1</sup>Kovalenko, Morozova, Nezdoininogo, and Popov, 2005; <sup>1</sup>Malysheva, Malysheva, and Zmitrovich, 2007; <sup>1,13</sup>Psurtseva, Kiyashko, Gachkova, and Belova, 2007; <sup>1</sup>Popov et al., 2013); **Orenburg Oblast** (<sup>1</sup>Desyatova, 2008); **Penza Oblast** (<sup>1</sup>Ivanov, 1981a; <sup>15</sup>Ivanov, 1985); **Perm Krai** (<sup>3</sup>Perevedentseva, 2008; <sup>1</sup>Belkovskaya et al., 2014; <sup>3,15</sup>Perevedentseva and Shishigin, 2014; <sup>3,15</sup>Botalov, 2017; <sup>1,13</sup>Botalov and Perevedentseva, 2020); **Pskov Oblast** (<sup>1</sup>Popov et al., 2013); **Ryazan Oblast** (<sup>3,13,15</sup>Volosnova, 2014); **Saint Petersburg** (<sup>2,4</sup>Weinmann, 1828; <sup>2,4,5</sup>Weinmann, 1836; <sup>2,4,5</sup>Weinmann, 1837; <sup>3,13</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Morozova and Kovalenko, 2000; <sup>3</sup>Kotkova, Morozova, and Popov, 2005; <sup>1</sup>Kotkova, Morozova, and Popov, 2006; <sup>1</sup>Morozova and Smirnov, 2011; <sup>1</sup>Morozova et al., 2020); **Samara Oblast** (<sup>3</sup>Malysheva and Malysheva, 2005b; <sup>3</sup>Malysheva and Malysheva, 2008); **Smolensk Oblast** (<sup>1</sup>Jaczewski, 1896; <sup>1</sup>Burova, 1969); **Sverdlovsk Oblast** (<sup>1,7</sup>Stepanova and Sirko, 1977; <sup>3,13</sup>Marina, 2006); **Tatarstan** (<sup>1,15</sup>Vassiljeva, 1977);

<sup>1</sup>Potapov, 2015b; <sup>1</sup>Nazirov, Gorshkov, Ivanov, and Rogova, 2016); **Tula Oblast** (<sup>1,3,15</sup>Svetasheva, 2001; <sup>3,13</sup>Svetasheva, 2004); **Tver Oblast** (<sup>1</sup>Chastukhin, 1948b; <sup>1</sup>Chastukhin and Nikolaevskaya, 1969; <sup>1,14,15</sup>Kurochkin, 1993; <sup>1</sup>Mukhina and Garibova, 2010; <sup>1</sup>Mukhina, 2011a; <sup>1</sup>Mukhina, 2011b; <sup>1</sup>Kotkova, 2014); **Udmurt Republic** (<sup>1,15</sup>Tychinin, 1990; <sup>1,15</sup>Tychinin and Kuzmina, 2003); **Ulyanovsk Oblast** (<sup>1</sup>Ilyukhin, 2010a); **Vologda Oblast** (<sup>1</sup>Kirillova, 2007; <sup>1</sup>Kirillova, 2009); **Voronezh Oblast** (<sup>1</sup>Chastukhin and Nikolaevskaya, 1969); **Yaroslavl Oblast** (<sup>3</sup>Lazareva, 1998a).

SIBERIA: **Altai Krai** (<sup>3</sup>Gorbunova and Chubarova, 2008; <sup>1,12</sup>Gorbunova, Vlasenko, and Tzhubarova, 2011); **Altai Republic** (<sup>1</sup>Pilát, 1935; <sup>1,15</sup>Singer, 1943; <sup>1,15</sup>Gorbunova, 2001a; <sup>1</sup>Gorbunova, 2001b; <sup>1</sup>Perova and Gorbunova, 2001; <sup>1</sup>Gorbunova, 2008; <sup>1,12</sup>Gorbunova, 2010); **Buryatia** (<sup>1</sup>Nezdojminogo, 1970a; <sup>1</sup>Petrov, 1991); **Irkutsk Oblast** (<sup>1</sup>Kutafjeva, 1983; <sup>1,15</sup>Astapenko, 1990a); **Kemerovo Oblast** (<sup>15</sup>Perova and Gorbunova, 2001); **Khakassia** (<sup>1</sup>Beglyanova, 1972a; <sup>1</sup>Zauzolkova, 2015; <sup>1</sup>Zauzolkova and Gorbunova, 2016); **Khanty-Mansi Autonomous Okrug** (<sup>11</sup>Zvyagina, 2008; <sup>11</sup>Shepeleva et al., 2014; <sup>1</sup>Filippova and Thormann, 2014; <sup>1</sup>Filippova, Mourgues, and Philippe, 2014; <sup>3</sup>Filippova, 2014; <sup>1</sup>Filippova, Bulyonkova, and Lapshina, 2015; <sup>11</sup>Zvyagina and Baykalova, 2017; <sup>1</sup>Filippova and Bulyonkova, 2017a; <sup>1</sup>Filippova and Bulyonkova, 2017b); **Krasnoyarsk Krai** (<sup>2,6</sup>Thümen, 1878; <sup>1</sup>Beglyanova, 1972a; <sup>1</sup>Beglyanova, 1972c; <sup>1</sup>Nezdojminogo, 1982a; <sup>1</sup>Lapitskaya, 1993; <sup>1</sup>Kutafjeva and Kosheleva, 2005; <sup>1</sup>Kosheleva and Kutafjeva, 2008a; <sup>1</sup>Kryuchkova, 2009; <sup>1</sup>Gorbunova, 2016; <sup>1</sup>Malysheva, Malysheva, Kiyashko, et al., 2017); **Novosibirsk Oblast** (<sup>1,3,15</sup>Perova and Gorbunova, 2001); **Tomsk Oblast** (<sup>1</sup>Perova, 1972; <sup>1,7</sup>Perova and Gorbunova, 2001; <sup>1</sup>Kudashova, Gashkov, and Kutafjeva, 2013).

FAR EAST: **Amur Oblast** (<sup>1,15</sup>Nazarova, 1986; <sup>15</sup>Azbukina et al., 1998; <sup>1</sup>Taranina, 2005); **Chukotka Autonomous Okrug** (<sup>15</sup>Sazanova, 1993); **Jewish Autonomous Oblast** (<sup>1</sup>Bulakh, Govorova, Nazarova, and Vassiljeva, 2007; <sup>1</sup>Bau, Bulakh, and Govorova, 2011); **Kamchatka Krai** (<sup>15</sup>Kalamees and Vaasma, 1981); **Khabarovsk Krai** (<sup>1,15</sup>Azbukina et al., 1986; <sup>1,15</sup>Azbukina et al., 1989; <sup>1,15</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Bulakh, 2013; <sup>1</sup>Bogacheva, Bulakh, Bukharova, and Egorova, 2015; <sup>1</sup>Erofeeva and Bulakh, 2015a); **Magadan Oblast** (<sup>1,15</sup>Sazanova, 2005; <sup>1,13</sup>Sazanova, 2009a; <sup>1</sup>Sazanova, 2011); **Primorsky Krai** (<sup>15</sup>Vassiljeva, 1973; <sup>1,15</sup>Bunkina and Nazarova, 1978; <sup>1,15</sup>Azbukina et al., 1984; <sup>1,15</sup>Azbukina et al., 1990; <sup>1,15</sup>Bardunov et al., 2002; <sup>1,15</sup>Azbukina et al., 2006; <sup>1,15</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Bulakh et al., 2016); **Sakhalin Oblast** (<sup>1,15</sup>Vassiljeva and Nazarova, 1972; <sup>15</sup>Bulakh, Govorova, and Bogatov, 1999).

### ***Mycena epipterygioides* A. Pearson<sup>1</sup>**

≡ *Mycena epipterygia* var. *eipipterygioides* (A. Pearson) Kühner<sup>2</sup>

EASTERN EUROPE: **Chelyabinsk Oblast** (<sup>1</sup>Sirko and Stepanova, 1977); **Karelia** (<sup>2</sup>Kovalenko, Morozova, Fomina, and Särkisilta, 1998; <sup>1</sup>Krutov et al., 2014); **Kirov Oblast** (<sup>1</sup>Kirillov, 2011; <sup>1</sup>Kirillov, Perevedentseva, and Egoshina, 2011; <sup>1</sup>Stavishenko, Luginina, Kirillov, and Egoshina, 2019); **Komi Republic** (<sup>2</sup>Palamarchuk, 2012; <sup>2</sup>Palamarchuk, 2016a; <sup>2</sup>Palamarchuk, 2016b); **Leningrad Oblast** (<sup>2</sup>Kovalenko and Morozova, 1999a; <sup>2</sup>Popov et al., 2007; <sup>1</sup>Zmitrovich et al., 2015); **Murmansk Oblast** (<sup>1</sup>Pystina, Pavlova, and Shestakova, 1969); **Perm Krai** (<sup>1</sup>Perevedentseva, 2008; <sup>1</sup>Belkovskaya et al., 2014; <sup>1</sup>Perevedentseva and Shishigin, 2014; <sup>2</sup>Botalov, 2017; <sup>2</sup>Botalov and Perevedentseva, 2020); **Sverdlovsk Oblast** (<sup>2</sup>Marina, 2006); **Tula Oblast** (<sup>2</sup>Svetasheva, 2004; <sup>2</sup>Svetasheva, 2005b; <sup>1</sup>Shcherbakov, 2010).

SIBERIA: **Buryatia** (<sup>1</sup>Nezdojminogo, 1973; <sup>1</sup>Petrov, 1991); **Krasnoyarsk Krai** (<sup>1</sup>Beglyanova, 1972a; <sup>1</sup>Nezdojminogo, 1976a); **Novosibirsk Oblast** (<sup>1</sup>Perova and Gorbunova, 2007); **Yamalo-Nenets Autonomous Okrug** (<sup>1</sup>Tarchevskaya, 1990).

FAR EAST: **Khabarovsk Krai** (<sup>1</sup>Erofeeva and Bulakh, 2015a); **Magadan Oblast** (<sup>1</sup>Nazarova, 1976; <sup>1</sup>Sazanova, 1996; <sup>1</sup>Sazanova, 2005; <sup>1</sup>Sazanova, 2009a; <sup>1</sup>Sazanova, 2011).

### ***Mycena erubescens* Höhn.<sup>1</sup>**

= *Mycena fellea* J.E. Lange<sup>2</sup>

EASTERN EUROPE: **Kaliningrad Oblast** (<sup>1</sup>Dedkov, Volodina, and Gubareva, 2007; <sup>1</sup>Volodina, 2007); **Moscow** (<sup>2</sup>Burova, 1968; <sup>2</sup>Burova, 1971); **Moscow Oblast** (<sup>1</sup>Levitskaya, 2013); **Novgorod Oblast** (<sup>1</sup>Kalinina, 2019); **Rostov Oblast** (<sup>1</sup>Morozova et al., 2008); **Voronezh Oblast** (<sup>1</sup>Chastukhin, 1952; <sup>1</sup>Chastukhin and Nikolaevskaya, 1953; <sup>1</sup>Chastukhin and Nikolaevskaya, 1969); **Arid territories** (<sup>1</sup>Rebriev, Rusanov, et al., 2012).

SIBERIA: **Khanty-Mansi Autonomous Okrug** (<sup>1</sup>Filippova and Bulyonkova, 2017a; <sup>1</sup>Filippova and Bulyonkova, 2017b); **Novosibirsk Oblast** (<sup>1</sup>Koropachinskiy and Banaev, 2014).

FAR EAST: **Primorsky Krai** (<sup>1</sup>Vassiljeva, 1973; <sup>1</sup>Bunkina and Nazarova, 1978; <sup>1</sup>Azbukina et al., 2006; <sup>1</sup>Bau, Bulakh, and Govorova, 2011).

### ***Mycena fagetorum* (Fr.) Gillet**

EASTERN EUROPE: **Kaliningrad Oblast** (Atayev and Volodina, 2020); **Tatarstan** (Vassiljeva, 1977).

***Mycena filopes* (Bull.) P. Kumm.<sup>1</sup>**

≡ *Agaricus filopes* Bull.<sup>2</sup> = *Mycena amygdalina* (Pers.) Singer<sup>3</sup>

EASTERN EUROPE: **Kaliningrad Oblast** (<sup>1</sup>Dedkov, Volodina, and Gubareva, 2007; <sup>1</sup>Volodina, 2007); **Karelia** (<sup>1</sup>Lebedeva, 1933; <sup>1</sup>Freindling, 1949; <sup>1</sup>Kovalenko, Morozova, Fomina, and Särkisilta, 1998; <sup>1</sup>Bondartseva et al., 2001; <sup>1</sup>Krutov et al., 2014); **Kirov Oblast** (<sup>1</sup>Kirillov, 2011; <sup>1</sup>Kirillov, Perevedentseva, and Egoshina, 2011; <sup>1</sup>Stavishenko, Luginina, Kirillov, and Egoshina, 2019); **Komi Republic** (<sup>1</sup>Bobretsova, 2004; <sup>1</sup>Palamarchuk, 2011b; <sup>1</sup>Palamarchuk, 2012; <sup>1</sup>Palamarchuk, 2016a; <sup>1</sup>Palamarchuk, 2016b); **Leningrad Oblast** (<sup>1</sup>Stolyarskaya, 1989; <sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Morozova, 2007; <sup>1</sup>Popov et al., 2007); **Lipetsk Oblast** (<sup>1</sup>Sarycheva, 2011; <sup>1</sup>Sarycheva, 2016); **Moscow** (<sup>1</sup>Burova, 1968; <sup>1</sup>Burova, 1971); **Moscow Oblast** (<sup>1</sup>Levitskaya, 1995c; <sup>1</sup>Vishnevsky, 1998; <sup>1</sup>Levitskaya, 2013); **Murmansk Oblast** (<sup>2</sup>Karsten, 1866; <sup>1</sup>Kalamees and Raitviir, 2006); **Novgorod Oblast** (<sup>1</sup>Psurtseva, Kiyashko, Gachkova, and Belova, 2007); **Orenburg Oblast** (<sup>1</sup>Desyatova, 2008); **Perm Krai** (<sup>1</sup>Perevedentseva, 2008; <sup>1</sup>Belkovskaya et al., 2014; <sup>1</sup>Perevedentseva and Shishigin, 2014; <sup>1</sup>Botalov, 2017; <sup>1</sup>Botalov and Perevedentseva, 2020); **Ryazan Oblast** (<sup>1</sup>Volosnova, 2014); **Saint Petersburg** (<sup>2</sup>Weinmann, 1828; <sup>2</sup>Weinmann, 1836; <sup>2</sup>Weinmann, 1837; <sup>1</sup>Kotkova, Morozova, and Popov, 2006; <sup>1</sup>Morozova and Smirnov, 2011; <sup>1</sup>Morozova, Kovalenko, Rebriev, and Malysheva, 2014; <sup>1</sup>Morozova et al., 2020); **Samara Oblast** (<sup>1</sup>Malysheva and Malysheva, 2006; <sup>1</sup>Malysheva and Malysheva, 2008); **Sverdlovsk Oblast** (<sup>1</sup>Marina, 2006); **Tatarstan** (<sup>1</sup>Vassiljeva, 1977; <sup>1</sup>Potapov, 2016b); **Tula Oblast** (<sup>1</sup>Svetasheva, 2004); **Ulyanovsk Oblast** (<sup>1</sup>Ilyukhin, 2009; <sup>1</sup>Ilyukhin, 2010a); **Vologda Oblast** (<sup>1</sup>Kirillova, 2007; <sup>1</sup>Kirillova, 2009); **Yaroslavl Oblast** (<sup>1</sup>Lazareva, 1998a).

SIBERIA: **Altai Krai** (<sup>1</sup>Gorbunova and Chubarova, 2008; <sup>1</sup>Gorbunova, Vlasenko, and Tzhubarova, 2011); **Buryatia** (<sup>1</sup>Nezdojminogo, 1973; <sup>1</sup>Petrov, 1991); **Irkutsk Oblast** (<sup>1</sup>Astapenko and Kutafjeva, 1990; <sup>1</sup>Bardunov et al., 2005); **Krasnoyarsk Krai** (<sup>1</sup>Beglyanova, 1972a; <sup>1</sup>Beglyanova, 1972c; <sup>3</sup>Nezdojminogo, 1982a; <sup>1</sup>Zauzolkova, 2012; <sup>1</sup>Zauzolkova, 2015; <sup>1</sup>Gorbunova, 2016; <sup>1</sup>Malysheva, Malysheva, Kiyashko, et al., 2017); **Novosibirsk Oblast** (<sup>1</sup>Koropachinskiy and Banaev, 2014); **Tomsk Oblast** (<sup>1</sup>Agaphonova, Kutafjeva, and Gashkov, 2009b); **Yamalo-Netets Autonomous Okrug** (<sup>1</sup>Karatygin, Nezdojminogo, Novozhilov, and Zhurbenko, 1999).

FAR EAST: **Amur Oblast** (<sup>1</sup>Kochunova, 2019); **Chukotka Autonomous Okrug** (<sup>2</sup>Berkeley and Curtis, 1978); **Khabarovsk Krai** (<sup>1</sup>Azbukina et al., 1989; <sup>1</sup>Bulakh, 2013; <sup>1</sup>Bogacheva, Bulakh, Bukharova, and Egorova, 2015); **Magadan Oblast** (<sup>1</sup>Sazanova, 2009a; <sup>1</sup>Sazanova, 2009b; <sup>1</sup>Sazanova, 2011; <sup>1</sup>Sazanova and Golodnova, 2015); **Primorsky Krai** (<sup>1</sup>Vassiljeva, 1973; <sup>1</sup>Bunkina and Nazarova, 1978; <sup>1</sup>Azbukina et al., 1984; <sup>3</sup>Azbukina et al., 1990; <sup>1</sup>Bardunov et al., 2002; <sup>1</sup>Azbukina et al., 2006; <sup>1</sup>Bau, Bulakh, and Govorova, 2011); **Sakhalin Oblast** (<sup>1</sup>Bulakh, Govorova, and Bogatov, 1999).

***Mycena flavescens* Velen.**

EASTERN EUROPE: **Kaliningrad Oblast** (Dedkov, Volodina, and Gubareva, 2007; Volodina, 2007; Atayev and Volodina, 2020); **Moscow Oblast** (Levitskaya, 1995b; Vishnevsky, 1998; Levitskaya, 2013); **Samara Oblast** (Malysheva and Malysheva, 2005b; Malysheva and Malysheva, 2008); **Tula Oblast** (Svetasheva, 2001; Svetasheva, 2004; Svetasheva, 2005b; Shcherbakov, 2010); **Ulyanovsk Oblast** (Ilyukhin, 2010a); **Voronezh Oblast** (Chastukhin, 1952; Chastukhin and Nikolaevskaya, 1953; Chastukhin and Nikolaevskaya, 1969).

SIBERIA: **Khakassia** (Zauzolkova, 2015; Zauzolkova and Gorbunova, 2016).

***Mycena flos-nivium* Kühner**

EASTERN EUROPE: **Adygea** (Vaasma, Kalamees, and Raitviir, 1986); **Chelyabinsk Oblast** (Sirko and Stepanova, 1977; Stepanova and Sirko, 1977); **Krasnodar Krai** (Vaasma, Kalamees, and Raitviir, 1986).

SIBERIA: **Altai Republic** (Gorbunova, 2010).

***Mycena fragillima* A.H. Sm.**

SIBERIA: **Khanty-Mansi Autonomous Okrug** (Filippova and Bulyonkova, 2017a; Filippova and Bulyonkova, 2017b).

***Mycena galericulata* (Scop.) Gray<sup>1</sup>**

≡ *Agaricus galericulatus* Scop.<sup>2</sup> ≡ *Mycena galericulata* var. *galericulata* (Scop.) Gray<sup>3</sup> = *Agaricus rugosus* Fr.<sup>4</sup> = *Mycena galericulata* subsp. *sparsa* (Bres. & Schulzer) Bres.<sup>5</sup> = *Mycena galericulata* var. *albida* (Pers.) Roussel<sup>6</sup> = *Mycena galericulata* var. *elongata* Velen.<sup>7</sup> = *Mycena galericulata* var. *ferrugineomaculata* Kalamees<sup>8</sup> = *Mycena rugosa* Qué.<sup>9</sup>

EASTERN EUROPE: **Adygea** (<sup>1</sup>Kovalenko, 1979a; <sup>1</sup>Kovalenko, 1980b; <sup>3,8</sup>Vaasma, Kalamees, and Raitviir, 1986; <sup>8</sup>Kalamees, 1989; <sup>1</sup>Kummer, 2007); **Arkhangelsk Oblast** (<sup>1</sup>Lebedeva, 1933); **Belgorod Oblast** (<sup>1</sup>Bedenko, 1979a);

**Chechen Republic** (<sup>1</sup>Taysumov, Krapivina, and Kushalieva, 2016); **Crimea** (<sup>1</sup>Moser, 1993; <sup>1</sup>Sarkina, 2001; <sup>1</sup>Dudka et al., 2004; <sup>1</sup>Sarkina, 2011; <sup>1</sup>Sarkina and Prydiuk, 2012; <sup>1</sup>Sarkina and Mironova, 2015; <sup>1</sup>Sarkina and Stavishenko, 2019); **Kabardino-Balkarian Republic** (<sup>1</sup>Shkhagapsoev and Krapivina, 2003; <sup>1</sup>Shkhagapsoev and Krapivina, 2004); **Kaliningrad Oblast** (<sup>1</sup>Hennings, 1895; <sup>1</sup>Dedkov, Volodina, and Gubareva, 2007; <sup>1</sup>Volodina, 2007; <sup>1</sup>Atayev and Volodina, 2020); **Kaluga Oblast** (<sup>1</sup>Sionova, 2006; <sup>1</sup>Sionova, 2012); **Karachay-Cherkess Republic** (<sup>1</sup>Kalamees and Botashev, 2000); **Karelia** (<sup>1</sup>Freindling, 1949; <sup>3</sup>Kovalenko, Morozova, Fomina, and Särkisilta, 1998; <sup>1</sup>Bondartseva et al., 2001; <sup>1</sup>Predtechenskaya and Ruokolainen, 2013; <sup>1</sup>Krutov et al., 2014); **Kirov Oblast** (<sup>1</sup>Kirillov and Luginina, 2011; <sup>1</sup>Kirillov, 2011; <sup>1</sup>Kirillov, Perevedentseva, and Egoshina, 2011; <sup>1</sup>Stavishenko, Luginina, Kirillov, and Egoshina, 2019); **Komi Republic** (<sup>1</sup>Palamarchuk, 2011a; <sup>1</sup>Palamarchuk, 2012; <sup>1</sup>Palamarchuk and Kirillov, 2017; <sup>1</sup>Palamarchuk, 2017; <sup>1</sup>Palamarchuk and Kirillov, 2018a); **Krasnodar Krai** (<sup>1,5</sup>Vassiljeva, 1939; <sup>1</sup>Kovalenko, 1980a; <sup>3,8</sup>Vaasma, Kalamees, and Raitviir, 1986; <sup>8</sup>Kalamees, 1989); **Kursk Oblast** (<sup>1</sup>Baranov, 2002; <sup>1</sup>Volobuev, Bolshakov, and Shakhova, 2020); **Leningrad Oblast** (<sup>1,9</sup>Thesleff, 1920; <sup>1</sup>Kalamees and Kovalenko, 1984; <sup>1</sup>Stolyarskaya, 1989; <sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Morozova and Kovalenko, 2000; <sup>1</sup>Morozova, 2007; <sup>1</sup>Popov et al., 2007; <sup>1</sup>Psurtseva, Kiyashko, Gachkova, and Belova, 2007; <sup>1</sup>Zmitrovich et al., 2015; <sup>1</sup>Kalinina, 2018; <sup>1</sup>Malysheva, Malysheva, Shchepin, and Novozhilov, 2018); **Lipetsk Oblast** (<sup>1</sup>Rtishcheva, 1999; <sup>1</sup>Sarycheva, 1999; <sup>1</sup>Afanasyev, Rtishcheva, and Starodubtseva, 2007; <sup>1</sup>Sarycheva et al., 2009; <sup>1</sup>Sarycheva, 2011; <sup>1</sup>Sarycheva, 2014a; <sup>1</sup>Sarycheva, 2016; <sup>1</sup>Sarycheva, Starodubtseva, and Sapelnikova, 2017); **Mordovia** (<sup>1</sup>Chastukhin and Nikolaevskaya, 1969; <sup>1</sup>Ivoilov and Bolshakov, 2011a); **Moscow** (<sup>2</sup>Bucholtz, 1897b; <sup>2</sup>Bucholtz, 1897c; <sup>2</sup>Mosolov, 1906); **Moscow Oblast** (<sup>1</sup>Gorlenko, Sidorova, and Sidorova, 1989; <sup>1</sup>Levitskaya, 1995b; <sup>3</sup>Vishnevsky, 1998; <sup>1</sup>Voronina et al., 2012; <sup>1</sup>Levitskaya, 2013; <sup>1</sup>Voronina et al., 2014); **Murmansk Oblast** (<sup>1</sup>Pystina, Pavlova, and Shestakova, 1969); **North Ossetia** (<sup>1</sup>Nikolayev, 2001); **Novgorod Oblast** (<sup>1</sup>Kovalenko, Morozova, Nezdoinin, and Popov, 2005; <sup>1</sup>Malysheva, Malysheva, and Zmitrovich, 2007; <sup>1</sup>Popov et al., 2013; <sup>1</sup>Baklan, 2015); **Orenburg Oblast** (<sup>1</sup>Desyatova, 2007; <sup>1</sup>Desyatova, 2008); **Oryol Oblast** (<sup>1</sup>Volobuev and Tsutsupa, 2009); **Penza Oblast** (<sup>1</sup>Ivanov, 1981b; <sup>1</sup>Ivanov, 1983; <sup>1</sup>Ivanov, 1999; <sup>1</sup>Ivanov, 2019); **Perm Krai** (<sup>1</sup>Perevedentseva, 2008; <sup>1</sup>Belkovskaya et al., 2014; <sup>1</sup>Perevedentseva and Shishigin, 2014; <sup>1</sup>Botalov, Perevedentseva, and Denisov, 2015; <sup>1</sup>Botalov, 2017); **Pskov Oblast** (<sup>1</sup>Kovalenko and Morozova, 1999b; <sup>3</sup>Popov, 2001a; <sup>1</sup>Popov et al., 2013); **Rostov Oblast** (<sup>1</sup>Rusanov et al., 2004; <sup>1</sup>Morozova et al., 2008; <sup>1</sup>Zmitrovich et al., 2008; <sup>1</sup>Rusanov, Rebriev, and Bulgakov, 2018); **Ryazan Oblast** (<sup>1</sup>Volosnova, 1997; <sup>1</sup>Volosnova, 2014); **Saint Petersburg** (<sup>2</sup>Weinmann, 1828; <sup>2</sup>Weinmann, 1836; <sup>2</sup>Weinmann, 1837; <sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Morozova and Kovalenko, 2000; <sup>1</sup>Kotkova, Morozova, and Popov, 2005; <sup>1</sup>Kotkova, Morozova, and Popov, 2006; <sup>1</sup>Kotkova, Morozova, and Popov, 2007; <sup>1</sup>Morozova and Smirnov, 2011; <sup>1</sup>Morozova, Kovalenko, Rebriev, and Malysheva, 2014; <sup>1</sup>Zhukova, Morozova, Volobuev, and Bryantseva, 2017; <sup>1</sup>Morozova et al., 2020); **Samara Oblast** (<sup>3</sup>Malysheva and Malysheva, 2004; <sup>3,6</sup>Malysheva and Malysheva, 2008); **Saratov Oblast** (<sup>1</sup>Lebedeva, 1927; <sup>1</sup>Kazakevich and Prisyazhnyuk, 1932; <sup>1</sup>Nagumanov, 2015); **Smolensk Oblast** (<sup>1</sup>Jaczewski, 1895); **Sverdlovsk Oblast** (<sup>1</sup>Stepanova and Sirko, 1977; <sup>1</sup>Marina, 2006); **Tatarstan** (<sup>1</sup>Vassiljeva, 1977); **Tula Oblast** (<sup>1</sup>Svetasheva, 2001; <sup>1</sup>Svetasheva, 2004; <sup>1</sup>Svetasheva, 2013); **Tver Oblast** (<sup>1</sup>Chastukhin, 1948b; <sup>1</sup>Chastukhin and Nikolaevskaya, 1969; <sup>1</sup>Kurochkin, 1993; <sup>1</sup>Mukhina and Garibova, 2010; <sup>1</sup>Mukhina, 2011a; <sup>1</sup>Mukhina, 2011b; <sup>1</sup>Kotkova, 2014; <sup>1</sup>Kurochkin, 2016); **Udmurt Republic** (<sup>1</sup>Tychinin, 1990; <sup>1</sup>Tychinin and Kuzmina, 2003); **Ulyanovsk Oblast** (<sup>1</sup>Ilyukhin, 2009; <sup>1</sup>Ilyukhin, 2010a); **Vologda Oblast** (<sup>1</sup>Kirillova, 2007; <sup>1</sup>Kirillova, 2009); **Voronezh Oblast** (<sup>1</sup>Chastukhin, 1952; <sup>1</sup>Chastukhin and Nikolaevskaya, 1953; <sup>1</sup>Chastukhin and Nikolaevskaya, 1969; <sup>1</sup>Rtishcheva, 1999; <sup>1</sup>Afanasyev, Rtishcheva, and Starodubtseva, 2007; <sup>1</sup>Selochnik, 2015; <sup>1</sup>Sarycheva, Starodubtseva, and Sapelnikova, 2017; <sup>1</sup>Kochergina and Furmenkova, 2019); **Yaroslavl Oblast** (<sup>1</sup>Lazareva, 1997; <sup>3</sup>Lazareva, 1998a); **Arid territories** (<sup>1</sup>Rebriev, Rusanov, et al., 2012).

**SIBERIA: Altai Krai** (<sup>1</sup>Gorbunova and Perova, 2006; <sup>1</sup>Gorbunova and Chubarova, 2008; <sup>1</sup>Gorbunova, Vlasenko, and Tzhubarova, 2011); **Altai Republic** (<sup>1,7</sup>Singer, 1943; <sup>1</sup>Gorbunova, 2001a; <sup>1</sup>Gorbunova, 2001b; <sup>1</sup>Gorbunova, 2008; <sup>1</sup>Gorbunova, 2010); **Irkutsk Oblast** (<sup>1</sup>Kutafjeva and Astapenko, 1988; <sup>1</sup>Astapenko, 1990a; <sup>1</sup>Muzyka, 2009); **Khakassia** (<sup>1</sup>Beglyanova, 1972a; <sup>1</sup>Zauzolkova, 2015); **Khanty-Mansi Autonomous Okrug** (<sup>1</sup>Filippova, Bulyonkova, and Lapshina, 2015); **Krasnoyarsk Krai** (<sup>4</sup>Thümen, 1878; <sup>1</sup>Perova, 1970; <sup>1</sup>Beglyanova, 1972a; <sup>1</sup>Beglyanova, 1972c; <sup>1</sup>Kosheleva and Kutafjeva, 2008b; <sup>1</sup>Kosheleva, 2010; <sup>1</sup>Zauzolkova, 2012; <sup>1</sup>Zauzolkova, 2015; <sup>1</sup>Krom and Kapitonov, 2019); **Novosibirsk Oblast** (<sup>1</sup>Nozdrenko, 1970; <sup>1</sup>Zaytseva, 1971; <sup>1</sup>Perova, 1977; <sup>1</sup>Perova and Gorbunova, 2007; <sup>1</sup>Koropachinskiy and Banaev, 2014); **Tomsk Oblast** (<sup>1</sup>Perova, 1972; <sup>1</sup>Milovidova, 1980; <sup>1</sup>Kosheleva and Kutafjeva, 2004; <sup>1</sup>Agaphonova, Kutafjeva, and Gashkov, 2007; <sup>1</sup>Kudashova, Gashkov, and Kutafjeva, 2013); **Yamalo-Nenets Autonomous Okrug** (<sup>1</sup>Tarchevskaya, 1990).

**FAR EAST: Amur Oblast** (<sup>1</sup>Gordienko, Petrova, and Tarasov, 1981; <sup>1</sup>Nazarova, 1986; <sup>1</sup>Kochunova, 2016); **Chukotka Autonomous Okrug** (<sup>2</sup>Berkeley and Curtis, 1978); **Jewish Autonomous Oblast** (<sup>1</sup>Bulakh, Govorova, Nazarova, and Vassiljeva, 2007; <sup>1</sup>Bau, Bulakh, and Govorova, 2011); **Khabarovsk Krai** (<sup>1</sup>Azbukina et al., 1986; <sup>1</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Erofeeva and Bulakh, 2015a); **Magadan Oblast** (<sup>1</sup>Nazarova, 1976; <sup>1</sup>Sazanova, 2005);

<sup>1</sup>Sazanova, 2009a; <sup>1</sup>Sazanova, 2012; <sup>1</sup>Sazanova, 2016); **Primorsky Krai** (<sup>1</sup>Vassiljeva, 1972; <sup>1</sup>Vassiljeva, 1973; <sup>1</sup>Bunkina and Nazarova, 1978; <sup>1</sup>Azbukina et al., 1984; <sup>1</sup>Azbukina et al., 1990; <sup>1</sup>Bardunov et al., 2002; <sup>1</sup>Azbukina et al., 2006; <sup>1</sup>Bau, Bulakh, Zhuang, and Li, 2007; <sup>1</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Bulakh et al., 2016); **Sakhalin Oblast** (<sup>1</sup>Bulakh, Govorova, and Bogatov, 1999).

***Mycena galopus* (Pers.) P. Kumm.<sup>1</sup>**

≡ *Agaricus galopus* Pers.<sup>2</sup> ≡ *Mycena galopus* var. *galopus* (Pers.) P. Kumm.<sup>3</sup> = *Mycena galopus* var. *alba* Rea<sup>4</sup> = *Mycena galopus* var. *leucogala* (Cooke) J.E. Lange<sup>5</sup> = *Mycena galopus* var. *nigra* Rea<sup>6</sup> = *Mycena leucogala* (Cooke) Sacc.<sup>7</sup>

EASTERN EUROPE: **Adygea** (<sup>1</sup>Vaasma, Kalamees, and Raitviir, 1986); **Chelyabinsk Oblast** (<sup>1</sup>Psurtseva, Kiyashko, Gachkova, and Belova, 2007); **Crimea** (<sup>1</sup>Sarkina, 2001; <sup>1</sup>Dudka et al., 2004; <sup>1</sup>Sarkina, 2010b; <sup>4</sup>Sarkina and Mironova, 2015); **Kaliningrad Oblast** (<sup>1</sup>Neuhoff, 1922; <sup>1</sup>Dedkov, Volodina, and Gubareva, 2007; <sup>1</sup>Volodina, 2007; <sup>1</sup>Atayev and Volodina, 2020); **Karelia** (<sup>1</sup>Freindling, 1949; <sup>1</sup>Bondartseva et al., 2001; <sup>3</sup>Predtechenskaya and Ruokolainen, 2013; <sup>3,6</sup>Krutov et al., 2014); **Komi Republic** (<sup>1</sup>Palamarchuk, 2011b; <sup>1</sup>Palamarchuk, 2012; <sup>1</sup>Palamarchuk, 2016a; <sup>1</sup>Palamarchuk, 2016b); **Krasnodar Krai** (<sup>1</sup>Vaasma, Kalamees, and Raitviir, 1986; <sup>1</sup>Psurtseva, Kiyashko, Gachkova, and Belova, 2007); **Leningrad Oblast** (<sup>1</sup>Thesleff, 1920; <sup>1</sup>Nezdojminogo, 1967; <sup>1</sup>Chastukhin and Nikolaevskaya, 1969; <sup>1</sup>Stolyarskaya, 1989; <sup>1,7</sup>Kovalenko and Morozova, 1999a; <sup>1,7</sup>Morozova, 2007; <sup>1,7</sup>Popov et al., 2007; <sup>1</sup>Zmitrovich et al., 2015; <sup>1</sup>Malysheva, Malysheva, Shchepin, and Novozhilov, 2018); **Moscow** (<sup>1</sup>Burova, 1968); **Moscow Oblast** (<sup>1</sup>Gorlenko, Sidorova, and Sidorova, 1989; <sup>1</sup>Levitskaya, 1998; <sup>1</sup>Vishnevsky, 1998; <sup>1</sup>Voronina et al., 2012; <sup>1</sup>Levitskaya, 2013; <sup>1</sup>Voronina et al., 2014; <sup>1</sup>Malysheva, Malysheva, Voronina, et al., 2017; <sup>1</sup>Malysheva, Malysheva, Voronina, and Kovalenko, 2018; <sup>1</sup>Voronina et al., 2018); **Novgorod Oblast** (<sup>1</sup>Kovalenko, Morozova, Nezdojminogo, and Popov, 2005; <sup>1</sup>Popov et al., 2013; <sup>1</sup>Baklan, 2015); **Perm Krai** (<sup>3,6</sup>Perevedentseva, 2008; <sup>3,6</sup>Botalov, 2017; <sup>1,6</sup>Botalov and Perevedentseva, 2020); **Pskov Oblast** (<sup>1</sup>Kovalenko and Morozova, 1999b; <sup>1</sup>Popov et al., 2013); **Rostov Oblast** (<sup>1</sup>Morozova et al., 2008); **Saint Petersburg** (<sup>2</sup>Weinmann, 1828; <sup>2</sup>Weinmann, 1836; <sup>2</sup>Weinmann, 1837; <sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Kotkova, Morozova, and Popov, 2005; <sup>1</sup>Morozova and Smirnov, 2011; <sup>1</sup>Morozova et al., 2020); **Sverdlovsk Oblast** (<sup>1</sup>Stepanova and Sirko, 1977; <sup>1</sup>Marina, 2006); **Tula Oblast** (<sup>1</sup>Svetasheva, 2001; <sup>1</sup>Svetasheva, 2004); **Tver Oblast** (<sup>1</sup>Chastukhin, 1948b; <sup>1</sup>Chastukhin and Nikolaevskaya, 1969; <sup>1</sup>Kurochkin, 1993; <sup>1</sup>Mukhina and Garibova, 2010; <sup>1</sup>Mukhina, 2011a; <sup>1</sup>Mukhina, 2011b; <sup>1</sup>Kotkova, 2014); **Udmurt Republic** (<sup>1</sup>Tychinin, 1990; <sup>1</sup>Tychinin and Kuzmina, 2003); **Ulyanovsk Oblast** (<sup>1</sup>Ilyukhin, 2009); **Vologda Oblast** (<sup>1</sup>Kirillova, 2007; <sup>1</sup>Kirillova, 2009); **Yaroslavl Oblast** (<sup>1</sup>Lazareva, 1997; <sup>1</sup>Lazareva, 1998a); **Arid territories** (<sup>1</sup>Rebriev, Rusanov, et al., 2012).

SIBERIA: **Altai Krai** (<sup>3</sup>Gorbunova, Vlasenko, and Tzhubarova, 2011); **Altai Republic** (<sup>1</sup>Singer, 1943); **Buryatia** (<sup>1</sup>Nezdojminogo, 1973; <sup>1</sup>Petrov, 1991); **Irkutsk Oblast** (<sup>1,7</sup>Gorbunova and Stepanova, 2015); **Khakassia** (<sup>1</sup>Beglyanova, 1972a; <sup>1</sup>Zauzolkova, 2015); **Khanty-Mansi Autonomous Okrug** (<sup>1</sup>Filippova, 2009; <sup>1</sup>Filippova and Thormann, 2014; <sup>1</sup>Filippova, 2014; <sup>1</sup>Filippova, Mourgues, and Philippe, 2014; <sup>1</sup>Filippova and Bulyonkova, 2017a; <sup>1</sup>Filippova and Bulyonkova, 2017b); **Krasnoyarsk Krai** (<sup>1</sup>Beglyanova, 1972a; <sup>1</sup>Beglyanova, 1972c; <sup>1</sup>Nezdojminogo, 1982a; <sup>1</sup>Gorbunova, 2016; <sup>1</sup>Malysheva, Malysheva, Kiyashko, et al., 2017); **Tomsk Oblast** (<sup>1</sup>Perova and Gorbunova, 2001; <sup>3</sup>Kudashova, Gashkov, and Kutafjeva, 2013); **Altai** (<sup>1</sup>Zhukov, 1979).

FAR EAST: **Amur Oblast** (<sup>1</sup>Azbukina et al., 1998); **Kamchatka Krai** (<sup>5</sup>Kalamees and Vaasma, 1981); **Primorsky Krai** (<sup>1</sup>Vassiljeva, 1973; <sup>1</sup>Bunkina and Nazarova, 1978; <sup>1</sup>Azbukina et al., 2006; <sup>1</sup>Bau, Bulakh, and Govorova, 2011).

***Mycena haematopus* (Pers.) P. Kumm.<sup>1</sup>**

≡ *Agaricus haematopus* Pers.<sup>2</sup> ≡ *Mycena haematopus* var. *haematopus* (Pers.) P. Kumm.<sup>3</sup> = *Mycena haematopus* var. *marginata* J.E. Lange<sup>4</sup>

EASTERN EUROPE: **Adygea** (<sup>3,4</sup>Vaasma, Kalamees, and Raitviir, 1986; <sup>1</sup>Psurtseva, Kiyashko, Gachkova, and Belova, 2007); **Arkhangelsk Oblast** (<sup>1</sup>Ezhov, Zmitrovich, and Ruokolainen, 2019); **Belgorod Oblast** (<sup>1</sup>Bedenko, 1979a); **Bryansk Oblast** (<sup>1</sup>Kruglikov, 2007); **Chechen Republic** (<sup>1</sup>Taysumov, Krapivina, and Kushaliev, 2016); **Chelyabinsk Oblast** (<sup>1</sup>Psurtseva, Kiyashko, Gachkova, and Belova, 2007); **Crimea** (<sup>1</sup>Sarkina, 2001; <sup>1</sup>Dudka et al., 2004; <sup>1</sup>Sarkina, 2011); **Kabardino-Balkarian Republic** (<sup>1</sup>Shkhagapsoev and Krapivina, 2003; <sup>1</sup>Shkhagapsoev and Krapivina, 2004); **Kaliningrad Oblast** (<sup>1</sup>Dedkov, Volodina, and Gubareva, 2007; <sup>1</sup>Volodina, 2007; <sup>1</sup>Atayev and Volodina, 2020); **Kaluga Oblast** (<sup>1</sup>Sionova, 2012); **Karelia** (<sup>1</sup>Freindling, 1949; <sup>1</sup>Kovalenko, Morozova, Fomina, and Särkisilta, 1998; <sup>1</sup>Bondartseva et al., 2001; <sup>1</sup>Psurtseva, Kiyashko, Gachkova, and Belova, 2007; <sup>1</sup>Predtechenskaya and Ruokolainen, 2008; <sup>1</sup>Predtechenskaya and Ruokolainen, 2013; <sup>1</sup>Predtechenskaya, 2013; <sup>1</sup>Krutov et al., 2014; <sup>1</sup>Predtechenskaya and Ruokolainen, 2014); **Kirov Oblast** (<sup>1</sup>Kirillov and Luginina, 2011; <sup>1</sup>Kirillov, 2011; <sup>1</sup>Kirillov, Perevedentseva, and Egoshina, 2011; <sup>1</sup>Stavishenko, Luginina, Kirillov, and Egoshina, 2019); **Komi Republic** (<sup>1</sup>Palamarchuk and Kirillov, 2017); **Krasnodar Krai** (<sup>3</sup>Vaasma, Kalamees, and Raitviir, 1986); **Leningrad Oblast** (<sup>1</sup>Thesleff, 1920; <sup>1</sup>Stolyarskaya,

1989; <sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Morozova and Kovalenko, 2000; <sup>1</sup>Morozova, 2007; <sup>1</sup>Popov et al., 2007; <sup>1</sup>Zmitrovich et al., 2015; <sup>1</sup>Kalinina, 2018); **Lipetsk Oblast** (<sup>1</sup>Alferova, 1977; <sup>1</sup>Sarycheva, 1999; <sup>1</sup>Afanasyev, Rtishcheva, and Starodubtseva, 2007; <sup>1</sup>Sarycheva et al., 2009; <sup>1</sup>Sarycheva, 2011; <sup>1</sup>Sarycheva, 2014a; <sup>1</sup>Sarycheva, 2016); **Mordovia** (<sup>1</sup>Ivoilov and Bolshakov, 2011a); **Moscow Oblast** (<sup>3</sup>Levitskaya, 1998; <sup>3</sup>Vishnevsky, 1998; <sup>1</sup>Voronina et al., 2012; <sup>3</sup>Levitskaya, 2013; <sup>1</sup>Voronina et al., 2014); **Murmansk Oblast** (<sup>1</sup>Pystina, Pavlova, and Shestakova, 1969); **North Ossetia** (<sup>1</sup>Nikolayev, 2001); **Novgorod Oblast** (<sup>1</sup>Kovalenko, Morozova, Nezdojminogo, and Popov, 2005; <sup>1</sup>Psurtseva, Kiyashko, Gachkova, and Belova, 2007; <sup>1</sup>Popov et al., 2013; <sup>1</sup>Baklan, 2015); **Perm Krai** (<sup>1</sup>Perevedentseva, 2008; <sup>1</sup>Belkovskaya et al., 2014; <sup>1</sup>Perevedentseva and Shishigin, 2014); **Pskov Oblast** (<sup>4</sup>Popov, 2001a; <sup>1</sup>Popov et al., 2013); **Ryazan Oblast** (<sup>1</sup>Volosnova, 1997; <sup>1</sup>Volosnova, 2014); **Saint Petersburg** (<sup>2</sup>Weinmann, 1828; <sup>2</sup>Weinmann, 1836; <sup>2</sup>Weinmann, 1837; <sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Morozova and Kovalenko, 2000; <sup>1</sup>Kotkova, Morozova, and Popov, 2005; <sup>1</sup>Kotkova, Morozova, and Popov, 2006; <sup>1</sup>Morozova and Smirnov, 2011; <sup>1</sup>Morozova et al., 2020); **Samara Oblast** (<sup>1</sup>Malysheva and Malysheva, 2004; <sup>1</sup>Malysheva and Malysheva, 2008); **Sverdlovsk Oblast** (<sup>1</sup>Marina, 2006); **Tatarstan** (<sup>1</sup>Potapov, 2015b; <sup>1</sup>Potapov, 2016b); **Tula Oblast** (<sup>1</sup>Svetasheva, 2001; <sup>1</sup>Svetasheva, 2004; <sup>1</sup>Svetasheva, 2013); **Udmurt Republic** (<sup>1</sup>Tychinin and Kuzmina, 2003); **Ulyanovsk Oblast** (<sup>1</sup>Ilyukhin, 2009; <sup>1</sup>Ilyukhin, 2010a); **Vologda Oblast** (<sup>1</sup>Kirillova, 2007; <sup>1</sup>Kirillova, 2009); **Voronezh Oblast** (<sup>1</sup>Afanasyev, Rtishcheva, and Starodubtseva, 2007; <sup>1</sup>Sarycheva, Starodubtseva, and Sapelnikova, 2017); **Yaroslavl Oblast** (<sup>3,4</sup>Lazareva, 1998a); **Arid territories** (<sup>1</sup>Rebriev, Rusanov, et al., 2012).

SIBERIA: **Altai Krai** (<sup>1</sup>Gorbunova and Chubarova, 2008; <sup>1</sup>Gorbunova, Vlasenko, and Tzhubarova, 2011); **Altai Republic** (<sup>1</sup>Gorbunova, 1996; <sup>1</sup>Gorbunova, 1997; <sup>1</sup>Perova and Gorbunova, 2001; <sup>1</sup>Gorbunova, 2010); **Irkutsk Oblast** (<sup>1</sup>Kutafjeva and Astapenko, 1987; <sup>1</sup>Astapenko, 1990a); **Khakassia** (<sup>1</sup>Beglyanova, 1972a; <sup>1</sup>Zauzolkova, 2015); **Khanty-Mansi Autonomous Okrug** (<sup>1</sup>Filippova, Bulyonkova, and Lapshina, 2015; <sup>1</sup>Filippova and Bulyonkova, 2017a; <sup>1</sup>Filippova and Bulyonkova, 2017b; <sup>1</sup>Zvyagina and Baykalova, 2017); **Krasnoyarsk Krai** (<sup>1</sup>Beglyanova, 1972a; <sup>1</sup>Beglyanova, 1972c; <sup>1</sup>Kosheleva and Kutafjeva, 2008a; <sup>1</sup>Zauzolkova, 2012; <sup>1</sup>Malysheva, Malysheva, Kiyashko, et al., 2017; <sup>1</sup>Krom and Kapitonov, 2019); **Novosibirsk Oblast** (<sup>1</sup>Zaytseva, 1971; <sup>1</sup>Perova, 1977; <sup>1</sup>Zhukov, 1980; <sup>1</sup>Gorbunova, 2007; <sup>1</sup>Perova and Gorbunova, 2007; <sup>1</sup>Koropachinskiy and Banaev, 2014); **Tomsk Oblast** (<sup>1</sup>Perova, 1972; <sup>1</sup>Agaphonova, Kutafjeva, and Gashkov, 2007; <sup>1</sup>Kudashova, Gashkov, and Kutafjeva, 2013).

FAR EAST: **Amur Oblast** (<sup>1</sup>Azbukina et al., 1998; <sup>1</sup>Kochunova, 2016); **Jewish Autonomous Oblast** (<sup>1</sup>Bau, Bulakh, Zhuang, and Li, 2007; <sup>1</sup>Bulakh, Govorova, Nazarova, and Vassiljeva, 2007); **Kamchatka Krai** (<sup>1</sup>Kalamees and Vaasma, 1981); **Khabarovsk Krai** (<sup>1</sup>Azbukina et al., 1986; <sup>1</sup>Azbukina et al., 1989; <sup>1</sup>Bau, Bulakh, Zhuang, and Li, 2007; <sup>1</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Erofeeva and Bulakh, 2015a); **Magadan Oblast** (<sup>1</sup>Nazarova, 1976; <sup>1</sup>Sazanova, 2005; <sup>1</sup>Sazanova, 2009a; <sup>1</sup>Sazanova, 2009b; <sup>1</sup>Sazanova, 2011; <sup>1</sup>Sazanova, 2016); **Primorsky Krai** (<sup>1</sup>Vassiljeva, 1972; <sup>1</sup>Vassiljeva, 1973; <sup>1</sup>Bunkina and Nazarova, 1978; <sup>1</sup>Azbukina et al., 1984; <sup>1</sup>Bardunov et al., 2002; <sup>1</sup>Azbukina et al., 2006; <sup>1</sup>Bau, Bulakh, Zhuang, and Li, 2007; <sup>1</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Bulakh et al., 2016; <sup>1</sup>Bogacheva, Bulakh, Bukharova, and Egorova, 2020); **Sakhalin Oblast** (<sup>1</sup>Vassiljeva and Nazarova, 1972; <sup>1</sup>Bulakh, Govorova, and Bogatov, 1999).

### *Mycena hemisphaerica* Peck

EASTERN EUROPE: **Adygea** (Sopina, 2000; Zamotajlov, Sirotyuk (Kuvaeva), Akatova, and Lipka, 2012); **Voronezh Oblast** (Chastukhin, 1952; Chastukhin and Nikolaevskaya, 1953; Chastukhin and Nikolaevskaya, 1969).

### *Mycena herbarum* Singer

SIBERIA: **Altai Republic** (Singer, 1943).

### *Mycena inclinata* (Fr.) Quél.

EASTERN EUROPE: **Adygea** (Kovalenko, 1980b); **Belgorod Oblast** (Bedenko, 1979a); **Crimea** (Zerova, 1962; Sarkina, 2001; Dudka et al., 2004; Sarkina, 2010b; Sarkina, 2011; Sarkina and Stavishenko, 2019); **Kabardino-Balkarian Republic** (Shkhagapsoev and Krapivina, 2003; Shkhagapsoev and Krapivina, 2004); **Kaliningrad Oblast** (Hennings, 1895; Dedkov, Volodina, and Gubareva, 2007); **Kaluga Oblast** (Sionova, 2003; Sionova, 2006); **Karelia** (Predtechenskaya and Ruokolainen, 2013; Predtechenskaya, 2013; Krutov et al., 2014); **Krasnodar Krai** (Vassiljeva, 1939; Kovalenko, 1980a; Kovalenko, 1980b); **Kursk Oblast** (Soshnina, 2005; Soshnina, 2014); **Leningrad Oblast** (Kovalenko and Morozova, 1999a; Popov et al., 2007); **Lipetsk Oblast** (Alferova, 1977; Sarycheva, 1999; Afanasyev, Rtishcheva, and Starodubtseva, 2007; Sarycheva et al., 2009; Sarycheva, 2011; Sarycheva, 2014a; Sarycheva, 2016); **Mordovia** (Ivoilov and Bolshakov, 2011a); **Moscow** (Burova, 1971); **Moscow Oblast** (Gorlenko, Sidorova, and Sidorova, 1989; Levitskaya, 1998; Vishnevsky, 1998; Levitskaya, 2013; Voronina et al., 2014); **North Ossetia** (Nikolayev, 2001); **Novgorod Oblast** (Kovalenko, Morozova, Nezdojminogo, and Popov, 2005; Popov et al., 2013); **Orenburg**



**Oblast** (Desyatova, 2008); **Penza Oblast** (Ivanov, 1981a; Ivanov, 1981b; Ivanov, 2019); **Perm Krai** (Perevedentseva, 2008); **Pskov Oblast** (Popov, 2001a; Popov et al., 2013); **Rostov Oblast** (Psurtseva, Kiyashko, Gachkova, and Belova, 2007; Morozova et al., 2008); **Ryazan Oblast** (Volosnova, 1997; Volosnova, 2014); **Saint Petersburg** (Zhukova, Morozova, Volobuev, and Bryantseva, 2017; Morozova et al., 2020); **Samara Oblast** (Malysheva and Malysheva, 2006; Psurtseva, Kiyashko, Gachkova, and Belova, 2007; Malysheva and Malysheva, 2008); **Tatarstan** (Vassiljeva, 1977; Potapov, Galejev, and Zhukov, 2013; Potapov, 2015b); **Tula Oblast** (Svetasheva, 2001; Svetasheva, 2004; Svetasheva, 2013); **Udmurt Republic** (Tychinin and Kuzmina, 2003); **Ulyanovsk Oblast** (Ilyukhin, 2009; Ilyukhin, 2010a); **Volgograd Oblast** (Dudka and Vedeneyev, 2014); **Voronezh Oblast** (Afanasyev, Rtishcheva, and Starodubtseva, 2007; Selochnik, 2015; Sarycheva, Starodubtseva, and Sapelnikova, 2017; Kochergina and Furmenkova, 2019); **Arid territories** (Rebriev, Rusanov, et al., 2012).

SIBERIA: **Irkutsk Oblast** (Kutafjeva and Astapenko, 1987); **Krasnoyarsk Krai** (Beglyanova, 1972a; Zauzolkova, 2012; Zauzolkova, 2015; Malysheva, Malysheva, Kiyashko, et al., 2017); **Novosibirsk Oblast** (Perova and Gorbunova, 2001); **Tomsk Oblast** (Perova and Gorbunova, 2001; Kudashova, Gashkov, and Kutafjeva, 2013).

FAR EAST: **Amur Oblast** (Bulakh, Govorova, and Taranina, 2003); **Jewish Autonomous Oblast** (Bulakh, Govorova, Nazarova, and Vassiljeva, 2007; Bau, Bulakh, and Govorova, 2011); **Primorsky Krai** (Vassiljeva, 1973; Bulakh et al., 2016).

***Mycena incongruens* (Britzelm.) Sacc. & Traverso**

EASTERN EUROPE: **Tatarstan** (Singer, 1943).

***Mycena jacobii* Maire**

SIBERIA: **Altai Republic** (Singer, 1943).

***Mycena kuehneri* Singer**

SIBERIA: **Altai Republic** (Singer, 1943).

***Mycena laevigatoides* Maas Geest.**

EASTERN EUROPE: **Leningrad Oblast** (Morozova, 2007; Popov et al., 2007).

***Mycena lammiensis* Harmaja**

FAR EAST: **Primorsky Krai** (Bulakh and Govorova, 2000).

***Mycena latifolia* (Peck) A.H. Sm.**

EASTERN EUROPE: **Kaliningrad Oblast** (Dedkov, Volodina, and Gubareva, 2007; Volodina, 2007); **Komi Republic** (Palamarchuk and Kirillov, 2018a; Palamarchuk, 2020a); **Sverdlovsk Oblast** (Marina, 2006).

***Mycena leaiana* (Berk.) Sacc.**

FAR EAST: **Primorsky Krai** (Vassiljeva, 1973; Bunkina and Nazarova, 1978; Azbukina et al., 2006; Bau, Bulakh, and Govorova, 2011).

***Mycena leptcephala* (Pers.) Gillet<sup>1</sup>**

= *Mycena chlorinella* (J.E. Lange) Singer<sup>2</sup>

EASTERN EUROPE: **Adygea** (<sup>1</sup>Vaasma, Kalamees, and Raitviir, 1986); **Crimea** (<sup>1</sup>Sarkina, 2010b; <sup>1</sup>Sarkina and Mironova, 2015; <sup>1</sup>Sarkina, 2020a); **Kaliningrad Oblast** (<sup>1</sup>Dedkov, Volodina, and Gubareva, 2007; <sup>1</sup>Volodina, 2007; <sup>1</sup>Atayev and Volodina, 2020); **Karachay-Cherkess Republic** (<sup>2</sup>Vassiljeva, 1939); **Karelia** (<sup>1</sup>Kovalenko, Morozova, Fomina, and Särkisilta, 1998; <sup>1</sup>Predtechenskaya and Ruokolainen, 2008; <sup>1</sup>Krutov et al., 2014); **Kirov Oblast** (<sup>1</sup>Kirillov and Luginina, 2011; <sup>1</sup>Stavishenko, Luginina, Kirillov, and Egoshina, 2019); **Komi Republic** (<sup>1</sup>Palamarchuk, 2011b; <sup>1</sup>Palamarchuk, 2016a; <sup>1</sup>Palamarchuk, 2016b); **Krasnodar Krai** (<sup>2</sup>Vassiljeva, 1939; <sup>1</sup>Vaasma, Kalamees, and Raitviir, 1986; <sup>1</sup>Psurtseva, Kiyashko, Gachkova, and Belova, 2007); **Leningrad Oblast** (<sup>1</sup>Nezdojminogo, 1967; <sup>1</sup>Chastukhin and Nikolaevskaya, 1969; <sup>1</sup>Pavlova, 1969; <sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Morozova and Kovalenko, 2000; <sup>1</sup>Morozova, 2007; <sup>1</sup>Popov et al., 2007; <sup>1</sup>Zmitrovich et al., 2015); **Lipetsk Oblast** (<sup>1</sup>Sarycheva, 2014a); **Moscow Oblast** (<sup>1</sup>Levitskaya, 1998; <sup>1</sup>Levitskaya, 2013); **Murmansk Oblast** (<sup>1</sup>Kalamees and Raitviir, 2006); **Novgorod Oblast** (<sup>1</sup>Kovalenko, Morozova, Nezdojminogo, and Popov, 2005; <sup>1</sup>Malysheva, Malysheva, and Zmitrovich, 2007; <sup>1</sup>Psurtseva, Kiyashko, Gachkova, and Belova, 2007; <sup>1</sup>Popov et al., 2013); **Penza Oblast** (<sup>2</sup>Ivanov, 1999); **Perm Krai** (<sup>1</sup>Perevedentseva, 2008; <sup>1</sup>Belkovskaya et al., 2014; <sup>1</sup>Perevedentseva and Shishigin, 2014); **Pskov Oblast** (<sup>1</sup>Popov et

al., 2013); **Rostov Oblast** (<sup>1</sup>Morozova et al., 2008); **Saint Petersburg** (<sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Kotkova, Morozova, and Popov, 2005; <sup>1</sup>Kotkova, Morozova, and Popov, 2006; <sup>1</sup>Kotkova, Morozova, and Popov, 2007; <sup>1</sup>Morozova and Smirnov, 2011; <sup>1</sup>Morozova, Kovalenko, Rebriev, and Malysheva, 2014; <sup>1</sup>Morozova et al., 2020); **Samara Oblast** (<sup>1</sup>Malysheva and Malysheva, 2005b; <sup>1</sup>Malysheva and Malysheva, 2008); **Sverdlovsk Oblast** (<sup>1</sup>Marina, 2006); **Tatarstan** (<sup>2</sup>Vassiljeva, 1977); **Tula Oblast** (<sup>1</sup>Svetasheva, 2004); **Udmurt Republic** (<sup>2</sup>Tychinin and Kuzmina, 2003); **Ulyanovsk Oblast** (<sup>1</sup>Ilyukhin, 2010a); **Vologda Oblast** (<sup>1</sup>Kirillova, 2007; <sup>1</sup>Kirillova, 2009); **Yamalo-Nenets Autonomous Okrug** (<sup>1</sup>Karatygin, Nezdoininogo, Novozhilov, and Zhurbenko, 1999; <sup>1</sup>Nezdoininogo, 2001); **Yaroslavl Oblast** (<sup>1</sup>Lazareva, 1998a); **Arid territories** (<sup>1</sup>Rebriev, Rusanov, et al., 2012).

SIBERIA: **Altai Krai** (<sup>2</sup>Gorbunova and Perova, 2006; <sup>1</sup>Gorbunova, Vlasenko, and Tzhubarova, 2011); **Altai Republic** (<sup>2</sup>Singer, 1943; <sup>2</sup>Gorbunova, 2001b; <sup>2</sup>Perova and Gorbunova, 2001; <sup>1</sup>Gorbunova, 2008); **Buryatia** (<sup>2</sup>Nezdoininogo, 1970a; <sup>2</sup>Petrov, 1991); **Irkutsk Oblast** (<sup>2</sup>Astapenko, 1990a); **Khanty-Mansi Autonomous Okrug** (<sup>1</sup>Filippova, Bulyonkova, and Lapshina, 2015; <sup>1</sup>Filippova and Bulyonkova, 2017a; <sup>1</sup>Filippova and Bulyonkova, 2017b); **Krasnoyarsk Krai** (<sup>2</sup>Nezdoininogo, 1982a; <sup>1</sup>Zauzolkova, 2012; <sup>1</sup>Zauzolkova, 2015; <sup>1</sup>Gorbunova, 2016); **Novosibirsk Oblast** (<sup>2</sup>Perova and Gorbunova, 2001; <sup>1</sup>Perova and Gorbunova, 2007; <sup>2</sup>Gorbunova, 2007; <sup>1</sup>Koropachinskiy and Banaev, 2014); **Tomsk Oblast** (<sup>2</sup>Kosheleva and Kutafjeva, 2004; <sup>1</sup>Kudashova, Gashkov, and Kutafjeva, 2013).

FAR EAST: **Chukotka Autonomous Okrug** (<sup>2</sup>Sazanova, 1993); **Jewish Autonomous Oblast** (<sup>1</sup>Bulakh, Govorova, Nazarova, and Vassiljeva, 2007; <sup>1</sup>Bau, Bulakh, and Govorova, 2011); **Khabarovsk Krai** (<sup>1</sup>Azbukina et al., 1986; <sup>1</sup>Azbukina et al., 1989; <sup>1</sup>Bau, Bulakh, and Govorova, 2011); **Magadan Oblast** (<sup>1</sup>Sazanova, 2016); **Primorsky Krai** (<sup>1,2</sup>Vassiljeva, 1973; <sup>2</sup>Bunkina and Nazarova, 1978; <sup>1</sup>Azbukina et al., 2006; <sup>1</sup>Bau, Bulakh, and Govorova, 2011).

### ***Mycena lineata* (Bull.) P. Kumm.<sup>1</sup>**

≡ *Agaricus lineatus* Bull.<sup>2</sup>

EASTERN EUROPE: **Mordovia** (<sup>1</sup>Chastukhin, 1948a; <sup>1</sup>Chastukhin and Nikolaevskaya, 1969; <sup>1</sup>Chastukhin, 2011; <sup>1</sup>Ivoilov and Bolshakov, 2011a); **Moscow** (<sup>1</sup>Burova, 1968; <sup>1</sup>Burova, 1971); **Saint Petersburg** (<sup>2</sup>Weinmann, 1828; <sup>2</sup>Weinmann, 1836; <sup>2</sup>Weinmann, 1837).

### ***Mycena lohwegii* Singer**

EASTERN EUROPE: **Adygea** (Vaasma, Kalamees, and Raitviir, 1986); **Kaliningrad Oblast** (Dedkov, Volodina, and Gubareva, 2007; Volodina, 2007); **Moscow Oblast** (Levitskaya, 2013); **Sverdlovsk Oblast** (Marina, 2006).

SIBERIA: **Altai Republic** (Singer, 1938c; Singer, 1943); **Irkutsk Oblast** (Petrov, 1984; Petrov, 1991; Petrov, 2008); **Novosibirsk Oblast** (Perova and Gorbunova, 2001; Perova and Gorbunova, 2007).

FAR EAST: **Jewish Autonomous Oblast** (Bulakh, Govorova, Nazarova, and Vassiljeva, 2007; Bau, Bulakh, and Govorova, 2011); **Primorsky Krai** (Vassiljeva, 1972; Vassiljeva, 1973; Bulakh, 1977; Bunkina and Nazarova, 1978; Nazarova, 1978; Azbukina et al., 1984; Azbukina et al., 1990; Bardunov et al., 2002; Azbukina et al., 2006; Bau, Bulakh, and Govorova, 2011).

### ***Mycena longiseta* Höhn.**

EASTERN EUROPE: **Chelyabinsk Oblast** (Sirko and Stepanova, 1977; Stepanova and Sirko, 1977); **Komi Republic** (Bobretsova, 2004; Palamarchuk, 2012; Palamarchuk, 2016a); **Perm Krai** (Perevedentseva, 2008; Belkovskaya et al., 2014); **Sverdlovsk Oblast** (Marina, 2006); **Vologda Oblast** (Kirillova, 2007; Kirillova, 2009).

FAR EAST: **Kamchatka Krai** (Kalamees and Vaasma, 1981); **Primorsky Krai** (Bulakh et al., 2016).

### ***Mycena luteoalcalina* Singer<sup>1</sup>**

= *Mycena luteoalcalina* subsp. *altaica* Singer<sup>2</sup>

EASTERN EUROPE: **Adygea** (<sup>1</sup>Vaasma, Kalamees, and Raitviir, 1986); **Karachay-Cherkess Republic** (<sup>1</sup>Kalamees and Botashev, 2000); **Krasnodar Krai** (<sup>1</sup>Vaasma, Kalamees, and Raitviir, 1986); **Penza Oblast** (<sup>1</sup>Ivanov, 1981a; <sup>1</sup>Ivanov, 2019).

SIBERIA: **Altai Republic** (<sup>2</sup>Singer, 1943).

FAR EAST: **Kamchatka Krai** (<sup>1</sup>Kalamees and Vaasma, 1981).

### ***Mycena luteovariegata* Harder & Læssøe**

= *Mycena pura* var. *lutea* Gillet<sup>1</sup>

EASTERN EUROPE: **Penza Oblast** (<sup>1</sup>Ivanov, 1999).

***Mycena maculata* P. Karst.**

EASTERN EUROPE: **Belgorod Oblast** (Bedenko, 1979a; Ryabova and Ignatenko, 1981); **Crimea** (Dudka et al., 2004); **Kaluga Oblast** (Sionova, 2012); **Karachay-Cherkess Republic** (Kalamees and Botashev, 2000); **Komi Republic** (Palamarchuk (Bobretsova), 2009; Palamarchuk, 2012); **Krasnodar Krai** (Kovalenko, 1980a; Kovalenko, 1980b); **Kursk Oblast** (Ryabova and Ignatenko, 1981); **Lipetsk Oblast** (Sarycheva et al., 2009; Sarycheva, 2016); **Orenburg Oblast** (Desyatova, 2007; Desyatova, 2008); **Perm Krai** (Perevedentseva, 2008; Botalov, 2017); **Ryazan Oblast** (Volosnova, 2005; Volosnova, 2014); **Tula Oblast** (Svetasheva, 2001; Svetasheva, 2004).

SIBERIA: **Altai Krai** (Gorbunova and Perova, 2006); **Altai Republic** (Singer, 1943; Kovalenko, 1992; Perova and Gorbunova, 2001); **Irkutsk Oblast** (Kutafjeva, 1983; Petrov, 1984; Petrov, 1989; Petrov, 1991; Petrov, 2008); **Krasnoyarsk Krai** (Beglyanova, 1972a; Nezdoyminogo, 1976a; Zauzolkova, 2015; Malysheva, Malysheva, Kiyashko, et al., 2017).

FAR EAST: **Jewish Autonomous Oblast** (Bulakh, Govorova, Nazarova, and Vassiljeva, 2007; Bau, Bulakh, and Govorova, 2011); **Khabarovsk Krai** (Bulakh, 2013; Bogacheva, Bulakh, Bukharova, and Egorova, 2015; Erofeeva and Bulakh, 2015a); **Primorsky Krai** (Vassiljeva, 1972; Vassiljeva, 1973; Bunkina and Nazarova, 1978; Azbukina et al., 1990; Bardunov et al., 2002; Azbukina et al., 2006; Bau, Bulakh, and Govorova, 2011); **Sakhalin Oblast** (Vassiljeva and Nazarova, 1972).

***Mycena megaspora* Kauffman**

EASTERN EUROPE: **Karelia** (Freindling, 1949; Kovalenko, Morozova, Fomina, and Särkisilta, 1998; Bondartseva et al., 2001; Krutov et al., 2014); **Kirov Oblast** (Kirillov, 2011; Kirillov, Perevedentseva, and Egoshina, 2011); **Komi Republic** (Palamarchuk, 2012; Palamarchuk, 2016a; Palamarchuk, 2016b); **Leningrad Oblast** (Kovalenko and Morozova, 1999a; Morozova, 2007; Popov et al., 2007; Psurtseva, Kiyashko, Gachkova, and Belova, 2007; Zmitrovich et al., 2015); **Moscow Oblast** (Levitskaya, 1995c; Vishnevsky, 1998; Voronina et al., 2012; Levitskaya, 2013; Voronina et al., 2014); **Perm Krai** (Perevedentseva, 2008; Belkovskaya et al., 2014; Botalov, 2017); **Pskov Oblast** (Popov et al., 2013; Morozova et al., 2015); **Ryazan Oblast** (Volosnova, 2014); **Saint Petersburg** (Kovalenko and Morozova, 1999a; Kotkova, Morozova, and Popov, 2005; Psurtseva, Kiyashko, Gachkova, and Belova, 2007; Morozova and Smirnov, 2011; Morozova et al., 2020); **Tula Oblast** (Svetasheva, 2004; Svetasheva, 2005b); **Vologda Oblast** (Kirillova, 2007; Kirillova, 2009); **Yamalo-Nenets Autonomous Okrug** (Karatygin, Nezdoyminogo, Novozhilov, and Zhurbenko, 1999); **Yaroslavl Oblast** (Lazareva, 1998a).

SIBERIA: **Khanty-Mansi Autonomous Okrug** (Filippova, 2009; Filippova and Thormann, 2014; Filippova, 2014; Filippova, Mourgues, and Philippe, 2014; Filippova, Bulyonkova, and Lapshina, 2015).

FAR EAST: **Magadan Oblast** (Sazanova, 2009a; Sazanova, 2009b; Sazanova, 2011; Sazanova, 2012).

***Mycena meliigena* (Berk. & Cooke) Sacc.**

EASTERN EUROPE: **Crimea** (Dudka et al., 2004; Sarkina, 2011); **Kirov Oblast** (Kirillov, 2011; Kirillov, Perevedentseva, and Egoshina, 2011; Baranova et al., 2014); **Leningrad Oblast** (Kovalenko and Morozova, 1999a; Morozova, 1999; Popov et al., 2007); **Mordovia** (Bolshakov and Ivoilov, 2012b); **Perm Krai** (Perevedentseva, 2008); **Rostov Oblast** (Morozova et al., 2008); **Ryazan Oblast** (Volosnova, 2014); **Saint Petersburg** (Kotkova, Morozova, and Popov, 2007; Morozova and Smirnov, 2011; Morozova et al., 2020); **Samara Oblast** (Malysheva and Malysheva, 2005b; Malysheva and Malysheva, 2008); **Tula Oblast** (Svetasheva, 2004; Svetasheva, 2005b; Shcherbakov, 2010; Svetasheva, Aleksandrova, Zaytseva, and Solovjova, 2017); **Arid territories** (Rebriev, Rusanov, et al., 2012).

FAR EAST: **Primorsky Krai** (Bau, Bulakh, Zhuang, and Li, 2007; Bulakh, 2007).

***Mycena mellea* Lj.N. Vassiljeva**

EASTERN EUROPE: **Karelia** (Czerepanova, Perfiljeva, and Tobias, 1982).

FAR EAST: **Khabarovsk Krai** (Azbukina et al., 1986; Bau, Bulakh, and Govorova, 2011; Bogacheva et al., 2018); **Primorsky Krai** (Vassiljeva, 1973; Azbukina et al., 1984; Azbukina et al., 2006; Bau, Bulakh, and Govorova, 2011; Bogacheva et al., 2018).

***Mycena metata* (Fr.) P. Kumm.<sup>1</sup>**

≡ *Agaricus metatus* Fr.<sup>2</sup> = *Agaricus metatus* var. *laevigatus* (Pers.) Fr.<sup>3</sup> = *Agaricus metatus* var. *plicosus* Fr.<sup>4</sup> = *Mycena pilcosa* (Fr.) P. Kumm.<sup>5</sup>

EASTERN EUROPE: **Adygea** (<sup>1</sup>Sopina, 2004b); **Crimea** (<sup>1</sup>Sarkina and Prydiuk, 2012); **Kaliningrad Oblast** (<sup>1,5</sup>Dedkov, Volodina, and Gubareva, 2007; <sup>1</sup>Volodina, 2007; <sup>1</sup>Atayev and Volodina, 2020); **Kaluga Oblast** (<sup>1</sup>Sionova, 2012); **Karachay-Cherkess Republic** (<sup>1</sup>Kalamees and Botashev, 2000); **Karelia** (<sup>1</sup>Bondartseva et al., 2001; <sup>1</sup>Krutov et al., 2014);

**Kirov Oblast** (<sup>1</sup>Kirillov and Luginina, 2011; <sup>1</sup>Stavishenko, Luginina, Kirillov, and Egoshina, 2019); **Komi Republic** (<sup>1</sup>Palamarchuk, 2012; <sup>1</sup>Palamarchuk, 2016a; <sup>1</sup>Palamarchuk, 2016b; <sup>1</sup>Palamarchuk and Kirillov, 2017; <sup>1</sup>Palamarchuk, 2017); **Krasnodar Krai** (<sup>1</sup>Vassiljeva, 1939; <sup>1</sup>Psurtseva, Kiyashko, Gachkova, and Belova, 2007); **Kursk Oblast** (<sup>1</sup>Baranov, 2002); **Leningrad Oblast** (<sup>1</sup>Thesleff, 1920; <sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Malysheva and Malysheva, 2005a; <sup>1</sup>Popov et al., 2007; <sup>1</sup>Zmitrovich et al., 2015); **Lipetsk Oblast** (<sup>5</sup>Sarycheva, 2016); **Mordovia** (<sup>5</sup>Chastukhin, 1948a; <sup>5</sup>Chastukhin and Nikolaevskaya, 1969); **Moscow** (<sup>1</sup>Burova, 1968; <sup>1</sup>Burova, 1971); **Moscow Oblast** (<sup>5</sup>Levitskaya, 1995b; <sup>1</sup>Levitskaya, 1998; <sup>1</sup>Levitskaya, 2013); **Murmansk Oblast** (<sup>1</sup>Kalamees and Raitviir, 2006); **Perm Krai** (<sup>1</sup>Perevedentseva, 2008; <sup>1</sup>Belkovskaya et al., 2014; <sup>1</sup>Botalov, 2017; <sup>1</sup>Botalov and Perevedentseva, 2020); **Saint Petersburg** (<sup>3</sup>Weinmann, 1828; <sup>2,4</sup>Weinmann, 1836; <sup>2,4</sup>Weinmann, 1837; <sup>1</sup>Morozova and Kovalenko, 2000; <sup>1</sup>Kotkova, Morozova, and Popov, 2006); **Samara Oblast** (<sup>1</sup>Malysheva and Malysheva, 2006; <sup>1</sup>Malysheva and Malysheva, 2007; <sup>1</sup>Malysheva and Malysheva, 2008); **Tula Oblast** (<sup>1</sup>Svetasheva, 2004); **Tver Oblast** (<sup>5</sup>Kurochkin, 1993); **Udmurt Republic** (<sup>1</sup>Kapitonov, 2013); **Ulyanovsk Oblast** (<sup>1</sup>Ilyukhin, 2010a; <sup>1</sup>Ilyukhin, 2010b); **Yamalo-Nenets Autonomous Okrug** (<sup>1</sup>Karatygin, Nezdoino, Novozhilov, and Zhurbenko, 1999); **Yaroslavl Oblast** (<sup>1</sup>Lazareva, 1998a).

SIBERIA: **Altai Krai** (<sup>1</sup>Gorbunova and Chubarova, 2008; <sup>1</sup>Gorbunova, Vlasenko, and Tzhubarova, 2011); **Buryatia** (<sup>5</sup>Nezdoino, 1973; <sup>5</sup>Petrov, 1991); **Khakassia** (<sup>1</sup>Zauzolkova and Gorbunova, 2013; <sup>1</sup>Zauzolkova, 2015); **Khanty-Mansi Autonomous Okrug** (<sup>1</sup>Filippova and Bulyonkova, 2017a; <sup>1</sup>Filippova and Bulyonkova, 2017b); **Krasnoyarsk Krai** (<sup>1</sup>Beglyanova, 1972a; <sup>1</sup>Gorbunova, 2016); **Novosibirsk Oblast** (<sup>1</sup>Koropachinskiy and Banaev, 2014); **Tomsk Oblast** (<sup>1</sup>Kudashova, Gashkov, and Kutafjeva, 2013).

FAR EAST: **Sakhalin Oblast** (<sup>1</sup>Bulakh, Govorova, and Bogatov, 1999).

#### *Mycena mirata* (Peck) Sacc.

EASTERN EUROPE: **Kaliningrad Oblast** (Volodina, 2007; Atayev and Volodina, 2020); **Komi Republic** (Palamarchuk, 2012); **Moscow Oblast** (Vishnevsky, 1998); **Samara Oblast** (Malysheva and Malysheva, 2006; Malysheva and Malysheva, 2007; Malysheva and Malysheva, 2008); **Sverdlovsk Oblast** (Marina, 2006).

SIBERIA: **Altai Krai** (Gorbunova, 2018b); **Irkutsk Oblast** (Gorbunova and Stepantsova, 2015); **Khanty-Mansi Autonomous Okrug** (Filippova and Bulyonkova, 2017a; Filippova and Bulyonkova, 2017b); **Krasnoyarsk Krai** (Gorbunova, 2016).

#### *Mycena miserior* Huijsman

EASTERN EUROPE: **Penza Oblast** (Ivanov, 1999).

#### *Mycena monticola* A.H. Sm.

FAR EAST: **Magadan Oblast** (Nazarova, 1976; Sazanova, 2005; Sazanova, 2009a).

#### *Mycena mucor* (Batsch) Quél.<sup>1</sup>

≡ *Agaricus mucor* Batsch<sup>2</sup>

EASTERN EUROPE: **Adygea** (<sup>1</sup>Vaasma, Kalamees, and Raitviir, 1986); **Leningrad Oblast** (<sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Popov et al., 2007); **Moscow** (<sup>1</sup>Burova, 1971); **Moscow Oblast** (<sup>1</sup>Vishnevsky, 1998); **Saint Petersburg** (<sup>2</sup>Weinmann, 1828; <sup>2</sup>Weinmann, 1836; <sup>2</sup>Weinmann, 1837); **Sverdlovsk Oblast** (<sup>1</sup>Stepanova and Sirko, 1977); **Voronezh Oblast** (<sup>1</sup>Chastukhin, 1952; <sup>1</sup>Chastukhin and Nikolaevskaya, 1953; <sup>1</sup>Chastukhin and Nikolaevskaya, 1969).

#### *Mycena murina* (Murrill) Murrill

SIBERIA: **Altai Republic** (Singer, 1943).

#### *Mycena niveipes* (Murrill) Murrill

EASTERN EUROPE: **Crimea** (Dudka et al., 2004; Sarkina, 2011); **Kaliningrad Oblast** (Dedkov, Volodina, and Gubareva, 2007; Volodina, 2007); **Karachay-Cherkess Republic** (Kalamees and Botashev, 2000); **Karelia** (Krutov et al., 2014); **Kirov Oblast** (Kirillov and Luginina, 2011; Stavishenko, Luginina, Kirillov, and Egoshina, 2019); **Komi Republic** (Palamarchuk, 2011a; Palamarchuk, 2012; Palamarchuk and Kirillov, 2017); **Krasnodar Krai** (Kovalenko, 1980a; Kovalenko, 1980b); **Leningrad Oblast** (Stolyarskaya, 1989; Kovalenko and Morozova, 1999a; Morozova and Kovalenko, 2000; Morozova, 2007; Popov et al., 2007; Psurtseva, Kiyashko, Gachkova, and Belova, 2007; Zmitrovich et al., 2015; Kalinina, 2018); **Lipetsk Oblast** (Sarycheva et al., 2009; Sarycheva, 2011; Sarycheva, 2014a; Sarycheva, 2016); **Novgorod Oblast** (Kovalenko and Morozova, 1999b; Kovalenko, Morozova, Nezdoino, and Popov, 2005; Psurtseva, Kiyashko, Gachkova, and Belova, 2007; Popov et al., 2013); **Orenburg Oblast** (Desyatova, 2007);

Desyatova, 2008); **Penza Oblast** (Ivanov, 1981b; Ivanov, 1983; Ivanov, 2019); **Perm Krai** (Perevedentseva, 2008); **Pskov Oblast** (Kovalenko and Morozova, 1999b; Popov et al., 2013); **Rostov Oblast** (Zmitrovich et al., 2008); **Ryazan Oblast** (Volosnova, 1997; Volosnova, 2014); **Saint Petersburg** (Kovalenko and Morozova, 1999a; Kotkova, Morozova, and Popov, 2006); **Samara Oblast** (Malysheva and Malysheva, 2005b; Malysheva and Malysheva, 2008); **Sverdlovsk Oblast** (Marina, 2006); **Tatarstan** (Vassiljeva, 1977); **Tula Oblast** (Svetasheva, 2001; Svetasheva, 2004; Svetasheva, 2013); **Tver Oblast** (Mukhina, 2011a; Mukhina, 2011b; Kotkova, 2014); **Udmurt Republic** (Kapitonov, 2013); **Ulyanovsk Oblast** (Ilyukhin, 2010a); **Vologda Oblast** (Kirillova, 2007; Kirillova, 2009); **Yaroslavl Oblast** (Lazareva, 1997; Lazareva, 1998a); **Arid territories** (Rebriev, Rusanov, et al., 2012).

SIBERIA: **Altai Krai** (Gorbunova and Chubarova, 2008; Gorbunova, Vlasenko, and Tzhubarova, 2011); **Khanty-Mansi Autonomous Okrug** (Filippova and Bulyonkova, 2017a; Filippova and Bulyonkova, 2017b); **Krasnoyarsk Krai** (Beglyanova, 1972a; Krom and Kapitonov, 2019); **Novosibirsk Oblast** (Koropachinskiy and Banaev, 2014); **Tomsk Oblast** (Perova, 1972; Perova and Gorbunova, 2001; Kudashova, Gashkov, and Kutafjeva, 2013).

FAR EAST: **Amur Oblast** (Azbukina et al., 1998); **Jewish Autonomous Oblast** (Bulakh, Govorova, Nazarova, and Vassiljeva, 2007; Bau, Bulakh, and Govorova, 2011); **Khabarovsk Krai** (Azbukina et al., 1986; Azbukina et al., 1989; Bau, Bulakh, and Govorova, 2011; Erofeeva and Bulakh, 2015a); **Primorsky Krai** (Vassiljeva, 1973; Bunkina and Nazarova, 1978; Azbukina et al., 1984; Azbukina et al., 1990; Bardunov et al., 2002; Azbukina et al., 2006; Bau, Bulakh, and Govorova, 2011; Bulakh et al., 2016; Bogacheva, Bulakh, Bukharova, and Egorova, 2020); **Sakhalin Oblast** (Bulakh, Govorova, and Bogatov, 1999).

### *Mycena olivaceoalcalina* Singer

EASTERN EUROPE: **Leningrad Oblast** (Singer, 1938c).

SIBERIA: **Altai Republic** (Singer, 1938c; Singer, 1943).

FAR EAST: **Khabarovsk Krai** (Azbukina et al., 1986; Azbukina et al., 1989); **Primorsky Krai** (Vassiljeva, 1973; Bunkina and Nazarova, 1978; Azbukina et al., 1984; Bogacheva, Bulakh, Bukharova, and Egorova, 2020); **Sakhalin Oblast** (Vassiljeva and Nazarova, 1972).

### *Mycena olivaceomarginata* (Masse) Masee<sup>1</sup>

≡ *Mycena olivaceomarginata* f. *olivaceomarginata* (Masse) Masee<sup>2</sup> = *Mycena avenacea* var. *roseofusca* Kühner<sup>3</sup>

EASTERN EUROPE: **Karelia** (<sup>1</sup>Krutov et al., 2014); **Kirov Oblast** (<sup>1</sup>Stavishenko, Luginina, Kirillov, and Egoshina, 2019); **Komi Republic** (<sup>1</sup>Palamarchuk, 2020b); **Leningrad Oblast** (<sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Morozova, 2007; <sup>1</sup>Popov et al., 2007); **Moscow Oblast** (<sup>1</sup>Levitskaya, 1998; <sup>1</sup>Vishnevsky, 1998; <sup>1</sup>Levitskaya, 2013); **Novgorod Oblast** (<sup>1</sup>Kovalenko, Morozova, Nezdoinog, and Popov, 2005; <sup>2</sup>Malysheva, Malysheva, and Zmitrovich, 2007; <sup>1</sup>Popov et al., 2013); **Pskov Oblast** (<sup>1</sup>Popov et al., 2013); **Samara Oblast** (<sup>1</sup>Malysheva and Malysheva, 2006; <sup>1</sup>Malysheva and Malysheva, 2007; <sup>1</sup>Malysheva and Malysheva, 2008); **Tula Oblast** (<sup>1</sup>Svetasheva, 2004); **Tver Oblast** (<sup>1</sup>Mukhina, 2011a; <sup>1</sup>Mukhina, 2011b; <sup>1</sup>Kotkova, 2014).

SIBERIA: **Altai Krai** (<sup>1</sup>Gorbunova, 2018a); **Buryatia** (<sup>1</sup>Nezdoinog, 1973; <sup>1</sup>Petrov, 1991); **Khanty-Mansi Autonomous Okrug** (<sup>1</sup>Filippova and Bulyonkova, 2017a; <sup>1</sup>Filippova and Bulyonkova, 2017b); **Novosibirsk Oblast** (<sup>1</sup>Perova and Gorbunova, 2007); **Tomsk Oblast** (<sup>1</sup>Kudashova, Gashkov, and Kutafjeva, 2013).

FAR EAST: **Kamchatka Krai** (<sup>3</sup>Kalamees and Vaasma, 1981).

### *Mycena oregonensis* A.H. Sm.

EASTERN EUROPE: **Adygea** (Kovalenko, 1980b); **Karelia** (Bondartseva et al., 2001; Krutov et al., 2014); **Komi Republic** (Palamarchuk, 2020b); **Krasnodar Krai** (Kovalenko, 1980a; Kovalenko, 1980b); **Moscow Oblast** (Vishnevsky, 1998); **Novgorod Oblast** (Popov et al., 2013); **Perm Krai** (Perevedentseva, 2008; Belkovskaya et al., 2014; Perevedentseva and Shishigin, 2014; Botalov, 2017); **Sverdlovsk Oblast** (Marina, 2006); **Vologda Oblast** (Kirillova, 2007; Kirillova, 2009).

SIBERIA: **Altai Republic** (Gorbunova, 2010; Gorbunova, 2017a; Svetasheva et al., 2019); **Kemerovo Oblast** (Kupriyanov, 2012); **Tomsk Oblast** (Kudashova, Gashkov, and Kutafjeva, 2013; Kudashova, Gashkov, and Vaishlya, 2016b).

FAR EAST: **Magadan Oblast** (Sazanova, 2005); **Primorsky Krai** (Bulakh et al., 2016).

### *Mycena parabolica* (Fr.) Quél.<sup>1</sup>

≡ *Agaricus parabolicus* Fr.<sup>2</sup>

EASTERN EUROPE: **Adygea** (<sup>1</sup>Vaasma, Kalamees, and Raitviir, 1986); **Kaliningrad Oblast** (<sup>1</sup>Dedkov, Volodina, and Gubareva, 2007); **Moscow Oblast** (<sup>1</sup>Levitskaya, 1995b; <sup>1</sup>Vishnevsky, 1998); **Perm Krai** (<sup>1</sup>Perevedentseva, 2008).

SIBERIA: **Krasnoyarsk Krai** (<sup>2</sup>Thümen, 1878).

***Mycena pearsoniana* Dennis ex Singer**

EASTERN EUROPE: **Belgorod Oblast** (Bedenko, 1980); **Chelyabinsk Oblast** (Sirko and Stepanova, 1977; Stepanova and Sirko, 1977); **Kaliningrad Oblast** (Dedkov, Volodina, and Gubareva, 2007; Volodina, 2007); **Leningrad Oblast** (Kovalenko and Morozova, 1999a; Popov et al., 2007); **Penza Oblast** (Ivanov, 1999); **Perm Krai** (Perevedentseva, 2008; Belkovskaya et al., 2014); **Samara Oblast** (Malysheva and Malysheva, 2005b; Malysheva and Malysheva, 2008); **Sverdlovsk Oblast** (Marina, 2006).

SIBERIA: **Tomsk Oblast** (Agaphonova, Kutafjeva, and Gashkov, 2007; Agaphonova, Kutafjeva, and Gashkov, 2009b; Kudashova, Gashkov, and Kutafjeva, 2013; Kudashova, Gashkov, and Vaishlya, 2016b).

***Mycena pelianthina* (Fr.) Quél.**

EASTERN EUROPE: **Belgorod Oblast** (Bedenko, 1980); **Crimea** (Moser, 1993; Sarkina, 2001; Dudka et al., 2004; Sarkina, 2011); **Kaliningrad Oblast** (Dedkov, Volodina, and Gubareva, 2007); **Kaluga Oblast** (Sionova, 2003); **Karachay-Cherkess Republic** (Kalamees and Botashev, 2000); **Leningrad Oblast** (Kovalenko and Morozova, 1999a; Tzvelev, 2000; Popov et al., 2007; Geltman et al., 2018; Geltman, 2018b); **Lipetsk Oblast** (Sarycheva, 1999; Sarycheva et al., 2009; Shcherbakov, 2014; Sarycheva, 2016); **Moscow Oblast** (Levitskaya, 1998; Levitskaya, 2013); **Novgorod Oblast** (Kovalenko, Morozova, Nezdoininogo, and Popov, 2005; Popov et al., 2013; Vetkin et al., 2015); **Penza Oblast** (Ivanov, 1981a); **Pskov Oblast** (Popov et al., 2013); **Samara Oblast** (Malysheva and Malysheva, 2005b; Malysheva and Malysheva, 2008); **Tatarstan** (Potapov, 2016b); **Tula Oblast** (Svetasheva, 2004; Svetasheva, 2005b); **Tver Oblast** (Chastukhin, 1948b; Chastukhin and Nikolaevskaya, 1969; Mukhina, 2011a; Kotkova, 2014); **Udmurt Republic** (Tychinin and Kuzmina, 2003); **Ulyanovsk Oblast** (Ilyukhin, 2009; Ilyukhin, 2010a).

SIBERIA: **Altai Krai** (Gorbunova and Chubarova, 2008; Gorbunova, Vlasenko, and Tzhubarova, 2011); **Khanty-Mansi Autonomous Okrug** (Filippova and Bulyonkova, 2017a; Filippova and Bulyonkova, 2017b).

FAR EAST: **Amur Oblast** (Kochunova, 2019); **Jewish Autonomous Oblast** (Bulakh, Govorova, Nazarova, and Vassiljeva, 2007; Bau, Bulakh, and Govorova, 2011); **Khabarovsk Krai** (Azbukina et al., 1986; Azbukina et al., 1989; Bau, Bulakh, and Govorova, 2011; Bulakh, 2013; Bogacheva, Bulakh, Bukharova, and Egorova, 2015; Erofeeva and Bulakh, 2015a); **Primorsky Krai** (Vassiljeva, 1972; Vassiljeva, 1973; Bunkina and Nazarova, 1978; Azbukina et al., 1984; Azbukina et al., 1990; Bardunov et al., 2002; Azbukina et al., 2006; Bau, Bulakh, and Govorova, 2011; Bogacheva, Bulakh, Bukharova, and Egorova, 2020).

***Mycena phyllogena* (Pers.) Singer**

SIBERIA: **Krasnoyarsk Krai** (Nezdoininogo, 1982a); **Tomsk Oblast** (Perova and Gorbunova, 2001).

***Mycena picta* (Fr.) Harmaja<sup>1</sup>**

≡ *Agaricus pictus* Fr.<sup>2</sup> ≡ *Xeromphalina picta* (Fr.) A.H. Sm.<sup>3</sup>

EASTERN EUROPE: **Kirov Oblast** (<sup>1</sup>Stavishenko, Luginina, Kirillov, and Egoshina, 2019); **Leningrad Oblast** (<sup>3</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Popov et al., 2007; <sup>3</sup>Kalinina, 2018); **Moscow Oblast** (<sup>3</sup>Voronina et al., 2012; <sup>3</sup>Voronina et al., 2014); **Novgorod Oblast** (<sup>3</sup>Arslanov, 2012; <sup>1</sup>Popov et al., 2013; <sup>1</sup>Vetkin et al., 2015); **Saint Petersburg** (<sup>2</sup>Weinmann, 1828; <sup>2</sup>Weinmann, 1836; <sup>2</sup>Weinmann, 1837); **Sverdlovsk Oblast** (<sup>1</sup>Shiryayeva, 2018; <sup>3</sup>Korytin, 2018).

SIBERIA: **Khanty-Mansi Autonomous Okrug** (<sup>3</sup>Filippova, Bulyonkova, and Lapshina, 2015).

FAR EAST: **Khabarovsk Krai** (<sup>1</sup>Bulakh, 2007).

***Mycena pilosella* Maas Geest.**

EASTERN EUROPE: **Tula Oblast** (Svetasheva, 2004; Shcherbakov, 2010).

***Mycena plumipes* (Kalchbr.) P.-A. Moreau**

EASTERN EUROPE: **Komi Republic** (Palamarchuk and Kirillov, 2017).

SIBERIA: **Krasnoyarsk Krai** (Krom and Kapitonov, 2019).

***Mycena polyadelpha* (Lasch) Kühner**

EASTERN EUROPE: **Murmansk Oblast** (Mikhailovskii, 1975a); **Saint Petersburg** (Morozova and Smirnov, 2011); **Tver Oblast** (Mukhina, 2011a; Kotkova, 2014); **Volgograd Oblast** (Burova and Nezdoininogo, 1982); **Arid territories** (Rebriev, Rusanov, et al., 2012).

***Mycena polygramma* (Bull.) Gray<sup>1</sup>**

≡ *Agaricus polygrammus* Bull.<sup>2</sup> = *Agaricus polygrammus* var. *niveus* Pers.<sup>3</sup>

EASTERN EUROPE: **Belgorod Oblast** (<sup>1</sup>Bedenko, 1980); **Bryansk Oblast** (<sup>1</sup>Kruglikov, 2007); **Chechen Republic** (<sup>1</sup>Taysumov, Krapivina, and Kushalieva, 2016); **Chelyabinsk Oblast** (<sup>1</sup>Stepanova and Sirko, 1977); **Crimea** (<sup>2</sup>Léveillé,

1842; <sup>1</sup>Moser, 1993; <sup>1</sup>Sarkina, 2001; <sup>1</sup>Dudka et al., 2004; <sup>1</sup>Sarkina, 2010b; <sup>1</sup>Sarkina, 2011; <sup>1</sup>Sarkina and Prydiuk, 2012; <sup>1</sup>Sarkina, 2013; <sup>1</sup>Sarkina and Mironova, 2015; <sup>1</sup>Sarkina and Stavishenko, 2019); **Kabardino-Balkarian Republic** (<sup>1</sup>Shkhagapsoev and Krapivina, 2004); **Kaliningrad Oblast** (<sup>1</sup>Dedkov, Volodina, and Gubareva, 2007; <sup>1</sup>Volodina, 2007; <sup>1</sup>Atayev and Volodina, 2020); **Kaluga Oblast** (<sup>1</sup>Sionova, 2003); **Karelia** (<sup>1</sup>Predtechenskaya and Ruokolainen, 2013; <sup>1</sup>Krutov et al., 2014); **Komi Republic** (<sup>1</sup>Stepanova and Sirko, 1977); **Krasnodar Krai** (<sup>1</sup>Kovalenko, 1980a; <sup>1</sup>Kovalenko, 1980b); **Leningrad Oblast** (<sup>1</sup>Thesleff, 1920; <sup>1</sup>Nezdojminogo, 1967; <sup>1</sup>Chastukhin and Nikolaevskaya, 1969; <sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Popov et al., 2007; <sup>1</sup>Psurtseva, Kiyashko, Gachkova, and Belova, 2007); **Lipetsk Oblast** (<sup>1</sup>Rtishcheva, 1999; <sup>1</sup>Sarycheva, 1999; <sup>1</sup>Afanasyev, Rtishcheva, and Starodubtseva, 2007; <sup>1</sup>Sarycheva et al., 2009; <sup>1</sup>Sarycheva, 2011; <sup>1</sup>Sarycheva, 2014a; <sup>1</sup>Sarycheva, 2016; <sup>1</sup>Sarycheva, Starodubtseva, and Sapelnikova, 2017); **Mordovia** (<sup>1</sup>Chastukhin, 1948a; <sup>1</sup>Chastukhin and Nikolaevskaya, 1969); **Moscow** (<sup>1</sup>Hennings, 1905; <sup>2</sup>Mosolov, 1906); **Moscow Oblast** (<sup>1</sup>Levitskaya, 1995b; <sup>1</sup>Vishnevsky, 1998; <sup>1</sup>Levitskaya, 2013; <sup>1</sup>Voronina et al., 2014); **Murmansk Oblast** (<sup>1</sup>Pystina, Pavlova, and Shestakova, 1969); **North Ossetia** (<sup>1</sup>Nikolayev, 2001); **Orenburg Oblast** (<sup>1</sup>Desyatova, 2008); **Penza Oblast** (<sup>1</sup>Ivanov, 1981a; <sup>1</sup>Ivanov, 1981b); **Perm Krai** (<sup>1</sup>Perevedentseva, 2008; <sup>1</sup>Belkovskaya et al., 2014; <sup>1</sup>Perevedentseva and Shishigin, 2014; <sup>1</sup>Botalov, 2017; <sup>1</sup>Botalov and Perevedentseva, 2020); **Rostov Oblast** (<sup>1</sup>Morozova et al., 2008; <sup>1</sup>Rusanov, Rebriev, and Bulgakov, 2018); **Ryazan Oblast** (<sup>1</sup>Volosnova, 2014); **Saint Petersburg** (<sup>2</sup>Weinmann, 1828; <sup>2,3</sup>Weinmann, 1836; <sup>2,3</sup>Weinmann, 1837; <sup>1</sup>Morozova and Kovalenko, 2000; <sup>1</sup>Kotkova, Morozova, and Popov, 2006; <sup>1</sup>Morozova, Kovalenko, Rebriev, and Malysheva, 2014); **Samara Oblast** (<sup>1</sup>Malysheva and Malysheva, 2004; <sup>1</sup>Psurtseva, Kiyashko, Gachkova, and Belova, 2007; <sup>1</sup>Malysheva and Malysheva, 2008); **Sverdlovsk Oblast** (<sup>1</sup>Stepanova and Sirko, 1977; <sup>1</sup>Marina, 2006); **Tatarstan** (<sup>1</sup>Vassiljeva, 1977); **Tula Oblast** (<sup>1</sup>Svetasheva, 2001; <sup>1</sup>Svetasheva, 2004); **Tver Oblast** (<sup>1</sup>Chastukhin, 1948b; <sup>1</sup>Chastukhin and Nikolaevskaya, 1969; <sup>1</sup>Kurochkin, 1993; <sup>1</sup>Mukhina, 2011a; <sup>1</sup>Kotkova, 2014; <sup>1</sup>Kurochkin, 2016); **Udmurt Republic** (<sup>1</sup>Tychinin, 1990; <sup>1</sup>Tychinin and Kuzmina, 2003); **Ulyanovsk Oblast** (<sup>1</sup>Ilyukhin, 2009; <sup>1</sup>Ilyukhin, 2010a); **Voronezh Oblast** (<sup>1</sup>Chastukhin, 1952; <sup>1</sup>Chastukhin and Nikolaevskaya, 1953; <sup>1</sup>Chastukhin and Nikolaevskaya, 1969; <sup>1</sup>Rtishcheva, 1999; <sup>1</sup>Afanasyev, Rtishcheva, and Starodubtseva, 2007; <sup>1</sup>Sarycheva, Starodubtseva, and Sapelnikova, 2017; <sup>1</sup>Kochergina and Furmenkova, 2019); **Yamalo-Nenets Autonomous Okrug** (<sup>1</sup>Kazanthseva, 1970; <sup>1</sup>Stepanova and Sirko, 1977); **Arid territories** (<sup>1</sup>Rebriev, Rusanov, et al., 2012).

SIBERIA: **Altai Krai** (<sup>1</sup>Gorbunova and Perova, 2006; <sup>1</sup>Gorbunova and Chubarova, 2008; <sup>1</sup>Gorbunova, Vlasenko, and Tzhubarova, 2011); **Altai Republic** (<sup>1</sup>Gorbunova, 2001a; <sup>1</sup>Gorbunova, 2001b; <sup>1</sup>Gorbunova, 2008); **Irkutsk Oblast** (<sup>1</sup>Petrov, 1984); **Khanty-Mansi Autonomous Okrug** (<sup>1</sup>Filippova, Bulyonkova, and Lapshina, 2015); **Krasnoyarsk Krai** (<sup>2</sup>Thümen, 1878; <sup>1</sup>Beglyanova, 1972a; <sup>1</sup>Zauzolkova, 2012; <sup>1</sup>Zauzolkova, 2015; <sup>1</sup>Malysheva, Malysheva, Kiyashko, et al., 2017); **Novosibirsk Oblast** (<sup>1</sup>Perova, 1977; <sup>1</sup>Perova and Gorbunova, 2007); **Tomsk Oblast** (<sup>1</sup>Kudashova, Gashkov, and Kutafjeva, 2013).

FAR EAST: **Khabarovsk Krai** (<sup>1</sup>Azbukina et al., 1986); **Magadan Oblast** (<sup>1</sup>Sazanova, 2005; <sup>1</sup>Sazanova, 2009a; <sup>1</sup>Sazanova, 2009b; <sup>1</sup>Sazanova, 2011; <sup>1</sup>Sazanova and Golodnova, 2015); **Primorsky Krai** (<sup>1</sup>Vassiljeva, 1972; <sup>1</sup>Vassiljeva, 1973; <sup>1</sup>Bunkina and Nazarova, 1978; <sup>1</sup>Azbukina et al., 2006; <sup>1</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Bulakh et al., 2016).

### *Mycena pseudoandrosacea* (Bull.) Z.S. Bi

≡ *Omphalina pseudoandrosacea* (Bull.) M.M. Moser<sup>1</sup>

EASTERN EUROPE: **Belgorod Oblast** (<sup>1</sup>Bedenko, 1979a); **Crimea** (<sup>1</sup>Dudka et al., 2004).

SIBERIA: **Novosibirsk Oblast** (<sup>1</sup>Perova and Gorbunova, 2001); **Tomsk Oblast** (<sup>1</sup>Agaphonova, Kutafjeva, and Gashkov, 2007; <sup>1</sup>Agaphonova, Kutafjeva, and Gashkov, 2009b); **Yamalo-Nenets Autonomous Okrug** (<sup>1</sup>Tarchevskaya, 1990).

FAR EAST: **Primorsky Krai** (<sup>1</sup>Azbukina et al., 1984; <sup>1</sup>Azbukina et al., 1990); **Sakhalin Oblast** (<sup>1</sup>Bulakh, Govorova, and Bogatov, 1999).

### *Mycena pseudocorticola* Kühner

EASTERN EUROPE: **Kaliningrad Oblast** (Volodina, 2007); **Leningrad Oblast** (Kovalenko and Morozova, 1999a; Morozova and Kovalenko, 2000; Popov et al., 2007; Kalinina, 2018); **Ryazan Oblast** (Volosnova, 2005; Volosnova, 2014); **Saint Petersburg** (Kovalenko and Morozova, 1999a; Zhukova, Morozova, Volobuev, and Bryantseva, 2017; Morozova et al., 2020); **Tatarstan** (Vassiljeva, 1977); **Tula Oblast** (Svetasheva, 2004; Svetasheva, 2005b; Svetasheva, Aleksandrova, Zaytseva, and Solovjova, 2017).

SIBERIA: **Altai Republic** (Kovalenko, 1992; Perova and Gorbunova, 2001); **Tomsk Oblast** (Perova and Gorbunova, 2001; Kudashova, Gashkov, and Kutafjeva, 2013).

***Mycena pseudoinclinata* A.H. Sm.**

SIBERIA: **Krasnoyarsk Krai** (Malysheva, Malysheva, Kiyashko, et al., 2017).

***Mycena pseudolaevigata* Kalamees<sup>1</sup>**

≡ *Mycena pseudolaevigata* var. *pseudolaevigata* Kalamees<sup>2</sup>

EASTERN EUROPE: **Adygea** (<sup>2</sup>Vaasma, Kalamees, and Raitviir, 1986; <sup>1</sup>Kalamees, 1989; <sup>1</sup>Zamotajlov, Sirotyuk (Kuvaeva), Akatova, and Lipka, 2012).

***Mycena pseudomaculata* (Kalamees) Kalamees<sup>1</sup>**

= *Mycena pseudolaevigata* var. *maculata* Kalamees<sup>2</sup>

EASTERN EUROPE: **Adygea** (<sup>2</sup>Vaasma, Kalamees, and Raitviir, 1986; <sup>1</sup>Kalamees, 1989).

***Mycena pseudopicta* (J.E. Lange) Kühner**

EASTERN EUROPE: **Arid territories** (Rebriev, Rusanov, et al., 2012).

SIBERIA: **Khanty-Mansi Autonomous Okrug** (Filippova and Bulyonkova, 2017a; Filippova and Bulyonkova, 2017b); **Krasnoyarsk Krai** (Beglyanova, 1972a; Beglyanova, 1972c).

***Mycena pterigena* (Fr.) P. Kumm.<sup>1</sup>**

≡ *Agaricus pterigenus* Fr.<sup>2</sup>

EASTERN EUROPE: **Adygea** (<sup>1</sup>Vaasma, Kalamees, and Raitviir, 1986; <sup>1</sup>Kummer, 2007); **Belgorod Oblast** (<sup>1</sup>Bedenko, 1980); **Karachay-Cherkess Republic** (<sup>1</sup>Kalamees and Botashev, 2000); **Karelia** (<sup>1</sup>Kovalenko, Morozova, Fomina, and Särkisilta, 1998; <sup>1</sup>Krutov et al., 2014); **Leningrad Oblast** (<sup>1</sup>Thesleff, 1920; <sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Morozova, 2007; <sup>1</sup>Popov et al., 2007); **Novgorod Oblast** (<sup>1</sup>Morozova, 2012; <sup>1</sup>Popov et al., 2013); **Perm Krai** (<sup>1</sup>Perevedentseva, 2008; <sup>1</sup>Perevedentseva and Shishigin, 2014); **Pskov Oblast** (<sup>1</sup>Popov et al., 2013); **Saint Petersburg** (<sup>2</sup>Weinmann, 1828; <sup>2</sup>Weinmann, 1836; <sup>2</sup>Weinmann, 1837); **Sverdlovsk Oblast** (<sup>1</sup>Marina, 2006); **Vologda Oblast** (<sup>1</sup>Kirillova, 2007; <sup>1</sup>Kirillova, 2009); **Arid territories** (<sup>1</sup>Rebriev, Rusanov, et al., 2012).

SIBERIA: **Altai Republic** (<sup>1</sup>Singer, 1943; <sup>1</sup>Gorbunova, 2008); **Krasnoyarsk Krai** (<sup>1</sup>Beglyanova, 1972a); **Tomsk Oblast** (<sup>1</sup>Perova and Gorbunova, 2001; <sup>1</sup>Kudashova, Gashkov, and Kutafjeva, 2013; <sup>1</sup>Kudashova, Gashkov, and Vaishlya, 2016b).

FAR EAST: **Khabarovsk Krai** (<sup>1</sup>Azbukina et al., 1986; <sup>1</sup>Bau, Bulakh, and Govorova, 2011); **Primorsky Krai** (<sup>1</sup>Bulakh, 1977; <sup>1</sup>Azbukina et al., 1984; <sup>1</sup>Bau, Bulakh, and Govorova, 2011).

***Mycena pura* (Pers.) P. Kumm.<sup>1</sup>**

≡ *Agaricus purus* Pers.<sup>2</sup> ≡ *Mycena pura* f. *pura* (Pers.) P. Kumm.<sup>3</sup> ≡ *Mycena pura* var. *pura* (Pers.) P. Kumm.<sup>4</sup> = *Mycena pseudopura* (Cooke) Sacc.<sup>5</sup> = *Mycena pura* f. *alba* (Gillet) Kühner<sup>6</sup> = *Mycena pura* f. *multicolor* (Bres.) Kühner<sup>7</sup> = *Mycena pura* f. *roseoviolacea* (Gillet) Maas Geest.<sup>8</sup> = *Mycena pura* var. *multicolor* Bres.<sup>9</sup>

EASTERN EUROPE: **Adygea** (<sup>1</sup>Kovalenko, 1979a; <sup>4</sup>Vaasma, Kalamees, and Raitviir, 1986); **Bashkortostan** (<sup>1</sup>Stepanova and Sirko, 1977); **Belgorod Oblast** (<sup>1</sup>Bedenko, 1980; <sup>1</sup>Ryabova and Ignatenko, 1981; <sup>1</sup>Psurtseva, Belova, and Ryabusheva, 2003); **Bryansk Oblast** (<sup>1</sup>Kruglikov, 2007); **Chechen Republic** (<sup>1</sup>Taysumov, Krapivina, and Kushalieva, 2016); **Chelyabinsk Oblast** (<sup>1</sup>Sirko and Stepanova, 1977; <sup>1</sup>Stepanova and Sirko, 1977); **Chuvash Republic** (<sup>1</sup>Vladimirova and Potapov, 2018); **Crimea** (<sup>2</sup>Léveillé, 1842; <sup>1,7</sup>Zerova, 1962; <sup>1</sup>Moser, 1993; <sup>1</sup>Sarkina, 2001; <sup>1</sup>Dudka et al., 2004; <sup>1</sup>Sarkina, 2010b; <sup>1</sup>Sarkina, 2011; <sup>1</sup>Sarkina and Prydiuk, 2012; <sup>1</sup>Sarkina, 2013; <sup>1</sup>Sarkina and Mironova, 2015; <sup>1</sup>Sarkina and Stavishenko, 2019); **Kabardino-Balkarian Republic** (<sup>1</sup>Shkhagapsoev and Krapivina, 2003; <sup>1</sup>Shkhagapsoev and Krapivina, 2004); **Kaliningrad Oblast** (<sup>1</sup>Dedkov, Volodina, and Gubareva, 2007; <sup>1</sup>Volodina, 2007; <sup>1</sup>Atayev and Volodina, 2020); **Kaluga Oblast** (<sup>1</sup>Sionova, 2003; <sup>1</sup>Sionova, 2006); **Karachay-Cherkess Republic** (<sup>1</sup>Vassiljeva, 1939; <sup>1</sup>Kalamees and Botashev, 2000); **Karelia** (<sup>2</sup>Karsten, 1866; <sup>2</sup>Karsten, 1876; <sup>1</sup>Karsten, 1889; <sup>1</sup>Freindling, 1949; <sup>4</sup>Kovalenko, Morozova, Fomina, and Särkisilta, 1998; <sup>1</sup>Bondartseva et al., 2001; <sup>1</sup>Predtechenskaya and Ruokolainen, 2013; <sup>1</sup>Predtechenskaya, 2013; <sup>1</sup>Krutov et al., 2014; <sup>1</sup>Predtechenskaya, 2015; <sup>1</sup>Savelev and Kikeeva, 2020); **Kirov Oblast** (<sup>1</sup>Kirillov and Luginina, 2011; <sup>1</sup>Kirillov, 2011; <sup>1</sup>Kirillov, Perevedentseva, and Egoshina, 2011; <sup>1</sup>Stavishenko, Luginina, Kirillov, and Egoshina, 2019); **Komi Republic** (<sup>1</sup>Bobretsova, 2004; <sup>1</sup>Palamarchuk, 2012; <sup>1</sup>Palamarchuk, 2016a; <sup>1</sup>Palamarchuk, 2016b; <sup>1</sup>Palamarchuk and Kirillov, 2017); **Krasnodar Krai** (<sup>1</sup>Kovalenko, 1980a; <sup>1</sup>Kovalenko, 1980b; <sup>4</sup>Vaasma, Kalamees, and Raitviir, 1986); **Kursk Oblast** (<sup>1</sup>Ryabova and Ignatenko, 1981; <sup>3,6</sup>Baranov, 2002; <sup>1</sup>Soshnina, 2005); **Leningrad Oblast** (<sup>1</sup>Thesleff, 1920; <sup>1</sup>Nezdojminogo, 1967; <sup>1,5</sup>Chastukhin and Nikolaevskaya, 1969; <sup>4</sup>Kalamees and Kovalenko, 1984; <sup>1</sup>Stolyarskaya, 1989; <sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Morozova and Kovalenko, 2000; <sup>1</sup>Morozova, 2007; <sup>1</sup>Popov et al., 2007; <sup>1</sup>Zmitrovich et al., 2015; <sup>1</sup>Kalinina, 2018);



**Lipetsk Oblast** (<sup>1</sup>Alferova, 1977; <sup>1</sup>Rtishcheva, 1999; <sup>1</sup>Sarycheva, 1999; <sup>1</sup>Afanasyev, Rtishcheva, and Starodubtseva, 2007; <sup>1</sup>Sarycheva et al., 2009; <sup>1</sup>Sarycheva, 2011; <sup>1</sup>Sarycheva, 2014a; <sup>1</sup>Sarycheva, 2016; <sup>1</sup>Sarycheva, Starodubtseva, and Sapelnikova, 2017); **Mari El Republic** (<sup>1</sup>Prokhorov, 2007); **Mordovia** (<sup>1</sup>Chastukhin, 1948a; <sup>1</sup>Kuznetsov, 1960; <sup>1</sup>Chastukhin and Nikolaevskaya, 1969; <sup>1</sup>Chastukhin, 2011; <sup>1</sup>Ivoilov and Bolshakov, 2011a); **Moscow** (<sup>1</sup>Burova, 1968); **Moscow Oblast** (<sup>1</sup>Gorlenko, Sidorova, and Sidorova, 1989; <sup>1</sup>Levitskaya, 1995b; <sup>4</sup>Vishnevsky, 1998; <sup>9</sup>Vishnevsky, 1998; <sup>1</sup>Voronina et al., 2012; <sup>1</sup>Levitskaya, 2013; <sup>1</sup>Voronina et al., 2014; <sup>1</sup>Sidorova, Alexandrova, and Voronina, 2017); **Murmansk Oblast** (<sup>2</sup>Karsten, 1866; <sup>1</sup>Mikhailovskii, 1975b; <sup>4</sup>Karatygin, Nezdojminogo, Novozhilov, and Zhurbenko, 1999; <sup>1</sup>Kalamees and Raitviir, 2006); **Novgorod Oblast** (<sup>1</sup>Kovalenko, Morozova, Nezdojminogo, and Popov, 2005; <sup>1</sup>Malysheva, Malysheva, and Zmitrovich, 2007; <sup>4</sup>Popov et al., 2013; <sup>1</sup>Baklan, 2015); **Orenburg Oblast** (<sup>1</sup>Korshikova, 2006; <sup>1</sup>Desyatova, 2008); **Oryol Oblast** (<sup>1</sup>Radygina, Derzhavina, and Tsutsupa, 2014); **Penza Oblast** (<sup>1</sup>Ivanov, 1981a; <sup>4</sup>Ivanov, 1999); **Perm Krai** (<sup>1</sup>Perevedentseva, 2008; <sup>1</sup>Belkovskaya et al., 2014; <sup>1</sup>Perevedentseva and Shishigin, 2014; <sup>1</sup>Botalov, 2017; <sup>1</sup>Botalov and Perevedentseva, 2020; <sup>1</sup>Botalov, Perevedentseva, and Shishigin, 2020); **Pskov Oblast** (<sup>4</sup>Popov, 2001a; <sup>4,9</sup>Popov et al., 2013); **Rostov Oblast** (<sup>1</sup>Morozova et al., 2008); **Ryazan Oblast** (<sup>1</sup>Volosnova, 1997; <sup>1</sup>Volosnova, 2014); **Saint Petersburg** (<sup>2</sup>Weinmann, 1828; <sup>2</sup>Weinmann, 1836; <sup>2</sup>Weinmann, 1837; <sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Morozova and Kovalenko, 2000; <sup>1</sup>Kotkova, Morozova, and Popov, 2005; <sup>1</sup>Kotkova, Morozova, and Popov, 2006; <sup>1</sup>Morozova and Smirnov, 2011; <sup>1</sup>Morozova et al., 2020); **Samara Oblast** (<sup>1</sup>Malysheva and Malysheva, 2004; <sup>1</sup>Malysheva and Malysheva, 2008; <sup>1</sup>Petersen et al., 2008); **Saratov Oblast** (<sup>1</sup>Nagumanov, 2015); **Sevastopol** (<sup>1</sup>Sarkina, 2016b; <sup>1</sup>Sarkina, 2020c); **Smolensk Oblast** (<sup>1</sup>Burova, 1969); **Sverdlovsk Oblast** (<sup>1</sup>Stepanova and Sirko, 1977; <sup>1</sup>Marina, 2006); **Tatarstan** (<sup>1</sup>Vassiljeva, 1977; <sup>1</sup>Potapov, 2015b); **Tula Oblast** (<sup>1</sup>Svetasheva, 2001; <sup>1</sup>Svetasheva, 2004; <sup>1</sup>Svetasheva, 2013); **Tver Oblast** (<sup>1</sup>Chastukhin, 1948b; <sup>1</sup>Chastukhin and Nikolaevskaya, 1969; <sup>1</sup>Kurochkin, 1993; <sup>1</sup>Mukhina, 2011a; <sup>1</sup>Kotkova, 2014); **Udmurt Republic** (<sup>1</sup>Tychinin, 1990; <sup>1</sup>Tychinin and Kuzmina, 2003); **Ulyanovsk Oblast** (<sup>1</sup>Ilyukhin, 2009; <sup>1</sup>Ilyukhin, 2010a); **Vologda Oblast** (<sup>1</sup>Kutova, 1957; <sup>1</sup>Kirillova, 2007; <sup>1</sup>Kirillova, 2009); **Voronezh Oblast** (<sup>1</sup>Chastukhin, 1952; <sup>1</sup>Chastukhin and Nikolaevskaya, 1953; <sup>1</sup>Chastukhin and Nikolaevskaya, 1969; <sup>1</sup>Rtishcheva, 1999; <sup>1</sup>Afanasyev, Rtishcheva, and Starodubtseva, 2007; <sup>1</sup>Selochnik, 2015; <sup>1</sup>Sarycheva, Starodubtseva, and Sapelnikova, 2017; <sup>1</sup>Kochergina and Furmenkova, 2019); **Yamalo-Nenets Autonomous Okrug** (<sup>1</sup>Stepanova and Sirko, 1977; <sup>4</sup>Karatygin, Nezdojminogo, Novozhilov, and Zhurbenko, 1999; <sup>1</sup>Nezdojminogo, 2001); **Yaroslavl Oblast** (<sup>1,3</sup>Lazareva, 1998a; <sup>6,8</sup>Lazareva, 1998a); **Arid territories** (<sup>1</sup>Rebriev, Rusanov, et al., 2012).

**SIBERIA: Altai Krai** (<sup>1</sup>Gorbunova and Perova, 2006; <sup>1</sup>Gorbunova and Chubarova, 2008; <sup>1</sup>Gorbunova, Vlasenko, and Tzhubarova, 2011); **Altai Republic** (<sup>1</sup>Singer, 1943; <sup>1</sup>Kovalenko, 1992; <sup>1</sup>Gorbunova, 1996; <sup>1</sup>Gorbunova, 1997; <sup>1</sup>Gorbunova, 2001a; <sup>1</sup>Gorbunova, 2001b; <sup>1</sup>Gorbunova, 2008); **Buryatia** (<sup>1</sup>Nezdojminogo, 1973); **Irkutsk Oblast** (<sup>1</sup>Kutafjeva, 1983; <sup>1</sup>Petrov, 1984; <sup>1</sup>Petrov, 1989; <sup>1</sup>Astapenko, 1990a; <sup>1</sup>Muzyka, 2002; <sup>1</sup>Bardunov et al., 2005; <sup>1</sup>Petrov, 2008; <sup>1</sup>Muzyka, 2009; <sup>1</sup>Muzyka and Penzina, 2017); **Khakassia** (<sup>1</sup>Beglyanova, 1972a); **Khanty-Mansi Autonomous Okrug** (<sup>1</sup>Filippova, Bulyonkova, and Lapshina, 2015; <sup>1</sup>Filippova and Bulyonkova, 2017a; <sup>1</sup>Filippova and Bulyonkova, 2017b; <sup>1</sup>Zvyagina and Baykalova, 2017); **Krasnoyarsk Krai** (<sup>1</sup>Perova, 1970; <sup>1</sup>Beglyanova, 1972a; <sup>1</sup>Nezdojminogo, 1976a; <sup>1</sup>Lapitskaya, 1993; <sup>1</sup>Pavlov et al., 2007; <sup>1</sup>Kosheleva and Kutafjeva, 2008a; <sup>1</sup>Kosheleva and Kutafjeva, 2008b; <sup>1</sup>Kosheleva, 2010; <sup>1</sup>Zauzolkova, 2012; <sup>1</sup>Zauzolkova, 2015; <sup>1</sup>Malysheva, Malysheva, Kiyashko, et al., 2017; <sup>1</sup>Krom and Kapitonov, 2019); **Novosibirsk Oblast** (<sup>1</sup>Perova, 1977; <sup>1</sup>Gorbunova, 2007; <sup>1</sup>Perova and Gorbunova, 2007; <sup>1</sup>Koropachinskiy and Banaev, 2014); **Tomsk Oblast** (<sup>1</sup>Perova, 1972; <sup>1</sup>Milovidova, 1980; <sup>1</sup>Kosheleva and Kutafjeva, 2004; <sup>1</sup>Agaphonova, Kutafjeva, and Gashkov, 2007; <sup>1</sup>Kudashova, Gashkov, and Kutafjeva, 2013); **Tyva Republic** (<sup>1</sup>Gorbunova, 2015); **Yamalo-Nenets Autonomous Okrug** (<sup>1</sup>Tarчевskaya, 1990; <sup>4</sup>Karatygin, Nezdojminogo, Novozhilov, and Zhurbenko, 1999).

**FAR EAST: Amur Oblast** (<sup>1</sup>Gordienko, Petrova, and Tarasov, 1981; <sup>1</sup>Nazarova, 1986; <sup>1</sup>Azbukina et al., 1998; <sup>1</sup>Taranina, 2005; <sup>1</sup>Kochunova, 2019); **Chukotka Autonomous Okrug** (<sup>2</sup>Berkeley and Curtis, 1978; <sup>1</sup>Sazanova, 1993); **Jewish Autonomous Oblast** (<sup>1</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Erofeeva and Bulakh, 2015b; <sup>1</sup>Erofeeva, Bukharova, and Bulakh, 2019); **Kamchatka Krai** (<sup>3</sup>Kalamees and Vaasma, 1981); **Khabarovsk Krai** (<sup>1</sup>Azbukina et al., 1986; <sup>1</sup>Azbukina et al., 1989; <sup>1</sup>Bau, Bulakh, Zhuang, and Li, 2007; <sup>1</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Bulakh, 2013; <sup>1</sup>Bogacheva, Bulakh, Bukharova, and Egorova, 2015; <sup>1</sup>Erofeeva and Bulakh, 2015a); **Magadan Oblast** (<sup>1</sup>Nazarova, 1976; <sup>1</sup>Sazanova, 1996; <sup>1</sup>Sazanova, 2005; <sup>1</sup>Sazanova, 2009a; <sup>1</sup>Sazanova, 2011; <sup>1</sup>Sazanova and Golodnova, 2015); **Primorsky Krai** (<sup>1</sup>Vassiljeva, 1972; <sup>1</sup>Vassiljeva, 1973; <sup>1</sup>Bunkina and Nazarova, 1978; <sup>1</sup>Azbukina et al., 1984; <sup>1</sup>Azbukina et al., 1990; <sup>1</sup>Bardunov et al., 2002; <sup>1</sup>Azbukina et al., 2006; <sup>1</sup>Bau, Bulakh, Zhuang, and Li, 2007; <sup>1</sup>Petersen et al., 2008; <sup>1</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Bulakh et al., 2016); **Sakhalin Oblast** (<sup>1</sup>Vassiljeva and Nazarova, 1972; <sup>1</sup>Bulakh, Govorova, and Bogatov, 1999).

***Mycena purpureofusca* (Peck) Sacc.**

EASTERN EUROPE: **Adygea** (Vaasma, Kalamees, and Raitviir, 1986); **Belgorod Oblast** (Bedenko, 1980); **Chelyabinsk Oblast** (Sirko and Stepanova, 1977; Stepanova and Sirko, 1977); **Crimea** (Dudka et al., 2004; Sarkina and Prydiuk, 2012; Sarkina, 2014a; Sarkina and Mironova, 2015); **Kaluga Oblast** (Sionova, 2012; Antokhina et al., 2015); **Karachay-Cherkess Republic** (Malysheva and Svetasheva, 2011); **Moscow Oblast** (Levitskaya, 2006; Levitskaya, 2013); **Penza Oblast** (Ivanov, 1989); **Perm Krai** (Perevedentseva, 2008); **Pskov Oblast** (Popov et al., 2013); **Sevastopol** (Sarkina, 2016b); **Sverdlovsk Oblast** (Marina, 2006); **Tatarstan** (Potapov, 2015b; Potapov, 2016b); **Tula Oblast** (Svetasheva, 2004; Shcherbakov, 2010).

SIBERIA: **Altai Krai** (Gorbunova and Chubarova, 2008; Gorbunova, Vlasenko, and Tzhubarova, 2011); **Altai Republic** (Gorbunova, 2010); **Irkutsk Oblast** (Petrov, 1984; Petrov, 1991; Petrov, 2008); **Khakassia** (Zauzolkova and Gorbunova, 2013; Zauzolkova, 2015); **Krasnoyarsk Krai** (Beglyanova, 1972a; Beglyanova, 1972c; Zauzolkova, 2015; Krom and Kapitonov, 2019); **Novosibirsk Oblast** (Koropachinskiy and Banaev, 2014); **Tomsk Oblast** (Perova and Gorbunova, 2001; Kudashova, Gashkov, and Kutafjeva, 2013).

FAR EAST: **Primorsky Krai** (Vassiljeva, 1973; Bunkina and Nazarova, 1978; Azbukina et al., 2006); **Sakhalin Oblast** (Vassiljeva and Nazarova, 1972).

***Mycena rapiolens* J. Favre**

EASTERN EUROPE: **Moscow Oblast** (Levitskaya, 2013).

***Mycena renati* Quél.<sup>1</sup>**

= *Mycena flavipes* Quél.<sup>2</sup>

EASTERN EUROPE: **Chechen Republic** (<sup>2</sup>Taysumov, Krapivina, and Kushalieva, 2016); **Chelyabinsk Oblast** (<sup>1</sup>Psurtseva, Kiyashko, Gachkova, and Belova, 2007); **Crimea** (<sup>1</sup>Sarkina, 2011; <sup>1</sup>Sarkina and Prydiuk, 2012; <sup>1</sup>Sarkina and Mironova, 2015); **Kabardino-Balkarian Republic** (<sup>1</sup>Shkhagapsoev and Krapivina, 2004); **Leningrad Oblast** (<sup>1</sup>Geltman et al., 2018; <sup>1</sup>Geltman, 2018b); **Lipetsk Oblast** (<sup>1</sup>Sarycheva, Starodubtseva, and Sapelnikova, 2017); **Novgorod Oblast** (<sup>1</sup>Kalinina, 2019); **Perm Krai** (<sup>1</sup>Perevedentseva, Shilkova, and Botalov, 2011); **Rostov Oblast** (<sup>1</sup>Zmitrovich et al., 2008); **Samara Oblast** (<sup>1</sup>Malysheva and Malysheva, 2004; <sup>1</sup>Malysheva and Malysheva, 2008); **Sevastopol** (<sup>1</sup>Sarkina, 2020c); **Tula Oblast** (<sup>1</sup>Svetasheva, 2004; <sup>1</sup>Svetasheva, 2013); **Udmurt Republic** (<sup>1</sup>Kapitonov, 2008); **Ulyanovsk Oblast** (<sup>1</sup>Ilyukhin, 2010a); **Arid territories** (<sup>1</sup>Rebriev, Rusanov, et al., 2012).

***Mycena robusta* (A.H. Sm.) Maas Geest.**

EASTERN EUROPE: **Samara Oblast** (Malysheva and Malysheva, 2008).

FAR EAST: **Khabarovsk Krai** (Bulakh, 2007); **Sakhalin Oblast** (Bulakh, 2007).

***Mycena rosea* Gramberg<sup>1</sup>**

≡ *Agaricus roseus* Schaeff.<sup>2</sup> ≡ *Mycena pura* f. *rosea* (Gramberg) J.E. Lange<sup>3</sup> ≡ *Mycena pura* var. *rosea* (Gramberg) J.E. Lange<sup>4</sup>

EASTERN EUROPE: **Adygea** (<sup>4</sup>Vaasma, Kalamees, and Raitviir, 1986); **Crimea** (<sup>1</sup>Sarkina and Prydiuk, 2012; <sup>1</sup>Sarkina and Mironova, 2015); **Kaliningrad Oblast** (<sup>1</sup>Dedkov, Volodina, and Gubareva, 2007); **Kaluga Oblast** (<sup>1</sup>Sionova, 2012); **Karachay-Cherkess Republic** (<sup>1</sup>Kalamees and Botashev, 2000); **Kirov Oblast** (<sup>1</sup>Kirillov, 2011; <sup>1</sup>Kirillov, Perevedentseva, and Egoshina, 2011; <sup>1</sup>Stavishenko, Luginina, Kirillov, and Egoshina, 2019); **Leningrad Oblast** (<sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Popov et al., 2007); **Lipetsk Oblast** (<sup>1</sup>Sarycheva et al., 2009; <sup>1</sup>Sarycheva, 2011; <sup>1</sup>Sarycheva, 2014a; <sup>1</sup>Sarycheva, 2016); **Moscow** (<sup>2</sup>Bucholtz, 1897b; <sup>2</sup>Bucholtz, 1897c; <sup>2</sup>Mosolov, 1906); **Moscow Oblast** (<sup>1</sup>Voronina et al., 2014); **Novgorod Oblast** (<sup>1</sup>Kovalenko, Morozova, Nezdoininogo, and Popov, 2005; <sup>1</sup>Popov et al., 2013); **Perm Krai** (<sup>1</sup>Perevedentseva, 2008; <sup>1</sup>Belkovskaya et al., 2014); **Pskov Oblast** (<sup>1</sup>Popov et al., 2013); **Rostov Oblast** (<sup>1</sup>Morozova et al., 2008); **Saint Petersburg** (<sup>1</sup>Morozova et al., 2020); **Samara Oblast** (<sup>1</sup>Malysheva and Malysheva, 2008); **Sevastopol** (<sup>1</sup>Sarkina, 2020c); **Tatarstan** (<sup>1</sup>Potapov, 2015b; <sup>1</sup>Potapov, 2016b); **Tula Oblast** (<sup>1</sup>Svetasheva, 2004); **Ulyanovsk Oblast** (<sup>1</sup>Ilyukhin, 2010a); **Voronezh Oblast** (<sup>1</sup>Sarycheva, Starodubtseva, and Sapelnikova, 2017); **Yaroslavl Oblast** (<sup>1</sup>Lazareva, 1998a); **Arid territories** (<sup>1</sup>Rebriev, Rusanov, et al., 2012).

SIBERIA: **Altai Krai** (<sup>1</sup>Gorbunova, Vlasenko, and Tzhubarova, 2011); **Tomsk Oblast** (<sup>1</sup>Kudashova, Gashkov, and Vaishlya, 2016a).

FAR EAST: **Kamchatka Krai** (<sup>3</sup>Kalamees and Vaasma, 1981).

***Mycena rosella* (Fr.) P. Kumm.<sup>1</sup>**

≡ *Agaricus rosellus* Fr.<sup>2</sup> ≡ *Mycena rosella* var. *rosella* (Fr.) P. Kumm.<sup>3</sup> = *Mycena rosea* Sacc.<sup>4</sup>

EASTERN EUROPE: **Belgorod Oblast** (<sup>1</sup>Bedenko, 1980); **Chechen Republic** (<sup>1</sup>Taysumov, Krapivina, and Kushalieva, 2016); **Chelyabinsk Oblast** (<sup>1</sup>Sirko and Stepanova, 1977; <sup>1</sup>Stepanova and Sirko, 1977); **Crimea** (<sup>4</sup>Sarkina, 2011); **Kabardino-Balkarian Republic** (<sup>1</sup>Shkhagapsoev and Krapivina, 2004); **Kaliningrad Oblast** (<sup>1</sup>Dedkov, Volodina, and Gubareva, 2007; <sup>1</sup>Volodina, 2007; <sup>1</sup>Atayev and Volodina, 2020); **Kaluga Oblast** (<sup>1</sup>Sionova, 2003); **Karelia** (<sup>1</sup>Freindling, 1949; <sup>3</sup>Kovalenko, Morozova, Fomina, and Särkisilta, 1998; <sup>1</sup>Bondartseva et al., 2001; <sup>1</sup>Krutov et al., 2014; <sup>1</sup>Predtechenskaya, 2015); **Kirov Oblast** (<sup>1</sup>Kirillov and Luginina, 2011; <sup>1</sup>Stavishenko, Luginina, Kirillov, and Egoshina, 2019); **Komi Republic** (<sup>1</sup>Palamarchuk and Kirillov, 2017; <sup>1</sup>Palamarchuk, 2020a); **Leningrad Oblast** (<sup>1</sup>Thesleff, 1920; <sup>1</sup>Kalamees and Kovalenko, 1984; <sup>1</sup>Stolyarskaya, 1989; <sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Popov et al., 2007; <sup>1</sup>Zmitrovich et al., 2015); **Lipetsk Oblast** (<sup>1</sup>Sarycheva, 2011; <sup>1</sup>Sarycheva, 2016); **Moscow** (<sup>1</sup>Burova, 1968; <sup>1</sup>Burova, 1971); **Moscow Oblast** (<sup>1</sup>Gorlenko, Sidorova, and Sidorova, 1989; <sup>1</sup>Levitskaya, 1998; <sup>1</sup>Vishnevsky, 1998; <sup>1</sup>Levitskaya, 2013; <sup>1</sup>Voronina et al., 2014; <sup>1</sup>Sidorova, Alexandrova, and Voronina, 2017); **Novgorod Oblast** (<sup>1</sup>Kovalenko, Morozova, Nezdojminogo, and Popov, 2005; <sup>1</sup>Morozova, 2012; <sup>1</sup>Popov et al., 2013; <sup>1</sup>Baklan, 2015); **Perm Krai** (<sup>1</sup>Perevedentseva, 2008; <sup>1</sup>Botalov, 2017; <sup>1</sup>Botalov and Perevedentseva, 2020); **Pskov Oblast** (<sup>1</sup>Popov et al., 2013); **Rostov Oblast** (<sup>1</sup>Morozova et al., 2008); **Saint Petersburg** (<sup>2</sup>Weinmann, 1836; <sup>2</sup>Weinmann, 1837; <sup>1</sup>Morozova and Smirnov, 2011; <sup>1</sup>Morozova et al., 2020); **Tatarstan** (<sup>1</sup>Vassiljeva, 1977); **Tula Oblast** (<sup>1</sup>Svetasheva, 2001); **Tver Oblast** (<sup>1</sup>Chastukhin, 1948b; <sup>1</sup>Chastukhin and Nikolaevskaya, 1969; <sup>1</sup>Kurochkin, 1993; <sup>1</sup>Mukhina, 2011a; <sup>1</sup>Kotkova, 2014); **Udmurt Republic** (<sup>1</sup>Kapitonov, 2013); **Vladimir Oblast** (<sup>1</sup>Mishulin, Blinov, and Gushchina, 2018); **Vologda Oblast** (<sup>1</sup>Kirillova, 2007; <sup>1</sup>Kirillova, 2009); **Arid territories** (<sup>1</sup>Rebriev, Rusanov, et al., 2012).

SIBERIA: **Krasnoyarsk Krai** (<sup>1</sup>Beglyanova, 1972a; <sup>1</sup>Malysheva, Malysheva, Kiyashko, et al., 2017); **Novosibirsk Oblast** (<sup>1</sup>Perova and Gorbunova, 2001; <sup>1</sup>Perova and Gorbunova, 2007); **Tomsk Oblast** (<sup>1</sup>Milovidova, 1980; <sup>1</sup>Perova and Gorbunova, 2001; <sup>1</sup>Kudashova, Gashkov, and Kutafjeva, 2013).

FAR EAST: **Magadan Oblast** (<sup>1</sup>Sazanova, 1996; <sup>1</sup>Sazanova, 2005; <sup>1</sup>Sazanova, 2009a; <sup>1</sup>Sazanova, 2011; <sup>1</sup>Sazanova and Golodnova, 2015).

***Mycena rubromarginata* (Fr.) P. Kumm.<sup>1</sup>**

≡ *Agaricus rubromarginatus* Fr.<sup>2</sup> ≡ *Mycena rubromarginata* var. *rubromarginata* (Fr.) P. Kumm.<sup>3</sup>

EASTERN EUROPE: **Belgorod Oblast** (<sup>1</sup>Bedenko, 1980); **Chelyabinsk Oblast** (<sup>1</sup>Stepanova and Sirko, 1977); **Kaliningrad Oblast** (<sup>1</sup>Volodina, 2007); **Karelia** (<sup>1</sup>Bondartseva et al., 2001; <sup>1</sup>Krutov et al., 2014); **Kirov Oblast** (<sup>1</sup>Kirillov, 2011; <sup>1</sup>Kirillov, Perevedentseva, and Egoshina, 2011); **Komi Republic** (<sup>1</sup>Bobretsova, 2004; <sup>1</sup>Palamarchuk, 2011b; <sup>1</sup>Palamarchuk, 2012; <sup>1</sup>Palamarchuk, 2016a; <sup>1</sup>Palamarchuk, 2016b); **Krasnodar Krai** (<sup>1</sup>Psurtseva, Kiyashko, Gachkova, and Belova, 2007); **Leningrad Oblast** (<sup>1</sup>Thesleff, 1920; <sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Morozova, 2007; <sup>1</sup>Popov et al., 2007; <sup>1</sup>Zmitrovich et al., 2015); **Moscow** (<sup>1</sup>Burova, 1968; <sup>1</sup>Burova, 1971); **Moscow Oblast** (<sup>1</sup>Gorlenko, Sidorova, and Sidorova, 1989; <sup>1</sup>Vishnevsky, 1998; <sup>1</sup>Levitskaya, 2013; <sup>1</sup>Voronina et al., 2014); **Murmansk Oblast** (<sup>2</sup>Karsten, 1866; <sup>1</sup>Mikhailovskii, 1975b; <sup>1</sup>Karatygin, Nezdojminogo, Novozhilov, and Zhurbenko, 1999); **Novgorod Oblast** (<sup>1</sup>Kovalenko, Morozova, Nezdojminogo, and Popov, 2005; <sup>1</sup>Psurtseva, Kiyashko, Gachkova, and Belova, 2007; <sup>1</sup>Popov et al., 2013; <sup>1</sup>Baklan, 2015); **Perm Krai** (<sup>3</sup>Perevedentseva, 2008; <sup>1</sup>Belkovskaya et al., 2014; <sup>1</sup>Perevedentseva and Shishigin, 2014; <sup>1</sup>Botalov, 2017); **Pskov Oblast** (<sup>1</sup>Kovalenko, Kolmakov, Morozova, and Popov, 2003; <sup>1</sup>Popov et al., 2013); **Saint Petersburg** (<sup>1</sup>Morozova and Smirnov, 2011; <sup>1</sup>Morozova et al., 2020); **Smolensk Oblast** (<sup>1</sup>Burova, 1969); **Sverdlovsk Oblast** (<sup>1</sup>Marina, 2006); **Tula Oblast** (<sup>1</sup>Svetasheva, 2001; <sup>1</sup>Svetasheva, 2004); **Tver Oblast** (<sup>1</sup>Kotkova, 2014); **Udmurt Republic** (<sup>1</sup>Tychinin, 1990; <sup>1</sup>Kapitonov, 2013); **Vologda Oblast** (<sup>1</sup>Kirillova, 2007; <sup>1</sup>Kirillova, 2009).

SIBERIA: **Altai Krai** (<sup>3</sup>Gorbunova and Chubarova, 2008; <sup>1</sup>Gorbunova, Vlasenko, and Tzhubarova, 2011); **Altai Republic** (<sup>1</sup>Gorbunova, 2008; <sup>1</sup>Gorbunova, 2010); **Khakassia** (<sup>1</sup>Zauzolkova, 2015; <sup>1</sup>Zauzolkova and Gorbunova, 2016); **Krasnoyarsk Krai** (<sup>1</sup>Beglyanova, 1972a; <sup>1</sup>Gorbunova, 2016); **Novosibirsk Oblast** (<sup>1</sup>Perova and Gorbunova, 2001; <sup>3</sup>Perova and Gorbunova, 2007); **Tomsk Oblast** (<sup>1</sup>Perova and Gorbunova, 2001; <sup>1</sup>Kudashova, Gashkov, and Kutafjeva, 2013).

FAR EAST: **Kamchatka Krai** (<sup>1</sup>Kalamees and Vaasma, 1981); **Primorsky Krai** (<sup>1</sup>Azbukina et al., 2006; <sup>1</sup>Bau, Bulakh, and Govorova, 2011).

***Mycena sanguinolenta* (Alb. & Schwein.) P. Kumm.<sup>1</sup>**

≡ *Agaricus sanguinolentus* Alb. & Schwein.<sup>2</sup> ≡ *Mycena sanguinolenta* var. *sanguinolenta* (Alb. & Schwein.) P. Kumm.<sup>3</sup> = *Agaricus cruentus* Fr.<sup>4</sup> = *Mycena cruenta* (Fr.) Quél.<sup>5</sup>

EASTERN EUROPE: **Adygea** (<sup>1</sup>Vaasma, Kalamees, and Raitviir, 1986; <sup>1</sup>Psurtseva, Kiyashko, Gachkova, and Belova, 2007); **Kabardino-Balkarian Republic** (<sup>1</sup>Krapivina et al., 2020); **Kaliningrad Oblast** (<sup>1</sup>Atayev and Volodina,

2020); **Kaluga Oblast** (<sup>1</sup>Sionova, 2012); **Karachay-Cherkes Republic** (<sup>1</sup>Kalamees and Botashev, 2000); **Karelia** (<sup>1</sup>Freindling, 1949; <sup>3</sup>Kovalenko, Morozova, Fomina, and Särkisilta, 1998; <sup>1</sup>Bondartseva et al., 2001; <sup>1</sup>Krutov et al., 2014); **Kirov Oblast** (<sup>1</sup>Kirillov and Luginina, 2011; <sup>1</sup>Kirillov, 2011; <sup>1</sup>Kirillov, Perevedentseva, and Egoshina, 2011; <sup>1</sup>Stavishenko, Luginina, Kirillov, and Egoshina, 2019); **Komi Republic** (<sup>1</sup>Bobretsova, 2004; <sup>1</sup>Palamarchuk, 2012); **Krasnodar Krai** (<sup>1</sup>Vaasma, Kalamees, and Raitviir, 1986; <sup>1</sup>Psurtseva, Kiyashko, Gachkova, and Belova, 2007); **Leningrad Oblast** (<sup>1,5</sup>Thesleff, 1920; <sup>1</sup>Nezdojminogo, 1967; <sup>1</sup>Chastukhin and Nikolaevskaya, 1969; <sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Morozova and Kovalenko, 2000; <sup>1</sup>Morozova, 2007; <sup>1</sup>Popov et al., 2007; <sup>1</sup>Zmitrovich et al., 2015; <sup>1</sup>Kalinina, 2018); **Lipetsk Oblast** (<sup>1</sup>Sarycheva, 2011; <sup>1</sup>Sarycheva, 2016); **Mordovia** (<sup>1</sup>Chastukhin, 1948a; <sup>1</sup>Chastukhin and Nikolaevskaya, 1969; <sup>1</sup>Chastukhin, 2011; <sup>1</sup>Ivoilov and Bolshakov, 2011a); **Moscow** (<sup>2</sup>Bucholtz, 1897b; <sup>2</sup>Bucholtz, 1897c; <sup>2</sup>Mosolov, 1906; <sup>1</sup>Burova, 1968; <sup>1</sup>Burova, 1971); **Moscow Oblast** (<sup>1</sup>Gorlenko, Sidorova, and Sidorova, 1989; <sup>1</sup>Levitskaya, 1998; <sup>1</sup>Vishnevsky, 1998; <sup>1</sup>Voronina et al., 2012; <sup>1</sup>Levitskaya, 2013; <sup>1</sup>Voronina et al., 2014); **Murmansk Oblast** (<sup>1</sup>Pystina, Pavlova, and Shestakova, 1969); **Novgorod Oblast** (<sup>1</sup>Kovalenko, Morozova, Nezdojminogo, and Popov, 2005; <sup>1</sup>Popov et al., 2013); **Penza Oblast** (<sup>1</sup>Ivanov, 1985); **Perm Krai** (<sup>1</sup>Perevedentseva, 2008; <sup>1</sup>Belkovskaya et al., 2014; <sup>1</sup>Perevedentseva and Shishigin, 2014; <sup>1</sup>Botalov, Perevedentseva, and Shishigin, 2020); **Pskov Oblast** (<sup>1</sup>Kovalenko, Kolmakov, Morozova, and Popov, 2003; <sup>1</sup>Popov et al., 2013); **Saint Petersburg** (<sup>2,4</sup>Weinmann, 1836; <sup>2,4</sup>Weinmann, 1837; <sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Kotkova, Morozova, and Popov, 2005; <sup>1</sup>Morozova and Smirnov, 2011; <sup>1</sup>Morozova et al., 2020); **Smolensk Oblast** (<sup>1</sup>Burova, 1969); **Sverdlovsk Oblast** (<sup>1</sup>Stepanova and Sirko, 1977; <sup>1</sup>Marina, 2006); **Tatarstan** (<sup>1</sup>Potapov, 2016a; <sup>1</sup>Potapov, 2016b); **Tula Oblast** (<sup>1</sup>Svetasheva, 2001; <sup>1</sup>Svetasheva, 2004; <sup>1</sup>Svetasheva, 2013); **Tver Oblast** (<sup>1</sup>Chastukhin, 1948b; <sup>1</sup>Chastukhin and Nikolaevskaya, 1969; <sup>1</sup>Mukhina, 2011a; <sup>1</sup>Kotkova, 2014); **Udmurt Republic** (<sup>1</sup>Tychinin and Kuzmina, 2003); **Vologda Oblast** (<sup>1</sup>Kirillova, 2007; <sup>1</sup>Kirillova, 2009); **Yaroslavl Oblast** (<sup>3</sup>Lazareva, 1998a).

SIBERIA: **Altai Krai** (<sup>1</sup>Gorbunova, Vlasenko, and Tzhubarova, 2011); **Kemerovo Oblast** (<sup>1</sup>Perova and Gorbunova, 2001); **Krasnoyarsk Krai** (<sup>1</sup>Zauzolkova, 2012; <sup>1</sup>Zauzolkova, 2015).

FAR EAST: **Kamchatka Krai** (<sup>1</sup>Kalamees and Vaasma, 1981); **Sakhalin Oblast** (<sup>1</sup>Vassiljeva and Nazarova, 1972).

#### *Mycena sepia* J.E. Lange

SIBERIA: **Krasnoyarsk Krai** (Beglyanova, 1972c).

#### *Mycena septentrionalis* Maas Geest.

EASTERN EUROPE: **Kaliningrad Oblast** (Atayev and Volodina, 2020); **Komi Republic** (Palamarchuk and Kirillov, 2017); **Leningrad Oblast** (Malysheva, Malysheva, Shchepin, and Novozhilov, 2018).

SIBERIA: **Irkutsk Oblast** (Gorbunova and Stepanova, 2015).

FAR EAST: **Amur Oblast** (Bulakh, 2007); **Khabarovsk Krai** (Bulakh, 2007); **Primorsky Krai** (Azbukina et al., 2006; Bulakh, 2007; Bau, Bulakh, and Govorova, 2011); **Sakhalin Oblast** (Bulakh, 2007).

#### *Mycena silvae-nigrae* Maas Geest. & Schwöbel

EASTERN EUROPE: **Komi Republic** (Palamarchuk, 2016a); **Leningrad Oblast** (Morozova, 2007; Popov et al., 2007); **Moscow Oblast** (Levitskaya, 1998; Levitskaya, 2013); **Saint Petersburg** (Kovalenko and Morozova, 1999a; Kotkova, Morozova, and Popov, 2005; Morozova et al., 2020); **Vologda Oblast** (Kirillova, 2007; Kirillova, 2009).

SIBERIA: **Khanty-Mansi Autonomous Okrug** (Filippova and Bulyonkova, 2017a; Filippova and Bulyonkova, 2017b); **Krasnoyarsk Krai** (Gorbunova, 2016; Krom and Kapitonov, 2019).

#### *Mycena simia* Kühner

EASTERN EUROPE: **Kaliningrad Oblast** (Dedkov, Volodina, and Gubareva, 2007; Volodina, 2007); **Komi Republic** (Palamarchuk (Bobretsova), 2009); **Murmansk Oblast** (Kalamees and Raitviir, 2006); **Perm Krai** (Perevedentseva, 2008; Belkovskaya et al., 2014; Botalov, 2017; Botalov and Perevedentseva, 2020); **Yamalo-Nenets Autonomous Okrug** (Knudsen and Mukhin, 1998; Karatygin, Nezdojminogo, Novozhilov, and Zhurbenko, 1999; Nezdojminogo, 2001).

SIBERIA: **Tomsk Oblast** (Agaphonova, Kutafjeva, and Gashkov, 2009b; Kudashova, Gashkov, and Kutafjeva, 2013).

#### *Mycena smithiana* Kühner

EASTERN EUROPE: **Kaliningrad Oblast** (Atayev and Volodina, 2020); **Voronezh Oblast** (Chastukhin and Nikolaevskaya, 1969).

***Mycena stipata* Maas Geest. & Schwöbel**

EASTERN EUROPE: **Kaliningrad Oblast** (Volodina, 2007); **Karelia** (Bondartseva et al., 2001; Predtechenskaya and Ruokolainen, 2013; Predtechenskaya, 2013; Krutov et al., 2014; Predtechenskaya, 2015; Savelev and Kikeeva, 2020); **Kirov Oblast** (Kirillov, 2011; Kirillov, Perevedentseva, and Egoshina, 2011; Stavishenko, Luginina, Kirillov, and Egoshina, 2019); **Komi Republic** (Palamarchuk (Bobretsova), 2009; Palamarchuk, 2012; Palamarchuk and Kirillov, 2017); **Leningrad Oblast** (Kovalenko and Morozova, 1999a; Morozova, 2007; Popov et al., 2007; Zmitrovich et al., 2015); **Moscow Oblast** (Levitskaya, 1998; Levitskaya, 2013); **Perm Krai** (Perevedentseva, 2008; Belkovskaya et al., 2014; Botalov, 2017); **Saint Petersburg** (Morozova et al., 2020); **Sverdlovsk Oblast** (Marina, 2006); **Tver Oblast** (Kotkova, 2014); **Udmurt Republic** (Kapitonov, 2013); **Vologda Oblast** (Kirillova, 2007; Kirillova, 2009).

SIBERIA: **Altai Krai** (Gorbunova, 2018a); **Altai Republic** (Gorbunova, 2001a; Gorbunova, 2001b; Gorbunova, 2019); **Khanty-Mansi Autonomous Okrug** (Filippova and Bulyonkova, 2017a; Filippova and Bulyonkova, 2017b; Zvyagina and Baykalova, 2017); **Krasnoyarsk Krai** (Kosheleva and Kutafjeva, 2008a; Gorbunova, 2016); **Tomsk Oblast** (Kudashova, Gashkov, and Kutafjeva, 2013).

FAR EAST: **Khabarovsk Krai** (Bulakh, 2007); **Primorsky Krai** (Azbukina et al., 2006; Bulakh, 2007; Bau, Bulakh, and Govorova, 2011; Bulakh et al., 2016); **Sakhalin Oblast** (Bulakh, Govorova, and Bogatov, 1999).

***Mycena strobilicola* J. Favre & Kühner**

EASTERN EUROPE: **Chelyabinsk Oblast** (Sirko and Stepanova, 1977; Stepanova and Sirko, 1977); **Kaliningrad Oblast** (Volodina, 2007); **Leningrad Oblast** (Kovalenko and Morozova, 1999a; Popov et al., 2007; Psurtseva, Kiyashko, Gachkova, and Belova, 2007; Kalinina, 2018); **Moscow** (Samoilov and Morozova, 2011; Muchnik et al., 2020); **Moscow Oblast** (Vishnevsky, 1998); **Saint Petersburg** (Morozova and Smirnov, 2011; Morozova et al., 2020); **Sverdlovsk Oblast** (Marina, 2006); **Tatarstan** (Vassiljeva, 1977); **Tula Oblast** (Svetasheva, 2004); **Udmurt Republic** (Kapitonov, 2013).

SIBERIA: **Altai Republic** (Gorbunova, 2001a); **Novosibirsk Oblast** (Koropachinskiy and Banaev, 2014).

FAR EAST: **Primorsky Krai** (Vassiljeva, 1973; Bau, Bulakh, and Govorova, 2011); **Sakhalin Oblast** (Bulakh, Govorova, and Bogatov, 1999).

***Mycena strobilinoidea* Peck**

SIBERIA: **Buryatia** (Petrov, 1991).

FAR EAST: **Magadan Oblast** (Nazarova, 1976; Sazanova, 2005; Sazanova, 2009a); **Sakhalin Oblast** (Bulakh, Govorova, and Bogatov, 1999).

***Mycena stylobates* (Pers.) P. Kumm.<sup>1</sup>**

≡ *Agaricus stylobates* Pers.<sup>2</sup>

EASTERN EUROPE: **Adygea** (<sup>1</sup>Vaasma, Kalamees, and Raitviir, 1986); **Crimea** (<sup>1</sup>Sarkina, 2010b); **Kaliningrad Oblast** (<sup>1</sup>Dedkov, Volodina, and Gubareva, 2007; <sup>1</sup>Volodina, 2007); **Kaluga Oblast** (<sup>1</sup>Sionova, 2012); **Karelia** (<sup>1</sup>Krutov et al., 2014); **Kirov Oblast** (<sup>1</sup>Kirillov and Luginina, 2011; <sup>1</sup>Kirillov, 2011; <sup>1</sup>Kirillov, Perevedentseva, and Egoshina, 2011; <sup>1</sup>Stavishenko, Luginina, Kirillov, and Egoshina, 2019); **Komi Republic** (<sup>1</sup>Palamarchuk (Bobretsova), 2009; <sup>1</sup>Palamarchuk, 2012; <sup>1</sup>Palamarchuk, 2017; <sup>1</sup>Palamarchuk and Kirillov, 2018a); **Krasnodar Krai** (<sup>1</sup>Vassiljeva, 1939); **Kursk Oblast** (<sup>1</sup>Baranov, 2002); **Leningrad Oblast** (<sup>1</sup>Thesleff, 1920; <sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Morozova, 2007; <sup>1</sup>Popov et al., 2007); **Lipetsk Oblast** (<sup>1</sup>Alferova, 1977; <sup>1</sup>Sarycheva, 1999; <sup>1</sup>Sarycheva et al., 2009; <sup>1</sup>Sarycheva, 2011; <sup>1</sup>Sarycheva, 2014a; <sup>1</sup>Sarycheva, 2016); **Mordovia** (<sup>1</sup>Chastukhin, 1948a; <sup>1</sup>Chastukhin and Nikolaevskaya, 1969; <sup>1</sup>Chastukhin, 2011; <sup>1</sup>Ivoilov and Bolshakov, 2011a); **Moscow** (<sup>2</sup>Bucholtz, 1897a; <sup>1</sup>Burova, 1968; <sup>1</sup>Burova, 1971); **Moscow Oblast** (<sup>1</sup>Gorlenko, Sidorova, and Sidorova, 1989; <sup>1</sup>Levitskaya, 1998; <sup>1</sup>Vishnevsky, 1998; <sup>1</sup>Levitskaya, 2013); **Novgorod Oblast** (<sup>1</sup>Kovalenko, Morozova, Nezdoinin, and Popov, 2005; <sup>1</sup>Psurtseva, Kiyashko, Gachkova, and Belova, 2007; <sup>1</sup>Popov et al., 2013); **Perm Krai** (<sup>1</sup>Perevedentseva, 2008; <sup>1</sup>Perevedentseva and Shishigin, 2014); **Pskov Oblast** (<sup>1</sup>Popov et al., 2013); **Ryazan Oblast** (<sup>1</sup>Volosnova, 2005; <sup>1</sup>Volosnova, 2014); **Saint Petersburg** (<sup>2</sup>Weinmann, 1828; <sup>2</sup>Weinmann, 1836; <sup>2</sup>Weinmann, 1837; <sup>1</sup>Morozova and Smirnov, 2011; <sup>1</sup>Morozova, Kovalenko, Rebriev, and Malysheva, 2014; <sup>1</sup>Morozova et al., 2020); **Samara Oblast** (<sup>1</sup>Malysheva and Malysheva, 2006; <sup>1</sup>Malysheva and Malysheva, 2008); **Smolensk Oblast** (<sup>1</sup>Jaczevski, 1898); **Sverdlovsk Oblast** (<sup>1</sup>Marina, 2006); **Tatarstan** (<sup>1</sup>Vassiljeva, 1977); **Tula Oblast** (<sup>1</sup>Svetasheva, 2004); **Tver Oblast** (<sup>1</sup>Chastukhin, 1948b; <sup>1</sup>Chastukhin and Nikolaevskaya, 1969; <sup>1</sup>Mukhina, 2011a; <sup>1</sup>Kotkova, 2014); **Udmurt Republic** (<sup>1</sup>Tychinin and Kuzmina, 2003); **Vologda Oblast** (<sup>1</sup>Kirillova, 2007; <sup>1</sup>Kirillova, 2009); **Voronezh Oblast** (<sup>1</sup>Chastukhin, 1952; <sup>1</sup>Chastukhin and Nikolaevskaya, 1953; <sup>1</sup>Chastukhin and Nikolaevskaya, 1969); **Yaroslavl Oblast** (<sup>1</sup>Lazareva, 1998a).

SIBERIA: **Altai Republic** (<sup>1</sup>Gorbunova, 2017a); **Buryatia** (<sup>1</sup>Nezdojminogo, 1970a; <sup>1</sup>Petrov, 1991); **Irkutsk Oblast** (<sup>1</sup>Petrov, 1984; <sup>1</sup>Petrov, 1991; <sup>1</sup>Petrov, 2008); **Kemerovo Oblast** (<sup>1</sup>Perova and Gorbunova, 2001); **Khakassia** (<sup>1</sup>Zauzolkova, 2015; <sup>1</sup>Zauzolkova and Gorbunova, 2016); **Khanty-Mansi Autonomous Okrug** (<sup>1</sup>Filippova and Bulyonkova, 2017a; <sup>1</sup>Filippova and Bulyonkova, 2017b); **Krasnoyarsk Krai** (<sup>1</sup>Beglyanova, 1972a; <sup>1</sup>Nezdojminogo, 1982a); **Novosibirsk Oblast** (<sup>1</sup>Zhukov, 1972; <sup>1</sup>Perova, 1977; <sup>1</sup>Zhukov, 1980; <sup>1</sup>Perova and Gorbunova, 2001; <sup>1</sup>Perova and Gorbunova, 2007; <sup>1</sup>Koropachinskiy and Banaev, 2014); **Tomsk Oblast** (<sup>1</sup>Kudashova, Gashkov, and Vaishlya, 2016a); **Yamalo-Nenets Autonomous Okrug** (<sup>1</sup>Tarchevskaya, 1990).

FAR EAST: **Khabarovsk Krai** (<sup>1</sup>Bulakh, 2013; <sup>1</sup>Bogacheva, Bulakh, Bukharova, and Egorova, 2015); **Magadan Oblast** (<sup>1</sup>Sazanova, 2009a; <sup>1</sup>Sazanova, 2009b; <sup>1</sup>Sazanova, 2011); **Primorsky Krai** (<sup>1</sup>Vassiljeva, 1972; <sup>1</sup>Vassiljeva, 1973; <sup>1</sup>Bunkina and Nazarova, 1978; <sup>1</sup>Azbukina et al., 1984; <sup>1</sup>Azbukina et al., 2006; <sup>1</sup>Bau, Bulakh, and Govorova, 2011); **Sakhalin Oblast** (<sup>1</sup>Vassiljeva and Nazarova, 1972).

***Mycena subcana* A.H. Sm.**

SIBERIA: **Khanty-Mansi Autonomous Okrug** (Filippova and Bulyonkova, 2017a; Filippova and Bulyonkova, 2017b).

FAR EAST: **Primorsky Krai** (Azbukina et al., 1984).

***Mycena subcucullata* A.H. Sm.**

FAR EAST: **Khabarovsk Krai** (Azbukina et al., 1986).

***Mycena subinamyloidea* Singer**

SIBERIA: **Altai Republic** (Singer, 1943).

***Mycena sudorella* Singer**

SIBERIA: **Altai Republic** (Singer, 1943).

***Mycena tenax* A.H. Sm.**

FAR EAST: **Khabarovsk Krai** (Bulakh, 2007); **Sakhalin Oblast** (Bulakh, 2007).

***Mycena tenerrima* (Berk.) Quél.<sup>1</sup>**

= *Mycena adscendens* Maas Geest.<sup>2</sup>

EASTERN EUROPE: **Kaliningrad Oblast** (<sup>2</sup>Volodina, 2007); **Moscow** (<sup>1</sup>Burova, 1968; <sup>1</sup>Burova, 1971); **Moscow Oblast** (<sup>2</sup>Vishnevsky, 1998); **Novgorod Oblast** (<sup>1</sup>Kalinina, 2019); **Pskov Oblast** (<sup>2</sup>Morozova et al., 2015); **Tatarstan** (<sup>1</sup>Vassiljeva, 1977).

SIBERIA: **Novosibirsk Oblast** (<sup>2</sup>Koropachinskiy and Banaev, 2014).

***Mycena tenuispinosa* J. Favre**

EASTERN EUROPE: **Leningrad Oblast** (Song et al., 2019).

***Mycena tintinnabulum* (Paulet) Quél.<sup>1</sup>**

≡ *Agaricus tintinnabulum* (Paulet) Fr.<sup>2</sup>

EASTERN EUROPE: **Adygea** (<sup>1</sup>Vaasma, Kalamees, and Raitviir, 1986); **Belgorod Oblast** (<sup>1</sup>Bedenko, 1980); **Kaliningrad Oblast** (<sup>1</sup>Volodina, 2007); **Leningrad Oblast** (<sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Popov et al., 2007); **Lipetsk Oblast** (<sup>1</sup>Sarycheva et al., 2009; <sup>1</sup>Sarycheva, 2011); **Moscow** (<sup>2</sup>Bucholtz, 1897b; <sup>2</sup>Bucholtz, 1897c; <sup>2</sup>Mosolov, 1906); **Moscow Oblast** (<sup>1</sup>Vishnevsky, 1998); **Sverdlovsk Oblast** (<sup>1</sup>Marina, 2006); **Tver Oblast** (<sup>1</sup>Chastukhin, 1948b; <sup>1</sup>Chastukhin and Nikolaevskaya, 1969; <sup>1</sup>Mukhina, 2011a; <sup>1</sup>Kotkova, 2014).

SIBERIA: **Altai Krai** (<sup>1</sup>Gorbunova and Chubarova, 2008; <sup>1</sup>Gorbunova, Vlasenko, and Tzhubarova, 2011); **Altai Republic** (<sup>1</sup>Gorbunova, 2001b; <sup>1</sup>Perova and Gorbunova, 2001); **Irkutsk Oblast** (<sup>1</sup>Petrov, 1984; <sup>1</sup>Kutafjeva and Astapenko, 1987; <sup>1</sup>Astapenko, 1990a; <sup>1</sup>Petrov, 1991; <sup>1</sup>Petrov, 2008); **Khakassia** (<sup>1</sup>Beglyanova, 1972a); **Krasnoyarsk Krai** (<sup>1</sup>Beglyanova, 1972a; <sup>1</sup>Kutafjeva and Kosheleva, 2005; <sup>1</sup>Kosheleva and Kutafjeva, 2008a; <sup>1</sup>Malysheva, Malysheva, Kiyashko, et al., 2017; <sup>1</sup>Krom and Kapitonov, 2019); **Novosibirsk Oblast** (<sup>1</sup>Perova and Gorbunova, 2001; <sup>1</sup>Perova and Gorbunova, 2007); **Tomsk Oblast** (<sup>1</sup>Perova, 1972; <sup>1</sup>Perova and Gorbunova, 2001; <sup>1</sup>Kudashova, Gashkov, and Kutafjeva, 2013); **Yamalo-Nenets Autonomous Okrug** (<sup>1</sup>Tarchevskaya, 1990).

FAR EAST: **Amur Oblast** (<sup>1</sup>Azbukina et al., 1998); **Jewish Autonomous Oblast** (<sup>1</sup>Bulakh, Govorova, Nazarova, and Vassiljeva, 2007; <sup>1</sup>Bau, Bulakh, and Govorova, 2011); **Khabarovsk Krai** (<sup>1</sup>Erofeeva and Bulakh, 2015a);

**Primorsky Krai** (<sup>1</sup>Vassiljeva, 1972; <sup>1</sup>Vassiljeva, 1973; <sup>1</sup>Bunkina and Nazarova, 1978; <sup>1</sup>Azbukina et al., 2006; <sup>1</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Bulakh et al., 2016).

***Mycena tristis* Maas Geest.**

SIBERIA: **Khanty-Mansi Autonomous Okrug** (Filippova and Bulyonkova, 2017a; Filippova and Bulyonkova, 2017b).

***Mycena tubarioides* (Maire) Kühner**

EASTERN EUROPE: **Kaliningrad Oblast** (Volodina, 2007).

***Mycena ulmicola* A.H. Sm.**

FAR EAST: **Jewish Autonomous Oblast** (Bulakh, Govorova, Nazarova, and Vassiljeva, 2007; Bau, Bulakh, and Govorova, 2011); **Khabarovsk Krai** (Azbukina et al., 1986; Bau, Bulakh, and Govorova, 2011); **Primorsky Krai** (Vassiljeva, 1973).

***Mycena urania* (Fr.) Quél.<sup>1</sup>**

≡ *Agaricus uranius* Fr.<sup>2</sup>

EASTERN EUROPE: **Crimea** (<sup>1</sup>Dudka et al., 2004; <sup>1</sup>Sarkina, 2011); **Kaliningrad Oblast** (<sup>1</sup>Dedkov, Volodina, and Gubareva, 2007; <sup>1</sup>Volodina, 2007); **Komi Republic** (<sup>1</sup>Shiryayeva and Palamarchuk, 2019); **Leningrad Oblast** (<sup>2</sup>Weinmann, 1836; <sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Morozova and Kovalenko, 2000; <sup>1</sup>Popov et al., 2007); **Saint Petersburg** (<sup>2</sup>Weinmann, 1828; <sup>2</sup>Weinmann, 1837).

SIBERIA: **Krasnoyarsk Krai** (<sup>1</sup>Karatygin, Nezdoinogogo, Novozhilov, and Zhurbenko, 1999); **Tomsk Oblast** (<sup>1</sup>Kosheleva and Kutafjeva, 2004; <sup>1</sup>Kudashova, Gashkov, and Kutafjeva, 2013).

***Mycena vasilievae* Singer**

SIBERIA: **Altai Republic** (Singer, 1943).

***Mycena vexans* Sacc.**

FAR EAST: **Khabarovsk Krai** (Bulakh, 2007; Bau, Bulakh, and Govorova, 2011; Erofeeva and Bulakh, 2015a); **Primorsky Krai** (Azbukina et al., 2006; Bulakh, 2007; Bau, Bulakh, and Govorova, 2011); **Sakhalin Oblast** (Bulakh, 2007).

***Mycena viridimarginata* P. Karst.**

EASTERN EUROPE: **Chuvash Republic** (Vladimirova and Potapov, 2018); **Kaliningrad Oblast** (Volodina, 2007); **Karelia** (Bondartseva et al., 2001; Predtechenskaya and Ruokolainen, 2013; Krutov et al., 2014); **Komi Republic** (Palamarchuk, 2016a; Palamarchuk, 2016b; Palamarchuk and Kirillov, 2017; Palamarchuk, 2020a); **Leningrad Oblast** (Kovalenko and Morozova, 1999a; Morozova, 2007; Popov et al., 2007; Zmitrovich et al., 2015); **Moscow Oblast** (Levitskaya, 1998; Voronina et al., 2012; Levitskaya, 2013; Voronina et al., 2014); **Murmansk Oblast** (Mikhailovskii, 1975a); **Novgorod Oblast** (Kovalenko, Morozova, Nezdoinogogo, and Popov, 2005; Psurtseva, Kiyashko, Gachkova, and Belova, 2007; Popov et al., 2013); **Perm Krai** (Perevedentseva, 2008); **Pskov Oblast** (Kovalenko and Morozova, 1999b; Kovalenko, Kolmakov, Morozova, and Popov, 2003; Popov et al., 2013); **Saint Petersburg** (Morozova and Smirnov, 2011; Morozova et al., 2020); **Samara Oblast** (Malysheva and Malysheva, 2008); **Sverdlovsk Oblast** (Marina, 2006); **Tatarstan** (Potapov, 2016b); **Tula Oblast** (Svetasheva, 2004); **Tver Oblast** (Mukhina, 2011a; Mukhina, 2011b; Kotkova, 2014); **Udmurt Republic** (Kapitonov, 2013); **Vologda Oblast** (Kirillova, 2007; Kirillova, 2009).

SIBERIA: **Altai Republic** (Gorbunova, 2008; Gorbunova, 2010; Gorbunova, 2017b); **Khanty-Mansi Autonomous Okrug** (Zvyagina, 2008; Shepeleva et al., 2014; Filippova and Bulyonkova, 2017a; Filippova and Bulyonkova, 2017b); **Krasnoyarsk Krai** (Gorbunova, 2016; Krom and Kapitonov, 2019); **Novosibirsk Oblast** (Koropachinskiy and Banaev, 2014); **Tomsk Oblast** (Kudashova, Gashkov, and Vaishlya, 2016a).

FAR EAST: **Jewish Autonomous Oblast** (Bau, Bulakh, and Govorova, 2011; Erofeeva and Bulakh, 2015b); **Khabarovsk Krai** (Bulakh, Vassiljeva, and Erofeeva, 2010; Bau, Bulakh, and Govorova, 2011; Bulakh, 2013; Bogacheva, Bulakh, Bukharova, and Egorova, 2015; Erofeeva and Bulakh, 2015a); **Primorsky Krai** (Azbukina et al., 2006; Bau, Bulakh, and Govorova, 2011; Bulakh et al., 2016).

***Mycena vitilis* (Fr.) Quél.**

EASTERN EUROPE: **Chelyabinsk Oblast** (Stepanova and Sirko, 1977; Psurtseva, Kiyashko, Gachkova, and Belova, 2007); **Crimea** (Sarkina, 2001; Dudka et al., 2004; Sarkina, 2010b; Sarkina, 2011; Sarkina, 2014b; Sarkina

and Mironova, 2015); **Kaliningrad Oblast** (Dedkov, Volodina, and Gubareva, 2007; Volodina, 2007; Atayev and Volodina, 2020); **Komi Republic** (Palamarchuk, 2020b); **Krasnodar Krai** (Kovalenko, 1980a; Kovalenko, 1980b); **Leningrad Oblast** (Thesleff, 1920; Nezdoyminogo, 1967; Chastukhin and Nikolaevskaya, 1969; Kovalenko and Morozova, 1999a; Morozova and Kovalenko, 2000; Morozova, 2007; Popov et al., 2007; Zmitrovich et al., 2015; Kalinina, 2018); **Lipetsk Oblast** (Sarycheva et al., 2009; Sarycheva, 2011; Sarycheva, 2014a; Sarycheva, 2016); **Mordovia** (Chastukhin, 1948a; Chastukhin and Nikolaevskaya, 1969; Chastukhin, 2011; Ivoilov and Bolshakov, 2011a); **Moscow** (Burova, 1968; Burova, 1971); **Moscow Oblast** (Gorlenko, Sidorova, and Sidorova, 1989; Levitskaya, 1998; Vishnevsky, 1998; Levitskaya, 2013; Voronina et al., 2014); **Orenburg Oblast** (Desyatova, 2007; Desyatova, 2008); **Penza Oblast** (Ivanov, 1983); **Perm Krai** (Perevedentseva, 2008; Belkovskaya et al., 2014; Perevedentseva and Shishigin, 2014; Botalov, 2017; Botalov and Perevedentseva, 2020); **Pskov Oblast** (Popov et al., 2013); **Rostov Oblast** (Morozova et al., 2008); **Saint Petersburg** (Kovalenko and Morozova, 1999a; Morozova et al., 2020); **Samara Oblast** (Malysheva and Malysheva, 2005b; Malysheva and Malysheva, 2008); **Sevastopol** (Sarkina, 2016b); **Sverdlovsk Oblast** (Stepanova and Sirko, 1977; Marina, 2006); **Tatarstan** (Vassiljeva, 1977); **Tula Oblast** (Svetasheva, 2004; Svetasheva, 2013); **Udmurt Republic** (Tychinin and Kuzmina, 2003); **Volgograd Oblast** (Burova and Nezdoyminogo, 1982; Dudka and Vedeneyev, 2014); **Voronezh Oblast** (Chastukhin, 1952; Chastukhin and Nikolaevskaya, 1953; Chastukhin and Nikolaevskaya, 1969); **Arid territories** (Rebriev, Rusanov, et al., 2012).

SIBERIA: **Altai Krai** (Gorbunova and Chubarova, 2008; Gorbunova, Vlasenko, and Tzhubarova, 2011); **Altai Republic** (Singer, 1943; Gorbunova, 2001a; Gorbunova, 2001b; Perova and Gorbunova, 2001; Gorbunova, 2010); **Khanty-Mansi Autonomous Okrug** (Filippova and Bulyonkova, 2017a; Filippova and Bulyonkova, 2017b); **Krasnoyarsk Krai** (Beglyanova, 1972a; Beglyanova, 1972c; Gorbunova, 2016); **Novosibirsk Oblast** (Gorbunova, 2007; Perova and Gorbunova, 2007; Koropachinskiy and Banaev, 2014); **Tomsk Oblast** (Perova, 1972; Perova and Gorbunova, 2001; Kudashova, Gashkov, and Kutafjeva, 2013); **Yamalo-Nenets Autonomous Okrug** (Tarchevskaya, 1990).

FAR EAST: **Amur Oblast** (Nazarova, 1986); **Chukotka Autonomous Okrug** (Sazanova, 1993); **Jewish Autonomous Oblast** (Erofeeva and Bulakh, 2015b); **Khabarovsk Krai** (Azbukina et al., 1986; Bau, Bulakh, and Govorova, 2011; Erofeeva and Bulakh, 2015a; Bogacheva et al., 2018); **Magadan Oblast** (Sazanova, 2005; Sazanova, 2009a; Sazanova, 2009b; Sazanova, 2011; Sazanova, 2012; Sazanova and Golodnova, 2015); **Primorsky Krai** (Vassiljeva, 1973; Azbukina et al., 1984; Azbukina et al., 1990; Bardunov et al., 2002; Azbukina et al., 2006; Bau, Bulakh, and Govorova, 2011; Bogacheva et al., 2018); **Sakhalin Oblast** (Bulakh, Govorova, and Bogatov, 1999; Bogacheva et al., 2018).

### *Mycena vitrea* (Fr.) Quél.

EASTERN EUROPE: **Leningrad Oblast** (Thesleff, 1920); **Moscow Oblast** (Levitskaya, 2013); **Tatarstan** (Vassiljeva, 1977); **Voronezh Oblast** (Chastukhin, 1952; Chastukhin and Nikolaevskaya, 1953; Chastukhin and Nikolaevskaya, 1969).

SIBERIA: **Altai Republic** (Singer, 1943); **Krasnoyarsk Krai** (Beglyanova, 1972a; Kryuchkova, 2009).

FAR EAST: **Primorsky Krai** (Vassiljeva, 1973).

### *Mycena vulgaris* (Pers.) P. Kumm.<sup>1</sup>

≡ *Agaricus vulgaris* Pers.<sup>2</sup>

EASTERN EUROPE: **Chechen Republic** (<sup>1</sup>Taysumov, Krapivina, and Kushalieva, 2016); **Chelyabinsk Oblast** (<sup>1</sup>Stepanova and Sirko, 1977); **Crimea** (<sup>1</sup>Sarkina, 2001; <sup>1</sup>Dudka et al., 2004; <sup>1</sup>Sarkina, 2010b; <sup>1</sup>Sarkina, 2011; <sup>1</sup>Sarkina, 2013; <sup>1</sup>Sarkina, 2014b; <sup>1</sup>Sarkina and Mironova, 2015; <sup>1</sup>Sarkina and Stavishenko, 2019); **Kabardino-Balkarian Republic** (<sup>1</sup>Shkhagapsoev and Krapivina, 2004); **Kaliningrad Oblast** (<sup>1</sup>Hennings, 1895; <sup>1</sup>Dedkov, Volodina, and Gubareva, 2007); **Kaluga Oblast** (<sup>1</sup>Sionova, 2012); **Karelia** (<sup>1</sup>Kovalenko, Morozova, Fomina, and Särkisilta, 1998; <sup>1</sup>Bondartseva et al., 2001; <sup>1</sup>Krutov et al., 2014); **Kirov Oblast** (<sup>1</sup>Kirillov, 2011; <sup>1</sup>Kirillov, Perevedentseva, and Egoshina, 2011); **Komi Republic** (<sup>1</sup>Palamarchuk, 2011a; <sup>1</sup>Palamarchuk, 2012); **Leningrad Oblast** (<sup>1</sup>Thesleff, 1920; <sup>1</sup>Nezdoyminogo, 1967; <sup>1</sup>Chastukhin and Nikolaevskaya, 1969; <sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Morozova and Kovalenko, 2000; <sup>1</sup>Popov et al., 2007; <sup>1</sup>Zmitrovich et al., 2015; <sup>1</sup>Kalinina, 2018); **Lipetsk Oblast** (<sup>1</sup>Sarycheva et al., 2009; <sup>1</sup>Sarycheva, 2011; <sup>1</sup>Sarycheva, 2014a; <sup>1</sup>Sarycheva, 2016); **Mordovia** (<sup>1</sup>Chastukhin, 1948a; <sup>1</sup>Chastukhin and Nikolaevskaya, 1969; <sup>1</sup>Chastukhin, 2011; <sup>1</sup>Ivoilov and Bolshakov, 2011a); **Moscow** (<sup>2</sup>Bucholtz, 1897a; <sup>1</sup>Burova, 1968; <sup>1</sup>Burova, 1971); **Moscow Oblast** (<sup>1</sup>Gorlenko, Sidorova, and Sidorova, 1989; <sup>1</sup>Levitskaya, 1998; <sup>1</sup>Vishnevsky, 1998; <sup>1</sup>Levitskaya, 2013; <sup>1</sup>Voronina et al., 2014; <sup>1</sup>Sidorova, Alexandrova, and Voronina, 2017); **Murmansk Oblast** (<sup>1</sup>Pystina, Pavlova, and Shestakova, 1969; <sup>1</sup>Mikhailovskii, 1975b; <sup>1</sup>Karatygin, Nezdoyminogo, Novozhilov, and Zhurbenko, 1999); **Novgorod Oblast** (<sup>1</sup>Psurtsseva, Kiyashko, Gachkova, and Belova, 2007; <sup>1</sup>Morozova, 2012; <sup>1</sup>Popov



et al., 2013); **Penza Oblast** (<sup>1</sup>Ivanov, 1983); **Perm Krai** (<sup>1</sup>Perevedentseva, 2008; <sup>1</sup>Belkovskaya et al., 2014; <sup>1</sup>Botalov, 2017; <sup>1</sup>Botalov and Perevedentseva, 2020); **Pskov Oblast** (<sup>1</sup>Popov et al., 2013); **Ryazan Oblast** (<sup>1</sup>Volosnova, 2005; <sup>1</sup>Volosnova, 2014); **Saint Petersburg** (<sup>2</sup>Weinmann, 1828; <sup>2</sup>Weinmann, 1836; <sup>2</sup>Weinmann, 1837; <sup>1</sup>Morozova et al., 2020); **Smolensk Oblast** (<sup>1</sup>Jaczewski, 1898); **Sverdlovsk Oblast** (<sup>1</sup>Stepanova and Sirko, 1977; <sup>1</sup>Marina, 2006); **Tatarstan** (<sup>1</sup>Vassiljeva, 1977); **Tula Oblast** (<sup>1</sup>Svetasheva, 2001; <sup>1</sup>Svetasheva, 2004); **Tver Oblast** (<sup>1</sup>Chastukhin, 1948b; <sup>1</sup>Chastukhin and Nikolaevskaya, 1969; <sup>1</sup>Kurochkin, 1993; <sup>1</sup>Mukhina, 2011a; <sup>1</sup>Kotkova, 2014); **Udmurt Republic** (<sup>1</sup>Tychinin, 1990; <sup>1</sup>Tychinin and Kuzmina, 2003); **Vologda Oblast** (<sup>1</sup>Kirillova, 2007; <sup>1</sup>Kirillova, 2009); **Yaroslavl Oblast** (<sup>1</sup>Lazareva, 1998a); **Lapland** (<sup>2</sup>Karsten, 1866).

SIBERIA: **Altai Krai** (<sup>1</sup>Gorbunova and Chubarova, 2008; <sup>1</sup>Gorbunova, Vlasenko, and Tzhubarova, 2011); **Altai Republic** (<sup>1</sup>Singer, 1943; <sup>1</sup>Gorbunova, 1996; <sup>1</sup>Gorbunova, 1997; <sup>1</sup>Gorbunova, 2001a; <sup>1</sup>Perova and Gorbunova, 2001); **Buryatia** (<sup>1</sup>Nezdojminogo, 1973; <sup>1</sup>Petrov, 1991); **Irkutsk Oblast** (<sup>1</sup>Kutafjeva, 1983); **Khanty-Mansi Autonomous Okrug** (<sup>1</sup>Filippova and Bulyonkova, 2017a; <sup>1</sup>Filippova and Bulyonkova, 2017b); **Krasnoyarsk Krai** (<sup>2</sup>Thümen, 1878; <sup>1</sup>Beglyanova, 1972a; <sup>1</sup>Kryuchkova, 2009; <sup>1</sup>Zauzolkova, 2015; <sup>1</sup>Gorbunova, 2016); **Kurgan Oblast** (<sup>1</sup>Bystrushkin, 2016); **Novosibirsk Oblast** (<sup>1</sup>Perova and Gorbunova, 2001; <sup>1</sup>Gorbunova, 2007; <sup>1</sup>Perova and Gorbunova, 2007); **Tomsk Oblast** (<sup>1</sup>Milovidova, 1980; <sup>1</sup>Perova and Gorbunova, 2001; <sup>1</sup>Kudashova, Gashkov, and Kutafjeva, 2013); **Yamalo-Netets Autonomous Okrug** (<sup>1</sup>Tarchevskaya, 1990; <sup>1</sup>Karatygin, Nezdojminogo, Novozhilov, and Zhurbenko, 1999).

FAR EAST: **Magadan Oblast** (<sup>1</sup>Sazanova, 2005; <sup>1</sup>Sazanova, 2009a; <sup>1</sup>Sazanova, 2009b; <sup>1</sup>Sazanova, 2011; <sup>1</sup>Sazanova and Golodnova, 2015); **Primorsky Krai** (<sup>1</sup>Vassiljeva, 1973; <sup>1</sup>Bulakh, 1977; <sup>1</sup>Azbukina et al., 1984).

### *Mycena xantholeuca* Kühner

EASTERN EUROPE: **Leningrad Oblast** (Song et al., 2019).

### *Mycena xanthopoda* (Dennis) Dennis

EASTERN EUROPE: **Moscow Oblast** (Vishnevsky, 1998).

### *Mycena zephirus* (Fr.) P. Kumm.<sup>1</sup>

≡ *Agaricus zephirus* Fr.<sup>2</sup>

EASTERN EUROPE: **Adygea** (<sup>1</sup>Vaasma, Kalamees, and Raitviir, 1986); **Chelyabinsk Oblast** (<sup>1</sup>Stepanova and Sirko, 1977); **Crimea** (<sup>1</sup>Moser, 1993; <sup>1</sup>Sarkina, 2001; <sup>1</sup>Dudka et al., 2004; <sup>1</sup>Sarkina and Prydiuk, 2012; <sup>1</sup>Sarkina, 2014a; <sup>1</sup>Sarkina, 2020a); **Kaliningrad Oblast** (<sup>1</sup>Dedkov, Volodina, and Gubareva, 2007; <sup>1</sup>Volodina, 2007; <sup>1</sup>Atayev and Volodina, 2020); **Kaluga Oblast** (<sup>1</sup>Sionova, 2003); **Karachay-Cherkess Republic** (<sup>1</sup>Kalamees and Botashev, 2000); **Krasnodar Krai** (<sup>1</sup>Vaasma, Kalamees, and Raitviir, 1986); **Leningrad Oblast** (<sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Popov et al., 2007); **Moscow Oblast** (<sup>1</sup>Levitskaya, 1995b; <sup>1</sup>Vishnevsky, 1998; <sup>1</sup>Levitskaya, 2013); **Penza Oblast** (<sup>1</sup>Ivanov, 1983); **Saint Petersburg** (<sup>2</sup>Weinmann, 1836; <sup>2</sup>Weinmann, 1837); **Sverdlovsk Oblast** (<sup>1</sup>Stepanova and Sirko, 1977); **Udmurt Republic** (<sup>1</sup>Tychinin and Kuzmina, 2003).

SIBERIA: **Altai Krai** (<sup>1</sup>Gorbunova and Chubarova, 2008; <sup>1</sup>Gorbunova, Vlasenko, and Tzhubarova, 2011); **Novosibirsk Oblast** (<sup>1</sup>Koropachinskiy and Banaev, 2014); **Tomsk Oblast** (<sup>1</sup>Perova, 1972; <sup>1</sup>Perova and Gorbunova, 2001; <sup>1</sup>Kudashova, Gashkov, and Kutafjeva, 2013).

### *Mycenella bryophila* (Voglino) Singer<sup>1</sup>

≡ *Mycena bryophila* Voglino<sup>2</sup>

EASTERN EUROPE: **Leningrad Oblast** (<sup>1</sup>Popov et al., 2007); **Perm Krai** (<sup>1</sup>Perevedentseva, 2008); **Pskov Oblast** (<sup>1</sup>Morozova et al., 2015); **Saint Petersburg** (<sup>1</sup>Zhukova, Morozova, Volobuev, and Bryantseva, 2017); **Samara Oblast** (<sup>1</sup>Malysheva and Morozova, 2005; <sup>1</sup>Malysheva and Malysheva, 2006; <sup>1</sup>Malysheva and Malysheva, 2008); **Tula Oblast** (<sup>1</sup>Shcherbakov, 2010).

SIBERIA: **Altai Republic** (<sup>1</sup>Singer, 1943); **Krasnoyarsk Krai** (<sup>1</sup>Beglyanova, 1972a).

FAR EAST: **Primorsky Krai** (<sup>2</sup>Vassiljeva, 1973; <sup>2</sup>Bunkina and Nazarova, 1978; <sup>1</sup>Azbukina et al., 2006; <sup>1</sup>Bau, Bulakh, and Govorova, 2011).

### *Mycenella cyatheae* (Singer) Singer<sup>1</sup>

≡ *Marasmius cyatheae* Singer<sup>2</sup>

EASTERN EUROPE: **Saint Petersburg** (<sup>2</sup>Singer, 1936d; <sup>1</sup>Singer, 1938b; <sup>1</sup>Malysheva and Morozova, 2005).

***Mycenella lasiosperma* (Bres.) Locq.**

EASTERN EUROPE: **Kaliningrad Oblast** (Dedkov, Volodina, and Gubareva, 2007); **Lipetsk Oblast** (Sarycheva, 1999; Afanasyev, Rtishcheva, and Starodubtseva, 2007; Sarycheva et al., 2009; Shcherbakov, 2014; Sarycheva, 2016); **Pskov Oblast** (Kalinina, Bolshakov, and Bulyonkova, 2020); **Ryazan Oblast** (Volosnova, 2014); **Voronezh Oblast** (Afanasyev, Rtishcheva, and Starodubtseva, 2007; Sarycheva, Starodubtseva, and Sapelnikova, 2017).

SIBERIA: **Altai Republic** (Singer, 1943; Gorbunova, 2017a); **Khanty-Mansi Autonomous Okrug** (Filippova and Bulyonkova, 2017a; Filippova and Bulyonkova, 2017b).

***Mycenella margaritispora* (J.E. Lange) Singer<sup>1</sup>**

≡ *Mycena margaritispora* J.E. Lange<sup>2</sup>

EASTERN EUROPE: **Adygea** (<sup>1</sup>Vaasma, Kalamees, and Raitviir, 1986); **Leningrad Oblast** (<sup>1</sup>Popov et al., 2007); **Moscow** (<sup>2</sup>Burova, 1968); **Novgorod Oblast** (<sup>1</sup>Kalinina, 2019); **Samara Oblast** (<sup>1</sup>Malysheva and Morozova, 2005; <sup>1</sup>Malysheva and Malysheva, 2006; <sup>1</sup>Malysheva and Malysheva, 2007; <sup>1</sup>Malysheva and Malysheva, 2008); **Sverdlovsk Oblast** (<sup>1</sup>Marina, 2006); **Tula Oblast** (<sup>1</sup>Shcherbakov, 2010).

SIBERIA: **Buryatia** (<sup>1</sup>Nezdojminogo, 1973; <sup>1</sup>Petrov, 1991; <sup>1</sup>Malysheva and Morozova, 2005); **Krasnoyarsk Krai** (<sup>1</sup>Beglyanova, 1972a).

***Mycenella salicina* (Velen.) Singer**

EASTERN EUROPE: **Leningrad Oblast** (Malysheva and Morozova, 2005; Popov et al., 2007).

***Mycetinis alliaceus* (Jacq.) Earle ex A.W. Wilson & Desjardin<sup>1</sup>**

≡ *Agaricus alliaceus* Jacq.<sup>2</sup> ≡ *Marasmius alliaceus* (Jacq.) Fr.<sup>3</sup> ≡ *Marasmius alliaceus* var. *alliaceus* (Jacq.) Fr.<sup>4</sup> = *Marasmius alliaceus* f. *major* Hruby<sup>5</sup> = *Marasmius alliaceus* var. *subtilis* J.E. Lange<sup>6</sup>

EASTERN EUROPE: **Adygea** (<sup>3</sup>Kovalenko, 1980b; <sup>4,6</sup>Vaasma, Kalamees, and Raitviir, 1986; <sup>3</sup>Kummer, 2007; <sup>3</sup>Psurtseva, Kiyashko, Gachkova, and Belova, 2007); **Bryansk Oblast** (<sup>3</sup>Kruglikov, 2007); **Chechen Republic** (<sup>3</sup>Taysumov, Krapivina, Umarov, and Astamirova, 2012; <sup>3</sup>Taysumov, Krapivina, and Kushaliev, 2016); **Chelyabinsk Oblast** (<sup>3</sup>Aleksandrovskaya and Lobanova, 1968; <sup>3</sup>Stepanova and Sirko, 1977); **Chuvash Republic** (<sup>3</sup>Marfin, 2001); **Crimea** (<sup>3</sup>Zerova, 1962; <sup>3</sup>Moser, 1993; <sup>3</sup>Sarkina, 2001; <sup>3</sup>Dudka et al., 2004; <sup>3</sup>Sarkina, 2011; <sup>3</sup>Sarkina and Prydiuk, 2012); **Kabardino-Balkarian Republic** (<sup>3</sup>Shkhagapsoev and Krapivina, 2003; <sup>3</sup>Shkhagapsoev and Krapivina, 2004); **Kaliningrad Oblast** (<sup>5</sup>Dedkov, Volodina, and Gubareva, 2007; <sup>1</sup>Atayev and Volodina, 2020); **Kaluga Oblast** (<sup>3</sup>Sionova, 2003); **Karachay-Cherkess Republic** (<sup>3</sup>Vassiljeva, 1939; <sup>3</sup>Kalamees and Botashev, 2000); **Krasnodar Krai** (<sup>3</sup>Siemaszko, 1923; <sup>3</sup>Vassiljeva, 1939; <sup>3</sup>Kovalenko, 1980a; <sup>3</sup>Kovalenko, 1980b; <sup>4</sup>Vaasma, Kalamees, and Raitviir, 1986; <sup>1</sup>Petersen and Hughes, 2017); **Leningrad Oblast** (<sup>2</sup>Weinmann, 1836); **Lipetsk Oblast** (<sup>3</sup>Sarycheva et al., 2009; <sup>3</sup>Sarycheva, 2011; <sup>3</sup>Sarycheva, 2014a; <sup>3</sup>Sarycheva, 2016); **Mordovia** (<sup>3</sup>Chastukhin and Nikolaevskaya, 1969); **Moscow** (<sup>3</sup>Burova, 1968); **Moscow Oblast** (<sup>3</sup>Gorlenko, Sidorova, and Sidorova, 1989; <sup>3</sup>Vishnevsky, 1998); **North Ossetia** (<sup>3</sup>Chernetskaja, 1929; <sup>3</sup>Nikolayev, 2001); **Penza Oblast** (<sup>3</sup>Kazakevich and Prisyazhnyuk, 1932); **Saint Petersburg** (<sup>2</sup>Weinmann, 1828; <sup>2</sup>Weinmann, 1837; <sup>1</sup>Morozova, Kovalenko, Rebriev, and Malysheva, 2014); **Tver Oblast** (<sup>3</sup>Kurochkin, 1993); **Udmurt Republic** (<sup>3</sup>Tychinin and Kuzmina, 2003); **Yaroslavl Oblast** (<sup>3</sup>Lazareva, 1998a); **Arid territories** (<sup>1</sup>Rebriev, Rusanov, et al., 2012).

SIBERIA: **Altai Krai** (<sup>3</sup>Gorbunova and Chubarova, 2008; <sup>3</sup>Gorbunova, Vlasenko, and Tzhubarova, 2011); **Altai Republic** (<sup>3</sup>Gorbunova, 2001b; <sup>3</sup>Perova and Gorbunova, 2001); **Krasnoyarsk Krai** (<sup>3</sup>Nezdojminogo, 1976a; <sup>1</sup>Zauzolkova, 2012; <sup>1</sup>Zauzolkova, 2015; <sup>1</sup>Malysheva, Malysheva, Kiyashko, et al., 2017); **Novosibirsk Oblast** (<sup>3</sup>Perova and Gorbunova, 2001; <sup>3</sup>Perova and Gorbunova, 2007).

FAR EAST: **Magadan Oblast** (<sup>3</sup>Sazanova, 2005).

***Mycetinis prasioemus* (Fr.) R.H. Petersen<sup>1</sup>**

≡ *Marasmius prasioemus* (Fr.) Fr.<sup>2</sup>

EASTERN EUROPE: **Adygea** (<sup>2</sup>Vaasma, Kalamees, and Raitviir, 1986); **Bryansk Oblast** (<sup>2</sup>Kruglikov, 2007); **Crimea** (<sup>2</sup>Sarkina, 2010b; <sup>2</sup>Sarkina, 2011); **Kabardino-Balkarian Republic** (<sup>2</sup>Shkhagapsoev and Krapivina, 2003; <sup>2</sup>Shkhagapsoev and Krapivina, 2004); **Kaliningrad Oblast** (<sup>2</sup>Dedkov, Volodina, and Gubareva, 2007); **Kaluga Oblast** (<sup>2</sup>Sionova, 2003); **Krasnodar Krai** (<sup>2</sup>Vassiljeva, 1939); **Lipetsk Oblast** (<sup>2</sup>Sarycheva, 2014a; <sup>2</sup>Sarycheva, 2016); **Moscow Oblast** (<sup>2</sup>Vishnevsky, 1998); **North Ossetia** (<sup>2</sup>Nikolayev, 2001); **Penza Oblast** (<sup>2</sup>Ivanov, 1983); **Ryazan Oblast** (<sup>2</sup>Volosnova, 1997; <sup>2</sup>Volosnova, 2014); **Saint Petersburg** (<sup>1</sup>Morozova et al., 2020); **Samara Oblast** (<sup>2</sup>Malysheva and Malysheva, 2005b; <sup>2</sup>Malysheva and Malysheva, 2008); **Tatarstan** (<sup>2</sup>Vassiljeva, 1977); **Tula Oblast**

(<sup>2</sup>Svetasheva, 2004; <sup>2</sup>Svetasheva, 2005b; <sup>2</sup>Shcherbakov, 2010); **Voronezh Oblast** (<sup>2</sup>Selochnik, 2015); **Arid territories** (<sup>2</sup>Rebriev, Rusanov, et al., 2012).

SIBERIA: **Altai Republic** (<sup>2</sup>Singer, 1943; <sup>2</sup>Gorbunova, 2008); **Irkutsk Oblast** (<sup>2</sup>Kutafjeva, 1983); **Khakassia** (<sup>2</sup>Beglyanova, 1972a); **Krasnoyarsk Krai** (<sup>2</sup>Beglyanova, 1972a).

***Mycetinis querceus* (Britzelm.) Antonín & Noordel.<sup>1</sup>**

≡ *Marasmius querceus* Britzelm.<sup>2</sup>

EASTERN EUROPE: **Kaliningrad Oblast** (<sup>1</sup>Atayev and Volodina, 2020); **Karachay-Cherkess Republic** (<sup>2</sup>Kalamees and Botashev, 2000); **Leningrad Oblast** (<sup>1</sup>Bolshakov et al., 2020); **Novgorod Oblast** (<sup>1</sup>Kalinina, 2019).

SIBERIA: **Khanty-Mansi Autonomous Okrug** (<sup>1</sup>Filippova and Bulyonkova, 2017a; <sup>1</sup>Filippova and Bulyonkova, 2017b).

***Mycetinis scorodonius* (Fr.) A.W. Wilson & Desjardin<sup>1</sup>**

≡ *Agaricus scorodonius* Fr.<sup>2</sup> ≡ *Marasmius scorodonius* (Fr.) Fr.<sup>3</sup>

EASTERN EUROPE: **Adygea** (<sup>3</sup>Kovalenko, 1979a; <sup>3</sup>Vaasma, Kalamees, and Raitviir, 1986); **Bashkortostan** (<sup>3</sup>Stepanova and Sirko, 1977); **Bryansk Oblast** (<sup>3</sup>Kruglikov, 2007); **Chechen Republic** (<sup>3</sup>Taysumov, Krapivina, Umarov, and Astamirova, 2012; <sup>3</sup>Taysumov, Krapivina, and Kushalieva, 2016); **Chelyabinsk Oblast** (<sup>3</sup>Aleksandrovskaya and Lobanova, 1968; <sup>3</sup>Sirko and Stepanova, 1977; <sup>3</sup>Stepanova and Sirko, 1977; <sup>3</sup>Psurtseva, Kiyashko, Gachkova, and Belova, 2007); **Chuvash Republic** (<sup>1</sup>Vladimirova and Potapov, 2018); **Crimea** (<sup>3</sup>Sarkina, 2001; <sup>3</sup>Dudka et al., 2004; <sup>3</sup>Sarkina, 2010b; <sup>3</sup>Sarkina and Prydiuk, 2012; <sup>3</sup>Sarkina, 2013; <sup>3</sup>Sarkina, 2014b; <sup>3</sup>Sarkina and Mironova, 2015); **Kabardino-Balkarian Republic** (<sup>3</sup>Shkhagapsoev and Krapivina, 2003; <sup>3</sup>Shkhagapsoev and Krapivina, 2004); **Kaliningrad Oblast** (<sup>3</sup>Dedkov, Volodina, and Gubareva, 2007; <sup>3</sup>Volodina, 2007; <sup>1</sup>Atayev and Volodina, 2020); **Kaluga Oblast** (<sup>3</sup>Sionova, 2003); **Karachay-Cherkess Republic** (<sup>3</sup>Kalamees and Botashev, 2000); **Karelia** (<sup>3</sup>Freindling, 1949; <sup>3</sup>Kovalenko, Morozova, Fomina, and Särkisilta, 1998; <sup>3</sup>Bondartseva et al., 2001; <sup>3</sup>Psurtseva, Kiyashko, Gachkova, and Belova, 2007; <sup>1</sup>Predtechenskaya, 2013; <sup>1</sup>Krutov et al., 2014; <sup>1</sup>Predtechenskaya and Ruokolainen, 2014; <sup>1</sup>Predtechenskaya, 2015; <sup>1</sup>Savelev and Kikeeva, 2020); **Kirov Oblast** (<sup>3</sup>Kirillov, 2011; <sup>3</sup>Kirillov, Perevedentseva, and Egoshina, 2011; <sup>1</sup>Stavishenko, Luginina, Kirillov, and Egoshina, 2019); **Krasnodar Krai** (<sup>3</sup>Kovalenko, 1980a; <sup>3</sup>Kovalenko, 1980b; <sup>3</sup>Vaasma, Kalamees, and Raitviir, 1986; <sup>3</sup>Psurtseva, Kiyashko, Gachkova, and Belova, 2007); **Kursk Oblast** (<sup>3</sup>Soshnina, 2005); **Leningrad Oblast** (<sup>3</sup>Thesleff, 1920; <sup>3</sup>Stolyarskaya, 1993; <sup>3</sup>Kovalenko and Morozova, 1999a; <sup>3</sup>Morozova, 2007; <sup>3</sup>Popov et al., 2007; <sup>3</sup>Psurtseva, Kiyashko, Gachkova, and Belova, 2007; <sup>1</sup>Zmitrovich et al., 2015; <sup>1</sup>Petersen and Hughes, 2017); **Lipetsk Oblast** (<sup>3</sup>Alferova, 1977; <sup>3</sup>Rtishcheva, 1999; <sup>3</sup>Sarycheva, 1999; <sup>3</sup>Afanasyev, Rtishcheva, and Starodubtseva, 2007; <sup>3</sup>Sarycheva et al., 2009; <sup>3</sup>Sarycheva, 2011; <sup>3</sup>Sarycheva, 2014a; <sup>3</sup>Sarycheva, 2016; <sup>1</sup>Sarycheva, Starodubtseva, and Sapelnikova, 2017); **Mordovia** (<sup>3</sup>Kuznetsov, 1960; <sup>3</sup>Chastukhin and Nikolaevskaya, 1969; <sup>1</sup>Ivoilov and Bolshakov, 2011a; <sup>3</sup>Chastukhin, 2011); **Moscow Oblast** (<sup>3</sup>Gorlenko, Sidorova, and Sidorova, 1989; <sup>3</sup>Vishnevsky, 1998; <sup>3</sup>Levitskaya, 2006; <sup>1</sup>Voronina et al., 2012; <sup>3</sup>Levitskaya, 2013; <sup>1</sup>Voronina et al., 2014); **Murmansk Oblast** (<sup>3</sup>Pystina, Pavlova, and Shestakova, 1969); **North Ossetia** (<sup>3</sup>Nikolayev, 2001); **Novgorod Oblast** (<sup>3</sup>Kovalenko, Morozova, Nezdojminogo, and Popov, 2005; <sup>3</sup>Popov et al., 2013); **Orenburg Oblast** (<sup>3</sup>Desyatova, 2007; <sup>3</sup>Desyatova, 2008); **Oryol Oblast** (<sup>3</sup>Radygina, Derzhavina, and Tsutsupa, 2014); **Penza Oblast** (<sup>3</sup>Ivanov, 1981a; <sup>3</sup>Ivanov, 1999); **Perm Krai** (<sup>3</sup>Perevedentseva, 2008; <sup>1</sup>Belkovskaya et al., 2014; <sup>3</sup>Botalov, 2017; <sup>3</sup>Botalov and Perevedentseva, 2020); **Pskov Oblast** (<sup>3</sup>Popov, 2001a; <sup>3</sup>Psurtseva, Kiyashko, Gachkova, and Belova, 2007; <sup>3</sup>Popov et al., 2013); **Rostov Oblast** (<sup>3</sup>Rusanov et al., 2004; <sup>3</sup>Zmitrovich et al., 2008); **Ryazan Oblast** (<sup>3</sup>Volosnova, 1997; <sup>3</sup>Volosnova, 2014); **Saint Petersburg** (<sup>2</sup>Weinmann, 1828; <sup>2</sup>Weinmann, 1836; <sup>2</sup>Weinmann, 1837; <sup>3</sup>Kovalenko and Morozova, 1999a; <sup>3</sup>Morozova and Kovalenko, 2000; <sup>3</sup>Kotkova, Morozova, and Popov, 2006; <sup>3</sup>Morozova and Smirnov, 2011; <sup>1</sup>Morozova et al., 2020); **Samara Oblast** (<sup>3</sup>Malysheva and Malysheva, 2004; <sup>3</sup>Malysheva and Malysheva, 2008; <sup>1</sup>Petersen and Hughes, 2017); **Saratov Oblast** (<sup>1</sup>Nagumanov, 2015); **Sevastopol** (<sup>3</sup>Sarkina, 2016b); **Sverdlovsk Oblast** (<sup>3</sup>Stepanova and Sirko, 1977; <sup>3</sup>Marina, 2006); **Tatarstan** (<sup>3</sup>Vassiljeva, 1977; <sup>1</sup>Potapov, 2015b; <sup>1</sup>Potapov, 2016a); **Tula Oblast** (<sup>3</sup>Svetasheva, 2004); **Tver Oblast** (<sup>3</sup>Kurochkin, 1993; <sup>3</sup>Kurochkin, 2016); **Udmurt Republic** (<sup>3</sup>Tychinin, 1990; <sup>3</sup>Tychinin and Kuzmina, 2003); **Ulyanovsk Oblast** (<sup>3</sup>Ilyukhin, 2010a; <sup>3</sup>Ilyukhin, 2010b); **Volgograd Oblast** (<sup>1</sup>Dudka and Vedeneyev, 2015); **Vologda Oblast** (<sup>3</sup>Kutova, 1957; <sup>3</sup>Kirillova, 2009); **Voronezh Oblast** (<sup>3</sup>Rtishcheva, 1999; <sup>3</sup>Afanasyev, Rtishcheva, and Starodubtseva, 2007; <sup>1</sup>Sarycheva, Starodubtseva, and Sapelnikova, 2017); **Yaroslavl Oblast** (<sup>3</sup>Lazareva, 1997; <sup>3</sup>Lazareva, 1998a); **Arid territories** (<sup>1</sup>Rebriev, Rusanov, et al., 2012).

SIBERIA: **Altai Krai** (<sup>3</sup>Gorbunova and Perova, 2006; <sup>1</sup>Gorbunova, Vlasenko, and Tzhubarova, 2011); **Altai Republic** (<sup>3</sup>Gorbunova, 1996; <sup>3</sup>Gorbunova, 1997; <sup>3</sup>Gorbunova, 2001a; <sup>3</sup>Gorbunova, 2008); **Buryatia** (<sup>3</sup>Nezdojminogo, 1970a; <sup>3</sup>Penzina and Petrov, 1994); **Irkutsk Oblast** (<sup>3</sup>Kutafjeva, 1983; <sup>3</sup>Petrov, 1984; <sup>3</sup>Petrov, 1989; <sup>3</sup>Astapenko, 1990a; <sup>3</sup>Muzyka, 2002; <sup>3</sup>Bardunov et al., 2005; <sup>3</sup>Petrov, 2008; <sup>1</sup>Gorbunova and Stepanova, 2015; <sup>1</sup>Muzyka and Penzina,

2017); **Khakassia** (<sup>3</sup>Beglyanova, 1972a; <sup>1</sup>Zauzolkova, 2015); **Khanty-Mansi Autonomous Okrug** (<sup>3</sup>Zvyagina, 2008; <sup>1</sup>Shepeleva et al., 2014; <sup>1</sup>Filippova, Bulyonkova, and Lapshina, 2015; <sup>1</sup>Zvyagina and Baykalova, 2017); **Krasnoyarsk Krai** (<sup>3</sup>Kalchbrenner, 1878; <sup>3</sup>Thümen, 1878; <sup>3</sup>Beglyanova, 1972a; <sup>3</sup>Nezdojminogo, 1976a; <sup>3</sup>Lapitskaya, 1993; <sup>3</sup>Pavlov et al., 2007; <sup>3</sup>Kosheleva and Kutafjeva, 2008a; <sup>3</sup>Kosheleva and Kutafjeva, 2008b; <sup>1</sup>Zauzolkova, 2012; <sup>1</sup>Malysheva, Malysheva, Kiyashko, et al., 2017); **Kurgan Oblast** (<sup>3</sup>Bystrushkin, 2016); **Novosibirsk Oblast** (<sup>3</sup>Nozdrenko, 1970; <sup>3</sup>Zaytseva, 1971; <sup>3</sup>Perova, 1977; <sup>3</sup>Gorbunova, 2007; <sup>3</sup>Perova and Gorbunova, 2007; <sup>1</sup>Koropachinskiy and Banaev, 2014); **Tomsk Oblast** (<sup>3</sup>Milovidova, 1980; <sup>3</sup>Agaphonova, Kutafjeva, and Gashkov, 2007; <sup>1</sup>Kudashova, Gashkov, and Kutafjeva, 2013; <sup>1</sup>Kudashova, Gashkov, and Vaishlya, 2016b); **Zabaykalsky Krai** (<sup>3</sup>Karsten, 1911).

FAR EAST: **Amur Oblast** (<sup>3</sup>Gordienko, Petrova, and Tarasov, 1981; <sup>3</sup>Taranina, 2005; <sup>1</sup>Kochunova, 2019); **Chukotka Autonomous Okrug** (<sup>3</sup>Sazanova, 1993); **Jewish Autonomous Oblast** (<sup>3</sup>Bau, Bulakh, and Govorova, 2011); **Kamchatka Krai** (<sup>3</sup>Kalamees and Vaasma, 1981; <sup>3</sup>Psurtseva, Kiyashko, Gachkova, and Belova, 2007); **Khabarovsk Krai** (<sup>3</sup>Azbukina et al., 1986; <sup>3</sup>Azbukina et al., 1989; <sup>3</sup>Bulakh, Vassiljeva, and Erofeeva, 2010; <sup>3</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Bulakh, 2013; <sup>1</sup>Bogacheva, Bulakh, Bukharova, and Egorova, 2015); **Magadan Oblast** (<sup>3</sup>Nazarova, 1976; <sup>3</sup>Sazanova, 1996; <sup>3</sup>Sazanova, 2005; <sup>1</sup>Sazanova, 2009a; <sup>1</sup>Sazanova, 2009b; <sup>1</sup>Sazanova, 2011; <sup>1</sup>Sazanova and Golodnova, 2015; <sup>1</sup>Sazanova, 2016); **Primorsky Krai** (<sup>3</sup>Vassiljeva, 1972; <sup>3</sup>Vassiljeva, 1973; <sup>3</sup>Shalapugina, 1976; <sup>3</sup>Bunkina and Nazarova, 1978; <sup>3</sup>Azbukina et al., 1984; <sup>3</sup>Azbukina et al., 2006; <sup>3</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Bulakh et al., 2016; <sup>3</sup>Bogacheva, Bulakh, Bukharova, and Egorova, 2020); **Sakhalin Oblast** (<sup>3</sup>Vassiljeva and Nazarova, 1972).

***Mycopan scabripes* (Murrill) Redhead, Moncalvo & Vilgalys<sup>1</sup>**

≡ *Hydropus scabripes* (Murrill) Singer<sup>2</sup>

EASTERN EUROPE: **Kaliningrad Oblast** (<sup>2</sup>Dedkov, Volodina, and Gubareva, 2007; <sup>1</sup>Atayev and Volodina, 2020).

***Myochromella boudieri* (Kühner & Romagn.) V. Hofst., Cléménçon, Moncalvo & Redhead**

≡ *Lyophyllum boudieri* Kühner & Romagn.<sup>1</sup> ≡ *Tephrocybe boudieri* Derbsch<sup>2</sup>

EASTERN EUROPE: **Novgorod Oblast** (<sup>2</sup>Morozova, 2012; <sup>2</sup>Popov et al., 2013); **Perm Krai** (<sup>2</sup>Perevedentseva, 2008); **Pskov Oblast** (<sup>1</sup>Kalinina, Bolshakov, and Bulyonkova, 2020); **Arid territories** (<sup>2</sup>Rebriev, Rusanov, et al., 2012).

***Myochromella inolens* (Fr.) V. Hofst., Cléménçon, Moncalvo & Redhead**

≡ *Collybia inolens* (Fr.) Quél.<sup>1</sup> ≡ *Lyophyllum inolens* (Fr.) Kühner & Romagn.<sup>2</sup> ≡ *Tephrocybe inolens* (Fr.) M.M. Moser<sup>3</sup>

EASTERN EUROPE: **Leningrad Oblast** (<sup>1</sup>Thesleff, 1920; <sup>2</sup>Kovalenko and Morozova, 1999a; <sup>3</sup>Malysheva and Malysheva, 2005a; <sup>2,3</sup>Popov et al., 2007; <sup>3</sup>Zmitrovich et al., 2015); **Tatarstan** (<sup>2</sup>Vassiljeva, 1977).

SIBERIA: **Altai Republic** (<sup>2</sup>Singer, 1943; <sup>3</sup>Kovalenko, 1992; <sup>3</sup>Perova and Gorbunova, 2001); **Irkutsk Oblast** (<sup>3</sup>Petrov, 1984; <sup>3</sup>Astapenko and Kutafjeva, 1990; <sup>3</sup>Petrov, 1991; <sup>3</sup>Petrov, 2008); **Krasnoyarsk Krai** (<sup>3</sup>Beglyanova, 1972a); **Tomsk Oblast** (<sup>3</sup>Kudashova, Gashkov, and Kutafjeva, 2013).

***Mythicomyces corneipes* (Fr.) Redhead & A.H. Sm.**

EASTERN EUROPE: **Komi Republic** (Taskaev, 2009; Palamarchuk, 2011a; Palamarchuk, 2012; Dyogteva, 2019).

***Myxomphalia maura* (Fr.) Hora<sup>1</sup>**

≡ *Agaricus maurus* Fr.<sup>2</sup> ≡ *Fayodia maura* (Fr.) Singer<sup>3</sup> ≡ *Omphalia maura* (Fr.) Gillet<sup>4</sup> ≡ *Omphalina maura* (Fr.) Quél.<sup>5</sup>

EASTERN EUROPE: **Crimea** (<sup>1</sup>Sarkina, 2010b; <sup>3</sup>Sarkina, 2010b; <sup>1</sup>Sarkina and Mironova, 2015); **Kabardino-Balkarian Republic** (<sup>3</sup>Shkhagapsoev and Krapivina, 2003; <sup>5</sup>Shkhagapsoev and Krapivina, 2004); **Kaliningrad Oblast** (<sup>3</sup>Dedkov, Volodina, and Gubareva, 2007; <sup>3</sup>Volodina, 2007); **Kaluga Oblast** (<sup>1</sup>Sionova, 2012); **Karelia** (<sup>1</sup>Krutov et al., 2014; <sup>1</sup>Savelev and Kikeeva, 2018); **Komi Republic** (<sup>1</sup>Palamarchuk, 2012); **Kursk Oblast** (<sup>3</sup>Bedenko, 1987); **Leningrad Oblast** (<sup>4</sup>Thesleff, 1920; <sup>3</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Popov et al., 2007); **Lipetsk Oblast** (<sup>3</sup>Alferova, 1977; <sup>3</sup>Sarycheva, 1999; <sup>1</sup>Afanasyev, Rtishcheva, and Starodubtseva, 2007; <sup>1</sup>Sarycheva et al., 2009; <sup>1</sup>Sarycheva, 2011; <sup>1</sup>Sarycheva, 2014a; <sup>1</sup>Sarycheva, 2016); **Moscow Oblast** (<sup>1</sup>Gorlenko, Sidorova, and Sidorova, 1989; <sup>3</sup>Vishnevsky, 1998); **Murmansk Oblast** (<sup>1</sup>Pystina, Pavlova, and Shestakova, 1969; <sup>3</sup>Mikhailovskii, 1975b; <sup>3</sup>Karatygin, Nezdojminogo, Novozhilov, and Zhurbenko, 1999); **North Ossetia** (<sup>3</sup>Nikolayev, 2001); **Novgorod Oblast** (<sup>1</sup>Svetasheva et al., 2017); **Orenburg Oblast** (<sup>3</sup>Korshikova, 2005; <sup>1</sup>Desyatova, 2007; <sup>3</sup>Desyatova, 2008); **Perm Krai** (<sup>3</sup>Perevedentseva, 2008); **Pskov Oblast** (<sup>1</sup>Popov et al., 2013); **Ryazan Oblast** (<sup>3</sup>Volosnova, 1997; <sup>1</sup>Volosnova, 2014); **Saint Petersburg** (<sup>2</sup>Weinmann, 1828; <sup>2</sup>Weinmann, 1836; <sup>2</sup>Weinmann, 1837; <sup>1</sup>Morozova et al., 2020); **Sverdlovsk Oblast** (<sup>1</sup>Marina, 2006);

**Tatarstan** (<sup>3</sup>Vassiljeva, 1977); **Tver Oblast** (<sup>1</sup>Kurochkin, 1993); **Udmurt Republic** (<sup>5</sup>Tychinin and Kuzmina, 2003); **Voronezh Oblast** (<sup>3</sup>Bedenko, 1987; <sup>1</sup>Afanasyev, Rtishcheva, and Starodubtseva, 2007; <sup>1</sup>Sarycheva, Starodubtseva, and Sapelnikova, 2017); **Arid territories** (<sup>1</sup>Rebriev, Rusanov, et al., 2012); **Eastern Europe** (<sup>3</sup>Singer, 1943).

SIBERIA: **Irkutsk Oblast** (<sup>3</sup>Petrov, 1984; <sup>1</sup>Astapenko and Kutafjeva, 1990; <sup>3</sup>Petrov, 1991; <sup>3</sup>Petrov, 2008); **Khakassia** (<sup>1</sup>Zauzolkova, 2015); **Khanty-Mansi Autonomous Okrug** (<sup>1</sup>Filippova, Bulyonkova, and Lapshina, 2015; <sup>1</sup>Zvyagina and Vasina, 2015; <sup>1</sup>Filippova and Bulyonkova, 2017a; <sup>1</sup>Filippova and Bulyonkova, 2017b; <sup>1</sup>Zvyagina and Baykalova, 2017); **Krasnoyarsk Krai** (<sup>3</sup>Beglyanova, 1972a; <sup>3</sup>Karatygin, Nezdojminogo, Novozhilov, and Zhurbenko, 1999; <sup>1</sup>Kosheleva and Kutafjeva, 2008b; <sup>1</sup>Zauzolkova, 2015); **Novosibirsk Oblast** (<sup>3</sup>Perova and Gorbunova, 2001; <sup>3</sup>Perova and Gorbunova, 2007; <sup>1</sup>Koropachinskiy and Banaev, 2014); **Tomsk Oblast** (<sup>3</sup>Agaphonova, Kutafjeva, and Gashkov, 2007; <sup>1</sup>Kudashova, Gashkov, and Kutafjeva, 2013; <sup>1</sup>Kudashova, Gashkov, and Vaishlya, 2016b); **Yamalo-Nenets Autonomous Okrug** (<sup>1</sup>Tarchevskaya, 1990; <sup>3</sup>Karatygin, Nezdojminogo, Novozhilov, and Zhurbenko, 1999).

FAR EAST: **Magadan Oblast** (<sup>3</sup>Sazanova, 2005; <sup>1</sup>Sazanova, 2009a); **Primorsky Krai** (<sup>3</sup>Vassiljeva, 1973; <sup>3</sup>Bulakh, 1977; <sup>3</sup>Azbukina et al., 1984; <sup>1</sup>Bau, Bulakh, and Govorova, 2011); **Sakhalin Oblast** (<sup>3</sup>Bulakh, Govorova, and Bogatov, 1999).

### *Naematoloma micans* (Fr.) Singer

EASTERN EUROPE: **Krasnodar Krai** (Singer, 1937; Vassiljeva, 1939).

### *Naucoria amarescens* Quél.<sup>1</sup>

≡ *Alnicola amarescens* (Quél.) R. Heim & Romagn.<sup>2</sup>

EASTERN EUROPE: **Komi Republic** (<sup>1</sup>Palamarchuk, 2016a; <sup>1</sup>Palamarchuk, 2016b); **Leningrad Oblast** (<sup>2</sup>Singer, 1950b; <sup>1</sup>Nezdojminogo, 1996; <sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Popov et al., 2007); **Saint Petersburg** (<sup>1</sup>Morozova and Smirnov, 2011); **Samara Oblast** (<sup>1</sup>Malysheva and Malysheva, 2004; <sup>1</sup>Malysheva and Malysheva, 2008).

SIBERIA: **Altai Krai** (<sup>1</sup>Gorbunova, 2018a); **Altai Republic** (<sup>2</sup>Singer, 1950a; <sup>1</sup>Nezdojminogo, 1996); **Irkutsk Oblast** (<sup>1</sup>Petrov, Nezdojminogo, and Bulakh, 1987; <sup>1</sup>Petrov, 1991; <sup>1</sup>Nezdojminogo, 1996; <sup>1</sup>Petrov, 2008; <sup>1</sup>Gorbunova and Stepantsova, 2015).

### *Naucoria bohémica* Velen.<sup>1</sup>

≡ *Alnicola bohémica* (Velen.) Kühner & Maire<sup>2</sup>

EASTERN EUROPE: **Karelia** (<sup>1</sup>Kovalenko, Morozova, Fomina, and Särkisilta, 1998; <sup>1</sup>Krutov et al., 2014); **Komi Republic** (<sup>1</sup>Palamarchuk, 2011a; <sup>1</sup>Palamarchuk, 2012); **Leningrad Oblast** (<sup>1</sup>Morozova, 2007); **Mari El Republic** (<sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1</sup>Nezdojminogo, 1996); **Moscow Oblast** (<sup>1</sup>Levitskaya, 1998; <sup>1</sup>Levitskaya, 2013); **Murmansk Oblast** (<sup>1</sup>Nezdojminogo, 1994; <sup>1</sup>Nezdojminogo, 1996; <sup>1</sup>Nezdojminogo, 1997b; <sup>1</sup>Karatygin, Nezdojminogo, Novozhilov, and Zhurbenko, 1999); **Pskov Oblast** (<sup>1</sup>Popov et al., 2013); **Rostov Oblast** (<sup>1</sup>Morozova et al., 2008); **Sverdlovsk Oblast** (<sup>1</sup>Marina, 2006); **Tatarstan** (<sup>2</sup>Vassiljeva, 1977; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1</sup>Nezdojminogo, 1996); **Tula Oblast** (<sup>1</sup>Svetasheva, 2004; <sup>1</sup>Svetasheva, 2005a); **Ulyanovsk Oblast** (<sup>1</sup>Ilyukhin, 2009; <sup>1</sup>Ilyukhin, 2010a); **Arid territories** (<sup>1</sup>Rebriev, Rusanov, et al., 2012).

SIBERIA: **Altai Republic** (<sup>1</sup>Gorbunova, 2008; <sup>1</sup>Gorbunova, 2017b).

FAR EAST: **Khabarovsk Krai** (<sup>1</sup>Azbukina et al., 1989; <sup>1</sup>Bulakh, 2013; <sup>1</sup>Bogacheva, Bulakh, Bukharova, and Egorova, 2015); **Primorsky Krai** (<sup>2</sup>Vassiljeva, 1972; <sup>2</sup>Vassiljeva, 1973; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1</sup>Nezdojminogo, 1996; <sup>1</sup>Bau, Bulakh, and Govorova, 2011).

### *Naucoria cerodes* (Fr.) P. Kumm.

EASTERN EUROPE: **Karachay-Cherkess Republic** (Hollós, 1902; Hollós, 1905; Filarszky, 1907); **Stavropol Krai** (Hollós, 1902; Hollós, 1905; Filarszky, 1907).

### *Naucoria elata* P. Karst.

SIBERIA: **Baikalia** (Karsten, 1905).

### *Naucoria escharioides* (Fr.) P. Kumm.<sup>1</sup>

≡ *Agaricus escharioides* Fr.<sup>2</sup> = *Agaricus escharioides* var. *naucosus* Fr.<sup>3</sup>

EASTERN EUROPE: **Adygea** (<sup>1</sup>Kummer, 2007); **Crimea** (<sup>1</sup>Dudka et al., 2004; <sup>1</sup>Sarkina, 2011; <sup>1</sup>Sarkina and Mironova, 2015); **Karelia** (<sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1</sup>Nezdojminogo, 1996; <sup>1</sup>Kovalenko, Morozova, Fomina, and Särkisilta, 1998; <sup>1</sup>Bondartseva et al., 2001; <sup>1</sup>Krutov et al., 2014); **Komi Republic** (<sup>1</sup>Palamarchuk and Kirillov, 2018a; <sup>1</sup>Palamarchuk, 2020a); **Krasnodar Krai** (<sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo,

1990; <sup>1</sup>Nezdojminogo, 1996; <sup>1</sup>Sopina, 2001a); **Leningrad Oblast** (<sup>1</sup>Thesleff, 1920; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1</sup>Nezdojminogo, 1996; <sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Morozova and Kovalenko, 2000; <sup>1</sup>Morozova, 2007; <sup>1</sup>Popov et al., 2007); **Lipetsk Oblast** (<sup>1</sup>Sarycheva et al., 2009; <sup>1</sup>Sarycheva, 2011; <sup>1</sup>Sarycheva, 2014a; <sup>1</sup>Sarycheva, 2016); **Moscow Oblast** (<sup>1</sup>Gorlenko, Sidorova, and Sidorova, 1989; <sup>1</sup>Levitskaya, 1995c; <sup>1</sup>Levitskaya, 2013; <sup>1</sup>Voronina et al., 2014); **Murmansk Oblast** (<sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1</sup>Nezdojminogo, 1996); **Orenburg Oblast** (<sup>1</sup>Korshikova, 2005; <sup>1</sup>Desyatova, 2008); **Penza Oblast** (<sup>1</sup>Ivanov, 1981b; <sup>1</sup>Ivanov, 1982); **Pskov Oblast** (<sup>1</sup>Kolmakov and Popov, 2005; <sup>1</sup>Popov et al., 2013); **Rostov Oblast** (<sup>1</sup>Morozova et al., 2008); **Ryazan Oblast** (<sup>1</sup>Volosnova, 2005; <sup>1</sup>Volosnova, 2014); **Saint Petersburg** (<sup>2</sup>Weinmann, 1828; <sup>2,3</sup>Weinmann, 1836; <sup>2,3</sup>Weinmann, 1837; <sup>1</sup>Kotkova, Morozova, and Popov, 2005; <sup>1</sup>Kotkova, Morozova, and Popov, 2007; <sup>1</sup>Morozova et al., 2020); **Sverdlovsk Oblast** (<sup>1</sup>Marina, 2006); **Tula Oblast** (<sup>1</sup>Svetasheva, 2004; <sup>1</sup>Svetasheva, 2005a); **Ulyanovsk Oblast** (<sup>1</sup>Ilyukhin, 2010a); **Arid territories** (<sup>1</sup>Rebriev, Rusanov, et al., 2012).

SIBERIA: **Altai Krai** (<sup>1</sup>Gorbunova and Chubarova, 2008; <sup>1</sup>Gorbunova, Vlasenko, and Tzhubarova, 2011); **Altai Republic** (<sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1</sup>Nezdojminogo, 1996); **Irkutsk Oblast** (<sup>1</sup>Astapenko and Kutafjeva, 1990; <sup>1</sup>Astapenko, 1990b; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1</sup>Petrov, 1991; <sup>1</sup>Nezdojminogo, 1996; <sup>1</sup>Petrov, 2008; <sup>1</sup>Gorbunova and Stepantsova, 2015); **Khakassia** (<sup>1</sup>Zauzolkova, 2015); **Krasnoyarsk Krai** (<sup>1</sup>Beglyanova, 1972a; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1</sup>Nezdojminogo, 1994; <sup>1</sup>Nezdojminogo, 1996; <sup>1</sup>Karatygin, Nezdojminogo, Novozhilov, and Zhurbenko, 1999).

FAR EAST: **Amur Oblast** (<sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1</sup>Nezdojminogo, 1996); **Chukotka Autonomous Okrug** (<sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1</sup>Nezdojminogo, 1994; <sup>1</sup>Nezdojminogo, 1996; <sup>1</sup>Karatygin, Nezdojminogo, Novozhilov, and Zhurbenko, 1999); **Jewish Autonomous Oblast** (<sup>1</sup>Bulakh, Govorova, Nazarova, and Vassiljeva, 2007; <sup>1</sup>Bau, Bulakh, and Govorova, 2011); **Khabarovsk Krai** (<sup>1</sup>Azbukina et al., 1989); **Primorsky Krai** (<sup>1</sup>Azbukina et al., 1990; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1</sup>Nezdojminogo, 1996; <sup>1</sup>Bardunov et al., 2002; <sup>1</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Bulakh et al., 2016); **Sakhalin Oblast** (<sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1</sup>Nezdojminogo, 1996).

#### *Naucoria fellea* (J. Favre) Raitelh.

EASTERN EUROPE: **Tula Oblast** (Svetasheva, 2003; Svetasheva, 2004).

SIBERIA: **Krasnoyarsk Krai** (Nezdojminogo, 1996); **Tomsk Oblast** (Kudashova, Gashkov, and Kutafjeva, 2013).

#### *Naucoria melinoides* (Bull.) P. Kumm.

≡ *Agaricus melinoides* Bull.<sup>1</sup> ≡ *Alnicola melinoides* (Bull.) Kühner<sup>2</sup>

EASTERN EUROPE: **Karelia** (<sup>2</sup>Freindling, 1949); **Krasnodar Krai** (<sup>2</sup>Vassiljeva, 1939); **Saint Petersburg** (<sup>1</sup>Weinmann, 1828; <sup>1</sup>Weinmann, 1836; <sup>1</sup>Weinmann, 1837).

SIBERIA: **Altai Republic** (<sup>2</sup>Singer, 1939).

FAR EAST: **Chukotka Autonomous Okrug** (<sup>1</sup>Berkeley and Curtis, 1978); **Primorsky Krai** (<sup>2</sup>Vassiljeva, 1972; <sup>2</sup>Vassiljeva, 1973; <sup>2</sup>Bulakh, 1977; <sup>2</sup>Azbukina et al., 1984); **Sakhalin Oblast** (<sup>2</sup>Vassiljeva and Nazarova, 1972).

#### *Naucoria salicis* P.D. Orton<sup>1</sup>

= *Alnicola langei* Kühner<sup>2</sup>

EASTERN EUROPE: **Arkhangelsk Oblast** (<sup>1</sup>Ezhov, Gavriilo, and Zmitrovich, 2014; <sup>1</sup>Zmitrovich and Ezhov, 2015; <sup>1</sup>Ezhov, Zmitrovich, and Ershov, 2016; <sup>1</sup>Shiryayev, Zmitrovich, and Ezhov, 2018); **Karelia** (<sup>1</sup>Kovalenko, Morozova, Fomina, and Särkisilta, 1998; <sup>1</sup>Krutov et al., 2014); **Komi Republic** (<sup>1</sup>Palamarchuk, 2011a; <sup>1</sup>Palamarchuk, 2012); **Leningrad Oblast** (<sup>1</sup>Volobuev et al., 2019); **Penza Oblast** (<sup>1</sup>Ivanov and Nezdojminogo, 1990); **Perm Krai** (<sup>1</sup>Perevedentseva, 2008); **Sverdlovsk Oblast** (<sup>1</sup>Marina, 2006).

SIBERIA: **Altai Republic** (<sup>1</sup>Nezdojminogo, 1996).

FAR EAST: **Primorsky Krai** (<sup>2</sup>Bulakh, 1977; <sup>2</sup>Azbukina et al., 1984; <sup>1</sup>Nezdojminogo, 1996).

#### *Naucoria scolecina* (Fr.) Quél.<sup>1</sup>

≡ *Alnicola scolecina* (Fr.) Romagn.<sup>2</sup>

EASTERN EUROPE: **Karelia** (<sup>1</sup>Freindling, 1949 [as *Alnicola umbrina* (R. Maire) Kühner, redet. in Bondartseva et al., 2001]; <sup>1</sup>Nezdojminogo, 1996; <sup>1</sup>Kovalenko, Morozova, Fomina, and Särkisilta, 1998; <sup>1</sup>Bondartseva et al., 2001; <sup>1</sup>Krutov et al., 2014); **Krasnodar Krai** (<sup>1</sup>Sopina, 2001a); **Leningrad Oblast** (<sup>1</sup>Thesleff, 1920; <sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Morozova, 2007; <sup>1</sup>Popov et al., 2007); **Moscow Oblast** (<sup>1</sup>Gorlenko, Sidorova, and Sidorova, 1989; <sup>1</sup>Levitskaya, 1998; <sup>1</sup>Levitskaya, 2013; <sup>1</sup>Voronina et al., 2014); **Murmansk Oblast** (<sup>1</sup>Nezdojminogo, 1996); **Penza Oblast** (<sup>1</sup>Ivanov, 1985; <sup>1</sup>Nezdojminogo, 1996); **Pskov Oblast** (<sup>1</sup>Kovalenko, Kolmakov, Morozova, and Popov, 2003; <sup>1</sup>Popov et al.,

2013); **Ryazan Oblast** (<sup>1</sup>Volosnova, 2005; <sup>1</sup>Volosnova, 2014); **Saint Petersburg** (<sup>1</sup>Kotkova, Morozova, and Popov, 2005; <sup>1</sup>Morozova and Smirnov, 2011; <sup>1</sup>Morozova et al., 2020); **Tatarstan** (<sup>1</sup>Nezdojminogo, 1996); **Ulyanovsk Oblast** (<sup>1</sup>Ilyukhin, 2009; <sup>1</sup>Ilyukhin, 2010a).

SIBERIA: **Altai Republic** (<sup>2</sup>Singer, 1950b; <sup>1</sup>Nezdojminogo, 1996); **Krasnoyarsk Krai** (<sup>1</sup>Beglyanova, 1972a; <sup>1</sup>Nezdojminogo, 1982a).

FAR EAST: **Magadan Oblast** (<sup>1</sup>Sazanova, 2012).

#### *Naucoria silvae-novae* D.A. Reid

EASTERN EUROPE: **Leningrad Oblast** (Morozova, 2007; Popov et al., 2007); **Orenburg Oblast** (Korshikova, 2005; Desyatova, 2008); **Penza Oblast** (Nezdojminogo, 1996).

FAR EAST: **Magadan Oblast** (Sazanova, 2011).

#### *Naucoria spadicea* D.A. Reid

EASTERN EUROPE: **Karelia** (Kovalenko, Morozova, Fomina, and Särkisilta, 1998; Krutov et al., 2014); **Moscow Oblast** (Levitskaya, 1995c; Levitskaya, 2013); **Murmansk Oblast** (Nezdojminogo, 1996); **Pskov Oblast** (Kovalenko, Kolmakov, Morozova, and Popov, 2003; Popov et al., 2013).

FAR EAST: **Jewish Autonomous Oblast** (Bulakh, Govorova, Nazarova, and Vassiljeva, 2007; Bau, Bulakh, and Govorova, 2011); **Primorsky Krai** (Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; Nezdojminogo, 1996; Bau, Bulakh, and Govorova, 2011); **Sakhalin Oblast** (Bulakh, Govorova, and Bogatov, 1999).

#### *Naucoria striatula* P.D. Orton

EASTERN EUROPE: **Adygea** (Sopina, 2001a); **Leningrad Oblast** (Morozova, 2007; Popov et al., 2007); **Murmansk Oblast** (Mikhailovskii, 1975a; Nezdojminogo, 1994; Karatygin, Nezdojminogo, Novozhilov, and Zhurbenko, 1999); **Orenburg Oblast** (Korshikova, 2005; Desyatova, 2008); **Perm Krai** (Perevedentseva, Nezdojminogo, and Kovalenko, 1990; Perevedentseva, 2008); **Ryazan Oblast** (Volosnova, 2005; Volosnova, 2014); **Saint Petersburg** (Morozova and Smirnov, 2011); **Yamalo-Nenets Autonomous Okrug** (Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; Nezdojminogo, 1994; Karatygin, Nezdojminogo, Novozhilov, and Zhurbenko, 1999; Nezdojminogo, 2001).

SIBERIA: **Irkutsk Oblast** (Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; Nezdojminogo, 1996); **Yamalo-Nenets Autonomous Okrug** (Nezdojminogo, 1994; Nezdojminogo, 1996; Karatygin, Nezdojminogo, Novozhilov, and Zhurbenko, 1999).

FAR EAST: **Amur Oblast** (Taranina, 2005); **Chukotka Autonomous Okrug** (Nezdojminogo, 1994; Karatygin, Nezdojminogo, Novozhilov, and Zhurbenko, 1999); **Khabarovsk Krai** (Bulakh, 2013; Bogacheva, Bulakh, Bukharova, and Egorova, 2015); **Primorsky Krai** (Azbukina et al., 1990; Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; Bardunov et al., 2002).

#### *Naucoria suavis* Bres.<sup>1</sup>

≡ *Alnicola suavis* (Bres.) Kühner<sup>2</sup>

EASTERN EUROPE: **Komi Republic** (<sup>1</sup>Palamarchuk, 2011b; <sup>1</sup>Palamarchuk, 2016a; <sup>1</sup>Palamarchuk, 2016b).

SIBERIA: **Altai Republic** (<sup>2</sup>Singer, 1939; <sup>2</sup>Singer, 1950a; <sup>2</sup>Singer, 1950b); **Irkutsk Oblast** (<sup>1</sup>Petrov, Nezdojminogo, and Bulakh, 1987; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1</sup>Petrov, 1991; <sup>1</sup>Nezdojminogo, 1996; <sup>1</sup>Petrov, 2008; <sup>1</sup>Gorbunova and Stepantsova, 2015).

FAR EAST: **Primorsky Krai** (<sup>2</sup>Vassiljeva, 1973; <sup>1</sup>Azbukina et al., 1990; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1</sup>Nezdojminogo, 1996; <sup>1</sup>Bardunov et al., 2002; <sup>1</sup>Bulakh et al., 2016).

#### *Naucoria subconspersa* Kühner ex P.D. Orton<sup>1</sup>

≡ *Alnicola subconspersa* (Kühner ex P.D. Orton) Bon<sup>2</sup>

EASTERN EUROPE: **Komi Republic** (<sup>1</sup>Palamarchuk, 2011b; <sup>1</sup>Palamarchuk, 2016a; <sup>1</sup>Palamarchuk, 2016b); **Moscow Oblast** (<sup>1</sup>Levitskaya, 1995c; <sup>1</sup>Levitskaya, 2013); **Penza Oblast** (<sup>1</sup>Ivanov, 1985; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1</sup>Nezdojminogo, 1996); **Sverdlovsk Oblast** (<sup>1</sup>Marina, 2006); **Tatarstan** (<sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1</sup>Nezdojminogo, 1996); **Arid territories** (<sup>1</sup>Rebriev, Rusanov, et al., 2012).

SIBERIA: **Irkutsk Oblast** (<sup>1</sup>Gorbunova and Stepantsova, 2015).

FAR EAST: **Amur Oblast** (<sup>1</sup>Kochunova and Erofeeva, 2017); **Primorsky Krai** (<sup>2</sup>Vassiljeva, 1972; <sup>2</sup>Vassiljeva, 1973; <sup>2</sup>Azbukina et al., 1984; <sup>1</sup>Azbukina et al., 1990; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1</sup>Nezdojminogo, 1996; <sup>1</sup>Bardunov et al., 2002; <sup>1</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Bulakh et al., 2016).

***Neoboletus erythropus* (Pers.) C. Hahn<sup>1</sup>**

≡ *Boletus erythropus* Pers.<sup>2</sup> = *Boletus junquilleus* (Quél.) Boud.<sup>3</sup> = *Boletus luridiformis* var. *luridiformis* Rostk.<sup>4</sup>

EASTERN EUROPE: **Adygea** (<sup>2</sup>Vassiljeva, 1939; <sup>3</sup>Kovalenko, 1979a; <sup>2,3</sup>Kovalenko, 1980b; <sup>2</sup>Vaasma, Kalamees, and Raitviir, 1986; <sup>2</sup>Sopina, 2001a); **Belgorod Oblast** (<sup>2</sup>Bedenko, 1979a); **Bryansk Oblast** (<sup>2</sup>Kruglikov, 2007); **Crimea** (<sup>2</sup>Sarkina, 2001; <sup>2</sup>Dudka et al., 2004; <sup>2</sup>Sarkina, 2010b; <sup>2</sup>Sarkina, 2011; <sup>2</sup>Sarkina, 2014b; <sup>2</sup>Sarkina and Mironova, 2015; <sup>2</sup>Sarkina, 2016a); **Kaliningrad Oblast** (<sup>2</sup>Dedkov, Volodina, and Gubareva, 2007); **Kaluga Oblast** (<sup>2</sup>Antokhina et al., 2015); **Karachay-Cherkess Republic** (<sup>4</sup>Kalamees and Botashev, 2000); **Krasnodar Krai** (<sup>2</sup>Vassiljeva, 1939; <sup>2,3</sup>Kovalenko, 1980a; <sup>2</sup>Kovalenko, 1980b; <sup>2</sup>Vaasma, Kalamees, and Raitviir, 1986); **Leningrad Oblast** (<sup>2</sup>Popov et al., 2007; <sup>2</sup>Geltman et al., 2018; <sup>2</sup>Geltman, 2018b); **Lipetsk Oblast** (<sup>2</sup>Sarycheva, 1999; <sup>2</sup>Sarycheva et al., 2009; <sup>2</sup>Sarycheva, 2011; <sup>2</sup>Sarycheva, 2014a; <sup>2</sup>Shcherbakov, 2014; <sup>2</sup>Sarycheva, 2016); **Mordovia** (<sup>2</sup>Ivoilov and Bolshakov, 2011b); **Moscow** (<sup>2</sup>Bucholtz, 1897b; <sup>2</sup>Bucholtz, 1897c; <sup>2</sup>Mosolov, 1906); **Moscow Oblast** (<sup>2</sup>Gorlenko, Sidorova, and Sidorova, 1989; <sup>1</sup>Varlygina, Zubakin, Nikitsky, and Sviridov, 2018); **North Ossetia** (<sup>2</sup>Nikolayev, 2001); **Orenburg Oblast** (<sup>2</sup>Desyatova, 2008); **Penza Oblast** (<sup>2</sup>Ivanov, 1981a; <sup>1</sup>Ivanov, 2019); **Rostov Oblast** (<sup>2</sup>Rusanov et al., 2004; <sup>2</sup>Zmitrovich et al., 2008; <sup>1</sup>Rusanov, Rebriev, and Bulgakov, 2018); **Saint Petersburg** (<sup>2</sup>Kovalenko and Morozova, 1999a); **Samara Oblast** (<sup>2</sup>Malysheva and Malysheva, 2008); **Saratov Oblast** (<sup>2</sup>Komirnaya, 1975); **Sevastopol** (<sup>2</sup>Sarkina, 2016b; <sup>1</sup>Sarkina, 2020c); **Sverdlovsk Oblast** (<sup>2</sup>Stepanova and Sirko, 1977); **Tambov Oblast** (<sup>2</sup>Elenevskiy, 2002; <sup>2</sup>Konakov et al., 2019); **Tula Oblast** (<sup>2</sup>Svetasheva, 2004; <sup>2</sup>Svetasheva, 2013); **Tver Oblast** (<sup>2</sup>Kurochkin, 1993; <sup>2</sup>Orlov et al., 2016); **Ulyanovsk Oblast** (<sup>2</sup>Ilyukhin, 2010a; <sup>2</sup>Ilyukhin, 2010b); **Volgograd Oblast** (<sup>2</sup>Burova and Nezdojminogo, 1982); **Voronezh Oblast** (<sup>2</sup>Agafonov, 2011; <sup>2</sup>Agafonov, 2018); **Arid territories** (<sup>2</sup>Rebriev, Rusanov, et al., 2012).

SIBERIA: **Krasnoyarsk Krai** (<sup>2</sup>Beglyanova, 1972a; <sup>2</sup>Beglyanova, 1972b; <sup>2</sup>Stepanov, 2012).

FAR EAST: **Primorsky Krai** (<sup>2</sup>Vassiljeva, 1956; <sup>2</sup>Vassiljeva, 1972; <sup>2,3</sup>Vassiljeva, 1973; <sup>3</sup>Bunkina and Nazarova, 1978; <sup>3</sup>Azbukina et al., 2006; <sup>2,3</sup>Bau, Bulakh, and Govorova, 2011; <sup>2</sup>Bogacheva et al., 2018).

***Neoboletus luridiformis* (Rostk.) Gelardi, Simonini & Vizzini<sup>1</sup>**

≡ *Boletus luridiformis* Rostk.<sup>2</sup> ≡ *Sutorius luridiformis* (Rostk.) G. Wu & Zhu L. Yang<sup>3</sup>

EASTERN EUROPE: **Crimea** (<sup>2</sup>Akulov and Pryidiuk, 2007; <sup>2</sup>Sarkina and Pryidiuk, 2012); **Kabardino-Balkarian Republic** (<sup>2</sup>Shkhagapsoev and Krapivina, 2004); **Lipetsk Oblast** (<sup>2</sup>Sarycheva et al., 2009; <sup>2</sup>Sarycheva, 2014a; <sup>2</sup>Shcherbakov, 2014); **Moscow** (<sup>2</sup>Samoilov and Morozova, 2011; <sup>2</sup>Muchnik et al., 2020); **Perm Krai** (<sup>2</sup>Perevedentseva, 2008; <sup>2</sup>Shepel', 2008; <sup>3</sup>Baklanov, 2018); **Tatarstan** (<sup>1</sup>Potapov, 2016b); **Tver Oblast** (<sup>1</sup>Sorokin, 2002).

***Neoclitocybe alnetorum* (J. Favre) Singer**

≡ *Clitocybe alnetorum* J. Favre<sup>1</sup>

EASTERN EUROPE: **Murmansk Oblast** (<sup>1</sup>Mikhailovskii, 1975a).

SIBERIA: **Krasnoyarsk Krai** (<sup>1</sup>Nezdojminogo, 1982a).

***Neofavolus suavissimus* (Fr.) Seelan, Justo & Hibbett<sup>1</sup>**

≡ *Lentinus suavissimus* Fr.<sup>2</sup> ≡ *Neofavolus suavissimus* (Fr.) Zmitr. & Kovalenko<sup>3</sup> ≡ *Panus suavissimus* (Fr.) Singer<sup>4</sup>

EASTERN EUROPE: **Chechen Republic** (<sup>2</sup>Taysumov, Krapivina, and Kushaliev, 2016; <sup>2</sup>Taysumov, Zamotaylov, and Batkhiev, 2020); **Chelyabinsk Oblast** (<sup>2</sup>Psurtseva, Kiyashko, Gachkova, and Belova, 2007); **Chuvash Republic** (<sup>1</sup>Gafurova, Ignatov, Tolpysheva, and Svetasheva, 2020); **Kabardino-Balkarian Republic** (<sup>2</sup>Shkhagapsoev and Krapivina, 2004); **Kaliningrad Oblast** (<sup>2</sup>Dedkov, Volodina, and Gubareva, 2007); **Karelia** (<sup>2</sup>Pegler, 1983); **Leningrad Oblast** (<sup>2</sup>Kovalenko and Morozova, 1999a; <sup>2</sup>Morozova, 1999; <sup>2</sup>Tzvelev, 2000; <sup>4</sup>Zmitrovich, Malysheva, Malysheva, and Spirin, 2004; <sup>4</sup>Morozova, 2007; <sup>4</sup>Popov et al., 2007; <sup>1</sup>Kalinina, 2018; <sup>2</sup>Geltman et al., 2018; <sup>2</sup>Geltman, 2018b); **Lipetsk Oblast** (<sup>2</sup>Sarycheva et al., 2009; <sup>2</sup>Sarycheva, 2016); **Nenets Autonomous Okrug** (<sup>4</sup>Matveyeva, 2006; <sup>2</sup>Matveyeva, 2020); **Novgorod Oblast** (<sup>2</sup>Kovalenko and Morozova, 1999b; <sup>4</sup>Kovalenko, Morozova, Nezdojminogo, and Popov, 2005; <sup>2</sup>Psurtseva, Kiyashko, Gachkova, and Belova, 2007; <sup>4</sup>Popov et al., 2013; <sup>2</sup>Vetkin et al., 2015); **Penza Oblast** (<sup>4</sup>Ivanov and Nezdojminogo, 1990); **Perm Krai** (<sup>4</sup>Perevedentseva, 2008); **Pskov Oblast** (<sup>2</sup>Morozova et al., 2015); **Ryazan Oblast** (<sup>4</sup>Volosnova, 1997; <sup>2</sup>Volosnova, 2014); **Saint Petersburg** (<sup>1</sup>Morozova et al., 2020); **Udmurt Republic** (<sup>2</sup>Kapitonov, 2013).

SIBERIA: **Altai Republic** (<sup>2</sup>Kovalenko, 1992; <sup>2</sup>Perova and Gorbunova, 2001; <sup>2</sup>Maneev, Achimova, Sedelnikova, and Gorbunova, 2017; <sup>1</sup>Svetasheva et al., 2019); **Irkutsk Oblast** (<sup>4</sup>Kutafjeva, 1982; <sup>4</sup>Petrov, 1984; <sup>4</sup>Astapenko, 1990a; <sup>4</sup>Petrov, 1991; <sup>4</sup>Bardunov et al., 2005; <sup>4</sup>Petrov, 2008); **Khanty-Mansi Autonomous Okrug** (<sup>2</sup>Zvyagina and Vasina, 2015; <sup>3</sup>Zvyagina and Baykalova, 2017); **Krasnoyarsk Krai** (<sup>4</sup>Beglyanova, 1972a; <sup>4</sup>Nezdojminogo, 1982a); **Sverdlovsk Oblast** (<sup>2</sup>Mukhin, 1993; <sup>2</sup>Mukhin et al., 2003); **Tyumen Oblast** (<sup>2</sup>Mukhin, 1993).



FAR EAST: **Amur Oblast** (<sup>4</sup>Nazarova, 1986; <sup>2</sup>Bulakh, Govorova, and Taranina, 2003; <sup>2</sup>Kochunova, 2016); **Jewish Autonomous Oblast** (<sup>2</sup>Bulakh, Govorova, Nazarova, and Vassiljeva, 2007; <sup>2</sup>Bau, Bulakh, and Govorova, 2011); **Khabarovsk Krai** (<sup>2</sup>Pegler, 1983; <sup>4</sup>Azbukina et al., 1986; <sup>2</sup>Bulakh, Vassiljeva, and Erofeeva, 2010; <sup>2</sup>Bau, Bulakh, and Govorova, 2011; <sup>2</sup>Erofeeva and Bulakh, 2015a); **Primorsky Krai** (<sup>4</sup>Vassiljeva, 1973; <sup>4</sup>Azbukina et al., 1984; <sup>2</sup>Bau, Bulakh, and Govorova, 2011; <sup>2</sup>Bulakh et al., 2016).

***Neolentinus adhaerens* (Alb. & Schwein.) Redhead & Ginns<sup>1</sup>**

≡ *Lentinus adhaerens* (Alb. & Schwein.) Fr.<sup>2</sup>

EASTERN EUROPE: **Adygea** (<sup>2</sup>Vassiljeva, 1939; <sup>2</sup>Vaasma, Kalamees, and Raitviir, 1986; <sup>1</sup>Kummer, 2007; <sup>1</sup>Psurtseva, Kiyashko, Gachkova, and Belova, 2007); **Kabardino-Balkarian Republic** (<sup>2</sup>Shkhagapsoev and Krapivina, 2004); **Krasnodar Krai** (<sup>2</sup>Pegler, 1983; <sup>1</sup>Psurtseva, Kiyashko, Gachkova, and Belova, 2007); **Orenburg Oblast** (<sup>1</sup>Safonov, 2015); **Penza Oblast** (<sup>2</sup>Ivanov, 1981b; <sup>2</sup>Ivanov, 1982); **Smolensk Oblast** (<sup>2</sup>Jaczevski, 1896); **Tula Oblast** (<sup>2</sup>Svetasheva, 2001).

SIBERIA: **Irkutsk Oblast** (<sup>2</sup>Kutafjeva, 1982); **Krasnoyarsk Krai** (<sup>2</sup>Beglyanova, 1972a); **Sverdlovsk Oblast** (<sup>2</sup>Stepanova and Sirko, 1977); **Tomsk Oblast** (<sup>2</sup>Kosheleva and Kutafjeva, 2004; <sup>1</sup>Kudashova, Gashkov, and Kutafjeva, 2013).

FAR EAST: **Khabarovsk Krai** (<sup>1</sup>Bau, Bulakh, and Govorova, 2011); **Primorsky Krai** (<sup>2</sup>Vassiljeva, 1973; <sup>2</sup>Bunkina and Nazarova, 1978; <sup>2</sup>Azbukina et al., 1984; <sup>2</sup>Azbukina et al., 2006; <sup>1</sup>Bau, Bulakh, and Govorova, 2011).

***Neolentinus cyathiformis* (Schaeff.) Della Magg. & Trassin.<sup>1</sup>**

≡ *Favolus cyathiformis* (Schaeff.) E.F. Malysheva, Malysheva & Zmitr.<sup>2</sup> ≡ *Lentinus cyathiformis* (Schaeff.) Bres.<sup>3</sup> ≡ *Lentinus cyathiformis* f. *cyathiformis* (Schaeff.) Bres.<sup>4</sup> ≡ *Panus cyathiformis* (Schaeff.) Fr.<sup>5</sup> = *Agaricus schaefferi* Weinm.<sup>6</sup> = *Lentinus cyathiformis* f. *plumbeus* A.N. Petrov<sup>7</sup> = *Lentinus degener* Kalchbr.<sup>8</sup> = *Lentinus variabilis* Schulzer ex Quél.<sup>9</sup> = *Neolentinus schaefferi* Redhead & Ginns<sup>10</sup>

EASTERN EUROPE: **Adygea** (<sup>9</sup>Vassiljeva, 1939; <sup>3</sup>Vaasma, Kalamees, and Raitviir, 1986); **Chuvash Republic** (<sup>1</sup>Vladimirova and Potapov, 2018); **Karachay-Cherkess Republic** (<sup>3</sup>Kalamees and Botashev, 2000); **Krasnodar Krai** (<sup>9</sup>Vassiljeva, 1939; <sup>3</sup>Kovalenko, 1980a; <sup>3</sup>Kovalenko, 1980b; <sup>3</sup>Vaasma, Kalamees, and Raitviir, 1986); **Leningrad Oblast** (<sup>6</sup>Weinmann, 1835; <sup>2</sup>Zmitrovich, Malysheva, Malysheva, and Spirin, 2004; <sup>3</sup>Popov et al., 2007); **Lipetsk Oblast** (<sup>3</sup>Sarycheva, 1999; <sup>3</sup>Afanasyev, Rtishcheva, and Starodubtseva, 2007; <sup>3</sup>Sarycheva et al., 2009; <sup>3</sup>Sarycheva, 2014a; <sup>3</sup>Sarycheva, 2016); **Mordovia** (<sup>3</sup>Chastukhin, 2011; <sup>3</sup>Ivoilov and Bolshakov, 2011b); **Moscow Oblast** (<sup>3</sup>Levitskaya, 1995b; <sup>3</sup>Levitskaya, 2013); **Nizhny Novgorod Oblast** (<sup>10</sup>Psurtseva, Kiyashko, Gachkova, and Belova, 2007); **Novgorod Oblast** (<sup>3</sup>Arslanov, 2012; <sup>3</sup>Arslanov, 2014); **Orenburg Oblast** (<sup>3</sup>Korshikova, 2006; <sup>3</sup>Desyatova, 2008; <sup>3</sup>Safonov, Malenkova, Rusakov, and Leneva, 2013; <sup>1</sup>Safonov, 2015); **Penza Oblast** (<sup>3</sup>Ivanov, 1981b; <sup>3</sup>Ivanov, 1982); **Perm Krai** (<sup>3</sup>Perevedentseva, 2008); **Rostov Oblast** (<sup>3</sup>Zmitrovich et al., 2008); **Ryazan Oblast** (<sup>3</sup>Volosnova, 1997; <sup>3</sup>Volosnova, 2014); **Saint Petersburg** (<sup>2</sup>Zmitrovich, Malysheva, Malysheva, and Spirin, 2004; <sup>3</sup>Morozova and Smirnov, 2011; <sup>1</sup>Morozova, Kovalenko, Rebriev, and Malysheva, 2014; <sup>1</sup>Morozova et al., 2020); **Samara Oblast** (<sup>2</sup>Malysheva and Malysheva, 2005b); **Smolensk Oblast** (<sup>8</sup>Jaczevski, 1896); **Stavropol Krai** (<sup>8</sup>Hollós, 1902; <sup>8</sup>Hollós, 1905; <sup>8</sup>Filarszky, 1907); **Sverdlovsk Oblast** (<sup>3</sup>Marina, 2006); **Tatarstan** (<sup>3</sup>Vassiljeva, 1977); **Tula Oblast** (<sup>3</sup>Svetasheva, 2004); **Udmurt Republic** (<sup>3</sup>Kapitonov, 2008); **Ulyanovsk Oblast** (<sup>3</sup>Ilyukhin, 2009; <sup>3</sup>Ilyukhin, 2010a); **Voronezh Oblast** (<sup>3</sup>Afanasyev, Rtishcheva, and Starodubtseva, 2007; <sup>3</sup>Sarycheva, Starodubtseva, and Sapelnikova, 2017); **Arid territories** (<sup>3</sup>Rebriev, Rusanov, et al., 2012).

SIBERIA: **Altai Krai** (<sup>3</sup>Zhukov, 1980; <sup>3</sup>Gorbunova and Perova, 2006; <sup>3</sup>Gorbunova and Chubarova, 2008; <sup>3</sup>Gorbunova, Vlasenko, and Tzhubarova, 2011); **Irkutsk Oblast** (<sup>7</sup>Petrov, 1983; <sup>4,7</sup>Petrov, 1984; <sup>3</sup>Kutafjeva and Astapenko, 1987; <sup>3</sup>Petrov, 1989; <sup>3</sup>Astapenko, 1990a; <sup>4,7</sup>Petrov, 1991; <sup>3</sup>Muzyka, 2002; <sup>4,7</sup>Petrov, 2008); **Khanty-Mansi Autonomous Okrug** (<sup>3</sup>Mukhin, 1993; <sup>3</sup>Zvyagina, 2008; <sup>1</sup>Shepeleva et al., 2014; <sup>1</sup>Filippova, Bulyonkova, and Lapshina, 2015; <sup>1</sup>Filippova and Bulyonkova, 2017a; <sup>1</sup>Filippova and Bulyonkova, 2017b); **Krasnoyarsk Krai** (<sup>8</sup>Thümen, 1880a; <sup>3</sup>Beglyanova, 1972a; <sup>3</sup>Kosheleva and Kutafjeva, 2008b; <sup>3</sup>Kosheleva, 2010; <sup>1</sup>Kryuchkova and Yaskova, 2017; <sup>1</sup>Krom and Kapitonov, 2019); **Kurgan Oblast** (<sup>3</sup>Mukhin, 1993); **Novosibirsk Oblast** (<sup>3</sup>Zhukov, 1972; <sup>3</sup>Zhukov, 1980; <sup>3</sup>Koropachinskiy and Banaev, 2014); **Omsk Oblast** (<sup>3</sup>Pilát, 1934); **Sverdlovsk Oblast** (<sup>3</sup>Mukhin, 1993); **Tomsk Oblast** (<sup>3</sup>Pilát, 1935; <sup>5</sup>Zhukov, 1980; <sup>3</sup>Agaphonova, Kutafjeva, and Gashkov, 2007; <sup>3</sup>Agaphonova, Kutafjeva, and Gashkov, 2009a; <sup>3</sup>Kudashova, Gashkov, and Kutafjeva, 2013); **Tyumen Oblast** (<sup>3</sup>Mukhin, 1993).

FAR EAST: **Amur Oblast** (<sup>3</sup>Nazarova, 1986; <sup>1</sup>Kochunova, 2016); **Jewish Autonomous Oblast** (<sup>3</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Erofeeva and Bulakh, 2015b; <sup>1</sup>Erofeeva, Bukharova, and Bulakh, 2019); **Khabarovsk Krai** (<sup>3</sup>Azbukina et al., 1986; <sup>3</sup>Bau, Bulakh, and Govorova, 2011; <sup>10</sup>Erofeeva and Bulakh, 2015a); **Primorsky Krai**

(<sup>3</sup>Vassiljeva, 1973; <sup>3</sup>Bunkina and Nazarova, 1978; <sup>3</sup>Azbukina et al., 1984; <sup>3</sup>Azbukina et al., 1990; <sup>3</sup>Bardunov et al., 2002; <sup>3</sup>Azbukina et al., 2006; <sup>3</sup>Bau, Bulakh, Zhuang, and Li, 2007; <sup>3</sup>Bau, Bulakh, and Govorova, 2011).

***Neolentinus lepideus* (Fr.) Redhead & Ginns<sup>1</sup>**

≡ *Agaricus lepideus* Fr.<sup>2</sup> ≡ *Lentinus lepideus* (Fr.) Fr.<sup>3</sup> ≡ *Lentinus lepideus* f. *lepideus* (Fr.) Fr.<sup>4</sup> = *Lentinus lepideus* f. *rufescens* A.N. Petrov<sup>5</sup> = *Lentinus lepideus* var. *ceratoides* (Holmsk.) P. Karst.<sup>6</sup>

EASTERN EUROPE: **Bashkortostan** (<sup>3</sup>Stepanova and Sirko, 1977); **Belgorod Oblast** (<sup>3</sup>Bedenko, 1979a); **Bryansk Oblast** (<sup>3</sup>Kruglikov, 2007); **Chelyabinsk Oblast** (<sup>3</sup>Stepanova and Sirko, 1977; <sup>3</sup>Krasutsky, 2013; <sup>3</sup>Krasutsky, 2014); **Crimea** (<sup>3</sup>Isikov, 2003; <sup>3</sup>Dudka et al., 2004); **Dagestan** (<sup>3</sup>Hollós, 1902; <sup>3</sup>Hollós, 1905; <sup>3</sup>Filarszky, 1907); **Kaliningrad Oblast** (<sup>3</sup>Dedkov, Volodina, and Gubareva, 2007); **Kaluga Oblast** (<sup>3</sup>Sionova, 2003); **Karachay-Cherkess Republic** (<sup>3</sup>Hollós, 1902; <sup>3</sup>Hollós, 1905; <sup>3</sup>Filarszky, 1907); **Karelia** (<sup>3</sup>Freindling, 1949; <sup>3</sup>Czerepanova, Perfiljeva, and Tobias, 1982; <sup>3</sup>Bondartseva et al., 2001); **Kirov Oblast** (<sup>3</sup>Kirillov, 2011; <sup>3</sup>Kirillov, Perevedentseva, and Egoshina, 2011); **Komi Republic** (<sup>3</sup>Bobretsova, 2004; <sup>3</sup>Palamarchuk, 2011b; <sup>1</sup>Palamarchuk, 2012; <sup>1</sup>Palamarchuk, 2016a; <sup>1</sup>Palamarchuk, 2016b; <sup>1</sup>Palamarchuk and Kirillov, 2017); **Krasnodar Krai** (<sup>3</sup>Vassiljeva, 1939; <sup>3</sup>Kovalenko, 1980a; <sup>3</sup>Kovalenko, 1980b); **Kursk Oblast** (<sup>3</sup>Soshnina, 2001; <sup>1</sup>Baranov, 2002); **Leningrad Oblast** (<sup>3,6</sup>Thesleff, 1920; <sup>3</sup>Stolyarskaya, 1989; <sup>3</sup>Kovalenko and Morozova, 1999a; <sup>3</sup>Zmitrovich, 2003; <sup>3</sup>Zmitrovich, Malysheva, Malysheva, and Spirin, 2004; <sup>1</sup>Psurtseva, Kiyashko, Gachkova, and Belova, 2007; <sup>3</sup>Morozova, 2007; <sup>3</sup>Popov et al., 2007; <sup>1</sup>Zmitrovich et al., 2015); **Lipetsk Oblast** (<sup>3</sup>Afanasyev, Rtishcheva, and Starodubtseva, 2007; <sup>1</sup>Sarycheva et al., 2009; <sup>1</sup>Sarycheva, Starodubtseva, and Sapelnikova, 2017); **Mordovia** (<sup>3</sup>Kuznetsov, 1960; <sup>3</sup>Chastukhin and Nikolaevskaya, 1969; <sup>1</sup>Ivoilov and Bolshakov, 2011b); **Moscow** (<sup>3</sup>Mosolov, 1906); **Moscow Oblast** (<sup>3</sup>Gorlenko, Sidorova, and Sidorova, 1989; <sup>3</sup>Levitskaya, 1995a; <sup>1</sup>Voronina et al., 2012; <sup>3</sup>Levitskaya, 2013; <sup>1</sup>Voronina et al., 2014); **Murmansk Oblast** (<sup>3</sup>Karsten, 1866; <sup>3</sup>Karsten, 1876; <sup>3</sup>Pystina, Pavlova, and Shestakova, 1969; <sup>3</sup>Pegler, 1983); **Nizhny Novgorod Oblast** (<sup>3</sup>Murashkinsky, 1911); **North Ossetia** (<sup>3</sup>Nikolayev, 2001); **Orenburg Oblast** (<sup>3</sup>Safonov, 2002; <sup>3</sup>Desyatova, 2008; <sup>3</sup>Safonov, Malenkova, Rusakov, and Leneva, 2013; <sup>1</sup>Safonov, 2015); **Penza Oblast** (<sup>3</sup>Ivanov, 1981b; <sup>3</sup>Ivanov, 1982); **Perm Krai** (<sup>3</sup>Perevedentseva, 2008; <sup>3</sup>Botalov, 2017); **Pskov Oblast** (<sup>3</sup>Kovalenko and Morozova, 1999b; <sup>3</sup>Popov, 2001a; <sup>1</sup>Psurtseva, Kiyashko, Gachkova, and Belova, 2007; <sup>1</sup>Popov et al., 2013); **Rostov Oblast** (<sup>3</sup>Rusanov et al., 2004; <sup>3</sup>Zmitrovich et al., 2008; <sup>1</sup>Rusanov, Rebriev, and Bulgakov, 2018); **Ryazan Oblast** (<sup>3</sup>Volosnova, 1997; <sup>3</sup>Volosnova, 2014); **Saint Petersburg** (<sup>2</sup>Weinmann, 1828; <sup>3</sup>Weinmann, 1836; <sup>3</sup>Weinmann, 1837; <sup>3</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Psurtseva, Kiyashko, Gachkova, and Belova, 2007; <sup>1</sup>Morozova and Smirnov, 2011); **Samara Oblast** (<sup>3</sup>Malysheva and Malysheva, 2008); **Sverdlovsk Oblast** (<sup>3</sup>Stepanova and Sirko, 1977; <sup>3</sup>Marina, 2006); **Tatarstan** (<sup>3</sup>Vassiljeva, 1977); **Tula Oblast** (<sup>3</sup>Svetasheva, 2004); **Tver Oblast** (<sup>3</sup>Kurochkin, 1993; <sup>1</sup>Kurochkin and Medvedev, 2015; <sup>1</sup>Kurochkin, 2016); **Udmurt Republic** (<sup>3</sup>Tychinin and Kuzmina, 2003); **Ulyanovsk Oblast** (<sup>3</sup>Ilyukhin, 2010a; <sup>3</sup>Ilyukhin, 2010b); **Vologda Oblast** (<sup>3</sup>Kutova, 1957; <sup>3</sup>Kirillova, 2007); **Voronezh Oblast** (<sup>3</sup>Afanasyev, Rtishcheva, and Starodubtseva, 2007; <sup>1</sup>Sarycheva, Starodubtseva, and Sapelnikova, 2017); **Yamalo-Nenets Autonomous Okrug** (<sup>3</sup>Stepanova and Sirko, 1977; <sup>3</sup>Karatygin, Nezdjominogo, Novozhilov, and Zhurbenko, 1999); **Yaroslavl Oblast** (<sup>3</sup>Lazareva, 1997; <sup>3</sup>Lazareva, 1998a); **Arid territories** (<sup>1</sup>Rebriev, Rusanov, et al., 2012); **Northern Caucasus** (<sup>3</sup>Kovalenko, 1980b).

SIBERIA: **Altai Krai** (<sup>3</sup>Gorbunova and Perova, 2006; <sup>3</sup>Gorbunova and Chubarova, 2008; <sup>1</sup>Gorbunova, Vlasenko, and Tzhubarova, 2011); **Altai Republic** (<sup>3</sup>Pegler, 1983; <sup>3</sup>Kovalenko, 1992; <sup>3</sup>Gorbunova, 1997; <sup>3</sup>Perova and Gorbunova, 2001; <sup>3</sup>Gorbunova, 2008; <sup>1</sup>Gorbunova, 2010); **Buryatia** (<sup>3</sup>Nezdjominogo, 1970a); **Irkutsk Oblast** (<sup>3</sup>Kutafjeva, 1982; <sup>3</sup>Petrov, 1984; <sup>5</sup>Petrov, 1987; <sup>3</sup>Petrov, 1989; <sup>3</sup>Astapenko, 1990a; <sup>5</sup>Petrov, 1991; <sup>3</sup>Muzyka, 2002; <sup>3</sup>Bardunov et al., 2005; <sup>4,5</sup>Petrov, 2008; <sup>3</sup>Heklau and Dörfelt, 2017; <sup>3</sup>Muzyka and Penzina, 2017); **Kemerovo Oblast** (<sup>3</sup>Zhukov, 1972); **Khakassia** (<sup>3</sup>Beglyanova, 1972a); **Khanty-Mansi Autonomous Okrug** (<sup>3</sup>Mukhin, 1993; <sup>3</sup>Stavishenko, 2003; <sup>3</sup>Zvyagina, Baykalova, and Gorbunova, 2007; <sup>1</sup>Zvyagina, 2008; <sup>1</sup>Zvyagina and Baykalova, 2012; <sup>1</sup>Shepeleva et al., 2014; <sup>3</sup>Filippova, Bulyonkova, and Lapshina, 2015; <sup>3</sup>Zvyagina and Vasina, 2015; <sup>1</sup>Filippova and Bulyonkova, 2017a; <sup>1</sup>Filippova and Bulyonkova, 2017b); **Krasnoyarsk Krai** (<sup>3</sup>Borszczow and Borszczow, 1856; <sup>3</sup>Thümen, 1877; <sup>3</sup>Kalchbrenner, 1878; <sup>3</sup>Thümen, 1878; <sup>3</sup>Beglyanova, 1972a; <sup>3</sup>Nezdjominogo, 1976a; <sup>3</sup>Pegler, 1983; <sup>3</sup>Stepanova and Stepanova, 1983; <sup>3</sup>Lapitskaya, 1990; <sup>1</sup>Kosheleva and Kutafjeva, 2008a; <sup>1</sup>Kosheleva and Kutafjeva, 2008b; <sup>3</sup>Kosheleva, 2010; <sup>1</sup>Zauzolkova, 2012; <sup>1</sup>Krom and Kapitonov, 2019); **Kurgan Oblast** (<sup>3</sup>Stepanova and Sirko, 1977; <sup>3</sup>Mukhin, 1993); **Novosibirsk Oblast** (<sup>3</sup>Zhukov, 1972; <sup>3</sup>Perova, 1977; <sup>3</sup>Zhukov, 1980; <sup>3</sup>Perova and Gorbunova, 2001; <sup>3</sup>Gorbunova, 2007; <sup>3</sup>Perova and Gorbunova, 2007; <sup>1</sup>Koropachinskiy and Banaev, 2014); **Omsk Oblast** (<sup>3</sup>Pilát, 1934); **Sakha Republic** (<sup>3</sup>Nezdjominogo, 2003; <sup>3</sup>Morozova et al., 2012); **Sverdlovsk Oblast** (<sup>3</sup>Mukhin, 1993; <sup>3</sup>Mukhin et al., 2003); **Tomsk Oblast** (<sup>3</sup>Milovidova, 1980; <sup>3</sup>Zhukov, 1980; <sup>3</sup>Kosheleva and Kutafjeva, 2004; <sup>3</sup>Agaphonova, Kutafjeva, and Gashkov, 2007; <sup>1</sup>Kudashova, Gashkov, and Kutafjeva, 2013); **Tyumen Oblast** (<sup>3</sup>Mukhin, 1993); **Yamalo-Nenets Autonomous Okrug** (<sup>3</sup>Tarchevskaya, 1990; <sup>3</sup>Mukhin, 1993).

FAR EAST: **Amur Oblast** (<sup>3</sup>Tomilin, 1962; <sup>3</sup>Gordienko, Petrova, and Tarasov, 1981; <sup>3</sup>Nazarova, 1986; <sup>1</sup>Taranina, 2005; <sup>1</sup>Kochunova, 2016; <sup>1</sup>Kochunova, 2019); **Chukotka Autonomous Okrug** (<sup>3</sup>Sazanova, 1993); **Jewish Autonomous Oblast** (<sup>3</sup>Bulakh, Govorova, Nazarova, and Vassiljeva, 2007; <sup>1</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Erofeeva, Bukharova, and Bulakh, 2019); **Kamchatka Krai** (<sup>3</sup>Pegler, 1983; <sup>1</sup>Psurtseva, Kiyashko, Gachkova, and Belova, 2007); **Khabarovsk Krai** (<sup>3</sup>Azbukina et al., 1986; <sup>3</sup>Azbukina et al., 1989; <sup>1</sup>Bulakh, Vassiljeva, and Erofeeva, 2010; <sup>1</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Erofeeva and Bulakh, 2015a); **Magadan Oblast** (<sup>3</sup>Nazarova, 1976; <sup>3</sup>Sazanova, 1996; <sup>3</sup>Sazanova, 2005; <sup>1</sup>Sazanova, 2009a; <sup>1</sup>Sazanova, 2011); **Primorsky Krai** (<sup>3</sup>Vassiljeva, 1973; <sup>3</sup>Bunkina and Nazarova, 1978; <sup>3</sup>Azbukina et al., 1984; <sup>3</sup>Azbukina et al., 1990; <sup>3</sup>Bardunov et al., 2002; <sup>3</sup>Azbukina et al., 2006; <sup>3</sup>Bau, Bulakh, Zhuang, and Li, 2007; <sup>1</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Bulakh et al., 2016); **Sakhalin Oblast** (<sup>3</sup>Vassiljeva and Nazarova, 1972; <sup>3</sup>Bulakh, Govorova, and Bogatov, 1999).

***Notholepista subzonalis* (Peck) Vizzini & Contu**

SIBERIA: **Khanty-Mansi Autonomous Okrug** (Zvyagina and Baykalova, 2017).

***Omphaliaster asterosporus* (J.E. Lange) Lamoure**

EASTERN EUROPE: **Kirov Oblast** (Kirillov, 2011; Kirillov, Perevedentseva, and Egoshina, 2011; Baranova et al., 2014); **Komi Republic** (Palamarchuk and Kirillov, 2017; Shiryaeva and Palamarchuk, 2019).

SIBERIA: **Altai Republic** (Gorbunova, 2019); **Irkutsk Oblast** (Petrov, 1991; Petrov, 2008; Gorbunova and Stepanyeva, 2015); **Khanty-Mansi Autonomous Okrug** (Filippova and Bulyonkova, 2017a; Filippova and Bulyonkova, 2017b); **Krasnoyarsk Krai** (Karatygin, Nezdojminogo, Novozhilov, and Zhurbenko, 1999); **Tyva Republic** (Gorbunova, 2015).

FAR EAST: **Khabarovsk Krai** (Bulakh, Vassiljeva, and Erofeeva, 2010).

***Omphaliaster borealis* (M. Lange & Skifte) Lamoure**

EASTERN EUROPE: **Komi Republic** (Palamarchuk and Kirillov, 2016; Palamarchuk, 2016a; Palamarchuk, 2016b; Dyogteva, 2019; Palamarchuk et al., 2019); **Yamalo-Nenets Autonomous Okrug** (Knudsen and Mukhin, 1998; Karatygin, Nezdojminogo, Novozhilov, and Zhurbenko, 1999).

SIBERIA: **Altai Republic** (Gorbunova, 2019); **Khanty-Mansi Autonomous Okrug** (Filippova and Thormann, 2014; Filippova, 2014; Filippova, Mourgues, and Philippe, 2014; Zvyagina and Baykalova, 2017).

***Omphaliaster obolus* (Fr.) Urbonas**

≡ *Clitocybe obola* (Fr.) P. Kumm.<sup>1</sup>

EASTERN EUROPE: **Kaliningrad Oblast** (<sup>1</sup>Dedkov, Volodina, and Gubareva, 2007); **Leningrad Oblast** (<sup>1</sup>Thesleff, 1920).

***Omphalina demissa* (Fr.) Quél.**

EASTERN EUROPE: **Rostov Oblast** (Rusanov, Rebriev, and Bulgakov, 2018); **Arid territories** (Rebriev, Rusanov, et al., 2012).

SIBERIA: **Krasnoyarsk Krai** (Beglyanova, 1972a; Kosheleva and Kutafjeva, 2008a).

***Omphalina grisea* (Fr.) Quél.**

≡ *Omphalia grisea* (Fr.) Quél.<sup>1</sup>

EASTERN EUROPE: **Leningrad Oblast** (<sup>1</sup>Thesleff, 1920).

***Omphalina mutila* (Fr.) P.D. Orton<sup>1</sup>**

= *Clitocybe josserandii* (Singer) Singer<sup>2</sup>

EASTERN EUROPE: **Samara Oblast** (<sup>2</sup>Malysheva and Malysheva, 2005b; <sup>2</sup>Malysheva and Malysheva, 2007; <sup>2</sup>Malysheva and Malysheva, 2008); **Tula Oblast** (<sup>2</sup>Svetasheva, 2008; <sup>1</sup>Shcherbakov, 2010; <sup>1</sup>Svetasheva, Sheremetyeva, and Lakomov, 2019).

FAR EAST: **Primorsky Krai** (<sup>1</sup>Bulakh et al., 2016).

***Omphalina offuciata* (Fr.) Bon<sup>1</sup>**

≡ *Omphalia offuciata* (Fr.) Gillet<sup>2</sup>

EASTERN EUROPE: **Crimea** (<sup>2</sup>Zerova, 1962; <sup>1</sup>Sarkina, 2001; <sup>1</sup>Dudka et al., 2004; <sup>2</sup>Sarkina, 2010b; <sup>1</sup>Sarkina, 2011).

***Omphalina pseudomuralis* Lamoure**

EASTERN EUROPE: **Murmansk Oblast** (Karatygin, Nezdojminogo, Novozhilov, and Zhurbenko, 1999).

***Omphalina pyxidata* (Bull.) Quél.<sup>1</sup>**

≡ *Agaricus pyxidatus* Bull.<sup>2</sup> ≡ *Clitocybe pyxidata* (Bull.) Singer<sup>3</sup> ≡ *Omphalia pyxidata* (Bull.) P. Kumm.<sup>4</sup>

EASTERN EUROPE: **Belgorod Oblast** (<sup>1</sup>Bedenko, 1979a); **Kaliningrad Oblast** (<sup>1</sup>Volodina, 2007); **Leningrad Oblast** (<sup>4</sup>Thesleff, 1920; <sup>1</sup>Popov et al., 2007); **Moscow Oblast** (<sup>1</sup>Vishnevsky, 1998); **Murmansk Oblast** (<sup>1</sup>Mikhailovskii, 1975b; <sup>1</sup>Karatygin, Nezdojminogo, Novozhilov, and Zhurbenko, 1999); **Rostov Oblast** (<sup>1</sup>Rebriev, 2018); **Ryazan Oblast** (<sup>1</sup>Volosnova, 2014); **Saint Petersburg** (<sup>2</sup>Weinmann, 1828; <sup>2</sup>Weinmann, 1836; <sup>2</sup>Weinmann, 1837; <sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Morozova and Kovalenko, 2000; <sup>1</sup>Kotkova, Morozova, and Popov, 2005; <sup>1</sup>Kotkova, Morozova, and Popov, 2006; <sup>1</sup>Morozova, Kovalenko, Rebriev, and Malysheva, 2014; <sup>1</sup>Morozova et al., 2020); **Sverdlovsk Oblast** (<sup>1</sup>Marina, 2006); **Vologda Oblast** (<sup>1</sup>Kirillova, 2007; <sup>1</sup>Kirillova, 2009); **Arid territories** (<sup>1</sup>Rebriev, Rusanov, et al., 2012).

SIBERIA: **Altai Republic** (<sup>3</sup>Singer, 1943; <sup>1</sup>Gorbunova, 1997; <sup>1</sup>Perova and Gorbunova, 2001); **Buryatia** (<sup>1</sup>Nezdojminogo, 1973; <sup>1</sup>Petrov, 1991); **Irkutsk Oblast** (<sup>1</sup>Gorbunova and Stepanitsova, 2015); **Khanty-Mansi Autonomous Okrug** (<sup>1</sup>Filippova, Bulyonkova, and Lapshina, 2015); **Krasnoyarsk Krai** (<sup>1</sup>Beglyanova, 1972a; <sup>1</sup>Zauzolkova, 2015).

FAR EAST: **Chukotka Autonomous Okrug** (<sup>2</sup>Berkeley and Curtis, 1978); **Magadan Oblast** (<sup>1</sup>Sazanova, 2005; <sup>1</sup>Sazanova, 2009a).

***Omphalina retosta* (Fr.) P.D. Orton<sup>1</sup>**

≡ *Agaricus retostus* Fr.<sup>2</sup>

EASTERN EUROPE: **Leningrad Oblast** (<sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Popov et al., 2007).

FAR EAST: **Chukotka Autonomous Okrug** (<sup>2</sup>Berkeley and Curtis, 1978).

***Omphalina rivulicola* (J. Favre) Lamoure**

SIBERIA: **Sakha Republic** (Karatygin, Nezdojminogo, Novozhilov, and Zhurbenko, 1999; Nezdojminogo, 2003).

***Omphalina setipes* (Fr.) Raithelh.<sup>1</sup>**

≡ *Agaricus setipes* Fr.<sup>2</sup> ≡ *Gerronema setipes* (Fr.) Singer<sup>3</sup> ≡ *Omphalia setipes* (Fr.) Quél.<sup>4</sup> ≡ *Rickenella setipes* (Fr.) Raithelh.<sup>5</sup>

EASTERN EUROPE: **Kaliningrad Oblast** (<sup>5</sup>Dedkov, Volodina, and Gubareva, 2007; <sup>5</sup>Volodina, 2007); **Komi Republic** (<sup>5</sup>Palamarchuk, 2012; <sup>5</sup>Palamarchuk, 2016a; <sup>5</sup>Palamarchuk, 2016b); **Leningrad Oblast** (<sup>2</sup>Weinmann, 1836; <sup>4</sup>Thesleff, 1920; <sup>5</sup>Kovalenko and Morozova, 1999a; <sup>5</sup>Morozova and Kovalenko, 2000; <sup>5</sup>Morozova, 2007; <sup>5</sup>Popov et al., 2007); **Moscow** (<sup>2</sup>Bucholtz, 1897b; <sup>2</sup>Bucholtz, 1897c; <sup>2</sup>Mosolov, 1906); **Moscow Oblast** (<sup>5</sup>Levitskaya, 1995b; <sup>1</sup>Vishnevsky, 1998; <sup>5</sup>Levitskaya, 2013); **Novgorod Oblast** (<sup>5</sup>Kovalenko, Morozova, Nezdojminogo, and Popov, 2005; <sup>5</sup>Popov et al., 2013); **Perm Krai** (<sup>5</sup>Perevedentseva, Nezdojminogo, and Kovalenko, 1990; <sup>5</sup>Perevedentseva, 2008); **Pskov Oblast** (<sup>5</sup>Kovalenko and Morozova, 1999b; <sup>5</sup>Kovalenko, Kolmakov, Morozova, and Popov, 2003; <sup>5</sup>Popov et al., 2013); **Ryazan Oblast** (<sup>5</sup>Volosnova, 2014); **Saint Petersburg** (<sup>2</sup>Weinmann, 1828; <sup>2</sup>Weinmann, 1837; <sup>5</sup>Morozova and Smirnov, 2011; <sup>5</sup>Morozova et al., 2020); **Sverdlovsk Oblast** (<sup>5</sup>Marina, 2006); **Tula Oblast** (<sup>5</sup>Svetasheva, 2004).

SIBERIA: **Krasnoyarsk Krai** (<sup>3</sup>Beglyanova, 1972a); **Novosibirsk Oblast** (<sup>3</sup>Perova and Gorbunova, 2001); **Tomsk Oblast** (<sup>3</sup>Perova and Gorbunova, 2001; <sup>3</sup>Kudashova, Gashkov, and Kutafjeva, 2013; <sup>5</sup>Kudashova, Gashkov, and Kutafjeva, 2013).

FAR EAST: **Jewish Autonomous Oblast** (<sup>5</sup>Bulakh, Govorova, Nazarova, and Vassiljeva, 2007); **Kamchatka Krai** (<sup>5</sup>Kalamees and Vaasma, 1981); **Primorsky Krai** (<sup>1</sup>Bulakh et al., 2016).

***Omphalina sphagnophila* (Peck) H.E. Bigelow**

EASTERN EUROPE: **Tver Oblast** (Mukhina, 2011a; Mukhina, 2011b).

***Omphalina stellata* (Fr.) Quél.**

≡ *Omphalia stellata* (Fr.) P. Kumm.<sup>1</sup>

EASTERN EUROPE: **Kaliningrad Oblast** (<sup>1</sup>Dedkov, Volodina, and Gubareva, 2007); **Krasnodar Krai** (<sup>1</sup>Vassiljeva, 1939); **Leningrad Oblast** (<sup>1</sup>Thesleff, 1920).

***Omphalina subhepatica* (Batsch) Murrill**

= *Omphalina hepatica* (Batsch) P.D. Orton<sup>1</sup>

EASTERN EUROPE: **Samara Oblast** (<sup>1</sup>Malysheva and Malysheva, 2004; <sup>1</sup>Malysheva and Malysheva, 2008); **Volgograd Oblast** (<sup>1</sup>Burova and Nezdojminogo, 1980).

***Omphalina telmatiaea* (Berk. & Cooke) Singer<sup>1</sup>**

≡ *Omphalia philonotis* f. *telmatiaea* (Berk. & Cooke) Singer<sup>2</sup> ≡ *Omphalia telmatiaea* (Berk. & Cooke) Sacc.<sup>3</sup>  
 EASTERN EUROPE: **Karelia** (<sup>2</sup>Singer, 1943; <sup>3</sup>Freindling, 1949; <sup>1</sup>Bondartseva et al., 2001; <sup>1</sup>Krutov et al., 2014).

***Omphalotus guepiniiformis* (Berk.) Neda**

= *Lampteromyces japonicus* (Kawam.) Singer<sup>1</sup>

FAR EAST: **Primorsky Krai** (<sup>1</sup>Vassiljeva, 1973; <sup>1</sup>Bunkina and Nazarova, 1978; <sup>1</sup>Kovalenko and Nezdojminogo, 1989; <sup>1</sup>Azbukina et al., 2006; <sup>1</sup>Psurtseva, Kiyashko, Gachkova, and Belova, 2007; <sup>1</sup>Bau, Bulakh, and Govorova, 2011).

***Omphalotus illudens* (Schwein.) Bresinsky & Besl**

FAR EAST: **Primorsky Krai** (Bau, Bulakh, and Govorova, 2011).

***Omphalotus olearius* (DC.) Singer<sup>1</sup>**

≡ *Agaricus olearius* DC.<sup>2</sup> ≡ *Clitocybe olearia* (DC.) Maire<sup>3</sup>

EASTERN EUROPE: **Crimea** (<sup>2</sup>Léveillé, 1842; <sup>3</sup>Sarkina, 2001; <sup>1</sup>Dudka et al., 2004; <sup>1</sup>Sarkina and Stavishenko, 2019).  
 FAR EAST: **Primorsky Krai** (<sup>1</sup>Kovalenko and Nezdojminogo, 1989; <sup>1</sup>Azbukina et al., 2006).

***Ossicaulis lignatilis* (Pers.) Redhead & Ginns<sup>1</sup>**

≡ *Clitocybe lignatilis* (Pers.) P. Karst.<sup>2</sup> ≡ *Pleurocybella lignatilis* (Pers.) Singer<sup>3</sup> ≡ *Pleurotus lignatilis* (Pers.) P. Kumm.<sup>4</sup> = *Clitocybe circinata* (Gillet) P. Karst.<sup>5</sup> = *Hypsizygus circinatus* (Gillet) Singer<sup>6</sup>

EASTERN EUROPE: **Chelyabinsk Oblast** (<sup>1</sup>Psurtseva, Kiyashko, Gachkova, and Belova, 2007); **Crimea** (<sup>4</sup>Zerova, 1962; <sup>1</sup>Moser, 1993; <sup>2</sup>Sarkina, 2001; <sup>1</sup>Dudka et al., 2004; <sup>1</sup>Sarkina, 2011); **Kaliningrad Oblast** (<sup>1</sup>Dedkov, Volodina, and Gubareva, 2007); **Karelia** (<sup>1</sup>Krutov et al., 2014); **Komi Republic** (<sup>1</sup>Bobretsova, 2004; <sup>1</sup>Palamarchuk, 2012; <sup>1</sup>Palamarchuk and Kirillov, 2018a); **Krasnodar Krai** (<sup>2</sup>Vassiljeva, 1939); **Leningrad Oblast** (<sup>2</sup>Thesleff, 1920; <sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Popov et al., 2007); **Moscow Oblast** (<sup>2</sup>Vishnevsky, 1998; <sup>1</sup>Voronina et al., 2014); **Murmansk Oblast** (<sup>4</sup>Pystina, Pavlova, and Shestakova, 1969); **Nizhny Novgorod Oblast** (<sup>1</sup>Chkalov, 2017); **Orenburg Oblast** (<sup>1</sup>Desyatova, 2007; <sup>1</sup>Desyatova, 2008); **Penza Oblast** (<sup>6</sup>Ivanov, 1981a; <sup>6</sup>Ivanov, 1981b; <sup>1</sup>Ivanov, 2019); **Perm Krai** (<sup>2</sup>Shkaraba, Perevedentseva, and Moshkina, 1990; <sup>2</sup>Perevedentseva, 2008); **Rostov Oblast** (<sup>1</sup>Morozova et al., 2008); **Ryazan Oblast** (<sup>1</sup>Volosnova, 2014); **Saint Petersburg** (<sup>1</sup>Zhukova, Morozova, Volobuev, and Bryantseva, 2017); **Samara Oblast** (<sup>1</sup>Malysheva and Malysheva, 2005b; <sup>1</sup>Malysheva and Malysheva, 2008); **Smolensk Oblast** (<sup>4</sup>Jaczewski, 1896); **Sverdlovsk Oblast** (<sup>1</sup>Marina, 2006); **Tatarstan** (<sup>6</sup>Vassiljeva, 1977); **Tula Oblast** (<sup>1</sup>Svetasheva, 2004); **Udmurt Republic** (<sup>1</sup>Kapitonov, 2013); **Ulyanovsk Oblast** (<sup>1</sup>Ilyukhin, 2010a); **Yaroslavl Oblast** (<sup>3</sup>Lazareva, 1998a); **Arid territories** (<sup>1</sup>Rebriev, Rusanov, et al., 2012).

SIBERIA: **Altai Krai** (<sup>1</sup>Gorbunova, 2018a); **Altai Republic** (<sup>2,5</sup>Singer, 1943; <sup>3</sup>Kovalenko, 1992; <sup>2</sup>Gorbunova, 2001b; <sup>3</sup>Perova and Gorbunova, 2001); **Buryatia** (<sup>2</sup>Petrov, 1991); **Irkutsk Oblast** (<sup>2</sup>Petrov, 1984; <sup>2</sup>Kutafjeva, 1989; <sup>3</sup>Astapenko, 1990a; <sup>2</sup>Petrov, 1991; <sup>2</sup>Petrov, 2008); **Kemerovo Oblast** (<sup>4</sup>Perova and Gorbunova, 2001); **Khakassia** (<sup>3</sup>Beglyanova, 1972a; <sup>1</sup>Zauzolkova, 2015); **Khanty-Mansi Autonomous Okrug** (<sup>1</sup>Filippova, Bulyonkova, and Lapshina, 2015; <sup>1</sup>Filippova and Bulyonkova, 2017a; <sup>1</sup>Filippova and Bulyonkova, 2017b); **Krasnoyarsk Krai** (<sup>3</sup>Beglyanova, 1972a; <sup>1</sup>Malysheva, Malysheva, Kiyashko, et al., 2017; <sup>1</sup>Krom and Kapitonov, 2019); **Novosibirsk Oblast** (<sup>3</sup>Perova and Gorbunova, 2001; <sup>1</sup>Gorbunova, 2007; <sup>1</sup>Perova and Gorbunova, 2007; <sup>1</sup>Koropachinskiy and Banaev, 2014); **Tomsk Oblast** (<sup>1</sup>Kudashova, Gashkov, and Vaishlya, 2016a; <sup>1</sup>Kudashova, Gashkov, and Vaishlya, 2016b); **Baikalia** (<sup>1</sup>Psurtseva, Kiyashko, Gachkova, and Belova, 2007).

FAR EAST: **Amur Oblast** (<sup>2</sup>Nazarova, 1986; <sup>2</sup>Azbukina et al., 1998; <sup>1</sup>Taranina, 2005; <sup>1</sup>Kochunova and Erofeeva, 2017); **Chukotka Autonomous Okrug** (<sup>2</sup>Sazanova, 1993); **Jewish Autonomous Oblast** (<sup>2</sup>Bulakh, Govorova, Nazarova, and Vassiljeva, 2007; <sup>1</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Erofeeva, Bukharova, and Bulakh, 2019); **Kamchatka Krai** (<sup>1</sup>Psurtseva, Kiyashko, Gachkova, and Belova, 2007); **Khabarovsk Krai** (<sup>5</sup>Singer, 1943; <sup>2</sup>Azbukina et al., 1986; <sup>2</sup>Bau, Bulakh, Zhuang, and Li, 2007; <sup>1</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Erofeeva and Bulakh, 2015a); **Magadan Oblast** (<sup>1</sup>Sazanova, 2009a); **Primorsky Krai** (<sup>4</sup>Vassiljeva, 1972; <sup>4</sup>Vassiljeva, 1973; <sup>4</sup>Bunkina and Nazarova, 1978; <sup>2</sup>Azbukina et al., 1984; <sup>2</sup>Azbukina et al., 1990; <sup>1</sup>Bardunov et al., 2002; <sup>1</sup>Azbukina et al., 2006; <sup>1</sup>Psurtseva, Kiyashko, Gachkova, and Belova, 2007; <sup>1</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Bulakh et al., 2016); **Sakhalin Oblast** (<sup>4</sup>Vassiljeva and Nazarova, 1972).

***Oudemansiella globospora* (R.H. Petersen & Nagas.) Zhu L. Yang, G.M. Muell., G. Kost & Rexer**

≡ *Xerula globospora* R.H. Petersen & Nagas.<sup>1</sup>

FAR EAST: **Primorsky Krai** (<sup>1</sup>Petersen and Nagasawa, 2005; <sup>1</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Bogacheva et al., 2018); **Sakhalin Oblast** (<sup>1</sup>Bulakh, 2019).

***Oudemansiella melanotricha* (Dörfelt) M.M. Moser<sup>1</sup>**≡ *Xerula melanotricha* Dörfelt<sup>2</sup>

EASTERN EUROPE: **Adygea** (<sup>2</sup>Vaasma, Kalamees, and Raitviir, 1986; <sup>2</sup>Psurtseva, Kiyashko, Gachkova, and Belova, 2007; <sup>2</sup>Zamotajlov, Sirotyuk (Kuvaeva), Akatova, and Lipka, 2012); **Krasnodar Krai** (<sup>2</sup>Vaasma, Kalamees, and Raitviir, 1986; <sup>2</sup>Litvinskaya, 2007; <sup>1</sup>Litvinskaya, 2017).

***Panaeolina foeniseeii* (Pers.) Maire<sup>1</sup>**

≡ *Agaricus foeniseeii* Pers.<sup>2</sup> ≡ *Panaeolus foeniseeii* (Pers.) J. Schröt.<sup>3</sup> ≡ *Psathyra foeniseeii* (Pers.) G. Bertrand<sup>4</sup> ≡ *Psilocybe foeniseeii* (Pers.) Quél.<sup>5</sup>

EASTERN EUROPE: **Crimea** (<sup>3</sup>Sarkina, 2014b); **Kaliningrad Oblast** (<sup>5</sup>Hennings, 1895; <sup>3</sup>Dedkov, Volodina, and Gubareva, 2007; <sup>3</sup>Volodina, 2007; <sup>1</sup>Atayev and Volodina, 2020); **Kaluga Oblast** (<sup>5</sup>Sionova, 2012); **Karelia** (<sup>3</sup>Krutov et al., 2014); **Komi Republic** (<sup>1</sup>Palamarchuk and Kirillov, 2017); **Leningrad Oblast** (<sup>4</sup>Thesleff, 1920; <sup>3</sup>Kovalenko and Morozova, 1999a; <sup>3</sup>Morozova, 2007; <sup>3</sup>Popov et al., 2007; <sup>1</sup>Zmitrovich et al., 2015); **Lipetsk Oblast** (<sup>1</sup>Sarycheva, 1999; <sup>1</sup>Sarycheva et al., 2009; <sup>1</sup>Sarycheva, 2011; <sup>1</sup>Sarycheva, 2014a; <sup>1</sup>Sarycheva, 2016); **Novgorod Oblast** (<sup>3</sup>Kovalenko, Morozova, Nezdojminogo, and Popov, 2005; <sup>3</sup>Malysheva, Malysheva, and Zmitrovich, 2007; <sup>3</sup>Popov et al., 2013); **Penza Oblast** (<sup>1</sup>Ivanov, 1982); **Perm Krai** (<sup>3</sup>Perevedentseva, 2008); **Pskov Oblast** (<sup>3</sup>Kovalenko and Morozova, 1999b; <sup>3</sup>Popov et al., 2013); **Rostov Oblast** (<sup>1</sup>Rusanov et al., 2004; <sup>1</sup>Zmitrovich et al., 2008); **Ryazan Oblast** (<sup>3</sup>Malysheva and Volosnova, 2008; <sup>3</sup>Volosnova, 2014); **Saint Petersburg** (<sup>2</sup>Weinmann, 1836; <sup>3</sup>Kovalenko and Morozova, 1999a; <sup>3</sup>Morozova and Kovalenko, 2000; <sup>3</sup>Kotkova, Morozova, and Popov, 2006; <sup>1</sup>Morozova, Kovalenko, Rebriev, and Malysheva, 2014; <sup>1</sup>Zhukova, Morozova, Volobuev, and Bryantseva, 2017); **Samara Oblast** (<sup>3</sup>Malysheva and Malysheva, 2005b; <sup>3</sup>Malysheva and Malysheva, 2007; <sup>3</sup>Malysheva and Malysheva, 2008); **Sverdlovsk Oblast** (<sup>3</sup>Marina, 2006); **Tula Oblast** (<sup>1</sup>Svetasheva, 2004); **Tver Oblast** (<sup>3</sup>Mukhina and Garibova, 2010; <sup>3</sup>Mukhina, 2011a; <sup>3</sup>Mukhina, 2011b; <sup>1</sup>Kotkova, 2014); **Ulyanovsk Oblast** (<sup>3</sup>Ilyukhin, 2010a; <sup>3</sup>Ilyukhin, 2010b); **Vologda Oblast** (<sup>1</sup>Bolshakov et al., 2018); **Yaroslavl Oblast** (<sup>3</sup>Lazareva, 1998a; <sup>3</sup>Lazareva, 1998b); **Arid territories** (<sup>1</sup>Rebriev, Rusanov, et al., 2012).

SIBERIA: **Altai Krai** (<sup>3</sup>Gorbunova and Perova, 2006; <sup>3</sup>Gorbunova, 2006; <sup>1</sup>Gorbunova, 2018a); **Altai Republic** (<sup>1</sup>Gorbunova, 1996; <sup>1</sup>Gorbunova, 1997; <sup>3</sup>Perova and Gorbunova, 2001; <sup>3</sup>Gorbunova, 2006); **Irkutsk Oblast** (<sup>1</sup>Petrov, 1986; <sup>1</sup>Kutafjeva and Astapenko, 1987; <sup>1</sup>Petrov, 1991; <sup>1</sup>Petrov, 2008; <sup>1</sup>Gorbunova and Stepanova, 2015); **Khakassia** (<sup>1</sup>Gorbunova and Majnagasheva, 2013; <sup>1</sup>Zauzolkova, 2015); **Krasnoyarsk Krai** (<sup>1</sup>Beglyanova, 1972a; <sup>3</sup>Zauzolkova, 2012); **Novosibirsk Oblast** (<sup>3</sup>Perova and Gorbunova, 2001; <sup>3</sup>Gorbunova, 2006; <sup>1</sup>Perova and Gorbunova, 2007; <sup>3</sup>Gorbunova, 2007; <sup>1</sup>Koropachinskiy and Banaev, 2014).

FAR EAST: **Khabarovsk Krai** (<sup>1</sup>Bulakh, 2008); **Primorsky Krai** (<sup>1</sup>Bulakh, 2008; <sup>1</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Bogacheva, Bulakh, Bukharova, and Egorova, 2020); **Sakhalin Oblast** (<sup>1</sup>Bulakh, 2008).

***Panaeolus acuminatus* (P. Kumm.) Quél.**

EASTERN EUROPE: **Kaliningrad Oblast** (Dedkov, Volodina, and Gubareva, 2007); **Karelia** (Bondartseva et al., 2001; Krutov et al., 2014); **Kirov Oblast** (Kirillov and Luginina, 2011; Kirillov, 2011; Kirillov, Perevedentseva, and Egoshina, 2011; Stavishenko, Luginina, Kirillov, and Egoshina, 2019); **Leningrad Oblast** (Popov et al., 2007); **Perm Krai** (Perevedentseva, 2008; Belkovskaya et al., 2014); **Rostov Oblast** (Rebriev, 2018); **Saint Petersburg** (Kovalenko and Morozova, 1999a; Zhukova, Morozova, Volobuev, and Bryantseva, 2017); **Vologda Oblast** (Kirillova, 2007); **Arid territories** (Rebriev, Rusanov, et al., 2012).

SIBERIA: **Altai Krai** (Gorbunova and Perova, 2006); **Altai Republic** (Gorbunova, 2008); **Krasnoyarsk Krai** (Beglyanova, 1972a; Kosheleva and Kutafjeva, 2008b); **Novosibirsk Oblast** (Perova and Gorbunova, 2001; Perova and Gorbunova, 2007); **Sverdlovsk Oblast** (Stepanova and Sirko, 1977).

***Panaeolus alcis* M.M. Moser**

EASTERN EUROPE: **Kaluga Oblast** (Sionova, 2012); **Karelia** (Bondartseva et al., 2001; Krutov et al., 2014); **Leningrad Oblast** (Tzvelev, 2000; Popov et al., 2007; Zmitrovich et al., 2015; Geltman et al., 2018); **Moscow Oblast** (Levitskaya, 1998; Levitskaya, 2013); **Novgorod Oblast** (Morozova, 2012; Popov et al., 2013); **Pskov Oblast** (Kalinina, Bolshakov, and Bulyonkova, 2020); **Ryazan Oblast** (Volosnova, 2014); **Tatarstan** (Potapov, 2016b).

SIBERIA: **Khanty-Mansi Autonomous Okrug** (Zvyagina and Baykalova, 2017).

FAR EAST: **Magadan Oblast** (Sazanova, 2016).

***Panaeolus ater* (J.E. Lange) Kühner & Romagn. ex Bon<sup>1</sup>**

≡ *Panaeolus ater* (J.E. Lange) Kühner & Romagn.<sup>2</sup>

EASTERN EUROPE: **Karachay-Cherkess Republic** (<sup>2</sup>Onipchenko and Kaverina, 1989; <sup>1</sup>Kalamees and Botashev, 2000); **Moscow Oblast** (<sup>2</sup>Gorlenko, Sidorova, and Sidorova, 1989); **Perm Krai** (<sup>2</sup>Perevedentseva, 2008).

SIBERIA: **Altai Krai** (<sup>2</sup>Gorbunova and Perova, 2006); **Tomsk Oblast** (<sup>2</sup>Kudashova, Gashkov, and Kutafjeva, 2013).

FAR EAST: **Magadan Oblast** (<sup>2</sup>Sazanova, 2005; <sup>2</sup>Sazanova, 2009a; <sup>2</sup>Sazanova, 2012).

***Panaeolus cinctulus* (Bolton) Sacc.**

SIBERIA: **Khakassia** (Gorbunova and Majnagasheva, 2013).

***Panaeolus fimicola* (Pers.) Gillet<sup>1</sup>**

≡ *Agaricus fimicola* Pers.<sup>2</sup>

EASTERN EUROPE: **Adygea** (<sup>1</sup>Sopina, 2004b); **Crimea** (<sup>1</sup>Dudka et al., 2004; <sup>1</sup>Sarkina, 2011); **Kaliningrad Oblast** (<sup>1</sup>Volodina, 2007); **Leningrad Oblast** (<sup>1</sup>Thesleff, 1920; <sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Popov et al., 2007); **Lipetsk Oblast** (<sup>1</sup>Sarycheva, 1999; <sup>1</sup>Sarycheva et al., 2009; <sup>1</sup>Sarycheva, 2011; <sup>1</sup>Sarycheva, 2014a; <sup>1</sup>Sarycheva, 2016); **Moscow Oblast** (<sup>1</sup>Levitskaya, 1998; <sup>1</sup>Levitskaya, 2013); **Murmansk Oblast** (<sup>1</sup>Kalamees and Raitviir, 2006); **Penza Oblast** (<sup>1</sup>Ivanov, 1992); **Ryazan Oblast** (<sup>1</sup>Volosnova, 1997; <sup>1</sup>Volosnova, 2014); **Saint Petersburg** (<sup>2</sup>Weinmann, 1836; <sup>1</sup>Kovalenko and Morozova, 1999a); **Sverdlovsk Oblast** (<sup>1</sup>Marina, 2006); **Tatarstan** (<sup>1</sup>Vassiljeva, 1977).

SIBERIA: **Altai Krai** (<sup>1</sup>Gorbunova and Perova, 2006); **Altai Republic** (<sup>1</sup>Gorbunova, 1996; <sup>1</sup>Gorbunova, 1997; <sup>1</sup>Perova and Gorbunova, 2001; <sup>1</sup>Gorbunova, 2008); **Krasnoyarsk Krai** (<sup>1</sup>Beglyanova, 1972a; <sup>1</sup>Kosheleva and Kutafjeva, 2008a); **Novosibirsk Oblast** (<sup>1</sup>Zaytseva, 1971); **Tomsk Oblast** (<sup>1</sup>Kudashova, Gashkov, and Kutafjeva, 2013).

FAR EAST: **Amur Oblast** (<sup>1</sup>Azbukina et al., 1998; <sup>1</sup>Bulakh, Govorova, and Taranina, 2003); **Primorsky Krai** (<sup>1</sup>Bau, Bulakh, and Govorova, 2011).

***Panaeolus guttulatus* Bres.**

SIBERIA: **Altai Republic** (Gorbunova, 2001a); **Krasnoyarsk Krai** (Beglyanova, 1972a).

***Panaeolus leucophanes* (Berk. & Broome) Sacc.**

EASTERN EUROPE: **Penza Oblast** (Ivanov, 1992).

***Panaeolus olivaceus* F.H. Møller**

EASTERN EUROPE: **Sverdlovsk Oblast** (Marina, 2006); **Arid territories** (Rebriev, Rusanov, et al., 2012).

SIBERIA: **Novosibirsk Oblast** (Koropachinskiy and Banaev, 2014).

***Panaeolus papilionaceus* (Bull.) Quél.<sup>1</sup>**

≡ *Agaricus papilionaceus* Bull.<sup>2</sup> ≡ *Chalymmotia papilionacea* (Bull.) P. Karst.<sup>3</sup> ≡ *Coprinarius papilionaceus* (Bull.) Quél.<sup>4</sup> ≡ *Panaeolus papilionaceus* var. *papilionaceus* (Bull.) Quél.<sup>5</sup> = *Agaricus campanulatus* L.<sup>6</sup> = *Chalymmotia campanulata* (L.) P. Karst.<sup>7</sup> = *Chalymmotia sphinctrina* (Fr.) P. Karst.<sup>8</sup> = *Coprinarius campanulatus* (L.) Quél.<sup>9</sup> = *Panaeolus campanulatus* (L.) Quél.<sup>10</sup> = *Panaeolus campanulatus* var. *campanulatus* (L.) Quél.<sup>11</sup> = *Panaeolus papilionaceus* var. *parvisporus* Ew. Gerhardt<sup>12</sup> = *Panaeolus retirugis* (Fr.) Gillet<sup>13</sup> = *Panaeolus sphinctrinus* (Fr.) Quél.<sup>14</sup>

EASTERN EUROPE: **Astrakhan Oblast** (<sup>1</sup>Rebriev, Aleksandrova, et al., 2012); **Belgorod Oblast** (<sup>14</sup>Bedenko, 1979a); **Chechen Republic** (<sup>11</sup>Taysumov, Krapivina, and Kushaliev, 2016); **Crimea** (<sup>2</sup>Léveillé, 1842; <sup>1</sup>Sarkina, 2001; <sup>1</sup>Dudka et al., 2004; <sup>1</sup>Sarkina and Mironova, 2015); **Kabardino-Balkarian Republic** (<sup>10</sup>Shkhagapsoev and Krapivina, 2004; <sup>10</sup>Krapivina et al., 2020); **Kaliningrad Oblast** (<sup>10</sup>Hennings, 1895; <sup>1,10,14</sup>Dedkov, Volodina, and Gubareva, 2007; <sup>1,14</sup>Volodina, 2007); **Karachay-Cherkess Republic** (<sup>13</sup>Onipchenko and Kaverina, 1989; <sup>13</sup>Kalamees and Botashev, 2000); **Karelia** (<sup>1,13</sup>Freindling, 1949; <sup>1,13</sup>Bondartseva et al., 2001; <sup>5</sup>Krutov et al., 2014); **Komi Republic** (<sup>14</sup>Bobretsova, 2004; <sup>1</sup>Palamarchuk, 2012; <sup>1</sup>Palamarchuk and Kirillov, 2017); **Krasnodar Krai** (<sup>1</sup>Vassiljeva, 1939); **Leningrad Oblast** (<sup>1,10,14</sup>Thesleff, 1920; <sup>1,10,14</sup>Kovalenko and Morozova, 1999a; <sup>1,10,14</sup>Popov et al., 2007); **Lipetsk Oblast** (<sup>14</sup>Alferova, 1977; <sup>1,14</sup>Sarycheva, 1999; <sup>1</sup>Sarycheva et al., 2009; <sup>1</sup>Sarycheva, 2011; <sup>1</sup>Sarycheva, 2014a; <sup>1</sup>Sarycheva, 2016); **Mordovia** (<sup>10</sup>Chastukhin, 1948a; <sup>10</sup>Kuznetsov, 1960; <sup>1</sup>Ivoilov and Bolshakov, 2011a; <sup>9</sup>Chastukhin, 2011); **Moscow** (<sup>7</sup>Bucholtz, 1897a; <sup>7</sup>Bucholtz, 1897b; <sup>7</sup>Bucholtz, 1897c; <sup>7</sup>Mosolov, 1906); **Moscow Oblast** (<sup>3</sup>Petroff, 1911; <sup>1,14</sup>Gorlenko, Sidorova, and Sidorova, 1989; <sup>14</sup>Levitskaya, 1995c; <sup>13</sup>Levitskaya, 2006; <sup>5</sup>Voronina et al., 2012; <sup>13,14</sup>Levitskaya, 2013; <sup>1</sup>Voronina et al., 2014); **Murmansk Oblast** (<sup>1,14</sup>Pystina, Pavlova, and Shestakova, 1969); **Orenburg Oblast** (<sup>14</sup>Desyatova, 2008); **Oryol Oblast** (<sup>14</sup>Radygina, Derzhavina, and Tsutsupa, 2014); **Penza Oblast** (<sup>14</sup>Ivanov, 1982; <sup>1</sup>Ivanov, 1992); **Perm Krai** (<sup>14</sup>Perevedentseva, 2008; <sup>1</sup>Belkovskaya et al., 2014); **Pskov Oblast** (<sup>14</sup>Kovalenko and Morozova, 1999b; <sup>14</sup>Kolmakov and Popov, 2005; <sup>14</sup>Popov et al., 2013); **Rostov Oblast** (<sup>14</sup>Zmitrovich et al., 2008; <sup>1</sup>Rebriev, 2018); **Ryazan Oblast** (<sup>14</sup>Volosnova, 1997; <sup>1</sup>Volosnova, 2014); **Saint Petersburg** (<sup>2</sup>Weinmann, 1828; <sup>2</sup>Weinmann, 1836; <sup>2</sup>Weinmann, 1837); **Saratov Oblast** (<sup>3</sup>Lebedeva, 1927); **Smolensk Oblast** (<sup>10</sup>Jaczewski, 1898); **Stavropol Krai** (<sup>14</sup>Hollós, 1902; <sup>14</sup>Hollós,

1905; <sup>14</sup>Filarszky, 1907); **Sverdlovsk Oblast** (<sup>1</sup>Stepanova and Sirko, 1977; <sup>1,14</sup>Marina, 2006); **Tatarstan** (<sup>1,13</sup>Vassiljeva, 1977); **Tula Oblast** (<sup>14</sup>Svetasheva, 2004); **Tver Oblast** (<sup>1,14</sup>Kurochkin, 1993); **Udmurt Republic** (<sup>1,14</sup>Tychinin and Kuzmina, 2003); **Volgograd Oblast** (<sup>1</sup>Burova and Nezdoininogo, 1980; <sup>1</sup>Rebriev, Popov, Pridyuk, and Svetasheva, 2014); **Voronezh Oblast** (<sup>10</sup>Chastukhin and Nikolaevskaya, 1953; <sup>10</sup>Chastukhin and Nikolaevskaya, 1969); **Yaroslavl Oblast** (<sup>13,14</sup>Lazareva, 1998a; <sup>13,14</sup>Lazareva, 1998b); **Arid territories** (<sup>1</sup>Rebriev, Rusanov, et al., 2012); **Lapland** (<sup>6</sup>Karsten, 1866).

SIBERIA: **Altai Krai** (<sup>10</sup>Gorbunova, 2006; <sup>1,10</sup>Gorbunova and Perova, 2006; <sup>1</sup>Gorbunova, 2018a); **Altai Republic** (<sup>14</sup>Gorbunova, 1996; <sup>14</sup>Gorbunova, 1997; <sup>14</sup>Gorbunova, 2001a; <sup>14</sup>Gorbunova, 2001b; <sup>10</sup>Gorbunova, 2006); **Buryatia** (<sup>1,14</sup>Nezdoininogo, 1970a; <sup>14</sup>Penzina and Petrov, 1994); **Irkutsk Oblast** (<sup>1,13,14</sup>Petrov, 1986; <sup>14</sup>Kutafjeva and Astapenko, 1987; <sup>13</sup>Petrov, 1991; <sup>14</sup>Muzyka, 2002; <sup>13,14</sup>Bardunov et al., 2005; <sup>1,13,14</sup>Petrov, 2008; <sup>1</sup>Muzyka, 2009); **Khakassia** (<sup>1,10</sup>Beglyanova, 1972a; <sup>5</sup>Gorbunova and Majnagasheva, 2013; <sup>12</sup>Zauzolkova, 2015); **Krasnoyarsk Krai** (<sup>2</sup>Thümen, 1878; <sup>8</sup>Thümen, 1882; <sup>1,10</sup>Beglyanova, 1972a; <sup>14</sup>Nezdoininogo, 1976a; <sup>1,14</sup>Lapitskaya, 1993; <sup>14</sup>Karatygin, Nezdoininogo, Novozhilov, and Zhurbenko, 1999; <sup>10,13</sup>Kosheleva and Kutafjeva, 2008a; <sup>12</sup>Zauzolkova, 2015); **Novosibirsk Oblast** (<sup>10</sup>Nozdrenko, 1970; <sup>10</sup>Zaytseva, 1971; <sup>1</sup>Perova, 1977; <sup>1,10</sup>Perova and Gorbunova, 2001; <sup>10</sup>Gorbunova, 2006; <sup>10</sup>Gorbunova, 2007; <sup>5,10,14</sup>Perova and Gorbunova, 2007); **Sverdlovsk Oblast** (<sup>10</sup>Stepanova and Sirko, 1977); **Tomsk Oblast** (<sup>14</sup>Milovidova, 1980; <sup>1</sup>Perova and Gorbunova, 2001; <sup>14</sup>Agaphonova, Kutafjeva, and Gashkov, 2009b; <sup>1</sup>Kudashova, Gashkov, and Kutafjeva, 2013); **Sayans** (<sup>4</sup>Murashkinsky and Sieling, 1928).

FAR EAST: **Amur Oblast** (<sup>10</sup>Nazarova, 1986; <sup>14</sup>Bulakh, Govorova, and Taranina, 2003; <sup>10</sup>Taranina, 2005; <sup>1</sup>Kochunova, 2019); **Khabarovsk Krai** (<sup>10</sup>Azbukina et al., 1986; <sup>1,14</sup>Azbukina et al., 1989; <sup>14</sup>Bau Bulakh, and Govorova, 2011); **Magadan Oblast** (<sup>14</sup>Nazarova, 1976; <sup>14</sup>Sazanova, 2005; <sup>1</sup>Sazanova, 2009a); **Primorsky Krai** (<sup>10</sup>Vassiljeva, 1972; <sup>1,10</sup>Vassiljeva, 1973; <sup>10</sup>Bunkina and Nazarova, 1978; <sup>10</sup>Azbukina et al., 1984; <sup>10</sup>Azbukina et al., 1990; <sup>1</sup>Bardunov et al., 2002; <sup>1</sup>Azbukina et al., 2006; <sup>1,14</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Bulakh et al., 2016).

### ***Panaeolus rickenii* Hora**

EASTERN EUROPE: **Belgorod Oblast** (Bedenko, 1979a); **Moscow Oblast** (Gorlenko, Sidorova, and Sidorova, 1989; Levitskaya, 1995a; Levitskaya, 2013); **Novgorod Oblast** (Kovalenko, Morozova, Nezdoininogo, and Popov, 2005; Malysheva, Malysheva, and Zmitrovich, 2007; Popov et al., 2013); **Penza Oblast** (Ivanov, 1985); **Pskov Oblast** (Kovalenko and Morozova, 1999b); **Samara Oblast** (Malysheva and Malysheva, 2007; Malysheva and Malysheva, 2008); **Tula Oblast** (Svetasheva, 2004); **Vologda Oblast** (Kirillova, 2006).

### ***Panaeolus semiovatus* (Sowerby) S. Lundell & Nannf.<sup>1</sup>**

≡ *Agaricus semiovatus* Sowerby<sup>2</sup> ≡ *Anellaria semiovata* (Sowerby) A. Pearson & Dennis<sup>3</sup> ≡ *Panaeolus semiovatus* var. *semiovatus* (Sowerby) S. Lundell & Nannf.<sup>4</sup> = *Agaricus phalenaarum* Fr.<sup>5</sup> = *Agaricus separatus* L.<sup>6</sup> = *Anellaria phalenaarum* (Fr.) M.M. Moser<sup>7</sup> = *Anellaria separata* (L.) P. Karst.<sup>8</sup> = *Panaeolus phalenaarum* (Fr.) Quél.<sup>9</sup> = *Panaeolus semiovatus* var. *phalenaarum* (Fr.) Ew. Gerhardt<sup>10</sup> = *Panaeolus separatus* (L.) Quél.<sup>11</sup>

EASTERN EUROPE: **Adygea** (<sup>3</sup>Sopina, 2001a); **Belgorod Oblast** (<sup>3</sup>Bedenko, 1979a); **Crimea** (<sup>3</sup>Dudka et al., 2004); **Kabardino-Balkarian Republic** (<sup>8</sup>Singer, 1929; <sup>8</sup>Singer, 1931; <sup>8</sup>Shkhagapsoev and Krapivina, 2004); **Kaliningrad Oblast** (<sup>3</sup>Volodina, 2007; <sup>7</sup>Dedkov, Volodina, and Gubareva, 2007); **Karachay-Cherkess Republic** (<sup>9</sup>Hollós, 1902; <sup>9</sup>Hollós, 1905; <sup>9</sup>Filarszky, 1907; <sup>3</sup>Onipchenko and Kaverina, 1989); **Karelia** (<sup>8</sup>Freindling, 1949; <sup>4</sup>Predtechenskaya and Ruokolainen, 2013; <sup>4</sup>Krutov et al., 2014); **Komi Republic** (<sup>4</sup>Palamarchuk, 2011b; <sup>1</sup>Palamarchuk, 2016a; <sup>1</sup>Palamarchuk, 2016b); **Krasnodar Krai** (<sup>8</sup>Vassiljeva, 1939; <sup>1</sup>Kovalenko, 1980a; <sup>3</sup>Kovalenko, 1980b); **Leningrad Oblast** (<sup>8</sup>Thesleff, 1920; <sup>3</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Popov et al., 2007); **Lipetsk Oblast** (<sup>8</sup>Sarycheva, 1999; <sup>1</sup>Sarycheva et al., 2009; <sup>1</sup>Sarycheva, 2011; <sup>1</sup>Sarycheva, 2016; <sup>1</sup>Sarycheva, Starodubtseva, and Sapelnikova, 2017); **Moscow** (<sup>8</sup>Hennings, 1905; <sup>8</sup>Mosolov, 1906); **Moscow Oblast** (<sup>3</sup>Gorlenko, Sidorova, and Sidorova, 1989); **Murmansk Oblast** (<sup>3</sup>Pystina, Pavlova, and Shestakova, 1969); **Rostov Oblast** (<sup>3</sup>Vyshchepan, 1992; <sup>1</sup>Rebriev, 2018); **Ryazan Oblast** (<sup>3</sup>Volosnova, 1997; <sup>1</sup>Volosnova, 2014); **Saint Petersburg** (<sup>2</sup>Weinmann, 1828; <sup>2</sup>Weinmann, 1836; <sup>2</sup>Weinmann, 1837); **Smolensk Oblast** (<sup>11</sup>Jaczewski, 1896); **Sverdlovsk Oblast** (<sup>3</sup>Stepanova and Sirko, 1977; <sup>3</sup>Marina, 2006); **Voronezh Oblast** (<sup>1</sup>Sarycheva, Starodubtseva, and Sapelnikova, 2017); **Arid territories** (<sup>1</sup>Rebriev, Rusanov, et al., 2012); **Lapland** (<sup>6</sup>Karsten, 1866).

SIBERIA: **Altai Krai** (<sup>3</sup>Gorbunova and Perova, 2006; <sup>4</sup>Gorbunova, 2006; <sup>4</sup>Gorbunova, Vlasenko, and Tzhubarova, 2011); **Altai Republic** (<sup>3</sup>Kovalenko, 1992; <sup>3</sup>Gorbunova, 2001b; <sup>3</sup>Gorbunova, 2003; <sup>4</sup>Gorbunova, 2006; <sup>3</sup>Gorbunova, 2008; <sup>4</sup>Gorbunova, 2010); **Buryatia** (<sup>1</sup>Nezdoininogo, 1970a); **Irkutsk Oblast** (<sup>3</sup>Petrov, 1986; <sup>3</sup>Astapenko and Kutafjeva, 1990; <sup>3</sup>Petrov, 2008); **Khakassia** (<sup>3</sup>Beglyanova, 1972a; <sup>4</sup>Gorbunova and Majnagasheva, 2013); **Khanty-Mansi Autonomous Okrug** (<sup>1</sup>Zvyagina and Baykalova, 2017); **Krasnoyarsk Krai** (<sup>5</sup>Thümen, 1880a; <sup>3,9</sup>Beglyanova, 1972a; <sup>1</sup>Beglyanova, 1972c; <sup>4</sup>Psurtseva, Kiyashko, Gachkova, and Belova, 2007; <sup>1</sup>Kosheleva and Kutafjeva, 2008a;



<sup>1</sup>Zauzolkova, 2015; <sup>1</sup>Krom and Kapitonov, 2019); **Novosibirsk Oblast** (<sup>4</sup>Gorbunova, 2006; <sup>4</sup>Gorbunova, 2007; <sup>4</sup>Perova and Gorbunova, 2007); **Sakha Republic** (<sup>8</sup>Birkenhof, 1936); **Tomsk Oblast** (<sup>4</sup>Kudashova, Gashkov, and Kutafjeva, 2013).

FAR EAST: **Chukotka Autonomous Okrug** (<sup>3</sup>Sazanova, 1993); **Khabarovsk Krai** (<sup>3</sup>Azbukina et al., 1989); **Magadan Oblast** (<sup>7</sup>Nazarova, 1976; <sup>9</sup>Sazanova, 2005; <sup>4,10</sup>Sazanova, 2009a); **Primorsky Krai** (<sup>1</sup>Vassiljeva, 1973; <sup>1</sup>Azbukina et al., 1990; <sup>1</sup>Bardunov et al., 2002; <sup>10</sup>Bau Bulakh, and Govorova, 2011; <sup>4</sup>Bau, Bulakh, and Govorova, 2011).

***Panaeolus subbalteatus* (Berk. & Broome) Sacc.**

EASTERN EUROPE: **Kaliningrad Oblast** (Dedkov, Volodina, and Gubareva, 2007); **Moscow Oblast** (Levitskaya, 2006; Levitskaya, 2013); **Penza Oblast** (Ivanov, 1999); **Ryazan Oblast** (Volosnova, 2014).

SIBERIA: **Irkutsk Oblast** (Kutafjeva and Astapenko, 1987); **Krasnoyarsk Krai** (Kosheleva and Kutafjeva, 2008a).

***Panaeolus subfirmus* P. Karst.<sup>1</sup>**

= *Panaeolus speciosus* P.D. Orton<sup>2</sup>

EASTERN EUROPE: **Astrakhan Oblast** (<sup>1</sup>Rebriev, Aleksandrova, et al., 2012); **Rostov Oblast** (<sup>1</sup>Rebriev, 2018); **Sverdlovsk Oblast** (<sup>2</sup>Marina, 2006); **Arid territories** (<sup>1</sup>Rebriev, Rusanov, et al., 2012).

SIBERIA: **Khanty-Mansi Autonomous Okrug** (<sup>1</sup>Zvyagina and Baykalova, 2017).

***Panaeolus uliginosus* Jul. Schäff.**

EASTERN EUROPE: **Penza Oblast** (Ivanov, 1992).

***Panellus mitis* (Pers.) Singer<sup>1</sup>**

≡ *Agaricus mitis* Pers.<sup>2</sup> ≡ *Pleurotus mitis* (Pers.) P. Karst.<sup>3</sup>

EASTERN EUROPE: **Arkhangelsk Oblast** (<sup>1</sup>Ezhov, 2013); **Belgorod Oblast** (<sup>1</sup>Bedenko, 1980); **Chelyabinsk Oblast** (<sup>1</sup>Psurtseva, Kiyashko, Gachkova, and Belova, 2007); **Kaliningrad Oblast** (<sup>1</sup>Dedkov, Volodina, and Gubareva, 2007; <sup>1</sup>Volodina, 2007; <sup>1</sup>Atayev and Volodina, 2020); **Kaluga Oblast** (<sup>1</sup>Sionova, 2012); **Karachay-Cherkess Republic** (<sup>1</sup>Kalamees and Botashev, 2000); **Karelia** (<sup>1</sup>Bondartseva et al., 2001; <sup>1</sup>Krutov et al., 2014; <sup>1</sup>Predtechenskaya, 2015); **Kirov Oblast** (<sup>1</sup>Kirillov, 2011; <sup>1</sup>Kirillov, Perevedentseva, and Egoshina, 2011); **Komi Republic** (<sup>1</sup>Palamarchuk, 2016a; <sup>1</sup>Palamarchuk, 2016b; <sup>1</sup>Palamarchuk and Kirillov, 2017); **Krasnodar Krai** (<sup>1</sup>Vassiljeva, 1939); **Leningrad Oblast** (<sup>3</sup>Thesleff, 1920; <sup>1</sup>Kalamees and Kovalenko, 1984; <sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Zmitrovich, 2003; <sup>1</sup>Popov et al., 2007; <sup>1</sup>Zmitrovich et al., 2015); **Moscow Oblast** (<sup>1</sup>Gorlenko, Sidorova, and Sidorova, 1989; <sup>1</sup>Vishnevsky, 1998); **Penza Oblast** (<sup>1</sup>Ivanov, 1988a); **Perm Krai** (<sup>1</sup>Perevedentseva, 2008); **Pskov Oblast** (<sup>1</sup>Popov et al., 2013); **Ryazan Oblast** (<sup>1</sup>Volosnova, 2005); **Saint Petersburg** (<sup>2</sup>Weinmann, 1828; <sup>2</sup>Weinmann, 1836; <sup>1</sup>Singer, 1950c; <sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Morozova and Smirnov, 2011; <sup>1</sup>Morozova et al., 2020); **Saratov Oblast** (<sup>1</sup>Nagumanov, 2015); **Sverdlovsk Oblast** (<sup>1</sup>Stepanova and Sirko, 1977; <sup>1</sup>Marina, 2006); **Tula Oblast** (<sup>1</sup>Svetasheva, 2004); **Udmurt Republic** (<sup>1</sup>Kapitonov, 2008).

SIBERIA: **Irkutsk Oblast** (<sup>1</sup>Kutafjeva and Astapenko, 1988; <sup>1</sup>Astapenko, 1990a); **Kemerovo Oblast** (<sup>3</sup>Pilát, 1934; <sup>3</sup>Zhukov, 1980); **Khanty-Mansi Autonomous Okrug** (<sup>1</sup>Mukhin, 1993; <sup>1</sup>Zvyagina and Baykalova, 2012; <sup>1</sup>Zvyagina and Baykalova, 2017); **Krasnoyarsk Krai** (<sup>1</sup>Zauzolkova, 2012; <sup>1</sup>Kryuchkova, 2015; <sup>1</sup>Zauzolkova, 2015; <sup>1</sup>Kryuchkova and Yaskova, 2017; <sup>1</sup>Krom and Kapitonov, 2019); **Tomsk Oblast** (<sup>1</sup>Perova and Gorbunova, 2001; <sup>1</sup>Kudashova, Gashkov, and Kutafjeva, 2013); **Tyumen Oblast** (<sup>1</sup>Mukhin, 1993).

FAR EAST: **Khabarovsk Krai** (<sup>2</sup>Borszczow and Borszczow, 1856).

***Panellus pubescens* Z.S. Bi**

≡ *Agaricus pubescens* Sowerby<sup>1</sup>

EASTERN EUROPE: **Moscow** (<sup>1</sup>Bucholtz, 1897a).

***Panellus pusillus* (Pers. ex Lév.) Burds. & O.K. Mill.**

≡ *Dictyopanus pusillus* (Pers. ex Lév.) Singer<sup>1</sup>

FAR EAST: **Jewish Autonomous Oblast** (<sup>1</sup>Bulakh, Govorova, Nazarova, and Vassiljeva, 2007).

***Panellus ringens* (Fr.) Romagn.<sup>1</sup>**

≡ *Agaricus ringens* Fr.<sup>2</sup> ≡ *Panus ringens* (Fr.) Fr.<sup>3</sup> ≡ *Scytinotus ringens* (Fr.) P. Karst.<sup>4</sup>

EASTERN EUROPE: **Adygea** (<sup>1</sup>Psurtseva, Kiyashko, Gachkova, and Belova, 2007); **Karachay-Cherkess Republic** (<sup>1</sup>Kalamees and Botashev, 2000); **Komi Republic** (<sup>1</sup>Palamarchuk, 2020b); **Leningrad Oblast** (<sup>4</sup>Thesleff, 1920;

<sup>1</sup>Kovalenko and Morozova, 1999a; <sup>4</sup>Zmitrovich, Malysheva, Malysheva, and Spirin, 2004; <sup>1</sup>Popov et al., 2007; <sup>4</sup>Morozova, 2007); **Novgorod Oblast** (<sup>1</sup>Bolshakov et al., 2020); **Pskov Oblast** (<sup>1</sup>Popov, 2001a; <sup>1</sup>Popov et al., 2013); **Saint Petersburg** (<sup>2</sup>Weinmann, 1836; <sup>2</sup>Weinmann, 1837; <sup>4</sup>Zmitrovich, Malysheva, Malysheva, and Spirin, 2004; <sup>4</sup>Kotkova, Morozova, and Popov, 2005; <sup>4</sup>Kotkova, Morozova, and Popov, 2007; <sup>4</sup>Morozova and Smirnov, 2011; <sup>1</sup>Morozova et al., 2020); **Samara Oblast** (<sup>4</sup>Morozova, 2005); **Tula Oblast** (<sup>1</sup>Svetasheva, 2004).

SIBERIA: **Irkutsk Oblast** (<sup>1</sup>Kutafjeva and Astapenko, 1988; <sup>1</sup>Astapenko, 1990a); **Krasnoyarsk Krai** (<sup>1</sup>Krom and Kapitonov, 2019); **Tomsk Oblast** (<sup>3</sup>Zhukov, 1980; <sup>1</sup>Kudashova, Gashkov, and Kutafjeva, 2013; <sup>1</sup>Kudashova, Gashkov, and Vaishlya, 2016b).

FAR EAST: **Khabarovsk Krai** (<sup>1</sup>Erofeeva and Bulakh, 2015a); **Primorsky Krai** (<sup>1</sup>Vassiljeva, 1973; <sup>1</sup>Bunkina and Nazarova, 1978; <sup>1</sup>Azbukina et al., 1984; <sup>1</sup>Azbukina et al., 2006; <sup>1</sup>Bau, Bulakh, and Govorova, 2011).

### *Panellus rupicola* (Masse) Singer

FAR EAST: **Primorsky Krai** (Vassiljeva, 1973; Bunkina and Nazarova, 1978; Azbukina et al., 2006; Bau, Bulakh, and Govorova, 2011).

### *Panellus stipticus* (Bull.) P. Karst.<sup>1</sup>

≡ *Agaricus stipticus* Bull.<sup>2</sup> ≡ *Lentinus stipticus* (Bull.) J. Schröt.<sup>3</sup> ≡ *Panus stipticus* (Bull.) Fr.<sup>4</sup> ≡ *Pleurotus stipticus* (Bull.) P. Kumm.<sup>5</sup> = *Panus farinaceus* (Schumach.) Fr.<sup>6</sup>

EASTERN EUROPE: **Adygea** (<sup>1</sup>Vassiljeva, 1939; <sup>1</sup>Singer, 1950c; <sup>1</sup>Vaasma, Kalamees, and Raitviir, 1986; <sup>1</sup>Kummer, 2007; <sup>1</sup>Psurtseva, Kiyashko, Gachkova, and Belova, 2007); **Arkhangelsk Oblast** (<sup>4</sup>Lebedeva, 1933; <sup>1</sup>Ezhov, 2013); **Belgorod Oblast** (<sup>4</sup>Brezhnev, 1950; <sup>1</sup>Bedenko, 1980; <sup>4</sup>Nikolayev, 1986; <sup>1</sup>Psurtseva, Belova, and Ryabusheva, 2003; <sup>1</sup>Psurtseva, Kiyashko, Gachkova, and Belova, 2007); **Bryansk Oblast** (<sup>1</sup>Kruglikov, 2007); **Chelyabinsk Oblast** (<sup>1</sup>Stepanova and Sirko, 1977; <sup>1</sup>Psurtseva, Kiyashko, Gachkova, and Belova, 2007; <sup>1</sup>Krasutsky, 2013; <sup>1</sup>Krasutsky, 2014); **Crimea** (<sup>2</sup>Léveillé, 1842; <sup>4</sup>Sarkina, 2001; <sup>1</sup>Dudka et al., 2004; <sup>1</sup>Sarkina, 2010b); **Ivanovo Oblast** (<sup>4</sup>Alyavdina, 1928; <sup>4</sup>Alyavdina, 1949; <sup>1</sup>Singer, 1950c); **Kaliningrad Oblast** (<sup>4</sup>Hennings, 1895; <sup>1</sup>Dedkov, Volodina, and Gubareva, 2007; <sup>1</sup>Volodina, 2007); **Kaluga Oblast** (<sup>1</sup>Sionova, 2012); **Karachay-Cherkess Republic** (<sup>4</sup>Hollós, 1902; <sup>4</sup>Hollós, 1905; <sup>4</sup>Filarszky, 1907; <sup>1</sup>Vassiljeva, 1939; <sup>1</sup>Kalamees and Botashev, 2000); **Karelia** (<sup>1,4</sup>Freindling, 1949; <sup>1,4</sup>Bondartseva et al., 2001; <sup>1</sup>Predtechenskaya and Ruokolainen, 2013; <sup>1</sup>Krutov et al., 2014); **Kirov Oblast** (<sup>1</sup>Stavishenko, Luginina, Kirillov, and Egoshina, 2019); **Komi Republic** (<sup>1</sup>Palamarchuk, 2012; <sup>1</sup>Palamarchuk, 2016a; <sup>1</sup>Palamarchuk, 2016b); **Krasnodar Krai** (<sup>1</sup>Kovalenko, 1980a; <sup>1</sup>Kovalenko, 1980b; <sup>1</sup>Vaasma, Kalamees, and Raitviir, 1986; <sup>1</sup>Psurtseva, Kiyashko, Gachkova, and Belova, 2007); **Kursk Oblast** (<sup>1</sup>Ryabova and Ignatenko, 1981); **Leningrad Oblast** (<sup>1</sup>Thesleff, 1920; <sup>1</sup>Singer, 1950c; <sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Morozova and Kovalenko, 2000; <sup>1</sup>Zmitrovich, 2003; <sup>1</sup>Zmitrovich, Malysheva, Malysheva, and Spirin, 2004; <sup>1</sup>Popov et al., 2007; <sup>1</sup>Kalinina, 2018); **Lipetsk Oblast** (<sup>1</sup>Alferova, 1977; <sup>1</sup>Sarycheva, 1999; <sup>1</sup>Afanasyev, Rtishcheva, and Starodubtseva, 2007; <sup>1</sup>Sarycheva et al., 2009; <sup>1</sup>Sarycheva, 2011; <sup>1</sup>Sarycheva, 2014a; <sup>1</sup>Sarycheva, 2016); **Mari El Republic** (<sup>1</sup>Prokhorov, 2007); **Mordovia** (<sup>4</sup>Chastukhin, 1948a; <sup>1</sup>Chastukhin and Nikolaevskaya, 1969; <sup>1</sup>Ivoilov and Bolshakov, 2011a; <sup>4</sup>Chastukhin, 2011); **Moscow** (<sup>3</sup>Bucholtz, 1897a; <sup>3</sup>Bucholtz, 1897b; <sup>3</sup>Bucholtz, 1897c; <sup>3</sup>Hennings, 1904; <sup>3</sup>Hennings, 1905; <sup>3</sup>Mosolov, 1906; <sup>1</sup>Singer, 1950c); **Moscow Oblast** (<sup>1</sup>Gorlenko, Sidorova, and Sidorova, 1989; <sup>1</sup>Levitskaya, 1998; <sup>1</sup>Vishnevsky, 1998; <sup>1</sup>Levitskaya, 2013; <sup>1</sup>Voronina et al., 2014); **Novgorod Oblast** (<sup>1</sup>Kovalenko, Morozova, Nezdoininogo, and Popov, 2005; <sup>1</sup>Petersen et al., 2008; <sup>1</sup>Popov et al., 2013); **Orenburg Oblast** (<sup>3</sup>Vorontsovsky, 1921; <sup>1</sup>Safonov, 2002; <sup>1</sup>Desyatova, 2008; <sup>1</sup>Safonov, Malenkova, Rusakov, and Leneva, 2013; <sup>1</sup>Safonov, 2015); **Penza Oblast** (<sup>1</sup>Singer, 1950c; <sup>1</sup>Ivanov, 1981a; <sup>1</sup>Ivanov, 1981b; <sup>1</sup>Ivanov, 2019); **Perm Krai** (<sup>1</sup>Perevedentseva, 2008); **Pskov Oblast** (<sup>1</sup>Kovalenko, Kolmakov, Morozova, and Popov, 2003; <sup>1</sup>Popov et al., 2013); **Rostov Oblast** (<sup>1</sup>Rusanov, Rebriev, and Bulgakov, 2018); **Ryazan Oblast** (<sup>3</sup>Vanin, 1916; <sup>1</sup>Volosnova, 1997; <sup>1</sup>Volosnova, 2014); **Saint Petersburg** (<sup>2</sup>Weinmann, 1828; <sup>2</sup>Weinmann, 1837; <sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Morozova and Kovalenko, 2000; <sup>1</sup>Zmitrovich, Malysheva, Malysheva, and Spirin, 2004; <sup>1</sup>Kotkova, Morozova, and Popov, 2006; <sup>1</sup>Morozova and Smirnov, 2011; <sup>1</sup>Morozova, Kovalenko, Rebriev, and Malysheva, 2014; <sup>1</sup>Morozova et al., 2020); **Samara Oblast** (<sup>1</sup>Malysheva and Malysheva, 2005b; <sup>1</sup>Malysheva and Malysheva, 2008); **Smolensk Oblast** (<sup>4</sup>Jaczevski, 1893; <sup>4</sup>Jaczevski, 1895); **Stavropol Krai** (<sup>1</sup>Singer, 1950c); **Sverdlovsk Oblast** (<sup>1</sup>Tomilin, 1965; <sup>1</sup>Stepanova and Sirko, 1977; <sup>1</sup>Marina, 2006); **Tatarstan** (<sup>4</sup>Alexeeff, 1927; <sup>1</sup>Singer, 1950c; <sup>1</sup>Vassiljeva, 1977); **Tula Oblast** (<sup>1</sup>Svetasheva, 2004; <sup>1</sup>Svetasheva, 2013); **Tver Oblast** (<sup>3</sup>Tranzschel, 1901; <sup>4</sup>Chastukhin, 1948b; <sup>1</sup>Chastukhin and Nikolaevskaya, 1969; <sup>1</sup>Popov et al., 2013; <sup>1</sup>Kotkova, 2014); **Udmurt Republic** (<sup>1</sup>Tychinin and Kuzmina, 2003); **Ulyanovsk Oblast** (<sup>1</sup>Ilyukhin, 2010a); **Voronezh Oblast** (<sup>4</sup>Chastukhin, 1952; <sup>4</sup>Chastukhin and Nikolaevskaya, 1953; <sup>1</sup>Chastukhin and Nikolaevskaya, 1969; <sup>1</sup>Afanasyev, Rtishcheva, and Starodubtseva, 2007; <sup>1</sup>Sarycheva, Starodubtseva, and Sapelnikova, 2017); **Yamalo-Nenets Autonomous Okrug** (<sup>1</sup>Kazanthseva, 1970; <sup>1</sup>Stepanova and Sirko, 1977); **Yaroslavl Oblast** (<sup>1</sup>Lazareva, 1998a); **Arid territories** (<sup>1</sup>Rebriev, Rusanov, et al., 2012).

SIBERIA: **Altai Krai** (<sup>1</sup>Gorbunova and Perova, 2006; <sup>1</sup>Gorbunova, Vlasenko, and Tzhubarova, 2011); **Altai Republic** (<sup>1</sup>Gorbunova, 1997; <sup>1</sup>Perova and Gorbunova, 2001; <sup>1</sup>Gorbunova, 2008; <sup>1</sup>Gorbunova, 2017a); **Irkutsk Oblast** (<sup>1</sup>Kutafjeva, 1983; <sup>1</sup>Petrov, 1984; <sup>1</sup>Petrov, 1989; <sup>1</sup>Astapenko, 1990a; <sup>1</sup>Petrov, 1991; <sup>1</sup>Petrov, 2008; <sup>1</sup>Gorbunova and Stepantsova, 2015); **Khakassia** (<sup>1</sup>Beglyanova, 1972a; <sup>1</sup>Zauzolkova, 2015); **Khanty-Mansi Autonomous Okrug** (<sup>1</sup>Mukhin, 1993; <sup>1</sup>Stavishenko, 2003; <sup>1</sup>Zvyagina, Baykalova, and Gorbunova, 2007; <sup>1</sup>Zvyagina, 2008; <sup>1</sup>Shepeleva et al., 2014; <sup>1</sup>Filippova, Bulyonkova, and Lapshina, 2015; <sup>1</sup>Zvyagina and Vasina, 2015); **Krasnoyarsk Krai** (<sup>6</sup>Thümen, 1877; <sup>6</sup>Kalchbrenner, 1878; <sup>1</sup>Thümen, 1882; <sup>4</sup>Pilát, 1934; <sup>5</sup>Pilát, 1935; <sup>1</sup>Singer, 1950c; <sup>1</sup>Beglyanova, 1972a; <sup>1</sup>Kosheleva and Kutafjeva, 2008a; <sup>1</sup>Zauzolkova, 2012; <sup>1</sup>Kryuchkova, 2015; <sup>1</sup>Zauzolkova, 2015; <sup>1</sup>Malysheva, Malysheva, Kiyashko, et al., 2017; <sup>1</sup>Krom and Kapitonov, 2019); **Novosibirsk Oblast** (<sup>1</sup>Zhukov, 1972; <sup>1</sup>Perova, 1977; <sup>1</sup>Zhukov, 1980; <sup>1</sup>Perova and Gorbunova, 2001; <sup>1</sup>Perova and Gorbunova, 2007; <sup>1</sup>Koropachinskiy and Banaev, 2014); **Omsk Oblast** (<sup>4</sup>Pilát, 1934; <sup>4</sup>Zhukov, 1980); **Sverdlovsk Oblast** (<sup>1</sup>Stepanova and Sirko, 1977; <sup>1</sup>Mukhin, 1993; <sup>1</sup>Mukhin et al., 2003); **Tomsk Oblast** (<sup>1</sup>Singer, 1950c; <sup>4</sup>Zhukov, 1980; <sup>1</sup>Perova and Gorbunova, 2001; <sup>1</sup>Agaphonova, Kutafjeva, and Gashkov, 2007; <sup>1</sup>Kudashova, Gashkov, and Kutafjeva, 2013); **Tyumen Oblast** (<sup>4</sup>Pignatti, 1912; <sup>1</sup>Mukhin, 1993); **Yamalo-Nenets Autonomous Okrug** (<sup>1</sup>Mukhin, 1987; <sup>1</sup>Mukhin, 1993).

FAR EAST: **Amur Oblast** (<sup>1</sup>Tomilin, 1962; <sup>1</sup>Gordienko, Petrova, and Tarasov, 1981; <sup>1</sup>Nazarova, 1986; <sup>1</sup>Taranina, 2005; <sup>1</sup>Kochunova, 2016; <sup>1</sup>Kochunova, 2019); **Jewish Autonomous Oblast** (<sup>1</sup>Bau, Bulakh, Zhuang, and Li, 2007; <sup>1</sup>Bulakh, Govorova, Nazarova, and Vassiljeva, 2007; <sup>1</sup>Bau, Bulakh, and Govorova, 2011); **Kamchatka Krai** (<sup>1</sup>Singer, 1950c); **Khabarovsk Krai** (<sup>1</sup>Azbukina et al., 1986; <sup>1</sup>Azbukina et al., 1989; <sup>1</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Erofeeva and Bulakh, 2015a); **Magadan Oblast** (<sup>1</sup>Sazanova, 2005; <sup>1</sup>Sazanova, 2009a; <sup>1</sup>Sazanova, 2009b; <sup>1</sup>Sazanova, 2011); **Primorsky Krai** (<sup>4</sup>Pilát, 1934; <sup>1</sup>Vassiljeva, 1972; <sup>1</sup>Vassiljeva, 1973; <sup>1</sup>Bunkina and Nazarova, 1978; <sup>1</sup>Azbukina et al., 1984; <sup>1</sup>Azbukina et al., 1990; <sup>1</sup>Bardunov et al., 2002; <sup>1</sup>Azbukina et al., 2006; <sup>1</sup>Bau, Bulakh, Zhuang, and Li, 2007; <sup>1</sup>Psurtseva, Kiyashko, Gachkova, and Belova, 2007; <sup>1</sup>Petersen et al., 2008; <sup>1</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Bulakh et al., 2016; <sup>1</sup>Bogacheva, Bulakh, Bukharova, and Egorova, 2020).

#### ***Panellus violaceofulvus* (Batsch) Singer<sup>1</sup>**

≡ *Scytinotus violaceofulvus* (Batsch) Courtec.<sup>2</sup> = *Panus violaceofulvus* f. *delastrei* (Mont.) Malk.<sup>3</sup> = *Pleurotus violaceofulvus* f. *delastrei* (Mont.) Pilát<sup>4</sup>

EASTERN EUROPE: **Adygea** (<sup>1</sup>Vaasma, Kalamees, and Raitviir, 1986); **Karelia** (<sup>1</sup>Krutov et al., 2014); **Krasnodar Krai** (<sup>1</sup>Vassiljeva, 1939; <sup>1</sup>Vaasma, Kalamees, and Raitviir, 1986); **Novgorod Oblast** (<sup>1</sup>Morozova, 2012; <sup>1</sup>Popov et al., 2013).

SIBERIA: **Buryatia** (<sup>1</sup>Nezdojminogo, 1970a; <sup>1</sup>Petrov, 1991); **Khanty-Mansi Autonomous Okrug** (<sup>1</sup>Mukhin, 1993); **Krasnoyarsk Krai** (<sup>2</sup>Malysheva, Malysheva, Kiyashko, et al., 2017); **Omsk Oblast** (<sup>3</sup>Pilát, 1934; <sup>1</sup>Singer, 1950c); **Sverdlovsk Oblast** (<sup>1</sup>Mukhin, 1993; <sup>1</sup>Mukhin et al., 2003); **Tomsk Oblast** (<sup>4</sup>Pilát, 1935; <sup>2</sup>Kudashova, Gashkov, and Vaishlya, 2016a).

FAR EAST: **Jewish Autonomous Oblast** (<sup>1</sup>Bulakh, Govorova, Nazarova, and Vassiljeva, 2007); **Khabarovsk Krai** (<sup>1</sup>Bau, Bulakh, and Govorova, 2011); **Primorsky Krai** (<sup>1</sup>Azbukina et al., 2006; <sup>1</sup>Bau, Bulakh, and Govorova, 2011).

#### ***Panus ciliatus* (Lév.) T.W. May & A.E. Wood<sup>1</sup>**

≡ *Lentinus ciliatus* Lév.<sup>2</sup>

FAR EAST: **Khabarovsk Krai** (<sup>1</sup>Bau, Bulakh, and Govorova, 2011); **Primorsky Krai** (<sup>2</sup>Azbukina et al., 2006; <sup>1</sup>Bau, Bulakh, and Govorova, 2011).

#### ***Panus conchatus* (Bull.) Fr.<sup>1</sup>**

≡ *Lentinus conchatus* (Bull.) J. Schröt.<sup>2</sup> = *Agaricus inconstans* Pers.<sup>3</sup> = *Lentinus torulosus* (Pers.) Lloyd<sup>4</sup> = *Panus torulosus* (Pers.) Fr.<sup>5</sup>

EASTERN EUROPE: **Arkhangelsk Oblast** (<sup>1</sup>Ezhov, 2013; <sup>1</sup>Ezhov, 2014); **Bashkortostan** (<sup>1</sup>Zmitrovich et al., 2018); **Belgorod Oblast** (<sup>1</sup>Bedenko, 1979a); **Chechen Republic** (<sup>1</sup>Taysumov, Krapivina, and Kushalieva, 2016); **Chelyabinsk Oblast** (<sup>1</sup>Stepanova and Sirko, 1977; <sup>1</sup>Psurtseva, Kiyashko, Gachkova, and Belova, 2007); **Ivanovo Oblast** (<sup>5</sup>Alyavdina, 1928; <sup>1</sup>Alyavdina, 1949; <sup>5</sup>Alyavdina, 1949); **Kabardino-Balkarian Republic** (<sup>1</sup>Shkhaapsoev and Krapivina, 2004); **Kaliningrad Oblast** (<sup>1</sup>Dedkov, Volodina, and Gubareva, 2007); **Karelia** (<sup>1</sup>Zmitrovich et al., 2018); **Komi Republic** (<sup>1</sup>Palamarchuk, 2017); **Krasnodar Krai** (<sup>1</sup>Kovalenko, 1980a; <sup>1</sup>Kovalenko, 1980b); **Kursk Oblast** (<sup>1</sup>Soshnina, 2017); **Leningrad Oblast** (<sup>5</sup>Thesleff, 1920; <sup>1</sup>Singer, 1950c; <sup>4</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Zmitrovich, 2003; <sup>1</sup>Zmitrovich, Malysheva, Malysheva, and Spirin, 2004; <sup>1</sup>Popov et al., 2007; <sup>1</sup>Psurtseva, Kiyashko, Gachkova, and Belova, 2007; <sup>1</sup>Zmitrovich et al., 2018); **Lipetsk Oblast** (<sup>1</sup>Sarycheva et al., 2009; <sup>1</sup>Sarycheva, 2014a; <sup>1</sup>Sarycheva, 2016; <sup>1</sup>Sarycheva, Starodubtseva, and Sapelnikova, 2017); **Mari El Republic** (<sup>1</sup>Zmitrovich et al., 2018); **Mordovia**

(<sup>1</sup>Bolshakov, 2015); **Moscow** (<sup>2</sup>Bucholtz, 1897a; <sup>2,4</sup>Hennings, 1905; <sup>2,4</sup>Mosolov, 1906); **Moscow Oblast** (<sup>1</sup>Singer, 1950c; <sup>1</sup>Gorlenko, Sidorova, and Sidorova, 1989; <sup>1</sup>Voronina et al., 2014; <sup>1</sup>Zmitrovich et al., 2018); **Murmansk Oblast** (<sup>2</sup>Vanin, 1928); **North Ossetia** (<sup>4</sup>Nikolayev, 2001); **Orenburg Oblast** (<sup>1</sup>Safonov, 2015); **Oryol Oblast** (<sup>1</sup>Zmitrovich et al., 2018); **Penza Oblast** (<sup>1</sup>Ivanov, 1986); **Perm Krai** (<sup>1</sup>Perevedentseva, 2008; <sup>1</sup>Zmitrovich et al., 2018); **Pskov Oblast** (<sup>4</sup>Kovalenko, Kolmakov, Morozova, and Popov, 2003; <sup>1</sup>Psurtseva, Kiyashko, Gachkova, and Belova, 2007; <sup>1</sup>Popov et al., 2013; <sup>1</sup>Zmitrovich et al., 2018); **Rostov Oblast** (<sup>1</sup>Rusanov, Rebriev, and Bulgakov, 2018); **Ryazan Oblast** (<sup>2</sup>Vanin, 1916); **Saint Petersburg** (<sup>3</sup>Weinmann, 1828; <sup>3</sup>Weinmann, 1836; <sup>3</sup>Weinmann, 1837; <sup>1</sup>Zmitrovich, Malysheva, Malysheva, and Spirin, 2004; <sup>2</sup>Morozova and Smirnov, 2011; <sup>1</sup>Morozova, Kovalenko, Rebriev, and Malysheva, 2014; <sup>1</sup>Zmitrovich et al., 2018); **Saratov Oblast** (<sup>1</sup>Lebedeva, 1927); **Stavropol Krai** (<sup>1</sup>Zmitrovich et al., 2018); **Sverdlovsk Oblast** (<sup>2</sup>Marina, 2006); **Tula Oblast** (<sup>1</sup>Trusova, 1913); **Tver Oblast** (<sup>1</sup>Singer, 1950c; <sup>1</sup>Kurochkin, 1993; <sup>1</sup>Zmitrovich et al., 2018); **Udmurt Republic** (<sup>1</sup>Tychinin and Kuzmina, 2003); **Vologda Oblast** (<sup>1</sup>Kirillova, 2007; <sup>1</sup>Zmitrovich et al., 2018); **Yaroslavl Oblast** (<sup>1</sup>Lazareva, 1997; <sup>1</sup>Lazareva, 1998a); **Arid territories** (<sup>1</sup>Rebriev, Rusanov, et al., 2012).

SIBERIA: **Altai Krai** (<sup>1</sup>Zhukov, 1980); **Altai Republic** (<sup>1</sup>Gorbunova, 2001a); **Irkutsk Oblast** (<sup>1</sup>Petrov, 1984; <sup>1</sup>Petrov, 1989; <sup>1</sup>Astapenko and Kutafjeva, 1990; <sup>1</sup>Astapenko, 1990a; <sup>1</sup>Petrov, 1991; <sup>1</sup>Petrov, 2008; <sup>1</sup>Zmitrovich et al., 2018); **Kemerovo Oblast** (<sup>1</sup>Zhukov, 1980); **Khanty-Mansi Autonomous Okrug** (<sup>4</sup>Mukhin, 1993; <sup>1</sup>Zvyagina, Baykalova, and Gorbunova, 2007); **Krasnoyarsk Krai** (<sup>1</sup>Beglyanova, 1972a; <sup>5</sup>Beglyanova, 1972b; <sup>1</sup>Kryuchkova, 2014a; <sup>1</sup>Zmitrovich et al., 2018; <sup>1</sup>Krom and Kapitonov, 2019); **Novosibirsk Oblast** (<sup>1</sup>Perova, 1977; <sup>1</sup>Zhukov, 1980; <sup>1</sup>Perova and Gorbunova, 2001); **Tomsk Oblast** (<sup>1,5</sup>Zhukov, 1980; <sup>1</sup>Agaphonova, Kutafjeva, and Gashkov, 2007; <sup>1</sup>Kudashova, Gashkov, and Kutafjeva, 2013); **Tyumen Oblast** (<sup>1</sup>Pignatti, 1912; <sup>4</sup>Mukhin, 1993).

FAR EAST: **Amur Oblast** (<sup>1</sup>Taranina, 2005; <sup>1</sup>Kochunova, 2016); **Kamchatka Krai** (<sup>4</sup>Pegler, 1983); **Khabarovsk Krai** (<sup>4</sup>Pegler, 1983; <sup>5</sup>Bau, Bulakh, Zhuang, and Li, 2007; <sup>1</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Zmitrovich et al., 2018); **Primorsky Krai** (<sup>5</sup>Vassiljeva, 1972; <sup>5</sup>Vassiljeva, 1973; <sup>1</sup>Azbukina et al., 1984; <sup>4</sup>Bau, Bulakh, Zhuang, and Li, 2007; <sup>1</sup>Bau, Bulakh, and Govorova, 2011); **Sakhalin Oblast** (<sup>5</sup>Vassiljeva and Nazarova, 1972).

### ***Panus lecomtei* (Fr.) Corner<sup>1</sup>**

= *Lentinus strigosus* Fr.<sup>2</sup> = *Panus neostrigosus* Drechsler-Santos & Wartchow<sup>3</sup> = *Panus rudis* Fr.<sup>4</sup> = *Panus semirudis* Singer<sup>5</sup>

According to Corner (1981) *Panus lecomtei* (Fr.) Corner is correct current name for *Lentinus strigosus* Fr. and *Panus rudis* Fr. The name has priority over *P. neostrigosus* Drechsler-Santos & Wartchow.

EASTERN EUROPE: **Adygea** (<sup>4</sup>Vassiljeva, 1939; <sup>4</sup>Singer, 1950c; <sup>4</sup>Kovalenko, 1980b; <sup>4</sup>Vaasma, Kalamees, and Raitviir, 1986; <sup>2</sup>Psurtseva, Kiyashko, Gachkova, and Belova, 2007; <sup>1</sup>Zmitrovich et al., 2018); **Arkhangelsk Oblast** (<sup>2</sup>Ezhov, 2013; <sup>4</sup>Ezhov, 2014); **Bashkortostan** (<sup>4</sup>Stepanova and Sirko, 1977; <sup>1</sup>Zmitrovich et al., 2018); **Belgorod Oblast** (<sup>4</sup>Bedenko, 1979a); **Chelyabinsk Oblast** (<sup>4</sup>Stepanova and Sirko, 1977; <sup>2</sup>Psurtseva, Kiyashko, Gachkova, and Belova, 2007; <sup>2</sup>Krasutsky, 2013); **Crimea** (<sup>1</sup>Zmitrovich et al., 2018); **Dagestan** (<sup>4</sup>Hollós, 1902; <sup>4</sup>Filarszky, 1907); **Ivanovo Oblast** (<sup>4</sup>Alyavdina, 1928; <sup>4</sup>Alyavdina, 1949); **Kabardino-Balkarian Republic** (<sup>4</sup>Singer, 1931; <sup>4</sup>Singer, 1950c; <sup>4</sup>Shkhagapsoev and Krapivina, 2004); **Kaluga Oblast** (<sup>4</sup>Sionova, 2003); **Karachay-Cherkess Republic** (<sup>4</sup>Hollós, 1902; <sup>4</sup>Hollós, 1905; <sup>4</sup>Filarszky, 1907); **Karelia** (<sup>2</sup>Bondartseva et al., 2001); **Kirov Oblast** (<sup>4</sup>Singer, 1950c; <sup>4</sup>Kirillov, 2011; <sup>4</sup>Kirillov, Perevedentseva, and Egoshina, 2011; <sup>1</sup>Zmitrovich et al., 2018); **Krasnodar Krai** (<sup>4</sup>Vassiljeva, 1939; <sup>4</sup>Kovalenko, 1980a; <sup>4</sup>Kovalenko, 1980b; <sup>1</sup>Zmitrovich et al., 2018); **Leningrad Oblast** (<sup>4</sup>Zmitrovich, Malysheva, Malysheva, and Spirin, 2004; <sup>4</sup>Popov et al., 2007; <sup>1</sup>Zmitrovich et al., 2018); **Lipetsk Oblast** (<sup>2</sup>Sarycheva, Starodubtseva, and Sapelnikova, 2017); **Mari El Republic** (<sup>1</sup>Zmitrovich et al., 2018); **North Ossetia** (<sup>4</sup>Chernetskaja, 1929; <sup>1</sup>Zmitrovich et al., 2018); **Orenburg Oblast** (<sup>2</sup>Safonov, 2002; <sup>2</sup>Desyatova, 2008; <sup>3</sup>Safonov, 2015); **Penza Oblast** (<sup>4</sup>Singer, 1950c; <sup>4</sup>Ivanov, 1981b; <sup>4</sup>Ivanov, 1982; <sup>1</sup>Zmitrovich et al., 2018; <sup>1</sup>Ivanov, 2019); **Perm Krai** (<sup>4</sup>Perevedentseva, 2008; <sup>1</sup>Zmitrovich et al., 2018); **Ryazan Oblast** (<sup>4</sup>Volosnova, 2014; <sup>1</sup>Zmitrovich et al., 2018); **Samara Oblast** (<sup>4</sup>Malysheva and Malysheva, 2004; <sup>4</sup>Malysheva and Malysheva, 2008); **Stavropol Krai** (<sup>4</sup>Singer, 1950c; <sup>1</sup>Zmitrovich et al., 2018); **Sverdlovsk Oblast** (<sup>4</sup>Stepanova and Sirko, 1977; <sup>2</sup>Marina, 2006); **Tatarstan** (<sup>4</sup>Alexeeff, 1927; <sup>4</sup>Vassiljeva, 1977); **Udmurt Republic** (<sup>2</sup>Kapitonov, 2008); **Ulyanovsk Oblast** (<sup>2</sup>Ilyukhin, 2010a); **Volgograd Oblast** (<sup>4</sup>Burova and Nezdoinog, 1980); **Voronezh Oblast** (<sup>1</sup>Zmitrovich et al., 2018; <sup>2</sup>Agafonov, 2018); **Arid territories** (<sup>2</sup>Rebriev, Rusanov, et al., 2012).

SIBERIA: **Altai Krai** (<sup>4</sup>Pilát, 1934; <sup>4</sup>Zhukov, 1980; <sup>4</sup>Gorbunova and Perova, 2006; <sup>4</sup>Gorbunova and Chubarova, 2008; <sup>2</sup>Gorbunova, Vlasenko, and Tzhubarova, 2011); **Altai Republic** (<sup>4</sup>Gorbunova, 1996; <sup>4</sup>Gorbunova, 1997; <sup>4</sup>Gorbunova, 2001a; <sup>1</sup>Zmitrovich et al., 2018); **Buryatia** (<sup>4</sup>Tomilin, 1963; <sup>4</sup>Sokolova, 1988; <sup>2</sup>Petrov, 2013); **Irkutsk Oblast** (<sup>4</sup>Kutafjeva, 1982; <sup>4</sup>Petrov, 1984; <sup>4</sup>Petrov, 1989; <sup>4</sup>Astapenko, 1990a; <sup>4</sup>Muzyka, 2002; <sup>4</sup>Bardunov et al., 2005; <sup>4</sup>Petrov, 2008; <sup>4</sup>Muzyka and Penzina, 2017; <sup>1</sup>Zmitrovich et al., 2018); **Kemerovo Oblast** (<sup>4</sup>Zhukov, 1972; <sup>4</sup>Zhukov, 1980); **Khakassia** (<sup>4</sup>Beglyanova, 1972a); **Khanty-Mansi Autonomous Okrug** (<sup>2</sup>Mukhin, 1993; <sup>2,4</sup>Zvyagina, Baykalova, and Gorbunova, 2007; <sup>4</sup>Baykalova and Zvyagina, 2008; <sup>3</sup>Filippova and Bulyonkova, 2017a; <sup>3</sup>Filippova

and Bulyonkova, 2017b); **Krasnoyarsk Krai** (<sup>4</sup>Thümen, 1878; <sup>4</sup>Singer, 1950c; <sup>4</sup>Beglyanova, 1972a; <sup>4</sup>Nezdojminogo, 1982a; <sup>2</sup>Zauzolkova, 2012; <sup>3</sup>Malysheva, Malysheva, Kiyashko, et al., 2017; <sup>3</sup>Krom and Kapitonov, 2019); **Kurgan Oblast** (<sup>2</sup>Mukhin, 1993); **Novosibirsk Oblast** (<sup>4</sup>Nozdrenko, 1970; <sup>4</sup>Zaytseva, 1971; <sup>4</sup>Zhukov, 1972; <sup>4</sup>Perova, 1977; <sup>4</sup>Zhukov, 1980; <sup>2</sup>Perova and Gorbunova, 2007; <sup>2</sup>Koropachinskiy and Banaev, 2014); **Omsk Oblast** (<sup>4</sup>Pilát, 1934; <sup>4</sup>Singer, 1950c); **Sakha Republic** (<sup>1</sup>Zmitrovich et al., 2018); **Sverdlovsk Oblast** (<sup>2</sup>Mukhin, 1993; <sup>2</sup>Mukhin et al., 2003); **Tomsk Oblast** (<sup>4</sup>Zhukov, 1980; <sup>4</sup>Agaphonova, Kutafjeva, and Gashkov, 2007; <sup>2</sup>Kudashova, Gashkov, and Kutafjeva, 2013; <sup>1</sup>Zmitrovich et al., 2018); **Tyumen Oblast** (<sup>1</sup>Zmitrovich et al., 2018); **Zabaykalsky Krai** (<sup>4</sup>Karsten, 1906; <sup>4</sup>Karsten, 1911; <sup>2</sup>Petrov, 2013; <sup>1</sup>Zmitrovich et al., 2018).

FAR EAST: **Amur Oblast** (<sup>5</sup>Singer, 1936c; <sup>5</sup>Singer, 1950c; <sup>4</sup>Tomilin, 1962; <sup>4</sup>Gordienko, Petrova, and Tarasov, 1981; <sup>4</sup>Nazarova, 1986; <sup>2</sup>Taranina, 2005; <sup>3</sup>Kochunova, 2016; <sup>1</sup>Zmitrovich et al., 2018); **Jewish Autonomous Oblast** (<sup>3</sup>Erofeeva and Bulakh, 2015b; <sup>3</sup>Erofeeva, Bukharova, and Bulakh, 2019); **Kamchatka Krai** (<sup>4</sup>Singer, 1950c; <sup>2</sup>Pegler, 1983); **Khabarovsk Krai** (<sup>2</sup>Pegler, 1983; <sup>4</sup>Azbukina et al., 1986; <sup>4</sup>Azbukina et al., 1989; <sup>2</sup>Bau, Bulakh, and Govorova, 2011; <sup>3</sup>Erofeeva and Bulakh, 2015a); **Magadan Oblast** (<sup>4</sup>Sazanova, 1996; <sup>4</sup>Sazanova, 2005; <sup>2</sup>Sazanova, 2009a; <sup>2</sup>Sazanova, 2011); **Primorsky Krai** (<sup>5</sup>Singer, 1936c; <sup>4,5</sup>Singer, 1950c; <sup>4</sup>Vassiljeva, 1972; <sup>4</sup>Vassiljeva, 1973; <sup>4</sup>Bunkina and Nazarova, 1978; <sup>4</sup>Azbukina et al., 1984; <sup>4</sup>Azbukina et al., 1990; <sup>2</sup>Bardunov et al., 2002; <sup>2</sup>Azbukina et al., 2006; <sup>2</sup>Bau, Bulakh, and Govorova, 2011; <sup>2</sup>Bulakh et al., 2016; <sup>1</sup>Zmitrovich et al., 2018); **Sakhalin Oblast** (<sup>1</sup>Zmitrovich et al., 2018).

### ***Paragymnopus perforans* (Hoffm.) J.S. Oliveira**

≡ *Agaricus perforans* Hoffm.<sup>1</sup> ≡ *Gymnopus perforans* (Hoffm.) Antonín & Noordel.<sup>2</sup> ≡ *Marasmius perforans* (Hoffm.) Fr.<sup>3</sup> ≡ *Micromphale perforans* (Hoffm.) Gray<sup>4</sup>

EASTERN EUROPE: **Adygea** (<sup>4</sup>Kovalenko, 1980b; <sup>4</sup>Vaasma, Kalamees, and Raitviir, 1986); **Crimea** (<sup>4</sup>Dudka et al., 2004; <sup>4</sup>Sarkina, 2011; <sup>2</sup>Sarkina and Mironova, 2015); **Ivanovo Oblast** (<sup>3</sup>Alyavdina, 1928; <sup>3</sup>Alyavdina, 1949); **Kaliningrad Oblast** (<sup>3</sup>Hennings, 1895; <sup>4</sup>Dedkov, Volodina, and Gubareva, 2007; <sup>4</sup>Volodina, 2007); **Karachay-Cherkess Republic** (<sup>3</sup>Vassiljeva, 1939; <sup>4</sup>Kalamees and Botashev, 2000); **Karelia** (<sup>3</sup>Freindling, 1949; <sup>4</sup>Kovalenko, Morozova, Fomina, and Särkisilta, 1998; <sup>4</sup>Bondartseva et al., 2001; <sup>2</sup>Krutov et al., 2014; <sup>2</sup>Savelev and Kikeeva, 2020); **Kirov Oblast** (<sup>4</sup>Kirillov, 2011; <sup>4</sup>Kirillov, Perevedentseva, and Egoshina, 2011; <sup>2</sup>Stavishenko, Luginina, Kirillov, and Egoshina, 2019); **Komi Republic** (<sup>4</sup>Karatygin, Nezdojminogo, Novozhilov, and Zhurbenko, 1999; <sup>4</sup>Palamarchuk, 2011b; <sup>2</sup>Palamarchuk, 2012; <sup>2</sup>Palamarchuk, 2016a; <sup>2</sup>Palamarchuk, 2016b; <sup>2</sup>Palamarchuk and Kirillov, 2017; <sup>2</sup>Palamarchuk, 2017); **Krasnodar Krai** (<sup>3</sup>Vassiljeva, 1939; <sup>4</sup>Kovalenko, 1980a; <sup>4</sup>Kovalenko, 1980b; <sup>4</sup>Vaasma, Kalamees, and Raitviir, 1986); **Leningrad Oblast** (<sup>3</sup>Thesleff, 1920; <sup>4</sup>Stolyarskaya, 1989; <sup>4</sup>Kovalenko and Morozova, 1999a; <sup>4</sup>Morozova and Kovalenko, 2000; <sup>3</sup>Psurtseva, Kiyashko, Gachkova, and Belova, 2007; <sup>4</sup>Morozova, 2007; <sup>4</sup>Popov et al., 2007; <sup>2</sup>Zmitrovich et al., 2015); **Mordovia** (<sup>3</sup>Chastukhin, 1948a; <sup>3</sup>Kuznetsov, 1960; <sup>4</sup>Chastukhin and Nikolaevskaya, 1969; <sup>2</sup>Ivoilov and Bolshakov, 2011a; <sup>3</sup>Chastukhin, 2011); **Moscow** (<sup>1</sup>Weinmann, 1836; <sup>3</sup>Bucholtz, 1897a; <sup>3</sup>Bucholtz, 1897b; <sup>3</sup>Bucholtz, 1897c; <sup>3</sup>Mosolov, 1906; <sup>3</sup>Burova, 1968); **Moscow Oblast** (<sup>4</sup>Gorlenko, Sidorova, and Sidorova, 1989; <sup>4</sup>Vishnevsky, 1998); **Murmansk Oblast** (<sup>3</sup>Pystina, Pavlova, and Shestakova, 1969; <sup>4</sup>Karatygin, Nezdojminogo, Novozhilov, and Zhurbenko, 1999); **Novgorod Oblast** (<sup>4</sup>Kovalenko, Morozova, Nezdojminogo, and Popov, 2005; <sup>4</sup>Malysheva, Malysheva, and Zmitrovich, 2007; <sup>4</sup>Popov et al., 2013); **Perm Krai** (<sup>3</sup>Naoumoff, 1915; <sup>4</sup>Perevedentseva, 2008; <sup>2</sup>Belkovskaya et al., 2014; <sup>4</sup>Perevedentseva and Shishigin, 2014; <sup>4</sup>Botalov, 2017; <sup>4</sup>Botalov and Perevedentseva, 2020; <sup>4</sup>Botalov, Perevedentseva, and Shishigin, 2020); **Pskov Oblast** (<sup>4</sup>Kovalenko and Morozova, 1999b; <sup>4</sup>Kovalenko, Kolmakov, Morozova, and Popov, 2003; <sup>4</sup>Popov et al., 2013); **Saint Petersburg** (<sup>1</sup>Weinmann, 1828; <sup>1</sup>Weinmann, 1837; <sup>4</sup>Kovalenko and Morozova, 1999a; <sup>4</sup>Morozova and Kovalenko, 2000; <sup>4</sup>Kotkova, Morozova, and Popov, 2006; <sup>4</sup>Morozova and Smirnov, 2011; <sup>2</sup>Morozova et al., 2020); **Smolensk Oblast** (<sup>3</sup>Jaczevski, 1896; <sup>3</sup>Burova, 1969); **Sverdlovsk Oblast** (<sup>4</sup>Marina, 2006); **Tatarstan** (<sup>3</sup>Vassiljeva, 1977); **Tver Oblast** (<sup>3</sup>Tranzschel, 1901; <sup>3</sup>Chastukhin, 1948b; <sup>4</sup>Chastukhin and Nikolaevskaya, 1969; <sup>2</sup>Mukhina, 2011a; <sup>2</sup>Mukhina, 2011b; <sup>4</sup>Popov et al., 2013; <sup>2</sup>Kotkova, 2014); **Vologda Oblast** (<sup>4</sup>Kirillova, 2007; <sup>4</sup>Kirillova, 2009); **Yaroslavl Oblast** (<sup>4</sup>Lazareva, 1998a); **Lapland** (<sup>3</sup>Karsten, 1866).

SIBERIA: **Altai Republic** (<sup>4</sup>Kovalenko, 1992; <sup>4</sup>Perova and Gorbunova, 2001); **Irkutsk Oblast** (<sup>2</sup>Gorbunova and Stepantsova, 2015); **Kemerovo Oblast** (<sup>4</sup>Perova and Gorbunova, 2001); **Khanty-Mansi Autonomous Okrug** (<sup>4</sup>Zvyagina, 2008; <sup>2</sup>Shepeleva et al., 2014); **Krasnoyarsk Krai** (<sup>4</sup>Beglyanova, 1972a; <sup>2</sup>Krom and Kapitonov, 2019); **Kurgan Oblast** (<sup>4</sup>Stepanova and Sirko, 1977); **Novosibirsk Oblast** (<sup>4</sup>Perova and Gorbunova, 2001; <sup>4</sup>Perova and Gorbunova, 2007); **Yamalo-Nenets Autonomous Okrug** (<sup>4</sup>Tarchevskaya, 1990; <sup>4</sup>Karatygin, Nezdojminogo, Novozhilov, and Zhurbenko, 1999).

FAR EAST: **Amur Oblast** (<sup>4</sup>Nazarova, 1986; <sup>2</sup>Kochunova and Erofeeva, 2017); **Khabarovsk Krai** (<sup>4</sup>Azbukina et al., 1989; <sup>2</sup>Bulakh, 2013; <sup>2</sup>Bogacheva, Bulakh, Bukharova, and Egorova, 2015; <sup>2</sup>Erofeeva and Bulakh, 2015a); **Magadan**

**Oblast** (<sup>4</sup>Nazarova, 1976; <sup>4</sup>Sazanova, 1996; <sup>4</sup>Sazanova, 2005; <sup>2</sup>Sazanova, 2009a; <sup>2</sup>Sazanova, 2011); **Primorsky Krai** (<sup>3</sup>Vassiljeva, 1973; <sup>4</sup>Azbukina et al., 1984; <sup>2</sup>Bulakh et al., 2016); **Sakhalin Oblast** (<sup>3</sup>Vassiljeva and Nazarova, 1972).

***Paralepista flaccida* (Sowerby) Vizzini<sup>1</sup>**

≡ *Agaricus flaccidus* Sowerby<sup>2</sup> ≡ *Clitocybe flaccida* (Sowerby) P. Kumm.<sup>3</sup> ≡ *Lepista flaccida* (Sowerby) Pat.<sup>4</sup> = *Agaricus infundibuliformis* Bull.<sup>5</sup> = *Clitocybe inversa* (Scop.) Quél.<sup>6</sup> = *Lepista inversa* (Scop.) Pat.<sup>7</sup>

EASTERN EUROPE: **Belgorod Oblast** (<sup>3</sup>Bedenko, 1979a); **Bryansk Oblast** (<sup>6</sup>Kruglikov, 2007); **Chelyabinsk Oblast** (<sup>3</sup>Aleksandrovskaia and Lobanova, 1968); **Crimea** (<sup>6</sup>Sarkina, 2001; <sup>7</sup>Dudka et al., 2004; <sup>4</sup>Sarkina, 2010b; <sup>7</sup>Sarkina, 2011; <sup>4</sup>Sarkina and Prydiuk, 2012; <sup>4</sup>Sarkina, 2013; <sup>4</sup>Sarkina, 2014b; <sup>4</sup>Sarkina and Mironova, 2015); **Kabardino-Balkarian Republic** (<sup>6</sup>Shkhagapsoev and Krapivina, 2004); **Kaliningrad Oblast** (<sup>4</sup>Dedkov, Volodina, and Gubareva, 2007; <sup>4</sup>Volodina, 2007; <sup>1</sup>Atayev and Volodina, 2020); **Kaluga Oblast** (<sup>7</sup>Sionova, 2003); **Karelia** (<sup>4</sup>Krutov et al., 2014); **Kirov Oblast** (<sup>4</sup>Kirillov, 2011; <sup>4</sup>Kirillov, Perevedentseva, and Egoshina, 2011); **Komi Republic** (<sup>4</sup>Palamarchuk, 2012; <sup>4</sup>Palamarchuk and Kirillov, 2017); **Krasnodar Krai** (<sup>6</sup>Vassiljeva, 1939); **Leningrad Oblast** (<sup>6</sup>Thesleff, 1920; <sup>4</sup>Kovalenko and Morozova, 1999a; <sup>4</sup>Popov et al., 2007); **Lipetsk Oblast** (<sup>7</sup>Sarycheva, 1999; <sup>4</sup>Sarycheva, Starodubtseva, and Sapelnikova, 2017); **Mordovia** (<sup>6</sup>Kuznetsov, 1960; <sup>4</sup>Ivoilov and Bolshakov, 2011a; <sup>6</sup>Chastukhin, 2011); **Moscow Oblast** (<sup>7</sup>Gorlenko, Sidorova, and Sidorova, 1989; <sup>4</sup>Levitskaya, 1995b; <sup>4</sup>Vishnevsky, 1998; <sup>4</sup>Levitskaya, 2013; <sup>4</sup>Voronina et al., 2014; <sup>1</sup>Sidorova, Alexandrova, and Voronina, 2017); **Novgorod Oblast** (<sup>4</sup>Popov et al., 2013); **Orenburg Oblast** (<sup>4</sup>Korshikova, 2006; <sup>4</sup>Desyatova, 2007; <sup>4</sup>Desyatova, 2008); **Penza Oblast** (<sup>3</sup>Ivanov, 1981a; <sup>7</sup>Ivanov, 1981a); **Perm Krai** (<sup>4</sup>Perevedentseva, 2008; <sup>4</sup>Belkovskaya et al., 2014; <sup>7</sup>Perevedentseva and Shishigin, 2014); **Pskov Oblast** (<sup>4</sup>Popov et al., 2013); **Rostov Oblast** (<sup>4</sup>Morozova et al., 2008); **Ryazan Oblast** (<sup>4</sup>Volosnova, 1997; <sup>4</sup>Volosnova, 2014); **Saint Petersburg** (<sup>2,5</sup>Weinmann, 1836; <sup>2,5</sup>Weinmann, 1837; <sup>4</sup>Morozova and Smirnov, 2011; <sup>1</sup>Morozova et al., 2020); **Samara Oblast** (<sup>7</sup>Malysheva and Malysheva, 2004; <sup>4</sup>Malysheva and Malysheva, 2005b; <sup>4</sup>Malysheva and Malysheva, 2008); **Smolensk Oblast** (<sup>3</sup>Jaczevski, 1896); **Sverdlovsk Oblast** (<sup>4</sup>Marina, 2006); **Tatarstan** (<sup>4</sup>Potapov, 2015b; <sup>4</sup>Potapov, 2016b); **Tula Oblast** (<sup>7</sup>Svetasheva, 2001; <sup>4</sup>Svetasheva, 2004); **Tver Oblast** (<sup>3</sup>Chastukhin and Nikolaevskaya, 1969; <sup>7</sup>Kurochkin, 1993; <sup>4</sup>Mukhina, 2011a; <sup>4</sup>Kotkova, 2014); **Udmurt Republic** (<sup>7</sup>Tychinin, 1990; <sup>7</sup>Tychinin and Kuzmina, 2003); **Ulyanovsk Oblast** (<sup>4</sup>Ilyukhin, 2009; <sup>4</sup>Ilyukhin, 2010a); **Volgograd Oblast** (<sup>4</sup>Dudka and Vedeneyev, 2014); **Vologda Oblast** (<sup>6</sup>Kutova, 1957); **Voronezh Oblast** (<sup>6</sup>Chastukhin, 1952; <sup>6</sup>Chastukhin and Nikolaevskaya, 1953; <sup>3</sup>Chastukhin and Nikolaevskaya, 1969; <sup>4</sup>Sarycheva, Starodubtseva, and Sapelnikova, 2017); **Arid territories** (<sup>4</sup>Rebriev, Rusanov, et al., 2012).

SIBERIA: **Altai Krai** (<sup>7</sup>Gorbunova and Perova, 2006; <sup>7</sup>Gorbunova and Chubarova, 2008; <sup>4</sup>Gorbunova, Vlasenko, and Tzhubarova, 2011); **Altai Republic** (<sup>3</sup>Perova and Gorbunova, 2001; <sup>6</sup>Gorbunova, 2001a; <sup>4</sup>Gorbunova, 2001b; <sup>7</sup>Perova and Gorbunova, 2001; <sup>4</sup>Gorbunova, 2008); **Irkutsk Oblast** (<sup>6</sup>Petrov, 1984; <sup>6</sup>Petrov, 1991; <sup>6</sup>Petrov, 2008; <sup>4</sup>Gorbunova and Stepantsova, 2015); **Khanty-Mansi Autonomous Okrug** (<sup>4</sup>Zvyagina and Vasina, 2015; <sup>1</sup>Zvyagina and Baykalova, 2017); **Krasnoyarsk Krai** (<sup>2</sup>Thümen, 1877; <sup>3</sup>Kalchbrenner, 1878; <sup>6</sup>Beglyanova, 1972a; <sup>4</sup>Kosheleva and Kutafjeva, 2008a; <sup>4</sup>Zauzolkova, 2015; <sup>1</sup>Krom and Kapitonov, 2019); **Novosibirsk Oblast** (<sup>7</sup>Perova and Gorbunova, 2001; <sup>4,7</sup>Perova and Gorbunova, 2007; <sup>4,6</sup>Koropachinskiy and Banaev, 2014); **Tomsk Oblast** (<sup>3</sup>Perova, 1972; <sup>3</sup>Perova and Gorbunova, 2001; <sup>7</sup>Kosheleva and Kutafjeva, 2004; <sup>4</sup>Kudashova, Gashkov, and Kutafjeva, 2013); **Yamalo-Nenets Autonomous Okrug** (<sup>3</sup>Tarchevskaya, 1990).

FAR EAST: **Jewish Autonomous Oblast** (<sup>7</sup>Bulakh, Govorova, Nazarova, and Vassiljeva, 2007; <sup>4,7</sup>Bau, Bulakh, and Govorova, 2011); **Kamchatka Krai** (<sup>4</sup>Psurtseva, Kiyashko, Gachkova, and Belova, 2007); **Khabarovsk Krai** (<sup>4</sup>Erofeeva and Bulakh, 2015a); **Magadan Oblast** (<sup>4</sup>Sazanova, 2009a; <sup>4</sup>Sazanova, 2009b; <sup>4</sup>Sazanova, 2011); **Primorsky Krai** (<sup>6</sup>Vassiljeva, 1973; <sup>6</sup>Bunkina and Nazarova, 1978; <sup>7</sup>Azbukina et al., 1984; <sup>7</sup>Azbukina et al., 1990; <sup>7</sup>Bardunov et al., 2002; <sup>7</sup>Azbukina et al., 2006; <sup>4</sup>Bau, Bulakh, and Govorova, 2011; <sup>7</sup>Bau, Bulakh, and Govorova, 2011; <sup>4</sup>Bulakh et al., 2016).

***Paralepista gilva* (Pers.) Raithelh.<sup>1</sup>**

≡ *Agaricus gilvus* Pers.<sup>2</sup> ≡ *Clitocybe gilva* (Pers.) P. Kumm.<sup>3</sup> ≡ *Lepista gilva* (Pers.) Roze<sup>4</sup>

EASTERN EUROPE: **Adygea** (<sup>4</sup>Sopina, 2004b); **Belgorod Oblast** (<sup>4</sup>Psurtseva, Belova, and Ryabusheva, 2003); **Chelyabinsk Oblast** (<sup>3</sup>Sirko and Stepanova, 1977; <sup>3</sup>Stepanova and Sirko, 1977); **Crimea** (<sup>4</sup>Zerova, 1962; <sup>4</sup>Sarkina, 2001; <sup>4</sup>Dudka et al., 2004; <sup>4</sup>Sarkina, 2011); **Kaliningrad Oblast** (<sup>4</sup>Dedkov, Volodina, and Gubareva, 2007; <sup>4</sup>Volodina, 2007); **Kaluga Oblast** (<sup>4</sup>Sionova, 2012); **Karachay-Cherkess Republic** (<sup>4</sup>Kalamees and Botashev, 2000); **Karelia** (<sup>4</sup>Bondartseva et al., 2001); **Kirov Oblast** (<sup>4</sup>Kirillov, 2011; <sup>4</sup>Kirillov, Perevedentseva, and Egoshina, 2011); **Komi Republic** (<sup>4</sup>Palamarchuk, 2012); **Leningrad Oblast** (<sup>3</sup>Thesleff, 1920; <sup>4</sup>Kalamees and Kovalenko, 1984; <sup>4</sup>Kovalenko and Morozova, 1999a; <sup>4</sup>Morozova, 2007; <sup>4</sup>Popov et al., 2007); **Lipetsk Oblast** (<sup>4</sup>Rtishcheva, 1999; <sup>4</sup>Afanasyev, Rtishcheva, and Starodubtseva, 2007; <sup>4</sup>Sarycheva et al., 2009; <sup>4</sup>Sarycheva, 2011; <sup>4</sup>Sarycheva, 2014a; <sup>4</sup>Sarycheva,

2016); **Mordovia** (<sup>3</sup>Chastukhin and Nikolaevskaya, 1969); **Moscow** (<sup>2</sup>Bucholtz, 1897a); **Moscow Oblast** (<sup>3</sup>Petroff, 1911; <sup>4</sup>Gorlenko, Sidorova, and Sidorova, 1989; <sup>4</sup>Levitskaya, 1995b; <sup>4</sup>Vishnevsky, 1998; <sup>4</sup>Levitskaya, 2013; <sup>1</sup>Sidorova, Alexandrova, and Voronina, 2017); **North Ossetia** (<sup>3</sup>Chernetskaja, 1929); **Novgorod Oblast** (<sup>4</sup>Kovalenko, Morozova, Nezdoyminogo, and Popov, 2005); **Orenburg Oblast** (<sup>4</sup>Korshikova, 2005; <sup>4</sup>Desyatova, 2007; <sup>4</sup>Desyatova, 2008); **Perm Krai** (<sup>4</sup>Perevedentseva, 2008; <sup>4</sup>Perevedentseva and Shishigin, 2014); **Pskov Oblast** (<sup>4</sup>Popov, 2001a); **Ryazan Oblast** (<sup>4</sup>Volosnova, 2014); **Saint Petersburg** (<sup>2</sup>Weinmann, 1828; <sup>2</sup>Weinmann, 1836; <sup>2</sup>Weinmann, 1837; <sup>1</sup>Morozova et al., 2020); **Samara Oblast** (<sup>4</sup>Malysheva and Malysheva, 2004; <sup>4</sup>Malysheva and Malysheva, 2008); **Sverdlovsk Oblast** (<sup>3</sup>Stepanova and Sirko, 1977; <sup>4</sup>Marina, 2006); **Tula Oblast** (<sup>4</sup>Svetasheva, 2001; <sup>4</sup>Svetasheva, 2004); **Tver Oblast** (<sup>4</sup>Kurochkin, 1993); **Voronezh Oblast** (<sup>4</sup>Rtishcheva, 1999; <sup>4</sup>Afanasyev, Rtishcheva, and Starodubtseva, 2007); **Yaroslavl Oblast** (<sup>4</sup>Lazareva, 1997; <sup>4</sup>Lazareva, 1998a).

SIBERIA: **Altai Krai** (<sup>4</sup>Gorbunova and Perova, 2006); **Altai Republic** (<sup>3</sup>Gorbunova, 2001a; <sup>4</sup>Gorbunova, 2001b; <sup>4</sup>Perova and Gorbunova, 2001); **Buryatia** (<sup>3</sup>Nezdoyminogo, 1973; <sup>3</sup>Petrov, 1991); **Irkutsk Oblast** (<sup>3</sup>Kutafjeva, 1983); **Khakassia** (<sup>3</sup>Beglyanova, 1972a; <sup>3</sup>Beglyanova, 1972b); **Krasnoyarsk Krai** (<sup>3</sup>Beglyanova, 1972a; <sup>4</sup>Nezdoyminogo, 1982a); **Kurgan Oblast** (<sup>1</sup>Bystrushkin, 2016); **Novosibirsk Oblast** (<sup>4</sup>Perova and Gorbunova, 2001); **Tomsk Oblast** (<sup>3</sup>Perova, 1972; <sup>4</sup>Perova and Gorbunova, 2001); **Yamalo-Nenets Autonomous Okrug** (<sup>4</sup>Tarchevskaya, 1990).

FAR EAST: **Jewish Autonomous Oblast** (<sup>4</sup>Bulakh, Govorova, Nazarova, and Vassiljeva, 2007); **Kamchatka Krai** (<sup>4</sup>Kalamees and Vaasma, 1981); **Primorsky Krai** (<sup>3</sup>Bunkina and Nazarova, 1978; <sup>4</sup>Azbukina et al., 2006).

### ***Paralepista lentiginosa* (Fr.) Vizzini**

≡ *Clitocybe lentiginosa* (Fr.) Sacc.<sup>1</sup> ≡ *Lepista lentiginosa* (Fr.) Bresinsky<sup>2</sup>

EASTERN EUROPE: **Perm Krai** (<sup>2</sup>Perevedentseva, 2008).

SIBERIA: **Altai Republic** (<sup>1</sup>Singer, 1943).

### ***Paralepista splendens* (Pers.) Vizzini**

≡ *Agaricus splendens* Pers.<sup>1</sup> ≡ *Clitocybe splendens* (Pers.) Gillet<sup>2</sup>

EASTERN EUROPE: **Chelyabinsk Oblast** (<sup>2</sup>Sirko and Stepanova, 1977; <sup>2</sup>Stepanova and Sirko, 1977); **Leningrad Oblast** (<sup>2</sup>Thesleff, 1920); **Mordovia** (<sup>2</sup>Chastukhin, 1948a; <sup>2</sup>Chastukhin, 2011); **Orenburg Oblast** (<sup>2</sup>Desyatova, 2008); **Saint Petersburg** (<sup>1</sup>Weinmann, 1828); **Sverdlovsk Oblast** (<sup>2</sup>Stepanova and Sirko, 1977).

SIBERIA: **Krasnoyarsk Krai** (<sup>1</sup>Thümen, 1878).

### ***Parasola auricoma* (Pat.) Redhead, Vilgalys & Hopple<sup>1</sup>**

≡ *Coprinus auricomus* Pat.<sup>2</sup>

EASTERN EUROPE: **Crimea** (<sup>2</sup>Dudka et al., 2004); **Mordovia** (<sup>1</sup>Ivoilov and Bolshakov, 2011a; <sup>1</sup>Bolshakov and Ivoilov, 2012b); **Orenburg Oblast** (<sup>2</sup>Desyatova, 2007; <sup>2</sup>Desyatova, 2008); **Perm Krai** (<sup>2</sup>Perevedentseva, 2008); **Arid territories** (<sup>1</sup>Rebriev, Rusanov, et al., 2012).

SIBERIA: **Krasnoyarsk Krai** (<sup>2</sup>Beglyanova, 1972a); **Novosibirsk Oblast** (<sup>1</sup>Koropachinskiy and Banaev, 2014); **Tomsk Oblast** (<sup>1</sup>Kudashova, Gashkov, and Kutafjeva, 2013; <sup>1</sup>Kudashova, Gashkov, and Vaishlya, 2016b).

FAR EAST: **Primorsky Krai** (<sup>2</sup>Bulakh, 2008).

### ***Parasola conopilea* (Fr.) Örstadius & E. Larss.<sup>1</sup>**

≡ *Agaricus conopileus* Fr.<sup>2</sup> ≡ *Psathyra conopilea* (Fr.) P. Kumm.<sup>3</sup> ≡ *Psathyrella conopilea* (Fr.) A. Pearson & Dennis<sup>4</sup> = *Psathyrella subatrata* (Batsch) Gillet<sup>5</sup>

EASTERN EUROPE: **Belgorod Oblast** (<sup>5</sup>Bedenko, 1980); **Crimea** (<sup>5</sup>Zerova, 1962; <sup>4</sup>Sarkina, 2001; <sup>4</sup>Dudka et al., 2004; <sup>4</sup>Sarkina, 2010b; <sup>4</sup>Sarkina, 2011; <sup>4</sup>Sarkina and Prydiuk, 2012; <sup>1</sup>Sarkina and Mironova, 2015; <sup>1</sup>Sarkina and Stavishenko, 2019); **Kaliningrad Oblast** (<sup>4</sup>Dedkov, Volodina, and Gubareva, 2007; <sup>4</sup>Volodina, 2007; <sup>1</sup>Atayev and Volodina, 2020); **Leningrad Oblast** (<sup>3</sup>Thesleff, 1920; <sup>4</sup>Kovalenko and Morozova, 1999a; <sup>4</sup>Popov et al., 2007); **Lipetsk Oblast** (<sup>4</sup>Sarycheva et al., 2009; <sup>4</sup>Sarycheva, 2011; <sup>4</sup>Sarycheva, 2014a; <sup>4</sup>Sarycheva, 2016); **Moscow Oblast** (<sup>4</sup>Gorlenko, Sidorova, and Sidorova, 1989); **Penza Oblast** (<sup>5</sup>Ivanov, 1986; <sup>5</sup>Ivanov, 1988a); **Rostov Oblast** (<sup>4</sup>Morozova et al., 2008); **Saint Petersburg** (<sup>2</sup>Weinmann, 1836; <sup>4</sup>Kovalenko and Morozova, 1999a); **Samara Oblast** (<sup>4</sup>Malysheva and Malysheva, 2005b; <sup>4</sup>Malysheva and Malysheva, 2008); **Tatarstan** (<sup>1</sup>Potapov, 2016b); **Tver Oblast** (<sup>4</sup>Mukhina, 2011a; <sup>4</sup>Mukhina, 2011b; <sup>1</sup>Kotkova, 2014); **Arid territories** (<sup>4</sup>Rebriev, Rusanov, et al., 2012).

FAR EAST: **Khabarovsk Krai** (<sup>4</sup>Azbukina et al., 1989); **Primorsky Krai** (<sup>4</sup>Vassiljeva, 1973; <sup>4</sup>Bunkina and Nazarova, 1978; <sup>4</sup>Azbukina et al., 1984; <sup>4</sup>Azbukina et al., 2006; <sup>4</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Bulakh et al., 2016).

***Parasola galericuliformis* (Losa ex Watling) Redhead, Vilgalys & Hopple<sup>1</sup>**

≡ *Coprinus galericuliformis* Losa<sup>2</sup> ≡ *Coprinus galericuliformis* Losa ex Watling<sup>3</sup>

EASTERN EUROPE: **Novgorod Oblast** (<sup>3</sup>Malysheva, Malysheva, and Zmitrovich, 2006; <sup>3</sup>Malysheva, Malysheva, and Zmitrovich, 2007); **Penza Oblast** (<sup>3</sup>Ivanov, 1992); **Pskov Oblast** (<sup>3</sup>Kovalenko, Kolmakov, Morozova, and Popov, 2003; <sup>1</sup>Popov et al., 2013).

FAR EAST: **Primorsky Krai** (<sup>2</sup>Bulakh, 2008).

***Parasola hemerobia* (Fr.) Redhead, Vilgalys & Hopple<sup>1</sup>**

≡ *Coprinus hemerobius* Fr.<sup>2</sup>

EASTERN EUROPE: **Perm Krai** (<sup>2</sup>Perevedentseva, 2008); **Saint Petersburg** (<sup>2</sup>Kotkova, Morozova, and Popov, 2007); **Yaroslavl Oblast** (<sup>2</sup>Lazareva, 1998a; <sup>2</sup>Lazareva, 1998b); **Arid territories** (<sup>1</sup>Rebriev, Rusanov, et al., 2012).

***Parasola kuehneri* (Uljé & Bas) Redhead, Vilgalys & Hopple<sup>1</sup>**

≡ *Coprinus kuehneri* Uljé & Bas<sup>2</sup>

EASTERN EUROPE: **Tula Oblast** (<sup>2</sup>Svetasheva, 2004).

FAR EAST: **Magadan Oblast** (<sup>1</sup>Sazanova, 2012).

***Parasola leiocephala* (P.D. Orton) Redhead, Vilgalys & Hopple<sup>1</sup>**

≡ *Coprinus leiocephalus* P.D. Orton<sup>2</sup>

EASTERN EUROPE: **Crimea** (<sup>2</sup>Moser, 1993; <sup>2</sup>Sarkina, 2001; <sup>2</sup>Dudka et al., 2004; <sup>2</sup>Sarkina, 2011; <sup>2</sup>Sarkina and Prydiuk, 2012); **Kursk Oblast** (<sup>2</sup>Baranov, 2002); **Moscow Oblast** (<sup>2</sup>Levitskaya, 1995c; <sup>2</sup>Levitskaya, 2013); **Penza Oblast** (<sup>2</sup>Ivanov and Nezdojminogo, 1990); **Perm Krai** (<sup>2</sup>Perevedentseva, 2008); **Pskov Oblast** (<sup>1</sup>Popov et al., 2013); **Tula Oblast** (<sup>2</sup>Svetasheva, 2004); **Udmurt Republic** (<sup>1</sup>Kapitonov, 2013); **Ulyanovsk Oblast** (<sup>2</sup>Ilyukhin, 2010a; <sup>2</sup>Ilyukhin, 2010b); **Yaroslavl Oblast** (<sup>2</sup>Lazareva, 1998a; <sup>2</sup>Lazareva, 1998b).

SIBERIA: **Novosibirsk Oblast** (<sup>1</sup>Koropachinskiy and Banaev, 2014).

***Parasola lilatincta* (Bender & Uljé) Redhead, Vilgalys & Hopple**

≡ *Coprinus lilatinctus* Bender & Uljé<sup>1</sup>

EASTERN EUROPE: **Orenburg Oblast** (<sup>1</sup>Desyatova, 2008).

***Parasola megasperma* (P.D. Orton) Redhead, Vilgalys & Hopple**

≡ *Coprinus megaspermus* P.D. Orton<sup>1</sup>

EASTERN EUROPE: **Samara Oblast** (<sup>1</sup>Malysheva and Malysheva, 2008); **Volgograd Oblast** (<sup>1</sup>Burova and Nezdojminogo, 1980; <sup>1</sup>Burova and Nezdojminogo, 1982).

***Parasola misera* (P. Karst.) Redhead, Vilgalys & Hopple<sup>1</sup>**

≡ *Coprinus miser* P. Karst.<sup>2</sup>

EASTERN EUROPE: **Leningrad Oblast** (<sup>2</sup>Kovalenko and Morozova, 1999a; <sup>2</sup>Morozova, 1999; <sup>2</sup>Popov et al., 2007); **Moscow Oblast** (<sup>2</sup>Gorlenko, Sidorova, and Sidorova, 1989; <sup>2</sup>Levitskaya, 1995a; <sup>2</sup>Levitskaya, 2013); **Penza Oblast** (<sup>2</sup>Ivanov, 1989); **Perm Krai** (<sup>2</sup>Perevedentseva, 2008; <sup>2</sup>Botalov, Perevedentseva, and Denisov, 2015; <sup>2</sup>Botalov, 2017); **Vologda Oblast** (<sup>2</sup>Kirillova, 2007).

SIBERIA: **Krasnoyarsk Krai** (<sup>1</sup>Zauzolkova, 2012; <sup>1</sup>Zauzolkova, 2015); **Novosibirsk Oblast** (<sup>2</sup>Perova, 1982; <sup>2</sup>Perova and Gorbunova, 2001; <sup>2</sup>Perova and Gorbunova, 2007).

***Parasola plicatilis* (Curtis) Redhead, Vilgalys & Hopple<sup>1</sup>**

≡ *Coprinus plicatilis* (Curtis) Fr.<sup>2</sup>

EASTERN EUROPE: **Belgorod Oblast** (<sup>2</sup>Bedenko, 1979a); **Bryansk Oblast** (<sup>2</sup>Kruglikov, 2007); **Chechen Republic** (<sup>2</sup>Taysumov, Krapivina, and Kushalieva, 2016); **Chelyabinsk Oblast** (<sup>2</sup>Aleksandrovskaia and Lobanova, 1968); **Chuvash Republic** (<sup>2</sup>Marfin, 2001); **Crimea** (<sup>2</sup>Sarkina, 2001; <sup>2</sup>Dudka et al., 2004; <sup>2</sup>Sarkina, 2010b; <sup>2</sup>Sarkina and Prydiuk, 2012); **Kaliningrad Oblast** (<sup>2</sup>Dedkov, Volodina, and Gubareva, 2007; <sup>2</sup>Volodina, 2007; <sup>1</sup>Atayev and Volodina, 2020); **Kaluga Oblast** (<sup>2</sup>Sionova, 2003); **Kirov Oblast** (<sup>2</sup>Kirillov, 2011; <sup>2</sup>Kirillov, Perevedentseva, and Egoshina, 2011; <sup>1</sup>Stavishenko, Luginina, Kirillov, and Egoshina, 2019); **Krasnodar Krai** (<sup>2</sup>Kovalenko, 1980a; <sup>2</sup>Kovalenko, 1980b); **Kursk Oblast** (<sup>2</sup>Baranov, 2002); **Leningrad Oblast** (<sup>2</sup>Thesleff, 1920; <sup>2</sup>Kovalenko and Morozova, 1999a; <sup>2</sup>Popov et al., 2007); **Lipetsk Oblast** (<sup>2</sup>Alferova, 1977; <sup>2</sup>Sarycheva, 1999; <sup>2</sup>Sarycheva et al., 2009; <sup>2</sup>Sarycheva, 2011; <sup>2</sup>Sarycheva, 2014a; <sup>1</sup>Sarycheva, 2016); **Mordovia** (<sup>1</sup>Ivoilov and Bolshakov, 2011a); **Moscow** (<sup>2</sup>Bucholtz, 1897b; <sup>2</sup>Bucholtz,



1897c; <sup>2</sup>Mosolov, 1906); **Moscow Oblast** (<sup>2</sup>Gorlenko, Sidorova, and Sidorova, 1989; <sup>2</sup>Levitskaya, 1998; <sup>2</sup>Levitskaya, 2013); **Murmansk Oblast** (<sup>2</sup>Mikhailovskii, 1975b; <sup>2</sup>Karatygin, Nezdoininogo, Novozhilov, and Zhurbenko, 1999); **North Ossetia** (<sup>2</sup>Nikolayev, 2001); **Orenburg Oblast** (<sup>2</sup>Desyatova, 2008); **Penza Oblast** (<sup>2</sup>Ivanov, 1982); **Perm Krai** (<sup>2</sup>Perevedentseva, 2008; <sup>1</sup>Belkovskaya et al., 2014); **Pskov Oblast** (<sup>2</sup>Kovalenko and Morozova, 1999b; <sup>2</sup>Popov, 2001a; <sup>1</sup>Popov et al., 2013); **Rostov Oblast** (<sup>1</sup>Rusanov, Rebriev, and Bulgakov, 2018); **Ryazan Oblast** (<sup>2</sup>Volosnova, 2005; <sup>2</sup>Volosnova, 2014); **Saint Petersburg** (<sup>2</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Morozova, Kovalenko, Rebriev, and Malysheva, 2014; <sup>1</sup>Zhukova, Morozova, Volobuev, and Bryantseva, 2017); **Samara Oblast** (<sup>2</sup>Malysheva and Malysheva, 2006; <sup>2</sup>Malysheva and Malysheva, 2007; <sup>2</sup>Malysheva and Malysheva, 2008); **Smolensk Oblast** (<sup>2</sup>Jaczewski, 1898); **Stavropol Krai** (<sup>2</sup>Lebedeva, 1930); **Sverdlovsk Oblast** (<sup>2</sup>Marina, 2006); **Tatarstan** (<sup>2</sup>Vassiljeva, 1977); **Tula Oblast** (<sup>2</sup>Svetasheva, 2004); **Tver Oblast** (<sup>2</sup>Kurochkin, 1993; <sup>2</sup>Kurochkin and Medvedev, 2015; <sup>2</sup>Kurochkin, 2016); **Udmurt Republic** (<sup>2</sup>Tychinin, 1990; <sup>2</sup>Tychinin and Kuzmina, 2003); **Ulyanovsk Oblast** (<sup>2</sup>Ilyukhin, 2009; <sup>2</sup>Ilyukhin, 2010a); **Vologda Oblast** (<sup>2</sup>Kirillova, 2006; <sup>2</sup>Kirillova, 2007); **Arid territories** (<sup>1</sup>Rebriev, Rusanov, et al., 2012).

SIBERIA: **Altai Krai** (<sup>2</sup>Gorbunova and Chubarova, 2008; <sup>1</sup>Gorbunova, Vlasenko, and Tzhubarova, 2011); **Altai Republic** (<sup>2</sup>Gorbunova, 2001b; <sup>2</sup>Perova and Gorbunova, 2001; <sup>2</sup>Gorbunova, 2003; <sup>2</sup>Gorbunova, 2008; <sup>1</sup>Gorbunova, 2010); **Krasnoyarsk Krai** (<sup>2</sup>Beglyanova, 1972a; <sup>2</sup>Karatygin, Nezdoininogo, Novozhilov, and Zhurbenko, 1999; <sup>1</sup>Zauzolkova, 2012; <sup>1</sup>Zauzolkova, 2015); **Novosibirsk Oblast** (<sup>2</sup>Perova and Gorbunova, 2001; <sup>2</sup>Perova and Gorbunova, 2007; <sup>1</sup>Koropachinskiy and Banaev, 2014); **Sakha Republic** (<sup>2</sup>Nezdoininogo, 2003); **Tomsk Oblast** (<sup>2</sup>Perova and Gorbunova, 2001; <sup>2</sup>Kosheleva and Kutafjeva, 2004; <sup>1</sup>Kudashova, Gashkov, and Kutafjeva, 2013).

FAR EAST: **Amur Oblast** (<sup>1</sup>Kochunova, 2019); **Chukotka Autonomous Okrug** (<sup>2</sup>Berkeley and Curtis, 1978); **Jewish Autonomous Oblast** (<sup>1</sup>Erofeeva, Bukharova, and Bulakh, 2019); **Khabarovsk Krai** (<sup>2</sup>Azbukina et al., 1986; <sup>2</sup>Azbukina et al., 1989; <sup>2</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Erofeeva and Bulakh, 2015a); **Magadan Oblast** (<sup>2</sup>Sazanova, 2005; <sup>1</sup>Sazanova, 2009a); **Primorsky Krai** (<sup>2</sup>Vassiljeva, 1972; <sup>2</sup>Vassiljeva, 1973; <sup>2</sup>Bunkina and Nazarova, 1978; <sup>2</sup>Azbukina et al., 1984; <sup>2</sup>Azbukina et al., 1990; <sup>2</sup>Bardunov et al., 2002; <sup>2</sup>Azbukina et al., 2006; <sup>2</sup>Bau, Bulakh, and Govorova, 2011).

#### ***Paraxerula caussei* (Maire) R.H. Petersen**

≡ *Xerula caussei* Maire<sup>1</sup> = *Oudemansiella nigra* Dörfelt<sup>2</sup>

EASTERN EUROPE: **Crimea** (<sup>1</sup>Moser, 1993; <sup>2</sup>Sarkina, 2001; <sup>1</sup>Dudka et al., 2004; <sup>1</sup>Sarkina, 2011).

#### ***Paraxerula hongoi* (Dörfelt) R.H. Petersen**

≡ *Xerula hongoi* Dörfelt<sup>1</sup>

FAR EAST: **Kamchatka Krai** (<sup>1</sup>Petersen and Nagasawa, 2005); **Primorsky Krai** (<sup>1</sup>Petersen and Nagasawa, 2005; <sup>1</sup>Bau, Bulakh, and Govorova, 2011); **Sakhalin Oblast** (<sup>1</sup>Petersen and Nagasawa, 2005).

#### ***Paxillus involutus* (Batsch) Fr.<sup>1</sup>**

≡ *Agaricus involutus* Batsch<sup>2</sup>

EASTERN EUROPE: **Adygea** (<sup>1</sup>Vassiljeva, 1939; <sup>1</sup>Kovalenko, 1979a; <sup>1</sup>Vaasma, Kalamees, and Raitviir, 1986; <sup>1</sup>Sopina, 2001a); **Arkhangelsk Oblast** (<sup>1</sup>Ezhov, Ershov, Ruokolainen, and Zmitrovich, 2011; <sup>1</sup>Ezhov, 2014); **Astrakhan Oblast** (<sup>1</sup>Rebriev, Aleksandrova, et al., 2012); **Belgorod Oblast** (<sup>1</sup>Bedenko, 1979a); **Bryansk Oblast** (<sup>1</sup>Kruglikov, 2007); **Chechen Republic** (<sup>1</sup>Taysumov, Krapivina, Umarov, and Astamirova, 2012; <sup>1</sup>Taysumov, Krapivina, and Kushaliev, 2016); **Chelyabinsk Oblast** (<sup>1</sup>Aleksandrovskaya and Lobanova, 1968); **Chuvash Republic** (<sup>1</sup>Marfin, 2001); **Crimea** (<sup>1</sup>Sarkina, 2001; <sup>1</sup>Dudka et al., 2004; <sup>1</sup>Akulov and Pryidiuk, 2007; <sup>1</sup>Sarkina, 2011; <sup>1</sup>Sarkina and Pryidiuk, 2012); **Kabardino-Balkarian Republic** (<sup>1</sup>Shkhagapsoev and Krapivina, 2003; <sup>1</sup>Shkhagapsoev and Krapivina, 2004); **Kaliningrad Oblast** (<sup>1</sup>Hennings, 1895; <sup>1</sup>Dedkov, Volodina, and Gubareva, 2007; <sup>1</sup>Volodina, 2007; <sup>1</sup>Atayev and Volodina, 2020); **Kaluga Oblast** (<sup>1</sup>Sionova, 2003; <sup>1</sup>Sionova, 2006); **Karachay-Cherkess Republic** (<sup>1</sup>Kalamees and Botashev, 2000); **Karelia** (<sup>1</sup>Karsten, 1866; <sup>1</sup>Karsten, 1876; <sup>1</sup>Freindling, 1949; <sup>1</sup>Kovalenko, Morozova, Fomina, and Särkisilta, 1998; <sup>1</sup>Bondartseva et al., 2001; <sup>1</sup>Psurtsseva, Kiyashko, Gachkova, and Belova, 2007; <sup>1</sup>Predtechenskaya and Ruokolainen, 2013; <sup>1</sup>Krutov et al., 2014; <sup>1</sup>Predtechenskaya and Ruokolainen, 2014; <sup>1</sup>Predtechenskaya, 2015; <sup>1</sup>Savelev and Kikeeva, 2018); **Kirov Oblast** (<sup>1</sup>Kirillov and Luginina, 2011; <sup>1</sup>Kirillov, 2011; <sup>1</sup>Kirillov, Perevedentseva, and Egoshina, 2011; <sup>1</sup>Stavishenko, Luginina, Kirillov, and Egoshina, 2019); **Komi Republic** (<sup>1</sup>Karatygin, Nezdoininogo, Novozhilov, and Zhurbenko, 1999; <sup>1</sup>Bobretsova, 2004; <sup>1</sup>Palamarchuk, 2012; <sup>1</sup>Palamarchuk, 2016a; <sup>1</sup>Palamarchuk, 2016b; <sup>1</sup>Palamarchuk and Kirillov, 2017; <sup>1</sup>Palamarchuk, 2017); **Kostroma Oblast** (<sup>1</sup>Burova, 1982); **Krasnodar Krai** (<sup>1</sup>Vassiljeva, 1939; <sup>1</sup>Kovalenko, 1980a; <sup>1</sup>Vaasma, Kalamees, and Raitviir, 1986); **Kursk Oblast** (<sup>1</sup>Ryabova and Ignatenko, 1981; <sup>1</sup>Soshnina, 2001; <sup>1</sup>Baranov, 2002; <sup>1</sup>Soshnina, 2005); **Leningrad Oblast** (<sup>1</sup>Thesleff, 1920; <sup>1</sup>Nezdoininogo, 1967; <sup>1</sup>Chastukhin and Nikolaevskaya, 1969; <sup>1</sup>Kalamees and Kovalenko, 1984; <sup>1</sup>Stolyarskaya, 1989; <sup>1</sup>Kovalenko

and Morozova, 1999a; <sup>1</sup>Fomina, 2000; <sup>1</sup>Morozova and Kovalenko, 2000; <sup>1</sup>Fomina, 2001; <sup>1</sup>Morozova, 2007; <sup>1</sup>Popov et al., 2007; <sup>1</sup>Zmitrovich et al., 2015; <sup>1</sup>Kalinina, 2018; <sup>1</sup>Malysheva, Malysheva, Shchepin, and Novozhilov, 2018); **Lipetsk Oblast** (<sup>1</sup>Alferova, 1977; <sup>1</sup>Rtishcheva, 1999; <sup>1</sup>Sarycheva, 1999; <sup>1</sup>Afanasyev, Rtishcheva, and Starodubtseva, 2007; <sup>1</sup>Sarycheva et al., 2009; <sup>1</sup>Sarycheva, 2011; <sup>1</sup>Sarycheva, 2014a; <sup>1</sup>Sarycheva, 2016; <sup>1</sup>Sarycheva, Starodubtseva, and Sapelnikova, 2017); **Mari El Republic** (<sup>1</sup>Prokhorov, 2007); **Mordovia** (<sup>1</sup>Chastukhin, 1948a; <sup>1</sup>Kuznetsov, 1960; <sup>1</sup>Chastukhin and Nikolaevskaya, 1969; <sup>1</sup>Chastukhin, 2011; <sup>1</sup>Ivoilov and Bolshakov, 2011b); **Moscow** (<sup>1</sup>Bucholtz, 1897b; <sup>1</sup>Bucholtz, 1897c; <sup>1</sup>Mosolov, 1906; <sup>1</sup>Burova, 1968); **Moscow Oblast** (<sup>1</sup>Heyden, 1899; <sup>1</sup>Gorlenko, Sidorova, and Sidorova, 1989; <sup>1</sup>Levitskaya, 1995b; <sup>1</sup>Levitskaya, 2013; <sup>1</sup>Voronina et al., 2014; <sup>1</sup>Sidorova, Alexandrova, and Voronina, 2017); **Murmansk Oblast** (<sup>1</sup>Karsten, 1866; <sup>1</sup>Karsten, 1876; <sup>1</sup>Karsten, 1889; <sup>1</sup>Mikhailovskii, 1975b; <sup>1</sup>Karatygin, Nezdoininogo, Novozhilov, and Zhurbenko, 1999); **North Ossetia** (<sup>1</sup>Nikolayev, 2001); **Novgorod Oblast** (<sup>1</sup>Rusakov, 1968; <sup>1</sup>Kovalenko, Morozova, Nezdoininogo, and Popov, 2005; <sup>1</sup>Malysheva, Malysheva, and Zmitrovich, 2007; <sup>1</sup>Popov et al., 2013); **Orenburg Oblast** (<sup>1</sup>Vorontsovsky, 1921; <sup>1</sup>Desyatova, 2008); **Oryol Oblast** (<sup>1</sup>Radygina, Derzhavina, and Tsutsupa, 2014); **Penza Oblast** (<sup>1</sup>Ivanov, 1981a; <sup>1</sup>Ivanov, 1981b; <sup>1</sup>Ivanov, 1999; <sup>1</sup>Ivanov, 2019); **Perm Krai** (<sup>1</sup>Shkaraba, Perevedentseva, and Moshkina, 1990; <sup>1</sup>Perevedentseva, 2008; <sup>1</sup>Belkovskaya et al., 2014; <sup>1</sup>Perevedentseva and Shishigin, 2014; <sup>1</sup>Perevedentseva and Shishigin, 2015; <sup>1</sup>Botalov, 2017; <sup>1</sup>Botalov and Perevedentseva, 2018); **Pskov Oblast** (<sup>1</sup>Kovalenko and Morozova, 1999b; <sup>1</sup>Popov, 2001a; <sup>1</sup>Popov et al., 2013); **Rostov Oblast** (<sup>1</sup>Rusanov et al., 2004; <sup>1</sup>Morozova et al., 2008; <sup>1</sup>Zmitrovich et al., 2008; <sup>1</sup>Rusanov, Rebriev, and Bulgakov, 2018); **Ryazan Oblast** (<sup>1</sup>Volosnova, 1997; <sup>1</sup>Volosnova, 2014); **Saint Petersburg** (<sup>2</sup>Weinmann, 1828; <sup>2</sup>Weinmann, 1836; <sup>2</sup>Weinmann, 1837; <sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Morozova and Kovalenko, 2000; <sup>1</sup>Kotkova, Morozova, and Popov, 2005; <sup>1</sup>Kotkova, Morozova, and Popov, 2006; <sup>1</sup>Kotkova, Morozova, and Popov, 2007; <sup>1</sup>Morozova and Smirnov, 2011; <sup>1</sup>Morozova, Kovalenko, Rebriev, and Malysheva, 2014; <sup>1</sup>Zhukova, Morozova, Volobuev, and Bryantseva, 2017; <sup>1</sup>Morozova et al., 2020); **Samara Oblast** (<sup>1</sup>Malysheva and Malysheva, 2004; <sup>1</sup>Malysheva and Malysheva, 2008); **Saratov Oblast** (<sup>1</sup>Komirnaya, 1970); **Sevastopol** (<sup>1</sup>Sarkina, 2016b; <sup>1</sup>Sarkina, 2020c); **Smolensk Oblast** (<sup>1</sup>Jaczewski, 1896; <sup>1</sup>Burova, 1969); **Sverdlovsk Oblast** (<sup>1</sup>Marina, 2006); **Tatarstan** (<sup>1</sup>Vassiljeva, 1977; <sup>1</sup>Potapov, 2015b); **Tula Oblast** (<sup>1</sup>Svetasheva, 2001; <sup>1</sup>Svetasheva, 2004; <sup>1</sup>Svetasheva, 2013); **Tver Oblast** (<sup>1</sup>Chastukhin, 1948b; <sup>1</sup>Chastukhin and Nikolaevskaya, 1969; <sup>1</sup>Kurochkin, 1993; <sup>1</sup>Mukhina, 2011a; <sup>1</sup>Mukhina, 2011b; <sup>1</sup>Kotkova, 2014; <sup>1</sup>Kurochkin and Medvedev, 2015; <sup>1</sup>Kurochkin, 2016); **Udmurt Republic** (<sup>1</sup>Tychinin and Kuzmina, 2003); **Ulyanovsk Oblast** (<sup>1</sup>Ilyukhin, 2009; <sup>1</sup>Ilyukhin, 2010a); **Volgograd Oblast** (<sup>1</sup>Burova and Nezdoininogo, 1980; <sup>1</sup>Burova and Nezdoininogo, 1982); **Vologda Oblast** (<sup>1</sup>Kutova, 1957; <sup>1</sup>Kirillova, 2007); **Voronezh Oblast** (<sup>1</sup>Chastukhin, 1952; <sup>1</sup>Chastukhin and Nikolaevskaya, 1953; <sup>1</sup>Chastukhin and Nikolaevskaya, 1969; <sup>1</sup>Rtishcheva, 1999; <sup>1</sup>Afanasyev, Rtishcheva, and Starodubtseva, 2007; <sup>1</sup>Sarycheva, Starodubtseva, and Sapelnikova, 2017); **Yamalo-Nenets Autonomous Okrug** (<sup>1</sup>Kazanthseva, 1970; <sup>1</sup>Karatygin, Nezdoininogo, Novozhilov, and Zhurbenko, 1999); **Yaroslavl Oblast** (<sup>1</sup>Lazareva, 1997; <sup>1</sup>Lazareva, 1998a); **Arid territories** (<sup>1</sup>Rebriev, Rusanov, et al., 2012); **Northern Caucasus** (<sup>1</sup>Kovalenko, 1980b).

**SIBERIA:** **Altai Krai** (<sup>1</sup>Gorbunova and Chubarova, 2008; <sup>1</sup>Gorbunova, Vlasenko, and Tzhubarova, 2011); **Altai Republic** (<sup>1</sup>Kovalenko, 1992; <sup>1</sup>Gorbunova, 1996; <sup>1</sup>Gorbunova, 1997; <sup>1</sup>Gorbunova, 2001b); **Buryatia** (<sup>1</sup>Nezdoininogo, 1970a); **Irkutsk Oblast** (<sup>1</sup>Kutafjeva, 1982; <sup>1</sup>Petrov, 1984; <sup>1</sup>Petrov, 1989; <sup>1</sup>Astapenko, 1990a; <sup>1</sup>Astapenko, 1990b; <sup>1</sup>Muzyka, 2002; <sup>1</sup>Bardunov et al., 2005; <sup>1</sup>Petrov, 2008; <sup>1</sup>Muzyka, 2009); **Khakassia** (<sup>1</sup>Beglyanova, 1972a; <sup>1</sup>Zauzolkova, 2015); **Khanty-Mansi Autonomous Okrug** (<sup>1</sup>Zvyagina, Baykalova, and Gorbunova, 2007; <sup>1</sup>Zvyagina and Baykalova, 2012; <sup>1</sup>Filippova, Bulyonkova, and Lapshina, 2015; <sup>1</sup>Zvyagina and Vasina, 2015; <sup>1</sup>Filippova and Bulyonkova, 2017a; <sup>1</sup>Filippova and Bulyonkova, 2017b); **Krasnoyarsk Krai** (<sup>1</sup>Perova, 1970; <sup>1</sup>Beglyanova, 1972a; <sup>1</sup>Lapitskaya, 1990; <sup>1</sup>Pavlov et al., 2007; <sup>1</sup>Kosheleva and Kutafjeva, 2008a; <sup>1</sup>Kosheleva and Kutafjeva, 2008b; <sup>1</sup>Kryuchkova, 2009; <sup>1</sup>Kosheleva, 2010; <sup>1</sup>Zauzolkova, 2012; <sup>1</sup>Malysheva, Malysheva, Kiyashko, et al., 2017; <sup>1</sup>Krom and Kapitonov, 2019); **Kurgan Oblast** (<sup>1</sup>Bystrushkin, 2016); **Novosibirsk Oblast** (<sup>1</sup>Nozdrenko, 1970; <sup>1</sup>Zaytseva, 1971; <sup>1</sup>Perova, 1977; <sup>1</sup>Gorbunova, 2007; <sup>1</sup>Perova and Gorbunova, 2007; <sup>1</sup>Koropachinskiy and Banaev, 2014); **Tomsk Oblast** (<sup>1</sup>Milovidova, 1980; <sup>1</sup>Kosheleva and Kutafjeva, 2004; <sup>1</sup>Kudashova, Gashkov, and Kutafjeva, 2013; <sup>1</sup>Vaishlya et al., 2017); **Yamalo-Nenets Autonomous Okrug** (<sup>1</sup>Tarчевskaya, 1990; <sup>1</sup>Karatygin, Nezdoininogo, Novozhilov, and Zhurbenko, 1999).

**FAR EAST:** **Amur Oblast** (<sup>1</sup>Tomilin, 1962; <sup>1</sup>Gordienko, Petrova, and Tarasov, 1981; <sup>1</sup>Nazarova, 1986; <sup>1</sup>Taranina, 2005; <sup>1</sup>Kochunova, 2019); **Jewish Autonomous Oblast** (<sup>1</sup>Bulakh, Govorova, Nazarova, and Vassiljeva, 2007; <sup>1</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Erofeeva, Bukharova, and Bulakh, 2019); **Kamchatka Krai** (<sup>1</sup>Kalamees and Vaasma, 1981; <sup>1</sup>Karatygin, Nezdoininogo, Novozhilov, and Zhurbenko, 1999); **Khabarovsk Krai** (<sup>1</sup>Vassiljeva, 1956; <sup>1</sup>Azbukina et al., 1986; <sup>1</sup>Azbukina et al., 1989; <sup>1</sup>Bau, Bulakh, Zhuang, and Li, 2007; <sup>1</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Erofeeva and Bulakh, 2015a); **Magadan Oblast** (<sup>1</sup>Nazarova, 1976; <sup>1</sup>Sazanova, 1996; <sup>1</sup>Sazanova, 2005; <sup>1</sup>Sazanova, 2009a; <sup>1</sup>Sazanova, 2009b; <sup>1</sup>Sazanova, 2011; <sup>1</sup>Sazanova, 2012; <sup>1</sup>Sazanova and Golodnova, 2015; <sup>1</sup>Sazanova, 2016); **Primorsky Krai** (<sup>1</sup>Vassiljeva, 1956; <sup>1</sup>Vassiljeva, 1972; <sup>1</sup>Vassiljeva, 1973; <sup>1</sup>Shalapugina, 1976; <sup>1</sup>Bunkina and Nazarova, 1978; <sup>1</sup>Azbukina et al., 1984; <sup>1</sup>Azbukina et al., 1990; <sup>1</sup>Bardunov et al., 2002; <sup>1</sup>Azbukina et al., 2006; <sup>1</sup>Bau, Bulakh,

Zhuang, and Li, 2007; <sup>1</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Bulakh et al., 2016; <sup>1</sup>Bogacheva, Bulakh, Bukharova, and Egorova, 2020); **Sakhalin Oblast** (<sup>1</sup>Vassiljeva and Nazarova, 1972; <sup>1</sup>Bulakh, Govorova, and Bogatov, 1999).

***Paxillus rubicundulus* P.D. Orton**

EASTERN EUROPE: **Adygea** (Sopina, 2001a); **Kaliningrad Oblast** (Atayev and Volodina, 2020); **Krasnodar Krai** (Sopina, 2001a); **Lipetsk Oblast** (Sarycheva et al., 2009; Shcherbakov, 2014).

***Paxillus validus* C. Hahn**

EASTERN EUROPE: **Lipetsk Oblast** (Sarycheva et al., 2009; Shcherbakov, 2014).

***Paxillus vernalis* Watling**

SIBERIA: **Novosibirsk Oblast** (Koropachinskiy and Banaev, 2014).

***Phaeocollybia arduennensis* Bon**

EASTERN EUROPE: **Leningrad Oblast** (Morozova, 2002; Popov et al., 2007); **Tula Oblast** (Svetasheva, 2004; Svetasheva, 2005a; Shcherbakov, 2010).

***Phaeocollybia christinae* (Fr.) R. Heim**

SIBERIA: **Buryatia** (Nezdojminogo, 1986; Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; Petrov, 1991; Nezdojminogo, 1996); **Tomsk Oblast** (Kudashova, Gashkov, and Kutafjeva, 2013; Kudashova, Gashkov, and Vaishlya, 2016b).

FAR EAST: **Khabarovsk Krai** (Azbukina et al., 1986; Nezdojminogo, 1986; Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; Nezdojminogo, 1996; Bau, Bulakh, and Govorova, 2011; Erofeeva and Bulakh, 2015a).

***Phaeocollybia cidaris* (Fr.) Romagn.**

≡ *Naucoria cidaris* (Fr.) Sacc.<sup>1</sup>

EASTERN EUROPE: **Karachay-Cherkess Republic** (<sup>1</sup>Hollós, 1902; <sup>1</sup>Hollós, 1905; <sup>1</sup>Filarszky, 1907).

***Phaeocollybia festiva* (Fr.) R. Heim**

EASTERN EUROPE: **Komi Republic** (Palamarchuk and Kirillov, 2018a; Dyogteva, 2019; Palamarchuk et al., 2019); **Leningrad Oblast** (Kovalenko and Morozova, 1999a; Popov et al., 2007); **Murmansk Oblast** (Nezdojminogo, 1986; Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; Nezdojminogo, 1996); **Novgorod Oblast** (Kovalenko, Morozova, Nezdojminogo, and Popov, 2005; Popov et al., 2013; Vetkin et al., 2015); **Sverdlovsk Oblast** (Marina, 2006).

SIBERIA: **Buryatia** (Nezdojminogo, 1970a; Nezdojminogo, 1986; Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; Petrov, 1991; Nezdojminogo, 1996).

FAR EAST: **Khabarovsk Krai** (Bulakh, 2013; Bogacheva, Bulakh, Bukharova, and Egorova, 2015); **Primorsky Krai** (Bulakh et al., 2016).

***Phaeocollybia hilaris* (Fr.) Romagn.**

EASTERN EUROPE: **Novgorod Oblast** (Arslanov, 2014).

SIBERIA: **Buryatia** (Nezdojminogo, 1970a).

***Phaeocollybia jennyae* (P. Karst.) Romagn.**

EASTERN EUROPE: **Leningrad Oblast** (Nezdojminogo, 1986; Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; Nezdojminogo, 1996; Kovalenko and Morozova, 1999a; Tzvelev, 2000; Popov et al., 2007; Geltman et al., 2018; Geltman, 2018b); **Murmansk Oblast** (Nezdojminogo, 1986; Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; Nezdojminogo, 1996); **Novgorod Oblast** (Kovalenko, Morozova, Nezdojminogo, and Popov, 2005; Arslanov, 2012; Popov et al., 2013; Vetkin et al., 2015); **Pskov Oblast** (Popov et al., 2013); **Saint Petersburg** (Morozova and Smirnov, 2011; Geltman, 2018a).

SIBERIA: **Buryatia** (Nezdojminogo, 1970a; Nezdojminogo, 1986; Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; Petrov, 1991; Nezdojminogo, 1996); **Krasnoyarsk Krai** (Krom and Kapitonov, 2019).

FAR EAST: **Khabarovsk Krai** (Azbukina et al., 1986; Nezdojminogo, 1986; Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; Nezdojminogo, 1996; Bau, Bulakh, and Govorova, 2011; Erofeeva and Bulakh, 2015a); **Magadan Oblast** (Sazanova, 2009a; Khoreva and Dokuchaev, 2019); **Primorsky Krai** (Azbukina et al., 1984; Nezdojminogo,

1986; Bulakh, Wasser, Nazarova, and Nezdoininogo, 1990; Nezdoininogo, 1996; Bau, Bulakh, and Govorova, 2011); **Sakhalin Oblast** (Eremin, 2005; Eremin, 2019).

***Phaeocollybia lugubris* (Fr.) R. Heim**

EASTERN EUROPE: **Leningrad Oblast** (Nezdoininogo, 1986; Bulakh, Wasser, Nazarova, and Nezdoininogo, 1990; Nezdoininogo, 1996; Kovalenko and Morozova, 1999a; Morozova and Kovalenko, 2000; Tzvelev, 2000; Popov et al., 2007; Geltman et al., 2018; Geltman, 2018b; Kalinina, 2018); **Murmansk Oblast** (Mikhailovskii, 1975a; Nezdoininogo, 1986; Bulakh, Wasser, Nazarova, and Nezdoininogo, 1990; Nezdoininogo, 1996).

SIBERIA: **Altai Krai** (Gorbunova, 2018a).

FAR EAST: **Khabarovsk Krai** (Azbukina et al., 1986; Nezdoininogo, 1986; Azbukina et al., 1989; Bulakh, Wasser, Nazarova, and Nezdoininogo, 1990; Bau, Bulakh, and Govorova, 2011); **Primorsky Krai** (Nezdoininogo, 1986; Bulakh, Wasser, Nazarova, and Nezdoininogo, 1990; Nezdoininogo, 1996).

***Phaeolepiota aurea* (Matt.) Maire<sup>1</sup>**

= *Agaricus spectabilis* Weinm.<sup>2</sup> = *Agaricus vahlii* Schumach.<sup>3</sup>

EASTERN EUROPE: **Adygea** (<sup>1</sup>Vaasma, Kalamees, and Raitviir, 1986; <sup>1</sup>Sopina, 2001a); **Arkhangelsk Oblast** (<sup>1</sup>Wasser, 1980; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdoininogo, 1990); **Crimea** (<sup>1</sup>Sarkina, 2001; <sup>1</sup>Sarkina, Prydiuk, and Heluta, 2003; <sup>1</sup>Dudka et al., 2004; <sup>1</sup>Sarkina and Prydiuk, 2012; <sup>1</sup>Yena and Fateryga, 2015; <sup>1</sup>Sarkina and Stavishenko, 2019); **Kaliningrad Oblast** (<sup>1</sup>Dedkov, Volodina, and Gubareva, 2007; <sup>1</sup>Dedkov and Grishanov, 2010); **Kaluga Oblast** (<sup>1</sup>Sionova, 2003; <sup>1</sup>Antokhina et al., 2015); **Karelia** (<sup>1</sup>Wasser, 1980; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdoininogo, 1990; <sup>1</sup>Bondartseva et al., 2001; <sup>1</sup>Ivanter and Kuznetsov, 2007; <sup>1</sup>Krutov et al., 2014; <sup>1</sup>Savelev and Kikeeva, 2018; <sup>1</sup>Kuznetsov, 2020); **Kirov Oblast** (<sup>1</sup>Kirillov, 2011; <sup>1</sup>Kirillov, Perevedentseva, and Egoshina, 2011; <sup>1</sup>Stavishenko, Luginina, Kirillov, and Egoshina, 2019); **Komi Republic** (<sup>1</sup>Bobretsova, 2004; <sup>1</sup>Taskaev, 2009; <sup>1</sup>Palamarchuk, 2012; <sup>1</sup>Palamarchuk and Kirillov, 2017); **Krasnodar Krai** (<sup>1</sup>Vassiljeva, 1939; <sup>1</sup>Kovalenko, 1980a; <sup>1</sup>Kovalenko, 1980b; <sup>1</sup>Vaasma, Kalamees, and Raitviir, 1986); **Leningrad Oblast** (<sup>1</sup>Wasser, 1980; <sup>1</sup>Stolyarskaya, 1989; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdoininogo, 1990; <sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Popov et al., 2007; <sup>1</sup>Psurtsseva, Kiyashko, Gachkova, and Belova, 2007; <sup>1</sup>Zmitrovich et al., 2015); **Mari El Republic** (<sup>1</sup>Wasser, 1980; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdoininogo, 1990); **Moscow** (<sup>1</sup>Samoilov and Morozova, 2011); **Moscow Oblast** (<sup>1</sup>Gorlenko, Sidorova, and Sidorova, 1989; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdoininogo, 1990; <sup>1</sup>Vishnevsky, 1998; <sup>1</sup>Levitskaya, 2006; <sup>1</sup>Varlygina, Zubakin, and Sobolev, 2008; <sup>1</sup>Levitskaya, 2013; <sup>1</sup>Voronina et al., 2014); **Murmansk Oblast** (<sup>1</sup>Borovichev et al., 2020); **Perm Krai** (<sup>1</sup>Psurtsseva, Kiyashko, Gachkova, and Belova, 2007; <sup>1</sup>Perevedentseva, 2008; <sup>1</sup>Belkovskaya et al., 2014); **Pskov Oblast** (<sup>1</sup>Kolmakov and Popov, 2005; <sup>1</sup>Popov et al., 2013; <sup>1</sup>Aleksandrov et al., 2014); **Ryazan Oblast** (<sup>1</sup>Volosnova, 2014); **Saint Petersburg** (<sup>2</sup>Weinmann, 1824; <sup>2</sup>Weinmann, 1828; <sup>3</sup>Weinmann, 1836; <sup>3</sup>Weinmann, 1837; <sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Kotkova, Morozova, and Popov, 2005; <sup>1</sup>Morozova, Kovalenko, Rebriev, and Malysheva, 2014); **Sverdlovsk Oblast** (<sup>1</sup>Marina, 2006); **Tatarstan** (<sup>1</sup>Nazirov, Gorshkov, Ivanov, and Rogova, 2016; <sup>1</sup>Potapov, 2016a; <sup>1</sup>Potapov, 2016b); **Tula Oblast** (<sup>1</sup>Svetasheva, 2004); **Tver Oblast** (<sup>1</sup>Kurochkin, 1993; <sup>1</sup>Sorokin, 2002; <sup>1</sup>Mukhina and Garibova, 2010; <sup>1</sup>Mukhina, 2011a; <sup>1</sup>Mukhina, 2011b; <sup>1</sup>Kotkova, 2014; <sup>1</sup>Orlov et al., 2016); **Udmurt Republic** (<sup>1</sup>Tychinin, 1990; <sup>1</sup>Tychinin and Kuzmina, 2003; <sup>1</sup>Baranova, 2012); **Vologda Oblast** (<sup>1</sup>Bolshakov et al., 2018); **Yaroslavl Oblast** (<sup>1</sup>Lazareva, 1998a; <sup>1</sup>Lazareva, 1998b; <sup>1</sup>Nyankovsky, 2015); **Arid territories** (<sup>1</sup>Rebriev, Rusanov, et al., 2012).

SIBERIA: **Khanty-Mansi Autonomous Okrug** (<sup>1</sup>Zvyagina, 2012); **Sverdlovsk Oblast** (<sup>1</sup>Stepanova and Sirko, 1977).

FAR EAST: **Kamchatka Krai** (<sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdoininogo, 1990; <sup>1</sup>Chernyagina, 2018); **Khabarovsk Krai** (<sup>1</sup>Wasser, 1980; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdoininogo, 1990; <sup>1</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Erofeeva and Bulakh, 2015a); **Primorsky Krai** (<sup>1</sup>Vassiljeva, 1973; <sup>1</sup>Bulakh, 1977; <sup>1</sup>Bunkina and Nazarova, 1978; <sup>1</sup>Wasser, 1980; <sup>1</sup>Azbukina et al., 1984; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdoininogo, 1990; <sup>1</sup>Bardunov et al., 2002; <sup>1</sup>Azbukina et al., 2006; <sup>1</sup>Bau, Bulakh, and Govorova, 2011).

***Phaeomarasmium borealis* Rald**

EASTERN EUROPE: **Komi Republic** (Palamarchuk, 2011a; Palamarchuk, 2012; Palamarchuk, 2016a); **Samara Oblast** (Malysheva and Malysheva, 2004; Malysheva and Malysheva, 2008).

SIBERIA: **Khanty-Mansi Autonomous Okrug** (Zvyagina and Baykalova, 2017).

FAR EAST: **Amur Oblast** (Kochunova and Erofeeva, 2017).

***Phaeomarasma erinaceus* (Fr.) Scherff. ex Romagn.<sup>1</sup>**

≡ *Agaricus erinaceus* Fr.<sup>2</sup> ≡ *Naucoria erinaceus* (Fr.) Gillet<sup>3</sup>

EASTERN EUROPE: **Crimea** (<sup>1</sup>Sarkina, 2001; <sup>1</sup>Dudka et al., 2004; <sup>1</sup>Sarkina, 2010b; <sup>1</sup>Sarkina and Prydiuk, 2012); **Kaliningrad Oblast** (<sup>1</sup>Volodina, 2007); **Karelia** (<sup>1</sup>Krutov et al., 2014; <sup>1</sup>Predtechenskaya and Ruokolainen, 2014); **Komi Republic** (<sup>1</sup>Palamarchuk, 2012; <sup>1</sup>Palamarchuk and Kirillov, 2017; <sup>1</sup>Palamarchuk, 2017); **Leningrad Oblast** (<sup>3</sup>Thesleff, 1920; <sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Morozova, 2007; <sup>1</sup>Popov et al., 2007; <sup>1</sup>Zmitrovich et al., 2015; <sup>1</sup>Kalinina, 2018); **Moscow Oblast** (<sup>1</sup>Levitskaya, 2006; <sup>1</sup>Levitskaya, 2013); **Novgorod Oblast** (<sup>1</sup>Kovalenko, Morozova, Nezdojminogo, and Popov, 2005; <sup>1</sup>Popov et al., 2013); **Orenburg Oblast** (<sup>1</sup>Desyatova, 2008); **Penza Oblast** (<sup>1</sup>Ivanov, 1981b; <sup>1</sup>Ivanov, 1982); **Perm Krai** (<sup>1</sup>Perevedentseva, 2008); **Pskov Oblast** (<sup>1</sup>Popov, 2001a; <sup>1</sup>Popov et al., 2013); **Rostov Oblast** (<sup>1</sup>Morozova et al., 2008); **Saint Petersburg** (<sup>2</sup>Weinmann, 1836; <sup>1</sup>Morozova and Smirnov, 2011; <sup>1</sup>Morozova et al., 2020); **Tula Oblast** (<sup>1</sup>Svetasheva, 2001; <sup>1</sup>Svetasheva, 2004); **Ulyanovsk Oblast** (<sup>1</sup>Ilyukhin, 2010a); **Vologda Oblast** (<sup>1</sup>Kirillova, 2007); **Arid territories** (<sup>1</sup>Rebriev, Rusanov, et al., 2012).

SIBERIA: **Altai Republic** (<sup>1</sup>Gorbunova, 2008); **Khanty-Mansi Autonomous Okrug** (<sup>1</sup>Filippova, Bulyonkova, and Lapshina, 2015); **Tomsk Oblast** (<sup>1</sup>Kudashova, Gashkov, and Kutafjeva, 2013); **Tyumen Oblast** (<sup>1</sup>Mukhin, 1993).

FAR EAST: **Chukotka Autonomous Okrug** (<sup>1</sup>Sazanova, 1993); **Jewish Autonomous Oblast** (<sup>1</sup>Erofeeva, Bukharova, and Bulakh, 2019); **Khabarovsk Krai** (<sup>1</sup>Bau, Bulakh, and Govorova, 2011); **Magadan Oblast** (<sup>1</sup>Nazarova, 1976; <sup>1</sup>Sazanova, 1996; <sup>1</sup>Sazanova, 2005; <sup>1</sup>Sazanova, 2009a; <sup>1</sup>Sazanova, 2009b; <sup>1</sup>Sazanova, 2011; <sup>1</sup>Sazanova and Golodnova, 2015); **Primorsky Krai** (<sup>1</sup>Azbukina et al., 1990; <sup>1</sup>Bardunov et al., 2002; <sup>1</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Bulakh et al., 2016).

***Phaeomarasma rimulincola* (Rabenh.) Scherff.**

FAR EAST: **Primorsky Krai** (Bulakh and Govorova, 2000).

***Phaeomarasma tataricus* Singer**

= *Naucoria macrospora* Singer<sup>1</sup>

EASTERN EUROPE: **Tatarstan** (<sup>1</sup>Singer, 1945; <sup>1</sup>Singer, 1950a; <sup>1</sup>Vassiljeva, 1977).

***Phaeotellus roseolus* (Quél.) E. Horak**

≡ *Pleurotus roseolus* Quél.<sup>1</sup>

FAR EAST: **Primorsky Krai** (<sup>1</sup>Bau, Bulakh, Zhuang, and Li, 2007).

***Phloeomana alba* (Bres.) Redhead<sup>1</sup>**

≡ *Mycena alba* (Bres.) Kühner<sup>2</sup>

EASTERN EUROPE: **Kaliningrad Oblast** (<sup>2</sup>Dedkov, Volodina, and Gubareva, 2007; <sup>2</sup>Volodina, 2007; <sup>1</sup>Atayev and Volodina, 2020); **Leningrad Oblast** (<sup>2</sup>Popov et al., 2007); **Orenburg Oblast** (<sup>2</sup>Desyatova, 2007; <sup>2</sup>Desyatova, 2008); **Saint Petersburg** (<sup>2</sup>Kovalenko and Morozova, 1999a); **Samara Oblast** (<sup>2</sup>Malysheva and Malysheva, 2004; <sup>2</sup>Malysheva and Malysheva, 2008); **Sverdlovsk Oblast** (<sup>2</sup>Marina, 2006); **Tula Oblast** (<sup>2</sup>Svetasheva, 2004; <sup>2</sup>Shcherbakov, 2010).

FAR EAST: **Khabarovsk Krai** (<sup>2</sup>Bulakh, 2007; <sup>2</sup>Bau, Bulakh, and Govorova, 2011); **Primorsky Krai** (<sup>2</sup>Bulakh, 2007).

***Phloeomana clavata* (Peck) Redhead**

≡ *Mycena clavata* (Peck) Redhead<sup>1</sup>

SIBERIA: **Krasnoyarsk Krai** (<sup>1</sup>Gorbunova, 2016).

***Phloeomana hiemalis* (Osbeck) Redhead<sup>1</sup>**

≡ *Mycena hiemalis* (Osbeck) Quél.<sup>2</sup>

EASTERN EUROPE: **Belgorod Oblast** (<sup>2</sup>Bedenko, 1979a); **Kaliningrad Oblast** (<sup>2</sup>Dedkov, Volodina, and Gubareva, 2007; <sup>2</sup>Volodina, 2007); **Kaluga Oblast** (<sup>2</sup>Sionova, 2012); **Karelia** (<sup>2</sup>Kovalenko, Morozova, Fomina, and Särkisilta, 1998; <sup>2</sup>Krutov et al., 2014); **Moscow** (<sup>2</sup>Vishnevsky, 1998; <sup>2</sup>Samoilov and Morozova, 2011); **Orenburg Oblast** (<sup>2</sup>Desyatova, 2007; <sup>2</sup>Desyatova, 2008); **Perm Krai** (<sup>2</sup>Perevedentseva, 2008; <sup>2</sup>Perevedentseva and Shishigin, 2014; <sup>2</sup>Botalov, 2017); **Saint Petersburg** (<sup>1</sup>Morozova et al., 2020); **Samara Oblast** (<sup>2</sup>Malysheva and Malysheva, 2004; <sup>2</sup>Malysheva and Malysheva, 2008); **Sverdlovsk Oblast** (<sup>2</sup>Marina, 2006); **Tatarstan** (<sup>2</sup>Vassiljeva, 1977); **Tula Oblast** (<sup>2</sup>Svetasheva, 2004; <sup>2</sup>Svetasheva, 2005b); **Ulyanovsk Oblast** (<sup>2</sup>Ilyukhin, 2010a); **Voronezh Oblast** (<sup>2</sup>Chastukhin and Nikolaevskaya, 1953; <sup>2</sup>Chastukhin and Nikolaevskaya, 1969).

SIBERIA: **Irkutsk Oblast** (<sup>2</sup>Astapenko, 1990a); **Khakassia** (<sup>2</sup>Zauzolkova, 2015); **Khanty-Mansi Autonomous Okrug** (<sup>2</sup>Filippova and Bulyonkova, 2017a; <sup>2</sup>Filippova and Bulyonkova, 2017b); **Krasnoyarsk Krai** (<sup>2</sup>Beglyanova, 1972a; <sup>2</sup>Kosheleva and Kutafjeva, 2008a; <sup>2</sup>Kosheleva and Kutafjeva, 2008b; <sup>2</sup>Kosheleva, 2010; <sup>2</sup>Zauzolkova, 2012; <sup>2</sup>Zauzolkova, 2015; <sup>2</sup>Gorbunova, 2016); **Novosibirsk Oblast** (<sup>2</sup>Perova and Gorbunova, 2001; <sup>2</sup>Perova and Gorbunova, 2007); **Tomsk Oblast** (<sup>2</sup>Perova and Gorbunova, 2001; <sup>2</sup>Kudashova, Gashkov, and Kutafjeva, 2013).

FAR EAST: **Primorsky Krai** (<sup>2</sup>Bulakh, 2007).

***Phloeomana minutula* (Sacc.) Redhead**

≡ *Mycena minutula* Sacc.<sup>1</sup> = *Mycena olida* Bres.<sup>2</sup>

EASTERN EUROPE: **Crimea** (<sup>2</sup>Dudka et al., 2004; <sup>2</sup>Sarkina, 2011); **Karachay-Cherkess Republic** (<sup>2</sup>Malysheva and Svetasheva, 2011); **Komi Republic** (<sup>2</sup>Palamarchuk, 2020b); **Orenburg Oblast** (<sup>2</sup>Desyatova, 2008); **Samara Oblast** (<sup>2</sup>Malysheva and Malysheva, 2004; <sup>1</sup>Malysheva and Malysheva, 2005b; <sup>1,2</sup>Malysheva and Malysheva, 2008); **Tatarstan** (<sup>2</sup>Vassiljeva, 1977); **Yaroslavl Oblast** (<sup>1</sup>Lazareva, 1998a).

SIBERIA: **Khakassia** (<sup>2</sup>Zauzolkova, 2015; <sup>2</sup>Zauzolkova and Gorbunova, 2016); **Khanty-Mansi Autonomous Okrug** (<sup>2</sup>Filippova and Bulyonkova, 2017a; <sup>2</sup>Filippova and Bulyonkova, 2017b); **Tomsk Oblast** (<sup>2</sup>Perova and Gorbunova, 2001; <sup>2</sup>Kudashova, Gashkov, and Kutafjeva, 2013).

***Phloeomana speirea* (Fr.) Redhead<sup>1</sup>**

≡ *Mycena speirea* (Fr.) Gillet<sup>2</sup> ≡ *Mycena speirea* f. *speirea* (Fr.) Gillet<sup>3</sup> = *Hemimycena delectabilis* var. *bispora* (Kühner) Antonin<sup>4</sup> = *Mycena camptophylla* (Berk.) Singer<sup>5</sup>

EASTERN EUROPE: **Kaliningrad Oblast** (<sup>2</sup>Dedkov, Volodina, and Gubareva, 2007; <sup>2</sup>Volodina, 2007); **Karelia** (<sup>2</sup>Kovalenko, Morozova, Fomina, and Särkisilta, 1998; <sup>2</sup>Krutov et al., 2014); **Leningrad Oblast** (<sup>2</sup>Thesleff, 1920; <sup>2</sup>Pavlova, 1969; <sup>2</sup>Kovalenko and Morozova, 1999a; <sup>2</sup>Morozova and Kovalenko, 2000; <sup>2</sup>Morozova, 2007; <sup>2</sup>Popov et al., 2007; <sup>4</sup>Malysheva and Morozova, 2009); **Moscow** (<sup>2</sup>Burova, 1968; <sup>2</sup>Burova, 1971); **Moscow Oblast** (<sup>2</sup>Levitskaya, 1998; <sup>2</sup>Levitskaya, 2013; <sup>2</sup>Voronina et al., 2014); **Murmansk Oblast** (<sup>2</sup>Pystina, Pavlova, and Shestakova, 1969); **Novgorod Oblast** (<sup>2</sup>Kovalenko, Morozova, Nezdojminogo, and Popov, 2005; <sup>4</sup>Malysheva and Morozova, 2009; <sup>2</sup>Popov et al., 2013); **Orenburg Oblast** (<sup>2</sup>Korshikova, 2005; <sup>2</sup>Desyatova, 2007; <sup>2</sup>Desyatova, 2008); **Penza Oblast** (<sup>2</sup>Ivanov, 1999); **Perm Krai** (<sup>2</sup>Perevedentseva, 2008; <sup>2</sup>Belkovskaya et al., 2014; <sup>2</sup>Perevedentseva and Shishigin, 2014); **Pskov Oblast** (<sup>2</sup>Kovalenko, Kolmakov, Morozova, and Popov, 2003; <sup>2</sup>Popov et al., 2013); **Rostov Oblast** (<sup>2</sup>Morozova et al., 2008); **Saint Petersburg** (<sup>2</sup>Kovalenko and Morozova, 1999a; <sup>2,4</sup>Kotkova, Morozova, and Popov, 2006; <sup>2</sup>Kotkova, Morozova, and Popov, 2007; <sup>2</sup>Morozova and Smirnov, 2011; <sup>2</sup>Morozova, Kovalenko, Rebriev, and Malysheva, 2014; <sup>1</sup>Morozova et al., 2020); **Samara Oblast** (<sup>3</sup>Malysheva and Malysheva, 2004; <sup>2,4</sup>Malysheva and Malysheva, 2007; <sup>2,4</sup>Malysheva and Malysheva, 2008; <sup>4</sup>Malysheva and Morozova, 2009); **Sverdlovsk Oblast** (<sup>2</sup>Marina, 2006); **Tatarstan** (<sup>2</sup>Vassiljeva, 1977); **Tula Oblast** (<sup>2</sup>Svetasheva, 2004; <sup>2</sup>Svetasheva, 2013); **Ulyanovsk Oblast** (<sup>2</sup>Ilyukhin, 2009; <sup>2</sup>Ilyukhin, 2010a); **Voronezh Oblast** (<sup>2</sup>Chastukhin, 1952; <sup>2</sup>Chastukhin and Nikolaevskaya, 1953; <sup>2</sup>Chastukhin and Nikolaevskaya, 1969); **Yaroslavl Oblast** (<sup>3</sup>Lazareva, 1998a); **Arid territories** (<sup>2</sup>Rebriev, Rusanov, et al., 2012).

SIBERIA: **Altai Krai** (<sup>1</sup>Gorbunova, 2018a); **Altai Republic** (<sup>2</sup>Gorbunova, 2001b; <sup>2</sup>Perova and Gorbunova, 2001; <sup>2</sup>Gorbunova, 2008); **Kemerovo Oblast** (<sup>2</sup>Perova and Gorbunova, 2001); **Khakassia** (<sup>2</sup>Zauzolkova, 2015; <sup>1</sup>Zauzolkova and Gorbunova, 2016); **Khanty-Mansi Autonomous Okrug** (<sup>2</sup>Filippova, Bulyonkova, and Lapshina, 2015); **Krasnoyarsk Krai** (<sup>2</sup>Gorbunova, 2016); **Novosibirsk Oblast** (<sup>2</sup>Perova and Gorbunova, 2001; <sup>2</sup>Perova and Gorbunova, 2007; <sup>2</sup>Koropachinskiy and Banaev, 2014); **Tomsk Oblast** (<sup>2</sup>Perova, 1972; <sup>2</sup>Perova and Gorbunova, 2001; <sup>1</sup>Kudashova, Gashkov, and Kutafjeva, 2013; <sup>2</sup>Kudashova, Gashkov, and Kutafjeva, 2013).

FAR EAST: **Khabarovsk Krai** (<sup>5</sup>Azbukina et al., 1986; <sup>2</sup>Azbukina et al., 1989; <sup>2</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Erofeeva and Bulakh, 2015a); **Magadan Oblast** (<sup>1</sup>Sazanova and Golodnova, 2015; <sup>1</sup>Sazanova, 2015); **Primorsky Krai** (<sup>2</sup>Bulakh, 1977; <sup>5</sup>Azbukina et al., 1984; <sup>2</sup>Bau, Bulakh, and Govorova, 2011; <sup>2</sup>Bulakh et al., 2016); **Sakhalin Oblast** (<sup>2</sup>Bulakh, Govorova, and Bogatov, 1999).

***Pholiota aberrans* A.H. Sm. & Hesler**

= *Naematoloma anomalum* (A.H. Sm.) A.H. Sm.<sup>1</sup>

EASTERN EUROPE: **Karelia** (<sup>1</sup>Krutov et al., 2014).

***Pholiota abietis* A.H. Sm. & Hesler**

EASTERN EUROPE: **Komi Republic** (Palamarchuk (Bobretsova), 2009; Palamarchuk, 2012).

***Pholiota abstrusa* (Fr.) Singer**

EASTERN EUROPE: **Belgorod Oblast** (Bedenko, 1979a); **Crimea** (Sarkina, 2001); **Arid territories** (Rebriev, Rusanov, et al., 2012).

SIBERIA: **Irkutsk Oblast** (Petrov, 1986; Petrov, 1991; Petrov, 2008).

***Pholiota adiposa* (Batsch) P. Kumm.<sup>1</sup>**

≡ *Agaricus adiposus* Batsch<sup>2</sup>

EASTERN EUROPE: **Belgorod Oblast** (<sup>1</sup>Bedenko, 1980); **Bryansk Oblast** (<sup>1</sup>Kruglikov, 2007); **Chelyabinsk Oblast** (<sup>1</sup>Stepanova and Sirko, 1977); **Crimea** (<sup>1</sup>Sarkina, 2001; <sup>1</sup>Dudka et al., 2004; <sup>1</sup>Sarkina, 2011; <sup>1</sup>Sarkina and Prydiuk, 2012); **Kaliningrad Oblast** (<sup>1</sup>Dedkov, Volodina, and Gubareva, 2007); **Kirov Oblast** (<sup>1</sup>Kirillov, 2011; <sup>1</sup>Kirillov, Perevedentseva, and Egoshina, 2011); **Moscow Oblast** (<sup>1</sup>Gorlenko, Sidorova, and Sidorova, 1989; <sup>1</sup>Psurtseva, Kiyashko, Gachkova, and Belova, 2007); **North Ossetia** (<sup>1</sup>Nikolayev, 2001); **Orenburg Oblast** (<sup>1</sup>Safonov, 2015); **Saint Petersburg** (<sup>2</sup>Weinmann, 1836; <sup>2</sup>Weinmann, 1837); **Sevastopol** (<sup>1</sup>Sarkina, 2016b; <sup>1</sup>Sarkina, 2020c); **Sverdlovsk Oblast** (<sup>1</sup>Stepanova and Sirko, 1977); **Yamalo-Nenets Autonomous Okrug** (<sup>1</sup>Kazanthseva, 1970; <sup>1</sup>Stepanova and Sirko, 1977).

SIBERIA: **Altai Krai** (<sup>1</sup>Gorbunova and Perova, 2006); **Altai Republic** (<sup>1</sup>Gorbunova, 2001b; <sup>1</sup>Perova and Gorbunova, 2001); **Buryatia** (<sup>1</sup>Nezdojminogo, 1970a; <sup>1</sup>Petrov, 1991); **Irkutsk Oblast** (<sup>1</sup>Kutafjeva, 1983; <sup>1</sup>Petrov, 1986; <sup>1</sup>Petrov, 1991; <sup>1</sup>Petrov, 2008); **Khakassia** (<sup>1</sup>Zauzolkova, 2015); **Khanty-Mansi Autonomous Okrug** (<sup>1</sup>Zvyagina, Baykalova, and Gorbunova, 2007); **Krasnoyarsk Krai** (<sup>1</sup>Beglyanova, 1972a; <sup>1</sup>Lapitskaya, 1993; <sup>1</sup>Kryuchkova, 2015; <sup>1</sup>Kryuchkova and Yaskova, 2017); **Novosibirsk Oblast** (<sup>1</sup>Koropachinskiy and Banaev, 2014); **Sakha Republic** (<sup>1</sup>Morozova et al., 2012); **Tomsk Oblast** (<sup>1</sup>Kudashova, Gashkov, and Kutafjeva, 2013).

FAR EAST: **Amur Oblast** (<sup>1</sup>Azbukina et al., 1998; <sup>1</sup>Morozova et al., 2012); **Khabarovsk Krai** (<sup>1</sup>Erofeeva and Bulakh, 2015a); **Magadan Oblast** (<sup>1</sup>Sazanova, 2005; <sup>1</sup>Sazanova, 2009a); **Primorsky Krai** (<sup>1</sup>Vassiljeva, 1973; <sup>1</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Bulakh et al., 2016).

***Pholiota astragalina* (Fr.) Singer<sup>1</sup>**

≡ *Agaricus astragalinus* Fr.<sup>2</sup> ≡ *Flammula astragalina* (Fr.) P. Kumm.<sup>3</sup>

EASTERN EUROPE: **Adygea** (<sup>3</sup>Vassiljeva, 1939; <sup>1</sup>Sopina, 2001a); **Kabardino-Balkarian Republic** (<sup>1</sup>Krapivina et al., 2020); **Karachay-Cherkess Republic** (<sup>3</sup>Vassiljeva, 1939); **Komi Republic** (<sup>1</sup>Palamarchuk, 2017); **Krasnodar Krai** (<sup>3</sup>Vassiljeva, 1939); **Leningrad Oblast** (<sup>3</sup>Thesleff, 1920; <sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Popov et al., 2007); **Perm Krai** (<sup>1</sup>Shkaraba, Perevedentseva, and Moshkina, 1990; <sup>1</sup>Perevedentseva, 2008); **Pskov Oblast** (<sup>1</sup>Kalinina, Bolshakov, and Bulyonkova, 2020); **Saint Petersburg** (<sup>2</sup>Weinmann, 1836; <sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Morozova and Kovalenko, 2000; <sup>1</sup>Kotkova, Morozova, and Popov, 2006); **Sverdlovsk Oblast** (<sup>1</sup>Marina, 2006).

SIBERIA: **Altai Krai** (<sup>1</sup>Gorbunova and Chubarova, 2008; <sup>1</sup>Gorbunova, Vlasenko, and Tzhubarova, 2011); **Altai Republic** (<sup>1</sup>Kovalenko, 1992; <sup>1</sup>Gorbunova, 1996; <sup>1</sup>Gorbunova, 1997; <sup>1</sup>Gorbunova, 2001b); **Buryatia** (<sup>1</sup>Nezdojminogo, 1973; <sup>1</sup>Petrov, 1991); **Irkutsk Oblast** (<sup>1</sup>Astapenko, 1990a); **Khanty-Mansi Autonomous Okrug** (<sup>1</sup>Filippova, Bulyonkova, and Lapshina, 2015; <sup>1</sup>Filippova and Bulyonkova, 2017a; <sup>1</sup>Filippova and Bulyonkova, 2017b; <sup>1</sup>Zvyagina and Baykalova, 2017); **Krasnoyarsk Krai** (<sup>1</sup>Beglyanova, 1972a; <sup>1</sup>Nezdojminogo, 1982a; <sup>1</sup>Krom and Kapitonov, 2019); **Novosibirsk Oblast** (<sup>1</sup>Perova and Gorbunova, 2007); **Tomsk Oblast** (<sup>1</sup>Perova, 1972; <sup>1</sup>Kudashova, Gashkov, and Kutafjeva, 2013).

FAR EAST: **Amur Oblast** (<sup>1</sup>Azbukina et al., 1998; <sup>1</sup>Kochunova and Erofeeva, 2017); **Jewish Autonomous Oblast** (<sup>1</sup>Bau, Bulakh, and Govorova, 2011); **Khabarovsk Krai** (<sup>1</sup>Azbukina et al., 1986; <sup>1</sup>Bau, Bulakh, and Govorova, 2011); **Primorsky Krai** (<sup>1</sup>Vassiljeva, 1972; <sup>1</sup>Vassiljeva, 1973; <sup>1</sup>Bunkina and Nazarova, 1978; <sup>1</sup>Azbukina et al., 1984; <sup>1</sup>Azbukina et al., 2006; <sup>1</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Bulakh et al., 2016); **Sakhalin Oblast** (<sup>1</sup>Vassiljeva and Nazarova, 1972).

***Pholiota aurantiaca* Thesleff**

EASTERN EUROPE: **Leningrad Oblast** (Thesleff, 1920).

***Pholiota aurivella* (Batsch) P. Kumm.<sup>1</sup>**

≡ *Agaricus aurivellus* Batsch<sup>2</sup> ≡ *Pholiota aurivella* var. *aurivella* (Batsch) P. Kumm.<sup>3</sup> = *Pholiota aurivella* var. *abietis-nordmanniana* Singer<sup>4</sup> = *Pholiota aurivella* var. *cerifera* (P. Karst.) J.E. Lange<sup>5</sup> = *Pholiota cerifera* (P. Karst.) P. Karst.<sup>6</sup>

EASTERN EUROPE: **Adygea** (<sup>1</sup>Vassiljeva, 1939; <sup>1</sup>Kovalenko, 1980b; <sup>3,5</sup>Vaasma, Kalamees, and Raitviir, 1986; <sup>1</sup>Sopina, 2001a); **Bryansk Oblast** (<sup>1</sup>Kruglikov, 2007); **Chechen Republic** (<sup>1</sup>Taysumov, Krapivina, and Kushaliev, 2011).

2016); **Chelyabinsk Oblast** (<sup>1</sup>Krasutsky, 2013); **Crimea** (<sup>1</sup>Zerova, 1962; <sup>1</sup>Sarkina, 2001; <sup>1</sup>Dudka et al., 2004; <sup>1</sup>Sarkina, 2011); **Kabardino-Balkarian Republic** (<sup>1</sup>Shkhagapsoev and Krapivina, 2004); **Kaliningrad Oblast** (<sup>1</sup>Dedkov, Volodina, and Gubareva, 2007; <sup>1</sup>Volodina, 2007; <sup>1</sup>Atayev and Volodina, 2020); **Kaluga Oblast** (<sup>1</sup>Sionova, 2003; <sup>1</sup>Alekseev et al., 2006); **Karachay-Cherkess Republic** (<sup>1</sup>Vassiljeva, 1939; <sup>1</sup>Kalamees and Botashev, 2000); **Karelia** (<sup>1</sup>Bondartseva et al., 2001; <sup>1</sup>Predtechenskaya and Ruokolainen, 2013; <sup>1</sup>Krutov et al., 2014; <sup>1</sup>Savelev and Kikeeva, 2018); **Komi Republic** (<sup>1</sup>Palamarchuk and Kirillov, 2017); **Krasnodar Krai** (<sup>1,4</sup>Vassiljeva, 1939; <sup>1</sup>Kovalenko, 1980a; <sup>1</sup>Kovalenko, 1980b; <sup>3</sup>Vaasma, Kalamees, and Raitviir, 1986; <sup>1</sup>Shumkova, Krivorotov, and Gayday, 2018); **Leningrad Oblast** (<sup>1</sup>Thesleff, 1920; <sup>5</sup>Kalamees and Kovalenko, 1984; <sup>3,5</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Morozova, 2007; <sup>1</sup>Psurtseva, Kiyashko, Gachkova, and Belova, 2007; <sup>3,5</sup>Popov et al., 2007; <sup>1</sup>Bondartseva et al., 2015; <sup>1</sup>Zmitrovich et al., 2015); **Lipetsk Oblast** (<sup>1</sup>Alferova, 1977; <sup>1</sup>Rtishcheva, 1999; <sup>1</sup>Sarycheva, 1999; <sup>1</sup>Afanasyev, Rtishcheva, and Starodubtseva, 2007; <sup>1</sup>Sarycheva et al., 2009; <sup>1</sup>Sarycheva, 2011; <sup>1</sup>Sarycheva, 2014a; <sup>1</sup>Sarycheva, 2016; <sup>1</sup>Sarycheva, Starodubtseva, and Sapelnikova, 2017); **Mordovia** (<sup>1</sup>Kuznetsov, 1960; <sup>1</sup>Ivoilov and Bolshakov, 2011a); **Moscow Oblast** (<sup>1</sup>Gorlenko, Sidorova, and Sidorova, 1989; <sup>1</sup>Levitskaya, 1995c; <sup>1</sup>Levitskaya, 2013; <sup>1</sup>Voronina et al., 2014); **Murmansk Oblast** (<sup>1</sup>Pystina, Pavlova, and Shestakova, 1969); **North Ossetia** (<sup>1</sup>Nikolayev, 2001); **Orenburg Oblast** (<sup>1</sup>Safonov, 2002; <sup>1</sup>Desyatova, 2008; <sup>1</sup>Safonov, 2015); **Penza Oblast** (<sup>1</sup>Ivanov, 1981b; <sup>1</sup>Ivanov, 1982; <sup>1</sup>Ivanov, 2019); **Perm Krai** (<sup>1</sup>Psurtseva, Kiyashko, Gachkova, and Belova, 2007; <sup>3,5</sup>Perevedentseva, 2008); **Pskov Oblast** (<sup>1</sup>Popov et al., 2013); **Rostov Oblast** (<sup>1</sup>Rusanov et al., 2004; <sup>1</sup>Morozova et al., 2008; <sup>1</sup>Zmitrovich et al., 2008; <sup>1</sup>Rebriev and Svetasheva, 2010; <sup>5</sup>Rusanov, Rebriev, and Bulgakov, 2018); **Ryazan Oblast** (<sup>1</sup>Volosnova, 1997; <sup>1</sup>Volosnova, 2014); **Saint Petersburg** (<sup>2</sup>Weinmann, 1828; <sup>2</sup>Weinmann, 1836; <sup>2</sup>Weinmann, 1837; <sup>1</sup>Psurtseva, Kiyashko, Gachkova, and Belova, 2007; <sup>1</sup>Morozova and Smirnov, 2011; <sup>1</sup>Morozova et al., 2020); **Samara Oblast** (<sup>1</sup>Malysheva and Malysheva, 2004; <sup>1</sup>Malysheva and Malysheva, 2008); **Saratov Oblast** (<sup>1</sup>Kazakevich and Prisyazhnyuk, 1932; <sup>1</sup>Nagumanov, 2015); **Sverdlovsk Oblast** (<sup>1</sup>Stepanova and Sirko, 1977; <sup>1</sup>Marina, 2006); **Tula Oblast** (<sup>1</sup>Svetasheva, 2001; <sup>1</sup>Svetasheva, 2004); **Tver Oblast** (<sup>1</sup>Kurochkin, 1993; <sup>1</sup>Kurochkin and Medvedev, 2015); **Udmurt Republic** (<sup>1</sup>Tychinin, 1990; <sup>1</sup>Tychinin and Kuzmina, 2003); **Ulyanovsk Oblast** (<sup>1</sup>Ilyukhin, 2009; <sup>1</sup>Ilyukhin, 2010a); **Vologda Oblast** (<sup>1</sup>Kirillova, 2006; <sup>1</sup>Kirillova, 2007); **Voronezh Oblast** (<sup>1</sup>Rtishcheva, 1999; <sup>1</sup>Afanasyev, Rtishcheva, and Starodubtseva, 2007; <sup>1</sup>Sarycheva, Starodubtseva, and Sapelnikova, 2017); **Yamalo-Nenets Autonomous Okrug** (<sup>1</sup>Stepanova and Sirko, 1977); **Yaroslavl Oblast** (<sup>1</sup>Lazareva, 1998a; <sup>1</sup>Lazareva, 2002); **Arid territories** (<sup>3,5</sup>Rebriev, Rusanov, et al., 2012).

SIBERIA: **Altai Krai** (<sup>1</sup>Gorbunova and Chubarova, 2008; <sup>1</sup>Gorbunova, Vlasenko, and Tzhubarova, 2011); **Altai Republic** (<sup>1</sup>Gorbunova, 1996; <sup>1</sup>Gorbunova, 1997; <sup>1</sup>Gorbunova, 2001b); **Buryatia** (<sup>1</sup>Nezdojminogo, 1970a); **Irkutsk Oblast** (<sup>1</sup>Petrov, 1986; <sup>1</sup>Petrov, 1989; <sup>1</sup>Astapenko and Kutafjeva, 1990; <sup>1</sup>Astapenko, 1990a; <sup>1</sup>Muzyka, 2002; <sup>1</sup>Bardunov et al., 2005; <sup>1</sup>Petrov, 2008; <sup>1</sup>Muzyka and Penzina, 2017); **Khakassia** (<sup>1</sup>Beglyanova, 1972a; <sup>1</sup>Zauzolkova, 2015); **Khanty-Mansi Autonomous Okrug** (<sup>1</sup>Mukhin, 1993; <sup>1</sup>Stavishenko, 2003; <sup>1</sup>Zvyagina, Baykalova, and Gorbunova, 2007; <sup>6</sup>Filippova, Bulyonkova, and Lapshina, 2015); **Krasnoyarsk Krai** (<sup>2</sup>Thümen, 1877; <sup>1</sup>Kalchbrenner, 1878; <sup>1</sup>Beglyanova, 1972a; <sup>1</sup>Nezdojminogo, 1982a; <sup>1</sup>Psurtseva, Kiyashko, Gachkova, and Belova, 2007; <sup>1</sup>Kosheleva and Kutafjeva, 2008a; <sup>1</sup>Kosheleva and Kutafjeva, 2008b; <sup>1</sup>Kosheleva, 2010; <sup>1</sup>Zauzolkova, 2012; <sup>1</sup>Zauzolkova, 2015; <sup>6</sup>Krom and Kapitonov, 2019); **Kurgan Oblast** (<sup>1</sup>Bystrushkin, 2016); **Novosibirsk Oblast** (<sup>1</sup>Nozdrenko, 1970; <sup>1</sup>Zaytseva, 1971; <sup>1</sup>Perova, 1977; <sup>1</sup>Perova and Gorbunova, 2007); **Tomsk Oblast** (<sup>1</sup>Milovidova, 1980; <sup>3</sup>Kudashova, Gashkov, and Kutafjeva, 2013; <sup>5</sup>Kudashova, Gashkov, and Kutafjeva, 2013); **Tyumen Oblast** (<sup>1</sup>Mukhin, 1993); **Tyva Republic** (<sup>1</sup>Zhukov, 1979); **Yamalo-Nenets Autonomous Okrug** (<sup>1</sup>Mukhin, 1987; <sup>1</sup>Tarчевskaya, 1990; <sup>1</sup>Mukhin, 1993).

FAR EAST: **Amur Oblast** (<sup>1</sup>Pilát, 1934; <sup>1</sup>Tomilin, 1962; <sup>1</sup>Nazarova, 1986; <sup>1</sup>Taranina, 2005; <sup>1</sup>Kochunova, 2016); **Chukotka Autonomous Okrug** (<sup>1</sup>Sazanova, 1993); **Jewish Autonomous Oblast** (<sup>1</sup>Bulakh, Govorova, Nazarova, and Vassiljeva, 2007; <sup>1</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Erofeeva, Bukharova, and Bulakh, 2019); **Khabarovsk Krai** (<sup>1</sup>Azbukina et al., 1986; <sup>1</sup>Azbukina et al., 1989; <sup>1</sup>Bulakh, Vassiljeva, and Erofeeva, 2010; <sup>1</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Erofeeva and Bulakh, 2015a); **Magadan Oblast** (<sup>1</sup>Nazarova, 1976; <sup>1</sup>Sazanova, 1996; <sup>1</sup>Sazanova, 2005; <sup>1</sup>Sazanova, 2009a; <sup>1</sup>Sazanova, 2009b; <sup>1</sup>Sazanova, 2011; <sup>1</sup>Sazanova and Golodnova, 2015; <sup>1</sup>Sazanova, 2016); **Primorsky Krai** (<sup>1</sup>Vassiljeva, 1972; <sup>1</sup>Vassiljeva, 1973; <sup>1</sup>Bulakh, 1977; <sup>1</sup>Bunkina and Nazarova, 1978; <sup>1</sup>Azbukina et al., 1984; <sup>1</sup>Azbukina et al., 1990; <sup>1</sup>Bardunov et al., 2002; <sup>1</sup>Azbukina et al., 2006; <sup>1</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Bulakh et al., 2016; <sup>1</sup>Bogacheva, Bulakh, Bukharova, and Egorova, 2020); **Sakhalin Oblast** (<sup>1</sup>Vassiljeva and Nazarova, 1972).

### *Pholiota aurivelloides* Overh.

SIBERIA: **Krasnoyarsk Krai** (Malysheva, Malysheva, Kiyashko, et al., 2017).

### *Pholiota brunnescens* A.H. Sm. & Hesler

SIBERIA: **Krasnoyarsk Krai** (Kryuchkova, Agafonova, Kutafjeva, and Andreeva, 2013).



***Pholiota carbonaria* (Fr.) Singer<sup>1</sup>**

≡ *Agaricus carbonarius* Fr.<sup>2</sup> ≡ *Flammula carbonaria* (Fr.) P. Kumm.<sup>3</sup> = *Pholiota highlandensis* (Peck) A.H. Sm. & Hesler<sup>4</sup> = *Pholiota highlandensis* (Peck) Singer<sup>5</sup>

EASTERN EUROPE: **Belgorod Oblast** (<sup>1</sup>Bedenko, 1980); **Crimea** (<sup>5</sup>Sarkina, 2020a); **Kabardino-Balkarian Republic** (<sup>5</sup>Krapivina et al., 2020); **Kaliningrad Oblast** (<sup>4</sup>Dedkov, Volodina, and Gubareva, 2007; <sup>4</sup>Volodina, 2007); **Kaluga Oblast** (<sup>4</sup>Sionova, 2012); **Karachay-Cherkess Republic** (<sup>3</sup>Vassiljeva, 1939); **Karelia** (<sup>4</sup>Bondartseva et al., 2001); **Kirov Oblast** (<sup>4</sup>Kirillov, 2011; <sup>4</sup>Kirillov, Perevedentseva, and Egoshina, 2011); **Komi Republic** (<sup>4</sup>Karatygin, Nezdoininogo, Novozhilov, and Zhurbenko, 1999; <sup>4</sup>Palamarchuk, 2012; <sup>4</sup>Palamarchuk and Kirillov, 2017; <sup>4</sup>Palamarchuk, 2017); **Krasnodar Krai** (<sup>3</sup>Vassiljeva, 1939); **Leningrad Oblast** (<sup>3</sup>Thesleff, 1920; <sup>1</sup>Kalamees and Kovalenko, 1984; <sup>4</sup>Kovalenko and Morozova, 1999a; <sup>4</sup>Morozova, 2007; <sup>4</sup>Popov et al., 2007; <sup>4</sup>Zmitrovich et al., 2015); **Lipetsk Oblast** (<sup>4</sup>Sarycheva et al., 2009; <sup>4</sup>Sarycheva, 2011; <sup>4</sup>Sarycheva, 2014a; <sup>4</sup>Sarycheva, 2016); **Mordovia** (<sup>3</sup>Kuznetsov, 1960; <sup>3</sup>Chastukhin, 2011; <sup>4</sup>Ivoilov and Bolshakov, 2011a); **Moscow Oblast** (<sup>1</sup>Gorlenko, Sidorova, and Sidorova, 1989; <sup>1</sup>Levitskaya, 1995c; <sup>4</sup>Voronina et al., 2012; <sup>4</sup>Levitskaya, 2013; <sup>4</sup>Voronina et al., 2014); **Murmansk Oblast** (<sup>2</sup>Karsten, 1866; <sup>1</sup>Mikhailovskii, 1975b; <sup>4</sup>Karatygin, Nezdoininogo, Novozhilov, and Zhurbenko, 1999); **North Ossetia** (<sup>4</sup>Nikolayev, 2001); **Novgorod Oblast** (<sup>4</sup>Kovalenko, Morozova, Nezdoininogo, and Popov, 2005; <sup>4</sup>Psurtseva, Kiyashko, Gachkova, and Belova, 2007; <sup>4</sup>Popov et al., 2013); **Orenburg Oblast** (<sup>4</sup>Korshikova, 2005; <sup>4</sup>Korshikova, 2006; <sup>4</sup>Desyatova, 2007; <sup>4</sup>Desyatova, 2008); **Penza Oblast** (<sup>1</sup>Ivanov, 1982); **Perm Krai** (<sup>4</sup>Perevedentseva, 2008); **Pskov Oblast** (<sup>4</sup>Kovalenko and Morozova, 1999b; <sup>4</sup>Popov et al., 2013); **Rostov Oblast** (<sup>5</sup>Rusanov, Rebriev, and Bulgakov, 2018); **Ryazan Oblast** (<sup>1</sup>Volosnova, 1997; <sup>4</sup>Volosnova, 2014); **Saint Petersburg** (<sup>2</sup>Weinmann, 1828; <sup>2</sup>Weinmann, 1836; <sup>2</sup>Weinmann, 1837; <sup>4</sup>Kovalenko and Morozova, 1999a; <sup>4</sup>Morozova and Kovalenko, 2000; <sup>4</sup>Kotkova, Morozova, and Popov, 2006; <sup>4</sup>Morozova and Smirnov, 2011; <sup>4</sup>Morozova et al., 2020); **Sverdlovsk Oblast** (<sup>4</sup>Marina, 2006); **Tatarstan** (<sup>1</sup>Vassiljeva, 1977); **Tula Oblast** (<sup>4</sup>Svetasheva, 2004); **Tver Oblast** (<sup>1</sup>Kurochkin, 1993); **Udmurt Republic** (<sup>1</sup>Tychinin and Kuzmina, 2003); **Ulyanovsk Oblast** (<sup>5</sup>Ilyukhin, 2010a); **Vologda Oblast** (<sup>3</sup>Kutova, 1957; <sup>4</sup>Kirillova, 2007); **Voronezh Oblast** (<sup>4</sup>Sarycheva, Starodubtseva, and Sapelnikova, 2017); **Yamalo-Nenets Autonomous Okrug** (<sup>4</sup>Karatygin, Nezdoininogo, Novozhilov, and Zhurbenko, 1999); **Yaroslavl Oblast** (<sup>4</sup>Lazareva, 1998a; <sup>4</sup>Lazareva, 2002); **Arid territories** (<sup>4</sup>Rebriev, Rusanov, et al., 2012).

SIBERIA: **Altai Krai** (<sup>4</sup>Gorbunova and Chubarova, 2008; <sup>4</sup>Gorbunova, Vlasenko, and Tzhubarova, 2011); **Altai Republic** (<sup>4</sup>Gorbunova, 2010); **Buryatia** (<sup>1</sup>Nezdoininogo, 1973); **Irkutsk Oblast** (<sup>1</sup>Kutafjeva, 1983; <sup>1</sup>Petrov, 1986; <sup>1</sup>Petrov, 1989; <sup>1</sup>Muzyka, 2002; <sup>1</sup>Bardunov et al., 2005; <sup>1</sup>Petrov, 2008); **Khanty-Mansi Autonomous Okrug** (<sup>5</sup>Filippova, Bulyonkova, and Lapshina, 2015); **Krasnoyarsk Krai** (<sup>1</sup>Perova, 1970; <sup>1</sup>Beglyanova, 1972a; <sup>1</sup>Beglyanova, 1972c; <sup>1</sup>Kosheleva and Kutafjeva, 2008a; <sup>4</sup>Zauzolkova, 2012; <sup>4</sup>Zauzolkova, 2015; <sup>4</sup>Gorbunova, 2016); **Novosibirsk Oblast** (<sup>1</sup>Perova, 1977; <sup>4</sup>Gorbunova, 2007; <sup>4</sup>Perova and Gorbunova, 2007; <sup>4</sup>Koropachinskiy and Banaev, 2014); **Tomsk Oblast** (<sup>1</sup>Perova, 1972; <sup>1</sup>Milovidova, 1980; <sup>1</sup>Agaphonova, Kutafjeva, and Gashkov, 2007; <sup>4</sup>Kudashova, Gashkov, and Kutafjeva, 2013).

FAR EAST: **Chukotka Autonomous Okrug** (<sup>4</sup>Karatygin, Nezdoininogo, Novozhilov, and Zhurbenko, 1999); **Jewish Autonomous Oblast** (<sup>1</sup>Bulakh, Govorova, Nazarova, and Vassiljeva, 2007; <sup>4</sup>Bau, Bulakh, and Govorova, 2011); **Kamchatka Krai** (<sup>1</sup>Kalamees and Vaasma, 1981); **Khabarovsk Krai** (<sup>2</sup>Borszczow and Borszczow, 1856); **Magadan Oblast** (<sup>5</sup>Sazanova, 2005; <sup>4</sup>Sazanova, 2009a; <sup>4</sup>Sazanova, 2009b; <sup>4</sup>Sazanova, 2011); **Primorsky Krai** (<sup>1</sup>Vassiljeva, 1972; <sup>1</sup>Vassiljeva, 1973; <sup>1</sup>Bulakh, 1977; <sup>1</sup>Azbukina et al., 1984; <sup>4</sup>Bau, Bulakh, and Govorova, 2011); **Sakhalin Oblast** (<sup>1</sup>Vassiljeva and Nazarova, 1972).

***Pholiota conissans* (Fr.) Kuyper & Tjall.-Beuk.<sup>1</sup>**

≡ *Flammula conissans* (Fr.) Gillet<sup>2</sup> ≡ *Pholiota conissans* (Fr.) M.M. Moser<sup>3</sup> = *Pholiota graminis* (Quél.) Singer<sup>4</sup>

EASTERN EUROPE: **Kaliningrad Oblast** (<sup>3</sup>Dedkov, Volodina, and Gubareva, 2007); **Krasnodar Krai** (<sup>2</sup>Vassiljeva, 1939); **Leningrad Oblast** (<sup>3</sup>Kovalenko and Morozova, 1999a; <sup>3</sup>Popov et al., 2007); **Novgorod Oblast** (<sup>3</sup>Svetasheva et al., 2017); **Orenburg Oblast** (<sup>3</sup>Desyatova, 2007; <sup>3</sup>Desyatova, 2008; <sup>3</sup>Safonov, 2015); **Penza Oblast** (<sup>3</sup>Ivanov, 1985); **Perm Krai** (<sup>3</sup>Perevedentseva, 2008); **Pskov Oblast** (<sup>1</sup>Kalinina, Bolshakov, and Bulyonkova, 2020); **Ryazan Oblast** (<sup>4</sup>Volosnova, 2014); **Samara Oblast** (<sup>4</sup>Malysheva and Malysheva, 2006; <sup>4</sup>Malysheva and Malysheva, 2008); **Tula Oblast** (<sup>3</sup>Svetasheva et al., 2017); **Ulyanovsk Oblast** (<sup>4</sup>Ilyukhin, 2010a; <sup>4</sup>Ilyukhin, 2010b).

SIBERIA: **Khanty-Mansi Autonomous Okrug** (<sup>3</sup>Filippova, Bulyonkova, and Lapshina, 2015; <sup>3</sup>Zvyagina and Baykalova, 2017); **Tomsk Oblast** (<sup>3</sup>Kudashova, Gashkov, and Kutafjeva, 2013).

FAR EAST: **Magadan Oblast** (<sup>3</sup>Nazarova, 1976; <sup>3</sup>Sazanova, 2005; <sup>3</sup>Sazanova, 2009a); **Primorsky Krai** (<sup>3</sup>Bau, Bulakh, and Govorova, 2011); **Sakhalin Oblast** (<sup>4</sup>Vassiljeva and Nazarova, 1972).

***Pholiota decussata* (Fr.) M.M. Moser**

EASTERN EUROPE: **Moscow Oblast** (Levitskaya, 1995c; Levitskaya, 2013); **Perm Krai** (Perevedentseva, Nezdojminogo, and Kovalenko, 1990).

SIBERIA: **Irkutsk Oblast** (Petrov, 1986; Kutafjeva and Astapenko, 1988; Petrov, 1989; Astapenko, 1990a; Petrov, 1991; Petrov, 2008); **Khakassia** (Zauzolkova and Gorbunova, 2013; Zauzolkova, 2015); **Tomsk Oblast** (Perova and Gorbunova, 2001; Kudashova, Gashkov, and Kutafjeva, 2013).

***Pholiota elongatipes* (Peck) A.H. Sm. & Hesler<sup>1</sup>**

≡ *Hypholoma elongatipes* (Peck) A.H. Sm.<sup>2</sup>

EASTERN EUROPE: **Penza Oblast** (<sup>2</sup>Ivanov, 1985); **Perm Krai** (<sup>2</sup>Perevedentseva and Shishigin, 2014); **Ryazan Oblast** (<sup>2</sup>Volosnova, 2005).

SIBERIA: **Buryatia** (<sup>1</sup>Nezdojminogo, 1973); **Irkutsk Oblast** (<sup>2</sup>Petrov, 1986; <sup>2</sup>Petrov, 1989; <sup>2</sup>Petrov, 2008).

FAR EAST: **Chukotka Autonomous Okrug** (<sup>2</sup>Sazanova, 1993); **Jewish Autonomous Oblast** (<sup>2</sup>Bulakh, Govorova, Nazarova, and Vassiljeva, 2007; <sup>2</sup>Bau, Bulakh, and Govorova, 2011); **Magadan Oblast** (<sup>2</sup>Nazarova, 1976; <sup>2</sup>Sazanova, 2009a; <sup>2</sup>Sazanova, 2011).

***Pholiota flammans* (Batsch) P. Kumm.<sup>1</sup>**

≡ *Agaricus flammans* Batsch<sup>2</sup>

EASTERN EUROPE: **Bashkortostan** (<sup>1</sup>Mirkin, 2011); **Belgorod Oblast** (<sup>1</sup>Bedenko, 1979a); **Bryansk Oblast** (<sup>1</sup>Kruglikov, 2007); **Kaliningrad Oblast** (<sup>1</sup>Dedkov, Volodina, and Gubareva, 2007; <sup>1</sup>Volodina, 2007); **Kaluga Oblast** (<sup>1</sup>Sionova, 2003; <sup>1</sup>Alekseev et al., 2006); **Karachay-Cherkess Republic** (<sup>1</sup>Kalamees and Botashev, 2000); **Karelia** (<sup>1</sup>Bondartseva et al., 2001; <sup>1</sup>Krutov et al., 2014); **Kirov Oblast** (<sup>1</sup>Kirillov, 2011; <sup>1</sup>Kirillov, Perevedentseva, and Egoshina, 2011); **Komi Republic** (<sup>1</sup>Palamarchuk, 2012; <sup>1</sup>Palamarchuk, 2016a; <sup>1</sup>Palamarchuk, 2016b; <sup>1</sup>Palamarchuk and Kirillov, 2017); **Krasnodar Krai** (<sup>1</sup>Vassiljeva, 1939); **Leningrad Oblast** (<sup>1</sup>Thesleff, 1920; <sup>1</sup>Kalamees and Kovalenko, 1984; <sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Popov et al., 2007; <sup>1</sup>Zmitrovich et al., 2015; <sup>1</sup>Kalinina, 2018); **Lipetsk Oblast** (<sup>1</sup>Sarycheva et al., 2009; <sup>1</sup>Sarycheva, 2011; <sup>1</sup>Sarycheva, 2014a; <sup>1</sup>Sarycheva, 2016); **Moscow Oblast** (<sup>1</sup>Gorlenko, Sidorova, and Sidorova, 1989; <sup>1</sup>Levitskaya, 1995c; <sup>1</sup>Levitskaya, 2013; <sup>1</sup>Voronina et al., 2014); **Novgorod Oblast** (<sup>1</sup>Kovalenko, Morozova, Nezdojminogo, and Popov, 2005; <sup>1</sup>Popov et al., 2013); **Penza Oblast** (<sup>1</sup>Ivanov, 1986); **Perm Krai** (<sup>1</sup>Perevedentseva, 2008; <sup>1</sup>Belkovskaya et al., 2014); **Pskov Oblast** (<sup>1</sup>Popov, 2001a; <sup>1</sup>Psurtseva, Kiyashko, Gachkova, and Belova, 2007; <sup>1</sup>Popov et al., 2013); **Ryazan Oblast** (<sup>1</sup>Volosnova, 1997; <sup>1</sup>Volosnova, 2014); **Saint Petersburg** (<sup>2</sup>Weinmann, 1828; <sup>2</sup>Weinmann, 1836; <sup>2</sup>Weinmann, 1837; <sup>1</sup>Morozova and Smirnov, 2011; <sup>1</sup>Morozova et al., 2020); **Sverdlovsk Oblast** (<sup>1</sup>Marina, 2006); **Tatarstan** (<sup>1</sup>Shchepovskih, Bojko, Gorshkov, and Rogova, 2006; <sup>1</sup>Potapov, 2015a; <sup>1</sup>Potapov, 2015b); **Tula Oblast** (<sup>1</sup>Svetasheva, 2004); **Tver Oblast** (<sup>1</sup>Kurochkin, 1993); **Udmurt Republic** (<sup>1</sup>Tychinin and Kuzmina, 2003); **Vologda Oblast** (<sup>1</sup>Kutova, 1957); **Yaroslavl Oblast** (<sup>1</sup>Lazareva, 1998a; <sup>1</sup>Lazareva, 2002).

SIBERIA: **Altai Krai** (<sup>1</sup>Gorbunova and Perova, 2006; <sup>1</sup>Gorbunova and Chubarova, 2008; <sup>1</sup>Gorbunova, Vlasenko, and Tzhubarova, 2011); **Altai Republic** (<sup>1</sup>Gorbunova, 1997; <sup>1</sup>Gorbunova, 2001b; <sup>1</sup>Perova and Gorbunova, 2001); **Buryatia** (<sup>1</sup>Nezdojminogo, 1973; <sup>1</sup>Heklau and Dörfelt, 2017); **Irkutsk Oblast** (<sup>1</sup>Kutafjeva, 1983; <sup>1</sup>Petrov, 1986; <sup>1</sup>Astapenko, 1990a; <sup>1</sup>Muzyka, 2002; <sup>1</sup>Petrov, 2008); **Khakassia** (<sup>1</sup>Zauzolkova, 2015); **Khanty-Mansi Autonomous Okrug** (<sup>1</sup>Zvyagina, Baykalova, and Gorbunova, 2007; <sup>1</sup>Baykalova and Zvyagina, 2008; <sup>1</sup>Zvyagina, 2008; <sup>1</sup>Shepeleva et al., 2014; <sup>1</sup>Filippova, Bulyonkova, and Lapshina, 2015; <sup>1</sup>Zvyagina and Vasina, 2015; <sup>1</sup>Filippova and Bulyonkova, 2017a; <sup>1</sup>Filippova and Bulyonkova, 2017b); **Krasnoyarsk Krai** (<sup>1</sup>Beglyanova, 1972a; <sup>1</sup>Nezdojminogo, 1982a; <sup>1</sup>Lapitskaya, 1993; <sup>1</sup>Kutafjeva and Kosheleva, 2005; <sup>1</sup>Kryuchkova, 2009; <sup>1</sup>Kryuchkova, 2014a; <sup>1</sup>Kryuchkova, 2015; <sup>1</sup>Kryuchkova and Yaskova, 2017; <sup>1</sup>Malysheva, Malysheva, Kiyashko, et al., 2017; <sup>1</sup>Krom and Kapitonov, 2019); **Novosibirsk Oblast** (<sup>1</sup>Perova and Gorbunova, 2001; <sup>1</sup>Perova and Gorbunova, 2007; <sup>1</sup>Koropachinskiy and Banaev, 2014); **Tomsk Oblast** (<sup>1</sup>Perova, 1972; <sup>1</sup>Milovidova, 1980; <sup>1</sup>Perova and Gorbunova, 2001; <sup>1</sup>Kosheleva and Kutafjeva, 2004; <sup>1</sup>Agaphonova, Kutafjeva, and Gashkov, 2007; <sup>1</sup>Kudashova, Gashkov, and Kutafjeva, 2013); **Tyva Republic** (<sup>1</sup>Gorbunova, 2015).

FAR EAST: **Khabarovsk Krai** (<sup>1</sup>Azbukina et al., 1986; <sup>1</sup>Azbukina et al., 1989; <sup>1</sup>Bau, Bulakh, and Govorova, 2011); **Magadan Oblast** (<sup>1</sup>Sazanova, 1996; <sup>1</sup>Sazanova, 2005; <sup>1</sup>Sazanova, 2009a; <sup>1</sup>Sazanova, 2011); **Primorsky Krai** (<sup>1</sup>Vassiljeva, 1972; <sup>1</sup>Vassiljeva, 1973; <sup>1</sup>Bunkina and Nazarova, 1978; <sup>1</sup>Azbukina et al., 1984; <sup>1</sup>Azbukina et al., 2006; <sup>1</sup>Psurtseva, Kiyashko, Gachkova, and Belova, 2007; <sup>1</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Bulakh et al., 2016; <sup>1</sup>Bogacheva, Bulakh, Bukharova, and Egorova, 2020).

***Pholiota flavida* (Schaeff.) Singer**≡ *Agaricus flavidus* Schaeff.<sup>1</sup>EASTERN EUROPE: **Saint Petersburg** (<sup>1</sup>Weinmann, 1828; <sup>1</sup>Weinmann, 1836; <sup>1</sup>Weinmann, 1837).SIBERIA: **Krasnoyarsk Krai** (<sup>1</sup>Thümen, 1878).***Pholiota freindlingiae* (Singer) Singer<sup>1</sup>**≡ *Flammula freindlingiae* Singer<sup>2</sup>EASTERN EUROPE: **Karelia** (<sup>2</sup>Singer, 1936d; <sup>1</sup>Bondartseva et al., 2001).***Pholiota fulvosquamosa* Peck**FAR EAST: **Primorsky Krai** (Vassiljeva, 1973; Azbukina et al., 1990; Psurtseva, Kiyashko, Gachkova, and Belova, 2007).***Pholiota fusa* (Batsch) Singer<sup>1</sup>**≡ *Flammula fusa* (Batsch) P. Kumm.<sup>2</sup>EASTERN EUROPE: **Krasnodar Krai** (<sup>2</sup>Vassiljeva, 1939); **Arid territories** (<sup>1</sup>Rebriev, Rusanov, et al., 2012).SIBERIA: **Krasnoyarsk Krai** (<sup>1</sup>Beglyanova, 1972a).FAR EAST: **Magadan Oblast** (<sup>1</sup>Sazanova, 2005; <sup>2</sup>Sazanova, 2009a); **Primorsky Krai** (<sup>1</sup>Psurtseva, Kiyashko, Gachkova, and Belova, 2007).***Pholiota gummosa* (Lasch) Singer<sup>1</sup>**≡ *Agaricus gummosus* Lasch<sup>2</sup> ≡ *Flammula gummosa* (Lasch) P. Kumm.<sup>3</sup>EASTERN EUROPE: **Chelyabinsk Oblast** (<sup>1</sup>Stepanova and Sirko, 1977); **Crimea** (<sup>1</sup>Dudka et al., 2004; <sup>1</sup>Sarkina, 2011; <sup>1</sup>Sarkina and Prydiuk, 2012); **Kaliningrad Oblast** (<sup>1</sup>Dedkov, Volodina, and Gubareva, 2007; <sup>1</sup>Volodina, 2007); **Karachay-Cherkess Republic** (<sup>1</sup>Kalamees and Botashev, 2000); **Karelia** (<sup>1</sup>Krutov et al., 2014); **Komi Republic** (<sup>1</sup>Palamarchuk and Kirillov, 2017); **Krasnodar Krai** (<sup>3</sup>Vassiljeva, 1939; <sup>1</sup>Kovalenko, 1980a; <sup>1</sup>Kovalenko, 1980b); **Leningrad Oblast** (<sup>1</sup>Morozova, 2002; <sup>1</sup>Popov et al., 2007); **North Ossetia** (<sup>1</sup>Nikolayev, 2001); **Penza Oblast** (<sup>1</sup>Ivanov, 1982); **Perm Krai** (<sup>1</sup>Perevedentseva, 2008); **Saint Petersburg** (<sup>1</sup>Morozova, 2002); **Tula Oblast** (<sup>1</sup>Svetasheva, 2004; <sup>1</sup>Shcherbakov, 2010); **Ulyanovsk Oblast** (<sup>1</sup>Ilyukhin, 2009).SIBERIA: **Khakassia** (<sup>1</sup>Beglyanova, 1972a; <sup>1</sup>Zauzolkova, 2015); **Krasnoyarsk Krai** (<sup>2</sup>Thümen, 1878; <sup>1</sup>Beglyanova, 1972a); **Novosibirsk Oblast** (<sup>1</sup>Perova and Gorbunova, 2001; <sup>1</sup>Perova and Gorbunova, 2007); **Tomsk Oblast** (<sup>1</sup>Agaphonova, Kutafjeva, and Gashkov, 2009b).FAR EAST: **Amur Oblast** (<sup>1</sup>Azbukina et al., 1998); **Primorsky Krai** (<sup>1</sup>Bunkina and Nazarova, 1978; <sup>1</sup>Azbukina et al., 2006; <sup>1</sup>Bau, Bulakh, and Govorova, 2011).***Pholiota henningsii* (Bres.) P.D. Orton**EASTERN EUROPE: **Moscow Oblast** (Levitskaya, 1998; Levitskaya, 2013).***Pholiota heteroclita* (Fr.) Quél.<sup>1</sup>**≡ *Hemipholiota heteroclita* (Fr.) Bon<sup>2</sup>EASTERN EUROPE: **Kaliningrad Oblast** (<sup>1</sup>Dedkov, Volodina, and Gubareva, 2007; <sup>2</sup>Volodina, 2007); **Karachay-Cherkess Republic** (<sup>1</sup>Kalamees and Botashev, 2000); **Karelia** (<sup>1</sup>Krutov et al., 2014); **Komi Republic** (<sup>1</sup>Karatygin, Nezdojminogo, Novozhilov, and Zhurbenko, 1999; <sup>1</sup>Palamarchuk, 2020a); **Leningrad Oblast** (<sup>1</sup>Thesleff, 1920; <sup>1</sup>Kalamees and Kovalenko, 1984; <sup>2</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Popov et al., 2007; <sup>1</sup>Psurtseva, Kiyashko, Gachkova, and Belova, 2007; <sup>2</sup>Zmitrovich et al., 2015); **Moscow** (<sup>1</sup>Bucholtz, 1897b; <sup>1</sup>Bucholtz, 1897c; <sup>1</sup>Mosolov, 1906); **Moscow Oblast** (<sup>2</sup>Levitskaya, 2006; <sup>2</sup>Levitskaya, 2013); **Penza Oblast** (<sup>1</sup>Ivanov, 1981b; <sup>1</sup>Ivanov, 1982); **Saint Petersburg** (<sup>1</sup>Morozova et al., 2020); **Sverdlovsk Oblast** (<sup>2</sup>Marina, 2006); **Udmurt Republic** (<sup>2</sup>Kapitonov, 2013); **Yaroslavl Oblast** (<sup>2</sup>Lazareva, 1998a; <sup>2</sup>Lazareva, 2002).SIBERIA: **Irkutsk Oblast** (<sup>1</sup>Astapenko, 1990a); **Krasnoyarsk Krai** (<sup>2</sup>Krom and Kapitonov, 2019); **Novosibirsk Oblast** (<sup>2</sup>Koropachinskiy and Banaev, 2014); **Tomsk Oblast** (<sup>1</sup>Milovidova, 1980; <sup>2</sup>Kudashova, Gashkov, and Kutafjeva, 2013; <sup>2</sup>Kudashova, Gashkov, and Vaishlya, 2016b); **Zabaykalsky Krai** (<sup>1</sup>Karsten, 1911).FAR EAST: **Chukotka Autonomous Okrug** (<sup>1</sup>Rebriev, Bulakh, Sazanova, and Shiryaev, 2020); **Magadan Oblast** (<sup>1</sup>Rebriev, Bulakh, Sazanova, and Shiryaev, 2020); **Primorsky Krai** (<sup>1</sup>Vassiljeva, 1972; <sup>1</sup>Vassiljeva, 1973; <sup>1</sup>Bau, Bulakh, and Govorova, 2011).

***Pholiota jahnii* Tjall.-Beuk. & Bas**

EASTERN EUROPE: **Karachay-Cherkess Republic** (Kalamees and Botashev, 2000); **Tula Oblast** (Svetasheva, 2004).

SIBERIA: **Khanty-Mansi Autonomous Okrug** (Kryuchkova, Agafonova, Kutafjeva, and Andreeva, 2013); **Krasnoyarsk Krai** (Kryuchkova, Agafonova, Kutafjeva, and Andreeva, 2013).

***Pholiota kodiakensis* A.H. Sm. & Hesler**

SIBERIA: **Tomsk Oblast** (Kryuchkova, Agafonova, Kutafjeva, and Andreeva, 2013; Kudashova, Gashkov, and Kutafjeva, 2013; Kudashova, Gashkov, and Vaishlya, 2016b).

***Pholiota langei* Singer**

FAR EAST: **Khabarovsk Krai** (Singer, 1945).

***Pholiota lapponica* (Fr.) Singer**

≡ *Flammula lapponica* (Fr.) Singer<sup>1</sup> ≡ *Hypholoma lapponicum* (Fr.) M.M. Moser<sup>2</sup>

EASTERN EUROPE: **Karelia** (<sup>1</sup>Freindling, 1949); **Ryazan Oblast** (<sup>2</sup>Volosnova, 2005); **Saint Petersburg** (<sup>1</sup>Singer, 1950a).

***Pholiota lenta* (Pers.) Singer<sup>1</sup>**

≡ *Agaricus lentus* Pers.<sup>2</sup> ≡ *Flammula lenta* (Pers.) P. Kumm.<sup>3</sup> = *Hebeloma glutinosum* Sacc.<sup>4</sup>

EASTERN EUROPE: **Crimea** (<sup>1</sup>Moser, 1993; <sup>1</sup>Sarkina, 2001; <sup>1</sup>Dudka et al., 2004; <sup>1</sup>Sarkina, 2011); **Kaliningrad Oblast** (<sup>4</sup>Dedkov, Volodina, and Gubareva, 2007); **Kaluga Oblast** (<sup>1</sup>Sionova, 2012); **Karachay-Cherkess Republic** (<sup>1</sup>Kalamees and Botashev, 2000); **Karelia** (<sup>3</sup>Freindling, 1949; <sup>1</sup>Bondartseva et al., 2001; <sup>1</sup>Predtechenskaya and Ruokolainen, 2013; <sup>1</sup>Krutov et al., 2014); **Krasnodar Krai** (<sup>3</sup>Vassiljeva, 1939; <sup>1</sup>Kovalenko, 1980a; <sup>1</sup>Kovalenko, 1980b); **Leningrad Oblast** (<sup>3</sup>Thesleff, 1920; <sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Morozova, 2007; <sup>1</sup>Popov et al., 2007; <sup>1</sup>Psurtseva, Kiyashko, Gachkova, and Belova, 2007); **Moscow Oblast** (<sup>1</sup>Gorlenko, Sidorova, and Sidorova, 1989; <sup>1</sup>Levitskaya, 1995c; <sup>1</sup>Levitskaya, 2013; <sup>1</sup>Voronina et al., 2014); **Penza Oblast** (<sup>1</sup>Ivanov, 1981b; <sup>1</sup>Ivanov, 1982); **Perm Krai** (<sup>1</sup>Perevedentseva, 2008; <sup>1</sup>Belkovskaya et al., 2014); **Rostov Oblast** (<sup>1</sup>Morozova et al., 2008); **Ryazan Oblast** (<sup>1</sup>Volosnova, 2005; <sup>1</sup>Volosnova, 2014); **Saint Petersburg** (<sup>2</sup>Weinmann, 1828; <sup>2</sup>Weinmann, 1836; <sup>2</sup>Weinmann, 1837; <sup>1</sup>Morozova and Smirnov, 2011; <sup>1</sup>Morozova et al., 2020); **Sverdlovsk Oblast** (<sup>1</sup>Marina, 2006); **Tatarstan** (<sup>1</sup>Vassiljeva, 1977); **Tula Oblast** (<sup>1</sup>Svetasheva, 2004); **Tver Oblast** (<sup>1</sup>Kurochkin, 1993); **Arid territories** (<sup>1</sup>Rebriev, Rusanov, et al., 2012).

SIBERIA: **Altai Republic** (<sup>1</sup>Gorbunova, 1997; <sup>1</sup>Perova and Gorbunova, 2001); **Irkutsk Oblast** (<sup>1</sup>Kutafjeva, 1983; <sup>1</sup>Astapenko, 1990a; <sup>1</sup>Gorbunova and Stepanstsova, 2015); **Khakassia** (<sup>1</sup>Zauzolkova and Gorbunova, 2013; <sup>1</sup>Zauzolkova, 2015); **Khanty-Mansi Autonomous Okrug** (<sup>1</sup>Filippova and Bulyonkova, 2017a; <sup>1</sup>Filippova and Bulyonkova, 2017b); **Krasnoyarsk Krai** (<sup>1</sup>Beglyanova, 1972a; <sup>1</sup>Nezdojminogo, 1982a; <sup>1</sup>Malysheva, Malysheva, Kiyashko, et al., 2017; <sup>1</sup>Krom and Kapitonov, 2019).

FAR EAST: **Khabarovsk Krai** (<sup>1</sup>Azbukina et al., 1986; <sup>1</sup>Bau, Bulakh, and Govorova, 2011); **Magadan Oblast** (<sup>1</sup>Nazarova, 1976; <sup>1</sup>Sazanova, 2009a); **Primorsky Krai** (<sup>1</sup>Vassiljeva, 1972; <sup>1</sup>Vassiljeva, 1973; <sup>1</sup>Bunkina and Nazarova, 1978; <sup>1</sup>Azbukina et al., 1984; <sup>1</sup>Azbukina et al., 1990; <sup>1</sup>Bardunov et al., 2002; <sup>1</sup>Azbukina et al., 2006; <sup>1</sup>Bau, Bulakh, and Govorova, 2011).

***Pholiota limonella* (Peck) Sacc.**

EASTERN EUROPE: **Adygea** (Sopina, 2001a; Kummer, 2007); **Kaliningrad Oblast** (Dedkov, Volodina, and Gubareva, 2007); **Karachay-Cherkess Republic** (Kalamees and Botashev, 2000); **Krasnodar Krai** (Sopina, 2001a); **Leningrad Oblast** (Psurtseva, Kiyashko, Gachkova, and Belova, 2007); **Novgorod Oblast** (Malysheva, Malysheva, and Zmitrovich, 2007); **Orenburg Oblast** (Desyatova, 2007; Desyatova, 2008); **Saint Petersburg** (Morozova, Kovalenko, Rebriev, and Malysheva, 2014; Zhukova, Morozova, Volobuev, and Bryantseva, 2017); **Samara Oblast** (Malysheva and Malysheva, 2008); **Tatarstan** (Vassiljeva, 1977); **Udmurt Republic** (Kapitonov, 2013); **Ulyanovsk Oblast** (Ilyukhin, 2010a; Ilyukhin, 2010b); **Yamalo-Nenets Autonomous Okrug** (Karatygin, Nezdojminogo, Novozhilov, and Zhurbenko, 1999).

SIBERIA: **Khakassia** (Zauzolkova, 2015; Zauzolkova and Gorbunova, 2016); **Khanty-Mansi Autonomous Okrug** (Filippova, Bulyonkova, and Lapshina, 2015; Filippova and Bulyonkova, 2017a; Filippova and Bulyonkova, 2017b); **Krasnoyarsk Krai** (Krom and Kapitonov, 2019); **Tomsk Oblast** (Kudashova, Gashkov, and Kutafjeva, 2013).

FAR EAST: **Khabarovsk Krai** (Bau, Bulakh, and Govorova, 2011); **Magadan Oblast** (Sazanova, 2009a; Sazanova, 2011); **Primorsky Krai** (Bau, Bulakh, and Govorova, 2011).

***Pholiota lubrica* (Pers.) Singer<sup>1</sup>**

≡ *Agaricus lubricus* Pers.<sup>2</sup> ≡ *Flammula lubrica* (Pers.) P. Kumm.<sup>3</sup>

EASTERN EUROPE: **Adygea** (<sup>1</sup>Vaasma, Kalamees, and Raitviir, 1986); **Belgorod Oblast** (<sup>1</sup>Bedenko, 1979a); **Crimea** (<sup>1</sup>Sarkina, 2001; <sup>1</sup>Dudka et al., 2004; <sup>1</sup>Sarkina and Prydiuk, 2012); **Kaluga Oblast** (<sup>1</sup>Sionova, 2012); **Karachay-Cherkess Republic** (<sup>1</sup>Kalamees and Botashev, 2000); **Karelia** (<sup>3</sup>Freindling, 1949; <sup>1</sup>Bondartseva et al., 2001; <sup>1</sup>Krutov et al., 2014); **Kirov Oblast** (<sup>1</sup>Stavishenko, Luginina, Kirillov, and Egoshina, 2019); **Komi Republic** (<sup>1</sup>Karatygin, Nezdoininog, Novozhilov, and Zhurbenko, 1999; <sup>1</sup>Palamarchuk and Kirillov, 2017; <sup>1</sup>Palamarchuk, 2017; <sup>1</sup>Palamarchuk and Kirillov, 2018a; <sup>1</sup>Palamarchuk, 2020a); **Leningrad Oblast** (<sup>3</sup>Thesleff, 1920; <sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Morozova and Kovalenko, 2000; <sup>1</sup>Popov et al., 2007; <sup>1</sup>Zmitrovich et al., 2015); **Mordovia** (<sup>3</sup>Kuznetsov, 1960; <sup>1</sup>Ivoilov and Bolshakov, 2011a); **Moscow Oblast** (<sup>1</sup>Levitskaya, 1995c; <sup>1</sup>Levitskaya, 2013; <sup>1</sup>Voronina et al., 2014); **Perm Krai** (<sup>1</sup>Psurtsseva, Kiyashko, Gachkova, and Belova, 2007; <sup>1</sup>Perevedentseva, 2008); **Pskov Oblast** (<sup>1</sup>Kovalenko, Kolmakov, Morozova, and Popov, 2003; <sup>1</sup>Popov et al., 2013); **Saint Petersburg** (<sup>2</sup>Weinmann, 1836; <sup>2</sup>Weinmann, 1837; <sup>1</sup>Morozova and Smirnov, 2011; <sup>1</sup>Morozova et al., 2020); **Sverdlovsk Oblast** (<sup>1</sup>Marina, 2006); **Tula Oblast** (<sup>1</sup>Svetasheva, 2004); **Udmurt Republic** (<sup>1</sup>Kapitonov, 2013); **Yamalo-Nenets Autonomous Okrug** (<sup>1</sup>Karatygin, Nezdoininog, Novozhilov, and Zhurbenko, 1999); **Yaroslavl Oblast** (<sup>1</sup>Lazareva, 1998a; <sup>1</sup>Lazareva, 2002).

SIBERIA: **Altai Krai** (<sup>1</sup>Gorbunova, 2018a); **Altai Republic** (<sup>1</sup>Kovalenko, 1992; <sup>1</sup>Gorbunova, 2001a; <sup>1</sup>Perova and Gorbunova, 2001); **Irkutsk Oblast** (<sup>1</sup>Kutafjeva and Astapenko, 1987); **Khanty-Mansi Autonomous Okrug** (<sup>1</sup>Filippova, Bulyonkova, and Lapshina, 2015; <sup>1</sup>Filippova and Bulyonkova, 2017a; <sup>1</sup>Filippova and Bulyonkova, 2017b); **Krasnoyarsk Krai** (<sup>2</sup>Thümen, 1878; <sup>1</sup>Beglyanova, 1972a; <sup>1</sup>Kutafjeva and Kosheleva, 2005; <sup>1</sup>Pavlov et al., 2007; <sup>1</sup>Zauzolkova, 2015; <sup>1</sup>Krom and Kapitonov, 2019); **Novosibirsk Oblast** (<sup>1</sup>Perova and Gorbunova, 2001; <sup>1</sup>Perova and Gorbunova, 2007; <sup>1</sup>Koropachinskiy and Banaev, 2014); **Zabaykalsky Krai** (<sup>3</sup>Karsten, 1906).

FAR EAST: **Amur Oblast** (<sup>1</sup>Bulakh, Govorova, and Taranina, 2003; <sup>1</sup>Taranina, 2005; <sup>1</sup>Kochunova, 2016); **Chukotka Autonomous Okrug** (<sup>1</sup>Sazanova, 1993); **Jewish Autonomous Oblast** (<sup>1</sup>Bulakh, Govorova, Nazarova, and Vassiljeva, 2007); **Khabarovsk Krai** (<sup>1</sup>Azbukina et al., 1986; <sup>1</sup>Bulakh, Vassiljeva, and Erofeeva, 2010; <sup>1</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Erofeeva and Bulakh, 2015a); **Magadan Oblast** (<sup>1</sup>Sazanova, 2009a; <sup>1</sup>Sazanova, 2011); **Primorsky Krai** (<sup>1</sup>Vassiljeva, 1972; <sup>1</sup>Vassiljeva, 1973; <sup>1</sup>Bunkina and Nazarova, 1978; <sup>1</sup>Azbukina et al., 1984; <sup>1</sup>Azbukina et al., 1990; <sup>1</sup>Bardunov et al., 2002; <sup>1</sup>Azbukina et al., 2006; <sup>1</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Bulakh et al., 2016).

***Pholiota lucifera* (Lasch) Quél.**

EASTERN EUROPE: **Bashkortostan** (Stepanova and Sirko, 1977); **Belgorod Oblast** (Bedenko, 1979a); **Krasnodar Krai** (Vassiljeva, 1939; Sopina, 2001a); **Leningrad Oblast** (Kovalenko and Morozova, 1999a; Popov et al., 2007); **Penza Oblast** (Ivanov, 1988a); **Perm Krai** (Perevedentseva, 2008); **Udmurt Republic** (Kapitonov, 2013); **Ulyanovsk Oblast** (Ilyukhin, 2010a; Ilyukhin, 2010b).

SIBERIA: **Krasnoyarsk Krai** (Beglyanova, 1972a; Kosheleva and Kutafjeva, 2008a); **Tomsk Oblast** (Kudashova, Gashkov, and Kutafjeva, 2013; Kudashova, Gashkov, and Vaishlya, 2016b).

FAR EAST: **Amur Oblast** (Bulakh, Govorova, and Taranina, 2003; Kochunova, 2016); **Jewish Autonomous Oblast** (Bau, Bulakh, and Govorova, 2011); **Khabarovsk Krai** (Azbukina et al., 1986; Bau, Bulakh, and Govorova, 2011); **Primorsky Krai** (Vassiljeva, 1973; Bunkina and Nazarova, 1978; Azbukina et al., 2006; Bau, Bulakh, and Govorova, 2011).

***Pholiota lutaria* (Maire) Kuyper & Tjall.-Beuk.**

EASTERN EUROPE: **Crimea** (Dudka et al., 2004; Sarkina, 2010b).

***Pholiota maackiae* Singer**

FAR EAST: **Khabarovsk Krai** (Singer, 1948b); **Primorsky Krai** (Vassiljeva, 1973).

***Pholiota mixta* (Fr.) Kuyper & Tjall.-Beuk.<sup>1</sup>**

≡ *Flammula mixta* (Fr.) Sacc.<sup>2</sup>

EASTERN EUROPE: **Adygea** (<sup>1</sup>Sopina, 2001a); **Komi Republic** (<sup>1</sup>Palamarchuk (Bobretsova), 2009; <sup>1</sup>Palamarchuk, 2012; <sup>1</sup>Palamarchuk and Kirillov, 2018a); **Leningrad Oblast** (<sup>2</sup>Thesleff, 1920; <sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Popov et al., 2007; <sup>1</sup>Malysheva, Malysheva, Shchepin, and Novozhilov, 2018); **Mordovia** (<sup>2</sup>Chastukhin, 1948a; <sup>1</sup>Chastukhin and Nikolaevskaya, 1969; <sup>1</sup>Ivoilov and Bolshakov, 2011a; <sup>2</sup>Chastukhin, 2011); **Moscow Oblast** (<sup>1</sup>Levitskaya, 2006; <sup>1</sup>Levitskaya, 2013); **Novgorod Oblast** (<sup>1</sup>Svetasheva et al., 2017); **Tula Oblast** (<sup>1</sup>Svetasheva, 2004); **Yaroslavl Oblast** (<sup>1</sup>Lazareva, 1998a; <sup>1</sup>Lazareva, 2002).

SIBERIA: **Khakassia** (<sup>1</sup>Zauzolkova and Gorbunova, 2013; <sup>1</sup>Zauzolkova, 2015); **Krasnoyarsk Krai** (<sup>1</sup>Krom and Kapitonov, 2019); **Sverdlovsk Oblast** (<sup>1</sup>Stepanova and Sirko, 1977); **Tomsk Oblast** (<sup>1</sup>Kudashova, Gashkov, and Kutafjeva, 2013).

***Pholiota muricella* (Fr.) Bon**

EASTERN EUROPE: **Perm Krai** (Perevedentseva, 2008).

***Pholiota polychroa* (Berk.) A.H. Sm. & H.J. Brodie**

FAR EAST: **Amur Oblast** (Taranina, 2005; Kochunova, 2016; Bogacheva et al., 2018); **Jewish Autonomous Oblast** (Bulakh, Govorova, Nazarova, and Vassiljeva, 2007; Bau, Bulakh, and Govorova, 2011; Bogacheva et al., 2018; Erofeeva, Bukharova, and Bulakh, 2019); **Khabarovsk Krai** (Bau, Bulakh, and Govorova, 2011; Erofeeva and Bulakh, 2015a; Bogacheva et al., 2018); **Primorsky Krai** (Bau, Bulakh, and Govorova, 2011; Bulakh et al., 2016; Bogacheva et al., 2018; Bogacheva, Bulakh, Bukharova, and Egorova, 2020).

***Pholiota populnea* (Pers.) Kuyper & Tjall.-Beuk.<sup>1</sup>**

≡ *Hemipholiota populnea* (Pers.) Bon<sup>2</sup> = *Agaricus destruens* Brond.<sup>3</sup> = *Pholiota comosa* (Fr.) Quél.<sup>4</sup> = *Pholiota destruens* (Brond.) Gillet<sup>5</sup>

EASTERN EUROPE: **Astrakhan Oblast** (<sup>1</sup>Rebriev, Aleksandrova, et al., 2012); **Bashkortostan** (<sup>1</sup>Psurtseva, Kiyashko, Gachkova, and Belova, 2007); **Belgorod Oblast** (<sup>5</sup>Bedenko, 1979a); **Crimea** (<sup>5</sup>Sarkina and Prydiuk, 2012); **Kaliningrad Oblast** (<sup>1</sup>Dedkov, Volodina, and Gubareva, 2007; <sup>2</sup>Volodina, 2007); **Kirov Oblast** (<sup>1</sup>Kirillov, 2011; <sup>1</sup>Kirillov, Perevedentseva, and Egoshina, 2011); **Komi Republic** (<sup>1</sup>Palamarchuk and Kirillov, 2017); **Leningrad Oblast** (<sup>1</sup>Popov et al., 2007); **Lipetsk Oblast** (<sup>5</sup>Afanasyev, Rtishcheva, and Starodubtseva, 2007; <sup>1</sup>Sarycheva et al., 2009; <sup>1</sup>Sarycheva, 2011; <sup>1</sup>Sarycheva, 2016; <sup>2</sup>Sarycheva, Starodubtseva, and Sapelnikova, 2017); **Mordovia** (<sup>1</sup>Ivoilov and Bolshakov, 2011a; <sup>2</sup>Bolshakov, 2015); **Moscow Oblast** (<sup>2</sup>Levitskaya, 2006; <sup>2</sup>Levitskaya, 2013); **North Ossetia** (<sup>5</sup>Nikolayev, 2001); **Orenburg Oblast** (<sup>1</sup>Desyatova, 2007; <sup>1</sup>Desyatova, 2008; <sup>2</sup>Safonov, 2015); **Penza Oblast** (<sup>5</sup>Ivanov, 1981b; <sup>5</sup>Ivanov, 1982; <sup>2</sup>Ivanov, 2019); **Perm Krai** (<sup>5</sup>Perevedentseva, Nezdojminogo, and Kovalenko, 1990; <sup>1</sup>Psurtseva, Kiyashko, Gachkova, and Belova, 2007; <sup>1</sup>Perevedentseva, 2008); **Pskov Oblast** (<sup>1</sup>Popov et al., 2013); **Rostov Oblast** (<sup>5</sup>Rusanov et al., 2004; <sup>5</sup>Zmitrovich et al., 2008; <sup>1</sup>Rebriev and Svetasheva, 2010; <sup>2</sup>Rebriev, 2018; <sup>2</sup>Rusanov, Rebriev, and Bulgakov, 2018); **Ryazan Oblast** (<sup>5</sup>Volosnova, 2005; <sup>1</sup>Volosnova, 2014); **Saint Petersburg** (<sup>2</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Psurtseva, Kiyashko, Gachkova, and Belova, 2007; <sup>1</sup>Morozova and Smirnov, 2011; <sup>1</sup>Morozova, Kovalenko, Rebriev, and Malysheva, 2014; <sup>1</sup>Morozova et al., 2020); **Samara Oblast** (<sup>2</sup>Malysheva and Malysheva, 2005b; <sup>1</sup>Malysheva and Malysheva, 2008); **Tatarstan** (<sup>2</sup>Potapov, 2015b; <sup>2</sup>Potapov, 2016b); **Tula Oblast** (<sup>1</sup>Svetasheva, 2004); **Tver Oblast** (<sup>5</sup>Kurochkin, 1993; <sup>1</sup>Kurochkin and Medvedev, 2015; <sup>1</sup>Kurochkin, 2016); **Udmurt Republic** (<sup>1</sup>Kapitonov, 2008); **Ulyanovsk Oblast** (<sup>1</sup>Ilyukhin, 2009; <sup>1</sup>Ilyukhin, 2010a; <sup>5</sup>Artemyeva, Maslennikov, and Korepov, 2015); **Volgograd Oblast** (<sup>2</sup>Dudka and Vedeneyev, 2014); **Voronezh Oblast** (<sup>5</sup>Afanasyev, Rtishcheva, and Starodubtseva, 2007; <sup>2</sup>Sarycheva, Starodubtseva, and Sapelnikova, 2017); **Yamalo-Nenets Autonomous Okrug** (<sup>5</sup>Stepanova and Sirko, 1977); **Yaroslavl Oblast** (<sup>2</sup>Lazareva, 1998a; <sup>2</sup>Lazareva, 2002); **Arid territories** (<sup>2</sup>Rebriev, Rusanov, et al., 2012).

SIBERIA: **Altai Krai** (<sup>5</sup>Gorbunova and Perova, 2006); **Irkutsk Oblast** (<sup>5</sup>Kutafjeva, 1983; <sup>5</sup>Petrov, 1986; <sup>5</sup>Petrov, 1991; <sup>5</sup>Petrov, 2008); **Khakassia** (<sup>4</sup>Saccardo, 1896; <sup>2</sup>Zauzolkova, 2015; <sup>2</sup>Zauzolkova and Gorbunova, 2016); **Khanty-Mansi Autonomous Okrug** (<sup>5</sup>Mukhin, 1993; <sup>2</sup>Filippova, Bulyonkova, and Lapshina, 2015); **Krasnoyarsk Krai** (<sup>3</sup>Thümen, 1882; <sup>5</sup>Beglyanova, 1972a; <sup>2</sup>Malysheva, Malysheva, Kiyashko, et al., 2017); **Kurgan Oblast** (<sup>5</sup>Mukhin, 1993); **Novosibirsk Oblast** (<sup>2</sup>Koropachinskiy and Banaev, 2014); **Tomsk Oblast** (<sup>2</sup>Kudashova, Gashkov, and Kutafjeva, 2013); **Tyumen Oblast** (<sup>5</sup>Mukhin, 1993).

FAR EAST: **Amur Oblast** (<sup>2</sup>Kochunova and Erofeeva, 2017; <sup>1</sup>Kochunova, 2019; <sup>2</sup>Kochunova and Timchenko, 2019); **Chukotka Autonomous Okrug** (<sup>5</sup>Sazanova, 1993; <sup>1</sup>Chereshnev, 2008a); **Jewish Autonomous Oblast** (<sup>5</sup>Bulakh, Govorova, Nazarova, and Vassiljeva, 2007; <sup>1</sup>Bau, Bulakh, and Govorova, 2011); **Khabarovsk Krai** (<sup>5</sup>Azbukina et al., 1989; <sup>2</sup>Erofeeva and Bulakh, 2015a); **Primorsky Krai** (<sup>5</sup>Vassiljeva, 1973; <sup>5</sup>Bunkina and Nazarova, 1978; <sup>5</sup>Azbukina et al., 1984; <sup>5</sup>Azbukina et al., 2006; <sup>1</sup>Bau, Bulakh, and Govorova, 2011).

***Pholiota pudica* (Bull.) Gillet**

≡ *Leucoagaricus pudicus* (Bull.) Bon<sup>1</sup>

EASTERN EUROPE: **Ryazan Oblast** (<sup>1</sup>Volosnova, 2005).

***Pholiota rigidipes* Peck**

FAR EAST: **Amur Oblast** (Pilát, 1934).

***Pholiota scamba* (Fr.) M.M. Moser<sup>1</sup>**

≡ *Agaricus scambus* Fr.<sup>2</sup> ≡ *Flammula scamba* (Fr.) Sacc.<sup>3</sup>

EASTERN EUROPE: **Komi Republic** (<sup>1</sup>Palamarchuk and Kirillov, 2018a); **Leningrad Oblast** (<sup>3</sup>Thesleff, 1920; <sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Popov et al., 2007); **Saint Petersburg** (<sup>2</sup>Weinmann, 1828; <sup>2</sup>Weinmann, 1836; <sup>2</sup>Weinmann, 1837); **Sverdlovsk Oblast** (<sup>1</sup>Marina, 2006); **Tula Oblast** (<sup>1</sup>Svetasheva, 2004; <sup>1</sup>Shcherbakov, 2010).

SIBERIA: **Buryatia** (<sup>1</sup>Nezdojminogo, 1973; <sup>1</sup>Petrov, 1991); **Krasnoyarsk Krai** (<sup>1</sup>Beglyanova, 1972a; <sup>1</sup>Beglyanova, 1972c).

FAR EAST: **Primorsky Krai** (<sup>1</sup>Vassiljeva, 1973; <sup>1</sup>Bunkina and Nazarova, 1978; <sup>1</sup>Azbukina et al., 2006; <sup>1</sup>Bau, Bulakh, and Govorova, 2011).

***Pholiota semiimbricata* (Singer) Singer**

≡ *Flammula semiimbricata* Singer<sup>1</sup>

EASTERN EUROPE: **Krasnodar Krai** (<sup>1</sup>Singer, 1937; <sup>1</sup>Vassiljeva, 1939).

***Pholiota spumosa* (Fr.) Singer<sup>1</sup>**

≡ *Agaricus spumosus* Fr.<sup>2</sup> ≡ *Flammula spumosa* (Fr.) P. Kumm.<sup>3</sup>

EASTERN EUROPE: **Adygea** (<sup>1</sup>Sopina, 2001a); **Belgorod Oblast** (<sup>1</sup>Bedenko, 1979a); **Bryansk Oblast** (<sup>1</sup>Kruglikov, 2007); **Chelyabinsk Oblast** (<sup>1</sup>Psurtseva, Kiyashko, Gachkova, and Belova, 2007); **Crimea** (<sup>1</sup>Sarkina, 2010b; <sup>1</sup>Sarkina, 2013); **Karachay-Cherkess Republic** (<sup>3</sup>Vassiljeva, 1939); **Karelia** (<sup>3</sup>Freindling, 1949; <sup>1</sup>Bondartseva et al., 2001; <sup>1</sup>Psurtseva, Kiyashko, Gachkova, and Belova, 2007; <sup>1</sup>Predtechenskaya and Ruokolainen, 2013; <sup>1</sup>Krutov et al., 2014); **Kirov Oblast** (<sup>1</sup>Kirillov, 2011; <sup>1</sup>Kirillov, Perevedentseva, and Egoshina, 2011); **Komi Republic** (<sup>1</sup>Palamarchuk, 2011b; <sup>1</sup>Palamarchuk, 2012; <sup>1</sup>Palamarchuk, 2016a; <sup>1</sup>Palamarchuk, 2016b; <sup>1</sup>Palamarchuk and Kirillov, 2017; <sup>1</sup>Palamarchuk, 2017); **Krasnodar Krai** (<sup>3</sup>Vassiljeva, 1939); **Leningrad Oblast** (<sup>3</sup>Thesleff, 1920; <sup>1</sup>Kalamees and Kovalenko, 1984; <sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Popov et al., 2007; <sup>1</sup>Zmitrovich et al., 2015); **Mordovia** (<sup>3</sup>Kuznetsov, 1960; <sup>1</sup>Ivoilov and Bolshakov, 2011a); **Moscow Oblast** (<sup>1</sup>Levitskaya, 1995a; <sup>1</sup>Levitskaya, 2013); **Murmansk Oblast** (<sup>1</sup>Mikhailovskii, 1975b; <sup>1</sup>Karatygin, Nezdojminogo, Novozhilov, and Zhurbenko, 1999); **North Ossetia** (<sup>1</sup>Nikolayev, 2001); **Novgorod Oblast** (<sup>1</sup>Kovalenko, Morozova, Nezdojminogo, and Popov, 2005; <sup>1</sup>Popov et al., 2013); **Orenburg Oblast** (<sup>1</sup>Desyatova, 2008; <sup>1</sup>Safonov, 2015); **Perm Krai** (<sup>1</sup>Perevedentseva, 2008; <sup>1</sup>Belkovskaya et al., 2014; <sup>1</sup>Botalov, 2017; <sup>1</sup>Botalov and Perevedentseva, 2020); **Pskov Oblast** (<sup>1</sup>Kolmakov and Popov, 2005; <sup>1</sup>Popov et al., 2013); **Ryazan Oblast** (<sup>1</sup>Volosnova, 2014); **Saint Petersburg** (<sup>2</sup>Weinmann, 1828; <sup>2</sup>Weinmann, 1836; <sup>2</sup>Weinmann, 1837; <sup>1</sup>Morozova, Kovalenko, Rebriev, and Malysheva, 2014); **Sverdlovsk Oblast** (<sup>1</sup>Marina, 2006); **Tatarstan** (<sup>1</sup>Vassiljeva, 1977); **Tula Oblast** (<sup>1</sup>Svetasheva, 2001; <sup>1</sup>Svetasheva, 2004); **Tver Oblast** (<sup>1</sup>Kurochkin, 1993); **Udmurt Republic** (<sup>1</sup>Tychinin, 1990; <sup>1</sup>Tychinin and Kuzmina, 2003); **Vologda Oblast** (<sup>1</sup>Kirillova, 2006; <sup>1</sup>Kirillova, 2007); **Yaroslavl Oblast** (<sup>1</sup>Lazareva, 1997; <sup>1</sup>Lazareva, 1998a).

SIBERIA: **Altai Krai** (<sup>1</sup>Gorbunova and Chubarova, 2008; <sup>1</sup>Gorbunova, Vlasenko, and Tzhubarova, 2011); **Altai Republic** (<sup>1</sup>Gorbunova, 1996; <sup>1</sup>Gorbunova, 1997; <sup>1</sup>Gorbunova, 2001a; <sup>1</sup>Gorbunova, 2001b; <sup>1</sup>Gorbunova, 2008); **Buryatia** (<sup>1</sup>Nezdojminogo, 1970a; <sup>1</sup>Petrov, 1991); **Irkutsk Oblast** (<sup>1</sup>Kutafjeva and Astapenko, 1987; <sup>1</sup>Kutafjeva and Astapenko, 1989; <sup>1</sup>Astapenko, 1990a; <sup>1</sup>Muzyka, 2009; <sup>1</sup>Gorbunova and Stepantsova, 2015); **Khakassia** (<sup>1</sup>Zauzolkova, 2015); **Khanty-Mansi Autonomous Okrug** (<sup>1</sup>Filippova and Bulyonkova, 2017a; <sup>1</sup>Filippova and Bulyonkova, 2017b; <sup>1</sup>Zvyagina and Baykalova, 2017); **Krasnoyarsk Krai** (<sup>1</sup>Beglyanova, 1972a; <sup>1</sup>Nezdojminogo, 1976a; <sup>1</sup>Kutafjeva and Kosheleva, 2005; <sup>1</sup>Pavlov et al., 2007; <sup>1</sup>Kosheleva and Kutafjeva, 2008a; <sup>1</sup>Zauzolkova, 2012; <sup>1</sup>Zauzolkova, 2015); **Novosibirsk Oblast** (<sup>1</sup>Perova and Gorbunova, 2007; <sup>1</sup>Koropachinskiy and Banaev, 2014); **Tomsk Oblast** (<sup>1</sup>Perova, 1972; <sup>1</sup>Kosheleva and Kutafjeva, 2004; <sup>1</sup>Kudashova, Gashkov, and Kutafjeva, 2013); **Tyumen Oblast** (<sup>1</sup>Mukhin, 1993).

FAR EAST: **Amur Oblast** (<sup>1</sup>Azbukina et al., 1998; <sup>1</sup>Bulakh, Govorova, and Taranina, 2003); **Jewish Autonomous Oblast** (<sup>1</sup>Bulakh, Govorova, Nazarova, and Vassiljeva, 2007; <sup>1</sup>Bau, Bulakh, and Govorova, 2011); **Khabarovsk Krai** (<sup>1</sup>Azbukina et al., 1986; <sup>1</sup>Azbukina et al., 1989; <sup>1</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Bulakh, 2013; <sup>1</sup>Bogacheva, Bulakh, Bukharova, and Egorova, 2015); **Magadan Oblast** (<sup>1</sup>Nazarova, 1976; <sup>1</sup>Sazanova, 2005; <sup>1</sup>Sazanova, 2009a; <sup>1</sup>Sazanova, 2011; <sup>1</sup>Sazanova and Golodnova, 2015); **Primorsky Krai** (<sup>1</sup>Vassiljeva, 1972; <sup>1</sup>Vassiljeva, 1973; <sup>1</sup>Bunkina and Nazarova, 1978; <sup>1</sup>Azbukina et al., 1984; <sup>1</sup>Azbukina et al., 1990; <sup>1</sup>Bardunov et al., 2002; <sup>1</sup>Azbukina et al., 2006; <sup>1</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Bulakh et al., 2016); **Sakhalin Oblast** (<sup>1</sup>Vassiljeva and Nazarova, 1972).

***Pholiota squarrosa* (Vahl) P. Kumm.<sup>1</sup>**

≡ *Agaricus squarrosus* Vahl<sup>2</sup> ≡ *Pholiota squarrosa* f. *squarrosa* (Vahl) P. Kumm.<sup>3</sup> = *Pholiota squarrosa* var. *muelleri* (Fr.) Sacc.<sup>4</sup>

EASTERN EUROPE: **Adygea** (<sup>1</sup>Vassiljeva, 1939; <sup>1</sup>Vaasma, Kalamees, and Raitviir, 1986; <sup>1</sup>Sopina, 2001a; <sup>1</sup>Kummer, 2007); **Arkhangelsk Oblast** (<sup>1</sup>Lebedeva, 1933; <sup>1</sup>Ezhov, Zmitrovich, and Ruokolainen, 2019; <sup>1</sup>Anufriev et al., 2020);

**Belgorod Oblast** (<sup>1</sup>Brezhnev, 1950; <sup>1</sup>Bedenko, 1979a); **Bryansk Oblast** (<sup>1</sup>Kruglikov, 2007); **Chechen Republic** (<sup>1</sup>Taysumov, Krapivina, Umarov, and Astamirova, 2012; <sup>1</sup>Taysumov, Krapivina, and Kushaliev, 2016); **Chelyabinsk Oblast** (<sup>1</sup>Stepanova and Sirko, 1977; <sup>1</sup>Psurtseva, Kiyashko, Gachkova, and Belova, 2007; <sup>1</sup>Krasutsky, 2013; <sup>1</sup>Krasutsky, 2014); **Crimea** (<sup>1</sup>Dudka et al., 2004; <sup>1</sup>Sarkina, 2011); **Kabardino-Balkarian Republic** (<sup>1</sup>Shkhagapsoev and Krapivina, 2003; <sup>1</sup>Shkhagapsoev and Krapivina, 2004); **Kaliningrad Oblast** (<sup>1</sup>Dedkov, Volodina, and Gubareva, 2007; <sup>1</sup>Volodina, 2007; <sup>1</sup>Atayev and Volodina, 2020); **Kaluga Oblast** (<sup>1</sup>Sionova, 2003; <sup>1</sup>Alekseev et al., 2006; <sup>1</sup>Sionova, 2009); **Karachay-Cherkess Republic** (<sup>1,4</sup>Vassiljeva, 1939; <sup>1</sup>Kalamees and Botashev, 2000); **Karelia** (<sup>1</sup>Freindling, 1949; <sup>1</sup>Bondartseva et al., 2001; <sup>1</sup>Ivanter and Kuznetsov, 2007; <sup>1</sup>Psurtseva, Kiyashko, Gachkova, and Belova, 2007; <sup>1</sup>Predtechenskaya and Ruokolainen, 2013; <sup>1</sup>Predtechenskaya, 2013; <sup>1</sup>Krutov et al., 2014; <sup>1</sup>Predtechenskaya and Ruokolainen, 2014; <sup>1</sup>Savelev and Kikeeva, 2018; <sup>1</sup>Kuznetsov, 2020); **Kirov Oblast** (<sup>1</sup>Kirillov, 2011; <sup>1</sup>Kirillov, Perevedentseva, and Egoshina, 2011); **Komi Republic** (<sup>1</sup>Palamarchuk, 2016a; <sup>1</sup>Palamarchuk, 2016b; <sup>1</sup>Palamarchuk and Kirillov, 2017); **Krasnodar Krai** (<sup>1</sup>Vassiljeva, 1939; <sup>1</sup>Kovalenko, 1980a); **Kursk Oblast** (<sup>1</sup>Soshnina, 2005; <sup>1</sup>Soshnina, 2014); **Leningrad Oblast** (<sup>1</sup>Thesleff, 1920; <sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Morozova, 2007; <sup>1</sup>Popov et al., 2007; <sup>1</sup>Psurtseva, Kiyashko, Gachkova, and Belova, 2007; <sup>1</sup>Bondartseva et al., 2015; <sup>1</sup>Zmitrovich et al., 2015; <sup>1</sup>Kalinina, 2018); **Lipetsk Oblast** (<sup>1</sup>Rtishcheva, 1999; <sup>1</sup>Sarycheva, 1999; <sup>1</sup>Afanasyev, Rtishcheva, and Starodubtseva, 2007; <sup>1</sup>Sarycheva et al., 2009; <sup>1</sup>Sarycheva, 2011; <sup>1</sup>Sarycheva, 2014a; <sup>1</sup>Sarycheva, 2016; <sup>1</sup>Sarycheva, Starodubtseva, and Sapelnikova, 2017); **Mari El Republic** (<sup>1</sup>Prokhorov, 2007); **Mordovia** (<sup>1</sup>Kuznetsov, 1960; <sup>1</sup>Chastukhin, 2011; <sup>1</sup>Ivoilov and Bolshakov, 2011a); **Moscow** (<sup>2</sup>Weinmann, 1836; <sup>1</sup>Bucholtz, 1897a; <sup>1</sup>Bucholtz, 1897b; <sup>1</sup>Bucholtz, 1897c; <sup>1</sup>Mosolov, 1906); **Moscow Oblast** (<sup>1</sup>Gorlenko, Sidorova, and Sidorova, 1989; <sup>1</sup>Levitskaya, 1995c; <sup>1</sup>Voronina et al., 2012; <sup>1</sup>Levitskaya, 2013; <sup>1</sup>Voronina et al., 2014); **Murmansk Oblast** (<sup>1</sup>Pystina, Pavlova, and Shestakova, 1969); **North Ossetia** (<sup>1</sup>Chernetskaja, 1929; <sup>1</sup>Nikolayev, 2001); **Novgorod Oblast** (<sup>1</sup>Kovalenko, Morozova, Nezdoininogo, and Popov, 2005; <sup>1</sup>Popov et al., 2013); **Orenburg Oblast** (<sup>1</sup>Desyatova, 2008; <sup>1</sup>Safonov, 2015); **Penza Oblast** (<sup>1</sup>Ivanov, 1981b; <sup>1</sup>Ivanov, 1982; <sup>1</sup>Ivanov, 2019); **Perm Krai** (<sup>1</sup>Shkaraba, Perevedentseva, and Moshkina, 1990; <sup>1</sup>Perevedentseva, 2008; <sup>1</sup>Belkovskaya et al., 2014); **Pskov Oblast** (<sup>1</sup>Popov, 2001a; <sup>1</sup>Popov et al., 2013); **Rostov Oblast** (<sup>1</sup>Rusanov, Rebriev, and Bulgakov, 2018); **Ryazan Oblast** (<sup>1</sup>Volosnova, 1997; <sup>1</sup>Volosnova, 2014); **Saint Petersburg** (<sup>2</sup>Weinmann, 1828; <sup>2</sup>Weinmann, 1837; <sup>1</sup>Kotkova, Morozova, and Popov, 2005; <sup>1</sup>Kotkova, Morozova, and Popov, 2007; <sup>1</sup>Psurtseva, Kiyashko, Gachkova, and Belova, 2007; <sup>1</sup>Morozova and Smirnov, 2011; <sup>1</sup>Morozova, Kovalenko, Rebriev, and Malysheva, 2014; <sup>1</sup>Zhukova, Morozova, Volobuev, and Bryantseva, 2017; <sup>1</sup>Morozova et al., 2020); **Samara Oblast** (<sup>1</sup>Malysheva and Malysheva, 2004; <sup>1</sup>Malysheva and Malysheva, 2008); **Saratov Oblast** (<sup>1</sup>Lebedeva, 1927; <sup>1</sup>Nagumanov, 2015); **Sevastopol** (<sup>1</sup>Sarkina, 2020c); **Smolensk Oblast** (<sup>1</sup>Jaczevski, 1895); **Sverdlovsk Oblast** (<sup>1</sup>Stepanova and Sirko, 1977; <sup>1</sup>Marina, 2006); **Tatarstan** (<sup>1</sup>Vassiljeva, 1977; <sup>1</sup>Potapov, 2015b); **Tula Oblast** (<sup>1</sup>Svetasheva, 2004); **Tver Oblast** (<sup>1</sup>Chastukhin, 1948b; <sup>1</sup>Chastukhin and Nikolaevskaya, 1969; <sup>1</sup>Kurochkin, 1993; <sup>1</sup>Mukhina, 2011a; <sup>1</sup>Kotkova, 2014; <sup>1</sup>Kurochkin and Medvedev, 2015; <sup>1</sup>Kurochkin, 2016); **Udmurt Republic** (<sup>1</sup>Tychinin, 1990; <sup>1</sup>Tychinin and Kuzmina, 2003); **Ulyanovsk Oblast** (<sup>1</sup>Ilyukhin, 2009; <sup>1</sup>Ilyukhin, 2010a); **Vladimir Oblast** (<sup>1</sup>Mishulin, Blinov, and Gushchina, 2018); **Voronezh Oblast** (<sup>1</sup>Chastukhin and Nikolaevskaya, 1953; <sup>1</sup>Chastukhin and Nikolaevskaya, 1969; <sup>1</sup>Rtishcheva, 1999; <sup>1</sup>Afanasyev, Rtishcheva, and Starodubtseva, 2007; <sup>1</sup>Selochnik, 2015; <sup>1</sup>Sarycheva, Starodubtseva, and Sapelnikova, 2017); **Yaroslavl Oblast** (<sup>1</sup>Lazareva, 1997; <sup>1</sup>Lazareva, 1998a); **Arid territories** (<sup>1</sup>Rebriev, Rusanov, et al., 2012); **Northern Caucasus** (<sup>1</sup>Kovalenko, 1980b).

**SIBERIA: Altai Krai** (<sup>1</sup>Gorbunova and Perova, 2006; <sup>1</sup>Gorbunova and Chubarova, 2008; <sup>3</sup>Gorbunova, Vlasenko, and Tzhubarova, 2011); **Altai Republic** (<sup>1</sup>Kovalenko, 1992; <sup>1</sup>Gorbunova, 1996; <sup>1</sup>Gorbunova, 1997; <sup>1</sup>Gorbunova, 2001b; <sup>1</sup>Gorbunova, 2008); **Buryatia** (<sup>1</sup>Nezdoininogo, 1970a; <sup>1</sup>Sokolova, 1988; <sup>1</sup>Heklau and Dörfelt, 2017); **Irkutsk Oblast** (<sup>1</sup>Kutafjeva, 1983; <sup>1</sup>Petrov, 1986; <sup>1</sup>Astapenko, 1990a; <sup>1</sup>Petrov, 2008; <sup>1</sup>Muzyka and Penzina, 2017); **Kemerovo Oblast** (<sup>1</sup>Killermann, 1943); **Khakassia** (<sup>1</sup>Beglyanova, 1972a; <sup>1</sup>Zauzolkova, 2015); **Khanty-Mansi Autonomous Okrug** (<sup>1</sup>Mukhin, 1993; <sup>1</sup>Stavishenko, 2003; <sup>1</sup>Zvyagina, Baykalova, and Gorbunova, 2007; <sup>1</sup>Filippova, Bulyonkova, and Lapshina, 2015; <sup>1</sup>Filippova and Bulyonkova, 2017a; <sup>1</sup>Filippova and Bulyonkova, 2017b); **Krasnoyarsk Krai** (<sup>1</sup>Beglyanova, 1972a; <sup>1</sup>Lapitskaya, 1993; <sup>1</sup>Kosheleva and Kutafjeva, 2008a; <sup>1</sup>Zauzolkova, 2012; <sup>1</sup>Kryuchkova, 2014a; <sup>1</sup>Kryuchkova, 2015; <sup>1</sup>Zauzolkova, 2015; <sup>1</sup>Malysheva, Malysheva, Kiyashko, et al., 2017; <sup>1</sup>Krom and Kapitonov, 2019); **Kurgan Oblast** (<sup>1</sup>Stepanova and Sirko, 1977); **Novosibirsk Oblast** (<sup>1</sup>Nozdrenko, 1970; <sup>1</sup>Zaytseva, 1971; <sup>1</sup>Zhukov, 1972; <sup>1</sup>Perova, 1977; <sup>1</sup>Perova and Gorbunova, 2007; <sup>1</sup>Koropachinskiy and Banaev, 2014); **Sverdlovsk Oblast** (<sup>1</sup>Mukhin, 1993; <sup>1</sup>Mukhin et al., 2003); **Tomsk Oblast** (<sup>1</sup>Pilát, 1935; <sup>1</sup>Perova, 1972; <sup>1</sup>Milovidova, 1980; <sup>1</sup>Agaphonova, Kutafjeva, and Gashkov, 2007; <sup>1</sup>Kudashova, Gashkov, and Kutafjeva, 2013); **Yamalo-Nenets Autonomous Okrug** (<sup>1</sup>Mukhin, 1993).

**FAR EAST: Amur Oblast** (<sup>1</sup>Taranina, 2005); **Jewish Autonomous Oblast** (<sup>1</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Erofeeva, Bukharova, and Bulakh, 2019); **Khabarovsk Krai** (<sup>1</sup>Azbukina et al., 1986; <sup>1</sup>Bau, Bulakh, and Govorova, 2011); **Magadan Oblast** (<sup>1</sup>Sazanova, 2005; <sup>1</sup>Sazanova, 2009a); **Primorsky Krai** (<sup>1</sup>Vassiljeva, 1972; <sup>1</sup>Vassiljeva, 1973);



<sup>1</sup>Bulakh, 1977; <sup>1</sup>Bunkina and Nazarova, 1978; <sup>1</sup>Azbukina et al., 1984; <sup>1</sup>Azbukina et al., 1990; <sup>1</sup>Bardunov et al., 2002; <sup>1</sup>Azbukina et al., 2006; <sup>1</sup>Bau, Bulakh, and Govorova, 2011).

***Pholiota squarrosodiposa* J.E. Lange**

SIBERIA: **Kemerovo Oblast** (Nozdrenko, 1970); **Krasnoyarsk Krai** (Beglyanova, 1972a; Kosheleva and Kutafjeva, 2008b; Kosheleva, 2010); **Novosibirsk Oblast** (Nozdrenko, 1970).

FAR EAST: **Amur Oblast** (Taranina, 2005; Kochunova, 2019); **Jewish Autonomous Oblast** (Bulakh, Govorova, Nazarova, and Vassiljeva, 2007); **Khabarovsk Krai** (Azbukina et al., 1986); **Primorsky Krai** (Bulakh, 1977; Azbukina et al., 1984; Azbukina et al., 2006).

***Pholiota squarrosoides* (Peck) Sacc.**

EASTERN EUROPE: **Adygea** (Vaasma, Kalamees, and Raitviir, 1986; Sopina, 2001a); **Crimea** (Moser, 1993; Sarkina, 2001; Dudka et al., 2004; Sarkina, 2011); **Karachay-Cherkess Republic** (Kalamees and Botashev, 2000); **Kirov Oblast** (Kirillov, 2011; Kirillov, Perevedentseva, and Egoshina, 2011); **Komi Republic** (Palamarchuk (Bobretsova), 2009; Palamarchuk, 2012; Palamarchuk, 2017); **Leningrad Oblast** (Kalamees and Kovalenko, 1984; Kovalenko and Morozova, 1999a; Popov et al., 2007); **Moscow Oblast** (Levitskaya, 2006; Levitskaya, 2013; Voronina et al., 2014); **Orenburg Oblast** (Desyatova, 2008; Safonov, 2015); **Penza Oblast** (Ivanov, 1986); **Perm Krai** (Perevedentseva, Nezdojminogo, and Kovalenko, 1990; Perevedentseva, 2008; Belkovskaya et al., 2014); **Samara Oblast** (Malysheva and Malysheva, 2008); **Sverdlovsk Oblast** (Marina, 2006); **Tula Oblast** (Svetasheva, 2004; Shcherbakov, 2010); **Udmurt Republic** (Kapitonov, 2013); **Yaroslavl Oblast** (Lazareva, 1997; Lazareva, 1998a).

SIBERIA: **Buryatia** (Nezdojminogo, 1973); **Irkutsk Oblast** (Petrov, 1986; Kutafjeva, 1989; Astapenko, 1990a; Muzyka, 2002; Petrov, 2008); **Krasnoyarsk Krai** (Malysheva, Malysheva, Kiyashko, et al., 2017; Krom and Kapitonov, 2019); **Tomsk Oblast** (Kosheleva and Kutafjeva, 2004; Kudashova, Gashkov, and Kutafjeva, 2013).

FAR EAST: **Amur Oblast** (Taranina, 2005); **Jewish Autonomous Oblast** (Bulakh, Govorova, Nazarova, and Vassiljeva, 2007; Bau, Bulakh, and Govorova, 2011); **Khabarovsk Krai** (Azbukina et al., 1986; Bau, Bulakh, and Govorova, 2011); **Magadan Oblast** (Sazanova, 2009a); **Primorsky Krai** (Bulakh, 1977; Azbukina et al., 1984; Azbukina et al., 1990; Bardunov et al., 2002; Azbukina et al., 2006; Psurtseva, Kiyashko, Gachkova, and Belova, 2007; Bau, Bulakh, and Govorova, 2011; Bulakh et al., 2016).

***Pholiota stratosa* A.H. Sm. & Hesler**

SIBERIA: **Tomsk Oblast** (Kudashova, Gashkov, and Kutafjeva, 2013; Kudashova, Gashkov, and Vaishlya, 2016b).

***Pholiota subochracea* (A.H. Sm.) A.H. Sm. & Hesler**

EASTERN EUROPE: **Komi Republic** (Palamarchuk and Kirillov, 2018a); **Perm Krai** (Perevedentseva, 2008; Belkovskaya et al., 2014); **Tula Oblast** (Svetasheva, 2001).

SIBERIA: **Khanty-Mansi Autonomous Okrug** (Filippova and Bulyonkova, 2017a; Filippova and Bulyonkova, 2017b).

***Pholiota terrestris* Overh.**

SIBERIA: **Tomsk Oblast** (Kudashova, Gashkov, and Vaishlya, 2016a; Kudashova, Gashkov, and Vaishlya, 2016b).

***Pholiota tuberculosa* (Schaeff.) P. Kumm.<sup>1</sup>**

≡ *Agaricus tuberculosus* Schaeff.<sup>2</sup> = *Agaricus curvipes* Pers.<sup>3</sup> = *Pholiota curvipes* (Pers.) Quél.<sup>4</sup>

EASTERN EUROPE: **Adygea** (<sup>1</sup>Sopina, 2001a); **Belgorod Oblast** (<sup>1</sup>Bedenko, 1980); **Chelyabinsk Oblast** (<sup>4</sup>Stepanova and Sirko, 1977); **Crimea** (<sup>1,4</sup>Dudka et al., 2004; <sup>1,4</sup>Sarkina, 2011); **Karelia** (<sup>1</sup>Freindling, 1949; <sup>1</sup>Bondartseva et al., 2001; <sup>1</sup>Predtechenskaya and Ruokolainen, 2013; <sup>1</sup>Krutov et al., 2014); **Kirov Oblast** (<sup>1</sup>Kirillov and Luginina, 2011; <sup>1</sup>Stavishenko, Luginina, Kirillov, and Egoshina, 2019); **Komi Republic** (<sup>1</sup>Palamarchuk, 2020b); **Krasnodar Krai** (<sup>4</sup>Vassiljeva, 1939; <sup>1</sup>Sopina, 2001a); **Leningrad Oblast** (<sup>1,4</sup>Thesleff, 1920; <sup>1,4</sup>Kovalenko and Morozova, 1999a; <sup>1,4</sup>Popov et al., 2007; <sup>1</sup>Psurtseva, Kiyashko, Gachkova, and Belova, 2007); **Moscow Oblast** (<sup>1</sup>Levitskaya, 1995c; <sup>1</sup>Levitskaya, 2013); **Murmansk Oblast** (<sup>3</sup>Karsten, 1866); **Novgorod Oblast** (<sup>1</sup>Svetasheva et al., 2017); **Orenburg Oblast** (<sup>1</sup>Desyatova, 2007; <sup>1</sup>Desyatova, 2008); **Penza Oblast** (<sup>4</sup>Ivanov, 1981b; <sup>4</sup>Ivanov, 1982); **Perm Krai** (<sup>1</sup>Perevedentseva, 2008; <sup>1</sup>Botalov, 2017); **Ryazan Oblast** (<sup>1</sup>Volosnova, 1997; <sup>1</sup>Volosnova, 2014); **Saint Petersburg** (<sup>2</sup>Weinmann, 1828; <sup>2</sup>Weinmann, 1836; <sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Morozova and Kovalenko, 2000; <sup>1</sup>Kotkova, Morozova, and Popov, 2006; <sup>1</sup>Morozova and Smirnov, 2011; <sup>1</sup>Morozova et al., 2020); **Samara Oblast** (<sup>1</sup>Malysheva and Malysheva, 2004; <sup>1</sup>Malysheva and Malysheva, 2008); **Tatarstan** (<sup>1</sup>Vassiljeva, 1977); **Tula Oblast** (<sup>1</sup>Svetasheva, 2004; <sup>1</sup>Svetasheva,

2013); **Tver Oblast** (<sup>1</sup>Mukhina, 2011a; <sup>1</sup>Mukhina, 2011b; <sup>1</sup>Kotkova, 2014); **Udmurt Republic** (<sup>1</sup>Kapitonov, 2013); **Ulyanovsk Oblast** (<sup>1</sup>Ilyukhin, 2009; <sup>1</sup>Ilyukhin, 2010a); **Yaroslavl Oblast** (<sup>4</sup>Lazareva, 1998a; <sup>4</sup>Lazareva, 2002).

SIBERIA: **Altai Krai** (<sup>1</sup>Gorbunova and Perova, 2006; <sup>1</sup>Gorbunova, 2018a); **Altai Republic** (<sup>4</sup>Kovalenko, 1992; <sup>4</sup>Gorbunova, 1996; <sup>1,4</sup>Gorbunova, 1997; <sup>4</sup>Gorbunova, 2008); **Irkutsk Oblast** (<sup>4</sup>Kutafjeva, 1983; <sup>1,4</sup>Petrov, 1986; <sup>4</sup>Astapenko, 1990a; <sup>1,4</sup>Petrov, 1991; <sup>1,4</sup>Petrov, 2008); **Khakassia** (<sup>1</sup>Zauzolkova and Gorbunova, 2013; <sup>1</sup>Zauzolkova, 2015); **Khanty-Mansi Autonomous Okrug** (<sup>4</sup>Mukhin, 1993); **Krasnoyarsk Krai** (<sup>3</sup>Thümen, 1878; <sup>2</sup>Thümen, 1880a; <sup>1,4</sup>Beglyanova, 1972a; <sup>1</sup>Zauzolkova, 2012; <sup>1</sup>Zauzolkova, 2015; <sup>1</sup>Krom and Kapitonov, 2019); **Kurgan Oblast** (<sup>4</sup>Stepanova and Sirko, 1977; <sup>4</sup>Mukhin, 1993); **Novosibirsk Oblast** (<sup>1</sup>Zaytseva, 1971; <sup>1</sup>Gorbunova, 2007; <sup>1</sup>Perova and Gorbunova, 2007; <sup>1</sup>Koropachinskiy and Banaev, 2014); **Tomsk Oblast** (<sup>1</sup>Perova, 1972; <sup>1,4</sup>Kudashova, Gashkov, and Kutafjeva, 2013).

FAR EAST: **Amur Oblast** (<sup>4</sup>Nazarova, 1986); **Khabarovsk Krai** (<sup>1</sup>Azbukina et al., 1989; <sup>1</sup>Bulakh, Vassiljeva, and Erofeeva, 2010; <sup>1</sup>Erofeeva and Bulakh, 2015a); **Magadan Oblast** (<sup>1</sup>Sazanova, 1996; <sup>1</sup>Sazanova, 2005; <sup>1</sup>Sazanova, 2009a; <sup>1</sup>Sazanova, 2011); **Primorsky Krai** (<sup>1</sup>Vassiljeva, 1972; <sup>1</sup>Vassiljeva, 1973; <sup>1</sup>Bunkina and Nazarova, 1978; <sup>4</sup>Bardunov et al., 2002; <sup>1</sup>Azbukina et al., 2006; <sup>1</sup>Bau, Bulakh, and Govorova, 2011).

### ***Pholiota veris* A.H. Sm. & Hesler**

SIBERIA: **Buryatia** (Nezdojminogo, 1973; Petrov, 1991).

### ***Pholiotina altaica* Singer**

SIBERIA: **Altai Republic** (Singer, 1945; Singer, 1950a; Singer, 1950b; Hausknecht, Kalamees, Knudsen, and Mukhin, 2009; Malysheva, 2018).

### ***Pholiotina aporos* (Kits van Wav.) Cléménçon**

≡ *Conocybe aporos* Kits van Wav.<sup>1</sup>

EASTERN EUROPE: **Orenburg Oblast** (<sup>1</sup>Desyatova, 2007; <sup>1</sup>Desyatova, 2008).

### ***Pholiotina arrhenii* (Fr.) Singer<sup>1</sup>**

≡ *Conocybe arrhenii* (Fr.) Kits van Wav.<sup>2</sup>

EASTERN EUROPE: **Crimea** (<sup>1</sup>Moser, 1993; <sup>1</sup>Sarkina, 2001; <sup>1</sup>Dudka et al., 2004; <sup>1</sup>Sarkina, 2011); **Leningrad Oblast** (<sup>2</sup>Popov et al., 2007; <sup>1</sup>Malysheva, 2018); **Saint Petersburg** (<sup>2</sup>Kotkova, Morozova, and Popov, 2007; <sup>1</sup>Morozova, Kovalenko, Rebriev, and Malysheva, 2014; <sup>1</sup>Malysheva, 2018; <sup>1</sup>Morozova et al., 2020); **Stavropol Krai** (<sup>1</sup>Malysheva, 2018); **Sverdlovsk Oblast** (<sup>1</sup>Shiryayeva and Malysheva, 2018); **Tver Oblast** (<sup>1</sup>Morozova, Aleksandrova, Popov, and Malysheva, 2016).

SIBERIA: **Altai Republic** (<sup>2</sup>Gorbunova, 2019).

### ***Pholiotina brunnea* (J.E. Lange & Kühner ex Watling) Singer<sup>1</sup>**

≡ *Conocybe brunnea* J.E. Lange & Kühner ex Watling<sup>2</sup> ≡ *Pholiotina septentrionalis* subsp. *brunnea* J.E. Lange & Kühner ex Singer<sup>3</sup> = *Conocybe fibrillosipes* Watling<sup>4</sup>

EASTERN EUROPE: **Adygea** (<sup>2</sup>Sopina, 2001a); **Crimea** (<sup>1</sup>Dudka et al., 2004; <sup>1</sup>Sarkina, 2011); **Karachay-Cherkess Republic** (<sup>1</sup>Malysheva, 2011b; <sup>1</sup>Malysheva, 2018); **Krasnodar Krai** (<sup>1</sup>Malysheva, 2018); **Leningrad Oblast** (<sup>3</sup>Singer, 1950a); **Novgorod Oblast** (<sup>1</sup>Kalinina, 2019); **Samara Oblast** (<sup>2</sup>Malysheva and Malysheva, 2004; <sup>2</sup>Malysheva and Malysheva, 2008; <sup>1</sup>Malysheva, 2018); **Stavropol Krai** (<sup>1</sup>Malysheva, 2018); **Sverdlovsk Oblast** (<sup>2</sup>Marina, 2006; <sup>1</sup>Malysheva, 2018; <sup>1</sup>Shiryayeva and Malysheva, 2018); **Ulyanovsk Oblast** (<sup>1</sup>Ilyukhin, 2009; <sup>1</sup>Ilyukhin, 2010a).

SIBERIA: **Altai Republic** (<sup>3</sup>Singer, 1950a); **Irkutsk Oblast** (<sup>1</sup>Astapenko and Kutafjeva, 1990); **Krasnoyarsk Krai** (<sup>1</sup>Malysheva, Malysheva, Kiyashko, et al., 2017; <sup>1</sup>Malysheva, 2018); **Western SIBERIA** (<sup>3</sup>Singer, 1950a).

FAR EAST: **Jewish Autonomous Oblast** (<sup>4</sup>Bulakh, Govorova, Nazarova, and Vassiljeva, 2007; <sup>4</sup>Bau, Bulakh, and Govorova, 2011); **Khabarovsk Krai** (<sup>2</sup>Bau, Bulakh, and Govorova, 2011); **Primorsky Krai** (<sup>1</sup>Kovalenko and Nezdojminogo, 1989; <sup>2</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Bulakh et al., 2016; <sup>1</sup>Malysheva, 2018).

### ***Pholiotina coprophila* (Kühner) Singer<sup>1</sup>**

≡ *Conocybe coprophila* (Kühner) Kühner<sup>2</sup>

EASTERN EUROPE: **Astrakhan Oblast** (<sup>1</sup>Malysheva, 2018); **Novgorod Oblast** (<sup>1</sup>Malysheva, 2018); **Stavropol Krai** (<sup>1</sup>Malysheva, 2018); **Volgograd Oblast** (<sup>1</sup>Burova and Nezdojminogo, 1982); **Arid territories** (<sup>2</sup>Rebriev, Rusanov, et al., 2012).

SIBERIA: **Altai Republic** (<sup>1</sup>Singer, 1950a; <sup>1</sup>Singer, 1950b; <sup>1</sup>Malysheva, 2018); **Khakassia** (<sup>2</sup>Gorbunova and Majnagasheva, 2013; <sup>2</sup>Zauzolkova, 2015); **Krasnoyarsk Krai** (<sup>2</sup>Karatygin, Nezdojminogo, Novozhilov, and Zhurbenko, 1999; <sup>1</sup>Malysheva, 2018); **Sakha Republic** (<sup>1</sup>Hausknecht, Kalamees, Knudsen, and Mukhin, 2009).

FAR EAST: **Primorsky Krai** (<sup>1</sup>Malysheva, 2018).

***Pholiotina cyanopus* (G.F. Atk.) Singer<sup>1</sup>**

≡ *Conocybe cyanopus* (G.F. Atk.) Kühner<sup>2</sup>

EASTERN EUROPE: **Leningrad Oblast** (<sup>2</sup>Morozova, 2002 [as *Conocybe plicatella* (Peck) Kühner, redet. in Malysheva, 2018]; <sup>2</sup>Popov et al., 2007 [as *Conocybe plicatella* (Peck) Kühner, redet. in Malysheva, 2018]; <sup>1</sup>Malysheva, 2018); **Novgorod Oblast** (<sup>2</sup>Kovalenko, Morozova, Nezdojminogo, and Popov, 2005 [as *Conocybe plicatella* (Peck) Kühner, redet. in Malysheva, 2018]; <sup>2</sup>Popov et al., 2013 [as *Conocybe plicatella* (Peck) Kühner, redet. in Malysheva, 2018]; <sup>1</sup>Malysheva, 2018); **Ryazan Oblast** (<sup>1</sup>Malysheva and Volosnova, 2008; <sup>1</sup>Volosnova, 2014; <sup>1</sup>Malysheva, 2018); **Saint Petersburg** (<sup>1</sup>Malysheva, 2018); **Samara Oblast** (<sup>1</sup>Malysheva, 2018); **Sverdlovsk Oblast** (<sup>2</sup>Marina, 2006; <sup>1</sup>Malysheva, 2018; <sup>1</sup>Shiryayeva and Malysheva, 2018); **Tula Oblast** (<sup>1</sup>Svetasheva, 2004; <sup>1</sup>Svetasheva, 2005b; <sup>1</sup>Shcherbakov, 2010; <sup>1</sup>Malysheva, 2018).

SIBERIA: **Altai Republic** (<sup>1</sup>Malysheva, 2018); **Khanty-Mansi Autonomous Okrug** (<sup>2</sup>Zvyagina, 2012); **Sakha Republic** (<sup>1</sup>Hausknecht, Kalamees, Knudsen, and Mukhin, 2009).

FAR EAST: **Primorsky Krai** (<sup>1</sup>Bulakh, 1977; <sup>1</sup>Azbukina et al., 1984; <sup>2</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Bulakh et al., 2016; <sup>1</sup>Malysheva, 2018); **Sakhalin Oblast** (<sup>1</sup>Malysheva, 2018).

***Pholiotina dasypus* (Romagn.) P.-A. Moreau<sup>1</sup>**

= *Conocybe utrififormis* P.D. Orton<sup>2</sup> = *Pholiotina subnuda* (Kühner ex Kühner & Watling) Bon<sup>3</sup> = *Pholiotina utrififormis* (P.D. Orton) Bon<sup>4</sup>

EASTERN EUROPE: **Moscow Oblast** (<sup>3</sup>Gorlenko, Sidorova, and Sidorova, 1989); **Novgorod Oblast** (<sup>1</sup>Malysheva, 2018); **Penza Oblast** (<sup>1</sup>Malysheva, 2018); **Perm Krai** (<sup>3</sup>Belkovskaya et al., 2014); **Samara Oblast** (<sup>2</sup>Malysheva and Malysheva, 2008; <sup>1</sup>Malysheva, 2018); **Sverdlovsk Oblast** (<sup>1</sup>Malysheva, 2018; <sup>1</sup>Shiryayeva and Malysheva, 2018); **Udmurt Republic** (<sup>1</sup>Kapitonov, 2013); **Volgograd Oblast** (<sup>1</sup>Svetasheva, 2015).

SIBERIA: **Krasnoyarsk Krai** (<sup>2</sup>Karatygin, Nezdojminogo, Novozhilov, and Zhurbenko, 1999; <sup>1</sup>Malysheva, 2018); **Tomsk Oblast** (<sup>2</sup>Kudashova, Gashkov, and Vaishlya, 2016a).

FAR EAST: **Primorsky Krai** (<sup>3</sup>Bulakh, 1977; <sup>3</sup>Azbukina et al., 1984; <sup>3</sup>Azbukina et al., 1990; <sup>4</sup>Bardunov et al., 2002; <sup>2</sup>Bau, Bulakh, and Govorova, 2011).

***Pholiotina exannulata* (Kühner & Watling) M.M. Moser ex Courtec.<sup>1</sup>**

≡ *Conocybe exannulata* Kühner & Watling<sup>2</sup>

EASTERN EUROPE: **Kirov Oblast** (<sup>2</sup>Kirillov, 2011; <sup>2</sup>Kirillov, Perevedentseva, and Egoshina, 2011); **Krasnodar Krai** (<sup>1</sup>Vassiljeva, 1939); **Samara Oblast** (<sup>1</sup>Malysheva and Malysheva, 2006; <sup>1</sup>Malysheva and Malysheva, 2007; <sup>2</sup>Malysheva and Malysheva, 2008; <sup>1</sup>Malysheva, 2018); **Stavropol Krai** (<sup>1</sup>Malysheva, 2018); **Sverdlovsk Oblast** (<sup>1</sup>Malysheva, 2018; <sup>1</sup>Shiryayeva and Malysheva, 2018); **Tula Oblast** (<sup>1</sup>Svetasheva, Aleksandrova, Zaytseva, and Solovjova, 2017); **Ulyanovsk Oblast** (<sup>1</sup>Ilyukhin, 2010a; <sup>1</sup>Ilyukhin, 2010b).

FAR EAST: **Primorsky Krai** (<sup>1</sup>Vassiljeva, 1973; <sup>1</sup>Bunkina and Nazarova, 1978; <sup>1</sup>Azbukina et al., 1984).

***Pholiotina filipes* (G.F. Atk.) Singer<sup>1</sup>**

≡ *Conocybe filipes* (G.F. Atk.) Kühner<sup>2</sup> = *Conocybe aberrans* (Kühner) Kühner<sup>3</sup> = *Conocybe sulcatipes* (Peck) Kühner<sup>4</sup> = *Pholiotina aberrans* (Kühner) Singer<sup>5</sup> = *Pholiotina sulcatipes* (Peck) Bon<sup>6</sup>

EASTERN EUROPE: **Komi Republic** (<sup>2</sup>Palamarchuk, 2020b); **Leningrad Oblast** (<sup>3</sup>Morozova, 2007; <sup>3</sup>Popov et al., 2007; <sup>1</sup>Malysheva, 2018); **Moscow Oblast** (<sup>1</sup>Levitskaya, 1995c [as *Conocybe dumetorum* (Velen.) Svrček, redet. in Malysheva, 2018]; <sup>4</sup>Levitskaya, 1998; <sup>1</sup>Levitskaya, 2013 [as *Conocybe dumetorum* (Velen.) Svrček, redet. in Malysheva, 2018]; <sup>6</sup>Levitskaya, 2013; <sup>5</sup>Voronina et al., 2014; <sup>1</sup>Malysheva, 2018); **Novgorod Oblast** (<sup>1</sup>Kovalenko, Morozova, Nezdojminogo, and Popov, 2005 [as *Conocybe plicatella* (Peck) Kühner, redet. in Malysheva, 2018]; <sup>4</sup>Kovalenko, Morozova, Nezdojminogo, and Popov, 2005; <sup>1</sup>Popov et al., 2013 [as *Conocybe plicatella* (Peck) Kühner, redet. in Malysheva, 2018]; <sup>5</sup>Popov et al., 2013; <sup>1</sup>Malysheva, 2018); **Perm Krai** (<sup>3</sup>Perevedentseva, 2008); **Pskov Oblast** (<sup>2</sup>Morozova et al., 2015; <sup>1</sup>Malysheva, 2018); **Ryazan Oblast** (<sup>5</sup>Malysheva and Volosnova, 2008; <sup>5</sup>Volosnova, 2014; <sup>1</sup>Malysheva, 2018); **Saint Petersburg** (<sup>1</sup>Malysheva, 2018); **Samara Oblast** (<sup>1</sup>Malysheva, 2018); **Sverdlovsk Oblast** (<sup>3,4</sup>Marina, 2006; <sup>1</sup>Malysheva, 2018; <sup>1</sup>Shiryayeva and Malysheva, 2018); **Tatarstan** (<sup>5</sup>Vassiljeva, 1977); **Vologda Oblast** (<sup>3</sup>Kirillova, 2007; <sup>1</sup>Malysheva, 2018).

SIBERIA: **Altai Krai** (<sup>1</sup>Malysheva, 2018); **Altai Republic** (<sup>1,5</sup>Singer, 1950a; <sup>5</sup>Singer, 1950b; <sup>5</sup>Gorbunova, 2003; <sup>3</sup>Gorbunova, 2006; <sup>3</sup>Gorbunova, 2010; <sup>1</sup>Malysheva, 2018); **Buryatia** (<sup>1</sup>Nezdojminogo, 1973 [as *Galerella plicatella* (Peck) Singer, redet. in Malysheva, 2018]; <sup>1</sup>Petrov, 1991 [as *Galerella plicatella* (Peck) Singer, redet. in Malysheva, 2018]; <sup>1</sup>Malysheva, 2018); **Irkutsk Oblast** (<sup>1</sup>Malysheva, 2018); **Khanty-Mansi Autonomous Okrug** (<sup>2</sup>Filippova and Bulyonkova, 2017a; <sup>2</sup>Filippova and Bulyonkova, 2017b; <sup>1</sup>Malysheva, 2018); **Krasnoyarsk Krai** (<sup>1</sup>Nezdojminogo, 1982a [as *Galerella plicatella* (Peck) Singer, redet. in Malysheva, 2018]; <sup>4</sup>Nezdojminogo, 1994; <sup>4</sup>Karatygin, Nezdojminogo, Novozhilov, and Zhurbenko, 1999; <sup>1</sup>Malysheva, Malysheva, Kiyashko, et al., 2017; <sup>1</sup>Malysheva, 2018).

FAR EAST: **Kamchatka Krai** (<sup>1</sup>Hausknecht, Kalamees, Knudsen, and Mukhin, 2009; <sup>1</sup>Malysheva, 2018); **Khabarovsk Krai** (<sup>5</sup>Azbukina et al., 1989); **Primorsky Krai** (<sup>5</sup>Vassiljeva, 1973; <sup>5</sup>Bunkina and Nazarova, 1978; <sup>5</sup>Azbukina et al., 1990; <sup>5</sup>Bardunov et al., 2002; <sup>5</sup>Azbukina et al., 2006; <sup>3</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Bulakh et al., 2016 [as *Pholiotina parvula* (Døssing & Watling) Bon, redet. in Malysheva, 2018]; <sup>1</sup>Malysheva, 2018); **Sakhalin Oblast** (<sup>1</sup>Hausknecht, Kalamees, Knudsen, and Mukhin, 2009; <sup>1</sup>Malysheva, 2018).

***Pholiotina hadrocystis* (Kits van Wav.) Courtec.<sup>1</sup>**

≡ *Conocybe hadrocystis* (Kits van Wav.) Watling<sup>2</sup>

EASTERN EUROPE: **Samara Oblast** (<sup>2</sup>Malysheva and Malysheva, 2008; <sup>1</sup>Malysheva, 2018).

***Pholiotina intermedia* (Kühner) Singer<sup>1</sup>**

≡ *Conocybe intermedia* Kühner<sup>2</sup> = *Pholiotina septentrionalis* (A.H. Sm.) Singer<sup>3</sup> = *Pholiotina septentrionalis* subsp. *vasilievae* Singer<sup>4</sup>

EASTERN EUROPE: **Adygea** (<sup>3</sup>Singer, 1950b; <sup>1</sup>Malysheva, 2011b); **Karelia** (<sup>3</sup>Czerepanova, Perfiljeva, and Tobias, 1982); **Krasnodar Krai** (<sup>4</sup>Vassiljeva, 1939; <sup>4</sup>Singer, 1950a; <sup>1</sup>Malysheva, 2018); **Leningrad Oblast** (<sup>3</sup>Singer, 1950b).

SIBERIA: **Altai Republic** (<sup>4</sup>Singer, 1945; <sup>3</sup>Singer, 1950b).

FAR EAST: **Khabarovsk Krai** (<sup>1</sup>Azbukina et al., 1986); **Primorsky Krai** (<sup>3</sup>Vassiljeva, 1973; <sup>3</sup>Bunkina and Nazarova, 1978; <sup>4</sup>Azbukina et al., 1984; <sup>1</sup>Kovalenko and Nezdojminogo, 1989; <sup>2</sup>Azbukina et al., 2006; <sup>1</sup>Bulakh et al., 2016; <sup>1</sup>Malysheva, 2018).

***Pholiotina longistipitata* E.F. Malysheva & Kiyashko**

SIBERIA: **Krasnoyarsk Krai** (Crous et al., 2017; Malysheva, Malysheva, Kiyashko, et al., 2017; Malysheva, 2018).

***Pholiotina mairei* (Kühner ex Watling) Enderle<sup>1</sup>**

≡ *Conocybe mairei* Kühner ex Watling<sup>2</sup> ≡ *Pholiotina mairei* Singer<sup>3</sup>

EASTERN EUROPE: **Karachay-Cherkess Republic** (<sup>1</sup>Malysheva, 2011b; <sup>1</sup>Malysheva, 2018); **Leningrad Oblast** (<sup>1</sup>Malysheva, 2018); **Moscow Oblast** (<sup>2</sup>Levitskaya, 1998; <sup>2</sup>Levitskaya, 2013; <sup>1</sup>Voronina et al., 2014; <sup>1</sup>Malysheva, 2018); **Pskov Oblast** (<sup>1</sup>Morozova et al., 2015; <sup>1</sup>Malysheva, 2018); **Saint Petersburg** (<sup>3</sup>Singer, 1950a); **Samara Oblast** (<sup>1</sup>Malysheva and Malysheva, 2006; <sup>1</sup>Malysheva and Malysheva, 2007; <sup>2</sup>Malysheva and Malysheva, 2008; <sup>1</sup>Malysheva, 2018); **Sverdlovsk Oblast** (<sup>1</sup>Malysheva, 2018; <sup>1</sup>Shiryaeva and Malysheva, 2018).

SIBERIA: **Altai Republic** (<sup>1</sup>Malysheva, 2018); **Tomsk Oblast** (<sup>2</sup>Kudashova, Gashkov, and Kutafjeva, 2013).

***Pholiotina nemoralis* (Harmaja) Bon<sup>1</sup>**

≡ *Conocybe nemoralis* Harmaja<sup>2</sup> ≡ *Pholiotina nemoralis* var. *nemoralis* (Harmaja) Bon<sup>3</sup> = *Conocybe dentatmarginata* Watling<sup>4</sup> = *Conocybe mutabilis* Watling<sup>5</sup> = *Pholiotina nemoralis* var. *dentatmarginata* (Watling) Hauskn.<sup>6</sup>

EASTERN EUROPE: **Adygea** (<sup>4</sup>Sopina, 2004b); **Karachay-Cherkess Republic** (<sup>6</sup>Malysheva, 2011b; <sup>6</sup>Malysheva, 2018); **Komi Republic** (<sup>4</sup>Palamarchuk and Kirillov, 2017; <sup>2</sup>Palamarchuk, 2020b); **Krasnodar Krai** (<sup>6</sup>Malysheva, 2018); **Moscow Oblast** (<sup>4</sup>Levitskaya, 1995a; <sup>4</sup>Levitskaya, 2013); **Ryazan Oblast** (<sup>6</sup>Malysheva, 2018); **Samara Oblast** (<sup>3</sup>Malysheva, 2018); **Sverdlovsk Oblast** (<sup>3,6</sup>Malysheva, 2018; <sup>3,6</sup>Shiryaeva and Malysheva, 2018); **Ulyanovsk Oblast** (<sup>1</sup>Ilyukhin, 2009; <sup>1</sup>Ilyukhin, 2010a); **Volgograd Oblast** (<sup>6</sup>Malysheva, 2018).

SIBERIA: **Altai Republic** (<sup>6</sup>Malysheva, 2018; <sup>5</sup>Gorbunova, 2019); **Khanty-Mansi Autonomous Okrug** (<sup>6</sup>Malysheva, 2018); **Krasnoyarsk Krai** (<sup>4</sup>Nezdojminogo, 1994; <sup>4</sup>Karatygin, Nezdojminogo, Novozhilov, and Zhurbenko, 1999; <sup>3</sup>Malysheva, 2018).

FAR EAST: **Khabarovsk Krai** (<sup>6</sup>Azbukina et al., 1986 [as *Conocybe exannulata* Kühner & Watling, redet. in Malysheva, 2018]; <sup>6</sup>Malysheva, 2018); **Primorsky Krai** (<sup>5</sup>Bulakh, 2008; <sup>5</sup>Bau, Bulakh, and Govorova, 2011).

***Pholiotina parvula* (Døssing & Watling) Bon<sup>1</sup>**≡ *Conocybe parvula* Døssing & Watling<sup>2</sup>EASTERN EUROPE: **Karelia** (<sup>2</sup>Bondartseva et al., 2001; <sup>2</sup>Krutov et al., 2014).SIBERIA: **Khanty-Mansi Autonomous Okrug** (<sup>1</sup>Filippova and Bulyonkova, 2017a; <sup>1</sup>Filippova and Bulyonkova, 2017b).***Pholiotina plumbeitincta* (G.F. Atk.) Hauskn., Krisai & Voglmayr**≡ *Conocybe plumbeitincta* (G.F. Atk.) Singer<sup>1</sup>EASTERN EUROPE: **Krasnodar Krai** (<sup>1</sup>Kovalenko, 1980a; <sup>1</sup>Kovalenko, 1980b).SIBERIA: **Novosibirsk Oblast** (<sup>1</sup>Perova, 1977).***Pholiotina procera* Singer**SIBERIA: **Altai Republic** (Singer, 1945; Singer, 1950a; Singer, 1950b; Hausknecht, Kalamees, Knudsen, and Mukhin, 2009; Malysheva, 2018).***Pholiotina pygmaeoaffinis* (Fr.) Singer<sup>1</sup>**≡ *Conocybe pygmaeoaffinis* (Fr.) Kühner<sup>2</sup> ≡ *Galera pygmaeoaffinis* (Fr.) Quél.<sup>3</sup>EASTERN EUROPE: **Crimea** (<sup>1</sup>Moser, 1993; <sup>1</sup>Sarkina, 2001; <sup>1</sup>Dudka et al., 2004; <sup>2</sup>Sarkina and Prydiuk, 2012); **Komi Republic** (<sup>2</sup>Palamarchuk (Bobretsova), 2009; <sup>1</sup>Palamarchuk, 2012); **Leningrad Oblast** (<sup>2</sup>Malysheva and Malysheva, 2005a; <sup>2</sup>Popov et al., 2007; <sup>2</sup>Zmitrovich et al., 2015); **Samara Oblast** (<sup>1</sup>Malysheva, 2018); **Smolensk Oblast** (<sup>3</sup>Jaczewski, 1898).***Pholiotina rugosa* (Peck) Singer<sup>1</sup>**≡ *Conocybe rugosa* (Peck) Watling<sup>2</sup> = *Conocybe filaris* (Fr.) Kühner<sup>3</sup> = *Pholiotina filaris* (Fr.) Singer<sup>4</sup>EASTERN EUROPE: **Karachay-Cherkess Republic** (<sup>1</sup>Malysheva, 2018); **Komi Republic** (<sup>4</sup>Palamarchuk, 2016a); **Leningrad Oblast** (<sup>3</sup>Nezdojminogo, 1967; <sup>3</sup>Kovalenko and Morozova, 1999a; <sup>3</sup>Popov et al., 2007); **Moscow Oblast** (<sup>3</sup>Levitskaya, 1998; <sup>3</sup>Levitskaya, 2013); **Novgorod Oblast** (<sup>1</sup>Malysheva, 2018); **Perm Krai** (<sup>3</sup>Perevedentseva, 2008; <sup>4</sup>Perevedentseva and Shishigin, 2014); **Saint Petersburg** (<sup>4</sup>Morozova, Kovalenko, Rebriev, and Malysheva, 2014; <sup>1</sup>Malysheva, 2018).SIBERIA: **Altai Krai** (<sup>2</sup>Gorbunova, 2018a); **Altai Republic** (<sup>1</sup>Malysheva, 2018); **Krasnoyarsk Krai** (<sup>3</sup>Beglyanova, 1972a; <sup>1</sup>Malysheva, Malysheva, Kiyashko, et al., 2017; <sup>1</sup>Malysheva, 2018).FAR EAST: **Jewish Autonomous Oblast** (<sup>4</sup>Bulakh, Govorova, Nazarova, and Vassiljeva, 2007; <sup>2,3</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Malysheva, 2018); **Kamchatka Krai** (<sup>1</sup>Karatygin, Nezdojminogo, Novozhilov, and Zhurbenko, 1999); **Khabarovsk Krai** (<sup>4</sup>Azbukina et al., 1989); **Magadan Oblast** (<sup>1</sup>Malysheva, 2018); **Primorsky Krai** (<sup>4</sup>Bunkina and Nazarova, 1978; <sup>4</sup>Azbukina et al., 1984; <sup>4</sup>Kovalenko and Nezdojminogo, 1989; <sup>4</sup>Azbukina et al., 1990; <sup>4</sup>Bardunov et al., 2002; <sup>4</sup>Azbukina et al., 2006; <sup>3</sup>Bau, Bulakh, and Govorova, 2011; <sup>3</sup>Bulakh et al., 2016; <sup>1</sup>Malysheva, 2018).***Pholiotina striipes* (Cooke) M.M. Moser<sup>1</sup>**≡ *Conocybe striipes* (Cooke) S. Lundell<sup>2</sup> ≡ *Naucoria striipes* (Cooke) Sacc.<sup>3</sup>EASTERN EUROPE: **Moscow** (<sup>1</sup>Malysheva, 2018); **Penza Oblast** (<sup>1</sup>Ivanov, 1988a; <sup>1</sup>Malysheva, 2018); **Saint Petersburg** (<sup>1</sup>Morozova, Kovalenko, Rebriev, and Malysheva, 2014; <sup>1</sup>Malysheva, 2018); **Samara Oblast** (<sup>1</sup>Malysheva and Malysheva, 2006; <sup>2</sup>Malysheva and Malysheva, 2008); **Tula Oblast** (<sup>1</sup>Malysheva, 2018).SIBERIA: **Krasnoyarsk Krai** (<sup>3</sup>Saccardo, 1896).***Pholiotina sulcata* Arnolds & Hauskn.<sup>1</sup>**= *Conocybe plicatella* (Peck) Kühner<sup>2</sup> = *Galerella plicatella* (Peck) Singer<sup>3</sup>Arnolds and Hausknecht (2003) described new species *Pholiotina sulcata* to accommodate European collections named as *Galerella plicatella* and *Conocybe plicatella*. Peck's type specimen *A. plicatellus* (replacing name for *A. coprinoidea* Peck – later homonym for *A. coprinoidea* Corda) proved to differ significantly from specimens collected in Europe.EASTERN EUROPE: **Komi Republic** (<sup>2</sup>Palamarchuk, 2012); **Moscow Oblast** (<sup>1</sup>Malysheva, 2018); **Novgorod Oblast** (<sup>1</sup>Malysheva, Malysheva, and Zmitrovich, 2007; <sup>1</sup>Malysheva, 2018); **Tula Oblast** (<sup>1</sup>Svetasheva, 2004 [as *Conocybe plicatella* (Peck) Kühner, redet. in Malysheva, 2018]; <sup>1</sup>Svetasheva, 2005b [as *Conocybe plicatella* (Peck) Kühner, redet. in Malysheva, 2018]; <sup>1</sup>Malysheva, 2018).FAR EAST: **Amur Oblast** (<sup>3</sup>Kochunova and Erofeeva, 2017); **Khabarovsk Krai** (<sup>2</sup>Bau, Bulakh, and Govorova, 2011); **Primorsky Krai** (<sup>2</sup>Bulakh, 2008); **Sakhalin Oblast** (<sup>2</sup>Bulakh, 2008).

***Phliotina teneroides* (J.E. Lange) Singer<sup>1</sup>**

≡ *Conocybe teneroides* (J.E. Lange) Kühner<sup>2</sup> = *Conocybe percincta* P.D. Orton<sup>3</sup>

EASTERN EUROPE: **Crimea** (<sup>1</sup>Dudka et al., 2004; <sup>1</sup>Sarkina, 2010b; <sup>1</sup>Sarkina, 2011); **Karachay-Cherkess Republic** (<sup>1</sup>Malysheva, 2011b; <sup>1</sup>Malysheva, 2018); **Penza Oblast** (<sup>1</sup>Ivanov, 1988a); **Ulyanovsk Oblast** (<sup>1</sup>Ilyukhin, 2010a; <sup>1</sup>Ilyukhin, 2010b); **Yamalo-Nenets Autonomous Okrug** (<sup>1</sup>Hausknecht, Kalamees, Knudsen, and Mukhin, 2009).

SIBERIA: **Altai Republic** (<sup>2</sup>Gorbunova, 2003; <sup>3</sup>Gorbunova, 2010; <sup>1</sup>Malysheva, 2018); **Irkutsk Oblast** (<sup>1</sup>Kutafjeva, 1989); **Krasnoyarsk Krai** (<sup>1</sup>Malysheva, 2018).

***Phliotina utricystidiata* Enderle & H.-J. Hübner**

FAR EAST: **Primorsky Krai** (Malysheva, 2018).

***Phliotina velata* (Velen.) Hauskn.<sup>1</sup>**

≡ *Conocybe velata* (Velen.) Watling<sup>2</sup> = *Conocybe appendiculata* J.E. Lange & Kühner ex Watling<sup>3</sup> = *Phliotina appendiculata* (J.E. Lange & Kühner ex Watling) Singer<sup>4</sup>

EASTERN EUROPE: **Crimea** (<sup>4</sup>Moser, 1993; <sup>4</sup>Sarkina, 2001; <sup>4</sup>Dudka et al., 2004; <sup>4</sup>Sarkina, 2011); **Karelia** (<sup>3</sup>Bondartseva et al., 2001; <sup>2</sup>Krutov et al., 2014); **Komi Republic** (<sup>3</sup>Palamarchuk (Bobretsova), 2009; <sup>1</sup>Palamarchuk, 2012); **Krasnodar Krai** (<sup>1</sup>Malysheva, 2018); **Moscow Oblast** (<sup>1</sup>Voronina et al., 2014; <sup>1</sup>Malysheva, 2018); **Novgorod Oblast** (<sup>1</sup>Kovalenko, Morozova, Nezdojminogo, and Popov, 2005 [as *Conocybe pygmaeoaffinis* (Fr.) Kühner, redet. in Malysheva, 2018]; <sup>3</sup>Kovalenko, Morozova, Nezdojminogo, and Popov, 2005; <sup>1</sup>Popov et al., 2013; <sup>1</sup>Popov et al., 2013 [as *Phliotina pygmaeoaffinis* (Fr.) Singer, redet. in Malysheva, 2018]; <sup>1</sup>Malysheva, 2018); **Penza Oblast** (<sup>4</sup>Ivanov, 1988a); **Rostov Oblast** (<sup>1</sup>Morozova et al., 2008; <sup>1</sup>Malysheva, 2018); **Samara Oblast** (<sup>1</sup>Malysheva and Malysheva, 2006; <sup>3</sup>Malysheva and Malysheva, 2008; <sup>1</sup>Malysheva, 2018); **Stavropol Krai** (<sup>1</sup>Malysheva, 2018); **Tula Oblast** (<sup>1</sup>Svetasheva et al., 2017; <sup>1</sup>Svetasheva, Aleksandrova, Zaytseva, and Solovjova, 2017); **Arid territories** (<sup>1</sup>Rebriev, Rusanov, et al., 2012).

SIBERIA: **Altai Republic** (<sup>2</sup>Gorbunova, 2019); **Khakassia** (<sup>1</sup>Hausknecht, Kalamees, Knudsen, and Mukhin, 2009; <sup>1</sup>Malysheva, 2018).

FAR EAST: **Jewish Autonomous Oblast** (<sup>2</sup>Erofeeva, Bukharova, and Bulakh, 2019); **Primorsky Krai** (<sup>4</sup>Azbukina et al., 1990).

***Phliotina vestita* (Fr.) Singer**

FAR EAST: **Amur Oblast** (Azbukina et al., 1998).

***Phliotina vexans* (P.D. Orton) Bon<sup>1</sup>**

≡ *Conocybe vexans* P.D. Orton<sup>2</sup>

EASTERN EUROPE: **Adygea** (<sup>2</sup>Sopina, 2001a; <sup>1</sup>Malysheva, 2018); **Karachay-Cherkess Republic** (<sup>1</sup>Malysheva, 2011b; <sup>1</sup>Malysheva, 2018); **Komi Republic** (<sup>2</sup>Palamarchuk, 2011a; <sup>2</sup>Palamarchuk, 2012; <sup>1</sup>Palamarchuk, 2016a; <sup>1</sup>Palamarchuk, 2016b); **Leningrad Oblast** (<sup>2</sup>Morozova and Kovalenko, 2000; <sup>2</sup>Popov et al., 2007; <sup>1</sup>Malysheva, 2018); **Moscow Oblast** (<sup>1</sup>Voronina et al., 2014; <sup>1</sup>Malysheva, 2018); **Murmansk Oblast** (<sup>1</sup>Malysheva, 2018); **Pskov Oblast** (<sup>1</sup>Morozova et al., 2015; <sup>1</sup>Malysheva, 2018); **Rostov Oblast** (<sup>1</sup>Morozova et al., 2008; <sup>1</sup>Malysheva, 2018); **Saint Petersburg** (<sup>1</sup>Malysheva, 2018); **Sverdlovsk Oblast** (<sup>2</sup>Marina, 2006); **Vologda Oblast** (<sup>2</sup>Kirillova, 2007; <sup>1</sup>Malysheva, 2018); **Yamalo-Nenets Autonomous Okrug** (<sup>1</sup>Hausknecht, Kalamees, Knudsen, and Mukhin, 2009); **Arid territories** (<sup>1</sup>Rebriev, Rusanov, et al., 2012).

SIBERIA: **Altai Republic** (<sup>1</sup>Malysheva, 2018; <sup>2</sup>Gorbunova, 2019); **Khakassia** (<sup>2</sup>Gorbunova and Majnagasheva, 2013; <sup>2</sup>Zauzolkova, 2015); **Khanty-Mansi Autonomous Okrug** (<sup>1</sup>Malysheva, 2018); **Krasnoyarsk Krai** (<sup>2</sup>Kosheleva and Kutafjeva, 2008b; <sup>2</sup>Kosheleva, 2010; <sup>1</sup>Malysheva, Malysheva, Kiyashko, et al., 2017; <sup>1</sup>Malysheva, 2018).

FAR EAST: **Jewish Autonomous Oblast** (<sup>1</sup>Malysheva, 2018); **Kamchatka Krai** (<sup>1</sup>Hausknecht, Kalamees, Knudsen, and Mukhin, 2009); **Primorsky Krai** (<sup>1</sup>Malysheva, 2018).

***Phylloporus pelletieri* (Lév.) Quél.**

EASTERN EUROPE: **Krasnodar Krai** (Kiyashko, 2009).

***Phylloporus rhodoxanthus* (Schwein.) Bres.**

EASTERN EUROPE: **Belgorod Oblast** (Bedenko, 1979a).

***Phyllotopsis nidulans* (Pers.) Singer<sup>1</sup>**

≡ *Agaricus nidulans* Pers.<sup>2</sup> ≡ *Crepidotus nidulans* (Pers.) Quél.<sup>3</sup> ≡ *Panus nidulans* (Pers.) Pilát<sup>4</sup> ≡ *Pleurotus nidulans* (Pers.) P. Kumm.<sup>5</sup>

EASTERN EUROPE: **Adygea** (<sup>1</sup>Vaasma, Kalamees, and Raitviir, 1986); **Arkhangelsk Oblast** (<sup>1</sup>Ezhov, 2013; <sup>1</sup>Ezhov, 2014; <sup>1</sup>Anufriev et al., 2020); **Belgorod Oblast** (<sup>1</sup>Bedenko, 1980); **Chechen Republic** (<sup>1</sup>Taysumov, Krapivina, and Kushaliev, 2016); **Crimea** (<sup>1</sup>Sarkina, 2001; <sup>1</sup>Dudka et al., 2004; <sup>1</sup>Sarkina and Prydiuk, 2012); **Kabardino-Balkarian Republic** (<sup>5</sup>Singer, 1931; <sup>1</sup>Shkhagapsoev and Krapivina, 2004); **Kaliningrad Oblast** (<sup>1</sup>Dedkov, Volodina, and Gubareva, 2007; <sup>1</sup>Volodina, 2007); **Kaluga Oblast** (<sup>1</sup>Sionova, 2003; <sup>1</sup>Sionova, 2009; <sup>1</sup>Antokhina et al., 2015); **Karachay-Cherkess Republic** (<sup>1</sup>Kalamees and Botashev, 2000); **Kirov Oblast** (<sup>1</sup>Kirillov, 2011; <sup>1</sup>Kirillov, Perevedentseva, and Egoshina, 2011); **Komi Republic** (<sup>1</sup>Palamarchuk (Bobretsova), 2009; <sup>1</sup>Taskaev, 2009; <sup>1</sup>Palamarchuk, 2012; <sup>1</sup>Palamarchuk and Kirillov, 2018a; <sup>1</sup>Dyogteva, 2019); **Krasnodar Krai** (<sup>1</sup>Vassiljeva, 1939; <sup>1</sup>Singer, 1950c; <sup>1</sup>Kovalenko, 1980a; <sup>1</sup>Kovalenko, 1980b); **Leningrad Oblast** (<sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Morozova and Kovalenko, 2000; <sup>1</sup>Tzvelev, 2000; <sup>1</sup>Zmitrovich, 2003; <sup>4</sup>Zmitrovich, Malysheva, Malysheva, and Spirin, 2004; <sup>1</sup>Popov et al., 2007; <sup>1</sup>Zmitrovich et al., 2015; <sup>1</sup>Geltman et al., 2018; <sup>1</sup>Kalinina, 2018); **Lipetsk Oblast** (<sup>1</sup>Afanasyev, Rtishcheva, and Starodubtseva, 2007; <sup>1</sup>Sarycheva, 2014a; <sup>1</sup>Sarycheva, 2016; <sup>1</sup>Sarycheva, Starodubtseva, and Sapelnikova, 2017); **Mordovia** (<sup>1</sup>Ivoilov and Bolshakov, 2011a; <sup>1</sup>Bolshakov and Ivoilov, 2012b; <sup>1</sup>Bolshakov, 2015); **Murmansk Oblast** (<sup>3</sup>Pystina, Pavlova, and Shestakova, 1969); **Novgorod Oblast** (<sup>1</sup>Baklan, 2015); **Orenburg Oblast** (<sup>2</sup>Vorontsovsky, 1921); **Penza Oblast** (<sup>1</sup>Ivanov, 1981b; <sup>1</sup>Ivanov, 1982); **Perm Krai** (<sup>1</sup>Perevedentseva, 2008; <sup>1</sup>Shepel', 2008; <sup>1</sup>Baklanov, 2018); **Pskov Oblast** (<sup>1</sup>Popov et al., 2013); **Rostov Oblast** (<sup>1</sup>Rusanov, Rebriev, and Bulgakov, 2018); **Ryazan Oblast** (<sup>1</sup>Volosnova, 2005; <sup>1</sup>Ivanchev and Kazakova, 2011; <sup>4</sup>Volosnova, 2014); **Saint Petersburg** (<sup>2</sup>Weinmann, 1828; <sup>2</sup>Weinmann, 1836; <sup>2</sup>Weinmann, 1837; <sup>1</sup>Noskov, 2004; <sup>4</sup>Zmitrovich, Malysheva, Malysheva, and Spirin, 2004; <sup>1</sup>Kotkova, Morozova, and Popov, 2005; <sup>1</sup>Psurtseva, Kiyashko, Gachkova, and Belova, 2007; <sup>1</sup>Morozova and Smirnov, 2011; <sup>1</sup>Morozova et al., 2020); **Samara Oblast** (<sup>4</sup>Malysheva and Malysheva, 2005b; <sup>4</sup>Malysheva and Malysheva, 2008); **Smolensk Oblast** (<sup>5</sup>Jaczewski, 1896); **Tatarstan** (<sup>1</sup>Vassiljeva, 1977; <sup>1</sup>Potapov, Galejev, and Zhukov, 2013; <sup>1</sup>Potapov, 2015b); **Tver Oblast** (<sup>1</sup>Kurochkin, 1993); **Udmurt Republic** (<sup>1</sup>Kapitonov, 2008); **Voronezh Oblast** (<sup>1</sup>Afanasyev, Rtishcheva, and Starodubtseva, 2007; <sup>1</sup>Sarycheva, Starodubtseva, and Sapelnikova, 2017); **Arid territories** (<sup>1</sup>Rebriev, Rusanov, et al., 2012).

SIBERIA: **Altai Krai** (<sup>1</sup>Gorbunova and Perova, 2006); **Altai Republic** (<sup>1</sup>Singer, 1943; <sup>1</sup>Kovalenko, 1992; <sup>1</sup>Perova and Gorbunova, 2001; <sup>1</sup>Gorbunova, 2008); **Buryatia** (<sup>1</sup>Petrov, 2013; <sup>1</sup>Heklau and Dörfelt, 2017); **Irkutsk Oblast** (<sup>1</sup>Kutafjeva, 1989; <sup>1</sup>Astapenko, 1990a; <sup>1</sup>Petrov, 1991; <sup>1</sup>Petrov, 2008; <sup>1</sup>Muzyka and Penzina, 2017); **Kemerovo Oblast** (<sup>1</sup>Perova and Gorbunova, 2001); **Khakassia** (<sup>1</sup>Zauzolkova and Gorbunova, 2013; <sup>1</sup>Zauzolkova, 2015); **Khanty-Mansi Autonomous Okrug** (<sup>1</sup>Mukhin, 1993; <sup>1</sup>Zvyagina, Baykalova, and Gorbunova, 2007; <sup>1</sup>Baykalova and Zvyagina, 2008); **Krasnoyarsk Krai** (<sup>1</sup>Beglyanova, 1972a; <sup>1</sup>Mukhin and Kotiranta, 2001; <sup>1</sup>Pavlov et al., 2007; <sup>1</sup>Kosheleva and Kutafjeva, 2008a; <sup>1</sup>Zauzolkova, 2012; <sup>1</sup>Kryuchkova, 2015; <sup>1</sup>Zauzolkova, 2015; <sup>1</sup>Krom and Kapitonov, 2019); **Kurgan Oblast** (<sup>1</sup>Bystrushkin, 2016); **Novosibirsk Oblast** (<sup>1</sup>Zhukov, 1972; <sup>1</sup>Perova and Gorbunova, 2001; <sup>1</sup>Perova and Gorbunova, 2007; <sup>1</sup>Koropachinskiy and Banaev, 2014); **Tomsk Oblast** (<sup>1</sup>Kudashova, Gashkov, and Kutafjeva, 2013; <sup>1</sup>Kudashova, Gashkov, and Vaishlya, 2016b).

FAR EAST: **Amur Oblast** (<sup>1</sup>Bulakh, Govorova, and Taranina, 2003; <sup>1</sup>Kochunova, 2016; <sup>1</sup>Kochunova, 2019); **Khabarovsk Krai** (<sup>1</sup>Azbukina et al., 1986; <sup>1</sup>Azbukina et al., 1989; <sup>1</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Erofeeva and Bulakh, 2015a); **Magadan Oblast** (<sup>1</sup>Nazarova, 1976; <sup>1</sup>Sazanova, 2005; <sup>1</sup>Sazanova, 2009a; <sup>1</sup>Sazanova, 2009b; <sup>1</sup>Sazanova, 2011; <sup>1</sup>Sazanova and Golodnova, 2015; <sup>1</sup>Sazanova, 2016); **Primorsky Krai** (<sup>1</sup>Vassiljeva, 1972; <sup>1</sup>Vassiljeva, 1973; <sup>1</sup>Bunkina and Nazarova, 1978; <sup>1</sup>Azbukina et al., 1984; <sup>1</sup>Azbukina et al., 1990; <sup>1</sup>Bardunov et al., 2002; <sup>1</sup>Azbukina et al., 2006; <sup>1</sup>Bau, Bulakh, and Govorova, 2011).

***Pleurocybella porrigens* (Pers.) Singer<sup>1</sup>**

≡ *Agaricus porrigens* Pers.<sup>2</sup> ≡ *Phyllotus porrigens* (Pers.) P. Karst.<sup>3</sup> ≡ *Pleurotus porrigens* (Pers.) P. Kumm.<sup>4</sup>

EASTERN EUROPE: **Kaliningrad Oblast** (<sup>3</sup>Dedkov, Volodina, and Gubareva, 2007); **Leningrad Oblast** (<sup>3</sup>Kovalenko and Morozova, 1999a; <sup>3</sup>Zmitrovich, 2003; <sup>1</sup>Zmitrovich, Malysheva, Malysheva, and Spirin, 2004; <sup>1</sup>Popov et al., 2007); **Saint Petersburg** (<sup>2</sup>Weinmann, 1828; <sup>2</sup>Weinmann, 1836; <sup>2</sup>Weinmann, 1837).

SIBERIA: **Krasnoyarsk Krai** (<sup>1</sup>Beglyanova, 1972a; <sup>4</sup>Beglyanova, 1972b; <sup>1</sup>Kosheleva and Kutafjeva, 2008b; <sup>1</sup>Kryuchkova and Yaskova, 2017).

FAR EAST: **Sakhalin Oblast** (<sup>4</sup>Vassiljeva and Nazarova, 1972).

***Pleuroflammula chocoruensis* Singer**

FAR EAST: **Amur Oblast** (Kochunova and Erofeeva, 2017); **Jewish Autonomous Oblast** (Bulakh, Govorova, Nazarova, and Vassiljeva, 2007; Bau, Bulakh, and Govorova, 2011); **Khabarovsk Krai** (Azbukina et al., 1986;

Azbukina et al., 1989; Bulakh, Vassiljeva, and Erofeeva, 2010; Bau, Bulakh, and Govorova, 2011; Erofeeva and Bulakh, 2015a); **Primorsky Krai** (Vassiljeva, 1973; Bunkina and Nazarova, 1978; Azbukina et al., 1984; Azbukina et al., 1990; Bardunov et al., 2002; Azbukina et al., 2006; Bau, Bulakh, and Govorova, 2011; Bogacheva, Bulakh, Bukharova, and Egorova, 2020); **Sakhalin Oblast** (Bulakh, Govorova, and Bogatov, 1999).

***Pleuroflammula flammea* (Murrill) Singer**

SIBERIA: **Irkutsk Oblast** (Petrov, 1986; Petrov, 1989; Petrov, 1991; Gaykova and Popov, 2010; Trofimova, Popov, and Merkacheva, 2020).

***Pleuroflammula subsulphurea* (A.H. Sm. & Hesler) E. Horak**

≡ *Pholiota subsulphurea* A.H. Sm. & Hesler<sup>1</sup>

FAR EAST: **Primorsky Krai** (<sup>1</sup>Bau, Bulakh, and Govorova, 2011).

***Pleurotellus chioneus* (Pers.) Kühner**

EASTERN EUROPE: **Krasnodar Krai** (Kovalenko, 1980a; Kovalenko, 1980b); **Lipetsk Oblast** (Sarycheva et al., 2009; Sarycheva, 2011; Sarycheva, 2014a; Sarycheva, 2016); **Ryazan Oblast** (Volosnova, 1997); **Udmurt Republic** (Tychinin and Kuzmina, 2003).

SIBERIA: **Krasnoyarsk Krai** (Beglyanova, 1972a; Nezdojminogo, 1982a); **Novosibirsk Oblast** (Perova, 1982; Perova and Gorbunova, 2001; Perova and Gorbunova, 2007); **Sverdlovsk Oblast** (Mukhin et al., 2003); **Tomsk Oblast** (Kudashova, Gashkov, and Kutafjeva, 2013); **Yamalo-Nenets Autonomous Okrug** (Tarchevskaya, 1990).

FAR EAST: **Primorsky Krai** (Vassiljeva, 1973; Bunkina and Nazarova, 1978; Azbukina et al., 1984; Azbukina et al., 2006; Bau, Bulakh, and Govorova, 2011).

***Pleurotellus dictyorrhizus* (DC.) Kühner<sup>1</sup>**

≡ *Pleurotus dictyorrhizus* (DC.) Gillet<sup>2</sup>

EASTERN EUROPE: **Leningrad Oblast** (<sup>2</sup>Thesleff, 1920; <sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Popov et al., 2007).

***Pleurotus abieticola* R.H. Petersen & K.W. Hughes**

EASTERN EUROPE: **Leningrad Oblast** (Albertó, Petersen, Hughes, and Lechner, 2002).

FAR EAST: **Primorsky Krai** (Petersen and Hughes, 1997).

***Pleurotus calyptratus* (Lindblad ex Fr.) Sacc.<sup>1</sup>**

≡ *Tectella calyptrata* (Lindblad ex Fr.) Singer<sup>2</sup>

EASTERN EUROPE: **Chelyabinsk Oblast** (<sup>1</sup>Krasutsky, 2013; <sup>1</sup>Krasutsky, 2014); **Komi Republic** (<sup>1</sup>Palamarchuk and Kirillov, 2017); **Leningrad Oblast** (<sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Tzvelev, 2000; <sup>1</sup>Zmitrovich, 2003; <sup>1</sup>Zmitrovich, Malysheva, Malysheva, and Spirin, 2004; <sup>1</sup>Morozova, 2007; <sup>1</sup>Popov et al., 2007; <sup>1</sup>Psurtseva, Kiyashko, Gachkova, and Belova, 2007; <sup>1</sup>Zmitrovich et al., 2015; <sup>1</sup>Geltman et al., 2018); **Lipetsk Oblast** (<sup>1</sup>Sarycheva, 2014a; <sup>1</sup>Shcherbakov, 2014; <sup>1</sup>Sarycheva, 2016); **Mordovia** (<sup>1</sup>Silaeva, 2017); **Novgorod Oblast** (<sup>1</sup>Bolshakov et al., 2020); **Orenburg Oblast** (<sup>1</sup>Safonov, 2002; <sup>1</sup>Desyatova, 2008; <sup>1</sup>Safonov, 2015); **Penza Oblast** (<sup>1</sup>Ivanov, 1981b; <sup>1</sup>Ivanov, 1982; <sup>1</sup>Ivanov, 1999; <sup>1</sup>Psurtseva, Kiyashko, Gachkova, and Belova, 2007); **Perm Krai** (<sup>1</sup>Perevedentseva, 2008; <sup>1</sup>Shepel', 2008; <sup>1</sup>Baklanov, 2018); **Ryazan Oblast** (<sup>1</sup>Volosnova, 1997; <sup>1</sup>Volosnova, 2014); **Saint Petersburg** (<sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Noskov, 2004; <sup>1</sup>Zmitrovich, Malysheva, Malysheva, and Spirin, 2004; <sup>1</sup>Morozova and Smirnov, 2011); **Samara Oblast** (<sup>1</sup>Malysheva and Malysheva, 2005b; <sup>1</sup>Malysheva and Malysheva, 2008); **Sverdlovsk Oblast** (<sup>1</sup>Marina, 2006); **Tatarstan** (<sup>2</sup>Singer, 1943; <sup>1</sup>Vassiljeva, 1977; <sup>1</sup>Potapov, 2015b); **Udmurt Republic** (<sup>1</sup>Tychinin and Kuzmina, 2003); **Volgograd Oblast** (<sup>1</sup>Burova and Nezdojminogo, 1982); **Arid territories** (<sup>1</sup>Rebriev, Rusanov, et al., 2012).

SIBERIA: **Irkutsk Oblast** (<sup>1</sup>Kutafjeva, 1982; <sup>1</sup>Petrov, 1984; <sup>1</sup>Astapenko, 1990a; <sup>1</sup>Petrov, 1991; <sup>1</sup>Bardunov et al., 2005; <sup>1</sup>Petrov, 2008; <sup>1</sup>Trofimova, Popov, and Merkacheva, 2020); **Khakassia** (<sup>1</sup>Zauzolkova, 2015); **Khanty-Mansi Autonomous Okrug** (<sup>1</sup>Filippova, Bulyonkova, and Lapshina, 2015; <sup>1</sup>Zvyagina and Baykalova, 2017); **Krasnoyarsk Krai** (<sup>1</sup>Beglyanova, 1972a; <sup>1</sup>Kosheleva and Kutafjeva, 2008b; <sup>1</sup>Kosheleva, 2010; <sup>1</sup>Stepanov, 2012; <sup>1</sup>Zauzolkova, 2012; <sup>1</sup>Zauzolkova, 2015; <sup>1</sup>Krom and Kapitonov, 2019); **Kurgan Oblast** (<sup>1</sup>Mukhin, 1993); **Novosibirsk Oblast** (<sup>1</sup>Perova and Gorbunova, 2001; <sup>1</sup>Perova and Gorbunova, 2007; <sup>1</sup>Yudkin and Shauro, 2008; <sup>1</sup>Koropachinskiy and Banaev, 2014); **Sverdlovsk Oblast** (<sup>1</sup>Mukhin, 1993; <sup>1</sup>Mukhin et al., 2003); **Tomsk Oblast** (<sup>1</sup>Kosheleva and Kutafjeva, 2004; <sup>1</sup>Agaphonova, Kutafjeva, and Gashkov, 2007; <sup>1</sup>Kudashova, Gashkov, and Kutafjeva, 2013; <sup>1</sup>Kudashova, Gashkov, and Vaishlya, 2016b); **Tyumen Oblast** (<sup>1</sup>Mukhin, 1993).



FAR EAST: **Amur Oblast** (<sup>1</sup>Taranina, 2005; <sup>1</sup>Kochunova, 2016; <sup>1</sup>Kochunova and Timchenko, 2019; <sup>1</sup>Kochunova, 2019); **Chukotka Autonomous Okrug** (<sup>1</sup>Sazanova, 1993); **Jewish Autonomous Oblast** (<sup>1</sup>Erofeeva and Bulakh, 2015b; <sup>1</sup>Erofeeva, Bukharova, and Bulakh, 2019); **Khabarovsk Krai** (<sup>2</sup>Singer, 1943; <sup>1</sup>Azbukina et al., 1986; <sup>1</sup>Azbukina et al., 1989; <sup>1</sup>Bulakh, Vassiljeva, and Erofeeva, 2010; <sup>1</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Erofeeva and Bulakh, 2015a); **Magadan Oblast** (<sup>1</sup>Sazanova, 1996; <sup>1</sup>Sazanova, 2005; <sup>1</sup>Sazanova, 2009a; <sup>1</sup>Sazanova, 2011); **Primorsky Krai** (<sup>1</sup>Vassiljeva, 1973; <sup>1</sup>Bunkina and Nazarova, 1978; <sup>1</sup>Azbukina et al., 1990; <sup>1</sup>Bardunov et al., 2002; <sup>1</sup>Azbukina et al., 2006; <sup>1</sup>Bau, Bulakh, and Govorova, 2011).

### *Pleurotus citrinopileatus* Singer

FAR EAST: **Amur Oblast** (Gordienko, Petrova, and Tarasov, 1981; Kochunova, 2016); **Jewish Autonomous Oblast** (Bulakh, Govorova, Nazarova, and Vassiljeva, 2007; Bau, Bulakh, and Govorova, 2011); **Khabarovsk Krai** (Singer, 1943; Azbukina et al., 1986; Bau, Bulakh, and Govorova, 2011; Erofeeva and Bulakh, 2015a); **Primorsky Krai** (Vassiljeva, 1950; Vassiljeva, 1972; Vassiljeva, 1973; Shalapugina, 1976; Bulakh, 1977; Bunkina and Nazarova, 1978; Azbukina et al., 1984; Azbukina et al., 1990; Bardunov et al., 2002; Azbukina et al., 2006; Bau, Bulakh, Zhuang, and Li, 2007; Psurtseva, Kiyashko, Gachkova, and Belova, 2007; Bau, Bulakh, and Govorova, 2011; Bulakh et al., 2016; Bogacheva, Bulakh, Bukharova, and Egorova, 2020).

### *Pleurotus columbinus* QuéL.

EASTERN EUROPE: **Arid territories** (Rebriev, Rusanov, et al., 2012).

FAR EAST: **Khabarovsk Krai** (Bulakh, 2013; Bogacheva, Bulakh, Bukharova, and Egorova, 2015); **Sakhalin Oblast** (Vassiljeva and Nazarova, 1972).

### *Pleurotus cornucopiae* (Paulet) Rolland<sup>1</sup>

≡ *Pleurotus ostreatus* var. *cornucopiae* (Paulet) Pilát<sup>2</sup> = *Agaricus sapidus* Schulzer<sup>3</sup> = *Pleurotus sapidus* Sacc.<sup>4</sup>

EASTERN EUROPE: **Adygea** (<sup>1</sup>Vaasma, Kalamees, and Raitviir, 1986; <sup>1</sup>Kummer, 2007); **Astrakhan Oblast** (<sup>1</sup>Rebriev, Aleksandrova, et al., 2012); **Belgorod Oblast** (<sup>1</sup>Bedenko, 1979a; <sup>1</sup>Psurtseva, Belova, and Ryabusheva, 2003; <sup>1</sup>Psurtseva, Kiyashko, Gachkova, and Belova, 2007); **Chechen Republic** (<sup>1</sup>Taysumov, Krapivina, and Kushaliev, 2016); **Chelyabinsk Oblast** (<sup>4</sup>Aleksandrovskaia and Lobanova, 1968); **Kabardino-Balkarian Republic** (<sup>1</sup>Shkhagapsoev and Krapivina, 2003; <sup>1</sup>Shkhagapsoev and Krapivina, 2004); **Kaliningrad Oblast** (<sup>1</sup>Neuhoff, 1922; <sup>1</sup>Dedkov, Volodina, and Gubareva, 2007; <sup>1</sup>Atayev and Volodina, 2020); **Kaluga Oblast** (<sup>1</sup>Sionova, 2003); **Karachay-Cherkess Republic** (<sup>1</sup>Kalamees and Botashev, 2000); **Karelia** (<sup>2</sup>Freindling, 1949; <sup>1</sup>Czerepanova, Perfiljeva, and Tobias, 1982; <sup>1</sup>Bondartseva et al., 2001; <sup>1</sup>Krutov et al., 2014); **Komi Republic** (<sup>1</sup>Palamarchuk, 2020b); **Krasnodar Krai** (<sup>1</sup>Kovalenko, 1980b; <sup>1</sup>Vaasma, Kalamees, and Raitviir, 1986; <sup>1</sup>Psurtseva, Kiyashko, Gachkova, and Belova, 2007); **Leningrad Oblast** (<sup>1</sup>Morozova and Kovalenko, 2000; <sup>1</sup>Zmitrovich, Malysheva, Malysheva, and Spirin, 2004; <sup>1</sup>Popov et al., 2007; <sup>1</sup>Kalinina, 2018); **Lipetsk Oblast** (<sup>2</sup>Sarycheva, 1999; <sup>1</sup>Afanasyev, Rtishcheva, and Starodubtseva, 2007; <sup>1</sup>Sarycheva et al., 2009; <sup>1</sup>Sarycheva, 2011; <sup>1</sup>Sarycheva, 2014a; <sup>1</sup>Sarycheva, 2016); **Mordovia** (<sup>1</sup>Ivoilov and Bolshakov, 2011a); **Moscow Oblast** (<sup>1</sup>Levitskaya, 2006; <sup>1</sup>Levitskaya, 2013); **Orenburg Oblast** (<sup>1</sup>Safonov, 2002; <sup>1</sup>Desyatova, 2008; <sup>1</sup>Safonov, Malenkova, Rusakov, and Leneva, 2013; <sup>1</sup>Safonov, 2015); **Penza Oblast** (<sup>1</sup>Ivanov, 1981b; <sup>1</sup>Ivanov, 1982; <sup>1</sup>Ivanov, 2019); **Rostov Oblast** (<sup>1</sup>Rusanov et al., 2004; <sup>1</sup>Zmitrovich et al., 2008; <sup>1</sup>Rebriev and Svetasheva, 2010; <sup>1</sup>Rusanov, Rebriev, and Bulgakov, 2018); **Ryazan Oblast** (<sup>1</sup>Volosnova, 1997; <sup>1</sup>Volosnova, 2014); **Saint Petersburg** (<sup>1</sup>Morozova, Kovalenko, Rebriev, and Malysheva, 2014); **Sevastopol** (<sup>1</sup>Sarkina and Belyaeva, 2013; <sup>1</sup>Sarkina, 2016b); **Sverdlovsk Oblast** (<sup>1</sup>Tomilin, 1965; <sup>1</sup>Stepanova and Sirko, 1977); **Tatarstan** (<sup>1</sup>Potapov, Galeyev, and Zhukov, 2013; <sup>1</sup>Potapov, 2015b); **Tula Oblast** (<sup>1</sup>Svetasheva, 2001; <sup>1</sup>Svetasheva, 2004; <sup>1</sup>Svetasheva, 2013); **Udmurt Republic** (<sup>2</sup>Tychinin and Kuzmina, 2003); **Volgograd Oblast** (<sup>1</sup>Burova and Nezdjominogo, 1980; <sup>1</sup>Burova and Nezdjominogo, 1982); **Voronezh Oblast** (<sup>1</sup>Afanasyev, Rtishcheva, and Starodubtseva, 2007; <sup>1</sup>Sarycheva, Starodubtseva, and Sapelnikova, 2017); **Yamalo-Nenets Autonomous Okrug** (<sup>4</sup>Kazantseva, 1966); **Yaroslavl Oblast** (<sup>1</sup>Lazareva, 1997); **Arid territories** (<sup>1</sup>Rebriev, Rusanov, et al., 2012).

SIBERIA: **Altai Krai** (<sup>1</sup>Gorbuonova, 2018a); **Irkutsk Oblast** (<sup>1</sup>Kutafjeva and Astapenko, 1987); **Khakassia** (<sup>1</sup>Zauzolkova, 2015); **Khanty-Mansi Autonomous Okrug** (<sup>1</sup>Mukhin, 1993; <sup>1</sup>Stavishenko, 2003); **Krasnoyarsk Krai** (<sup>3</sup>Thümen, 1882; <sup>1</sup>Nezdjominogo, 1976a; <sup>1</sup>Kosheleva and Kutafjeva, 2008a; <sup>1</sup>Kosheleva and Kutafjeva, 2008b); **Kurgan Oblast** (<sup>1</sup>Mukhin, 1993); **Tomsk Oblast** (<sup>1</sup>Kudashova, Gashkov, and Kutafjeva, 2013; <sup>1</sup>Kudashova, Gashkov, and Vaishlya, 2016b); **Tyumen Oblast** (<sup>1</sup>Mukhin, 1993).

FAR EAST: **Magadan Oblast** (<sup>1</sup>Sazanova, 2011); **Primorsky Krai** (<sup>1</sup>Naoumoff, 1914; <sup>1</sup>Bulakh et al., 2016).

***Pleurotus craspedius* (Fr.) Gillet**EASTERN EUROPE: **North Ossetia** (Chernetskaja, 1929).***Pleurotus djamor* (Rumph. ex Fr.) Boedijn<sup>1</sup>**= *Pleurotus salmoneostramineus* Lj.N. Vassiljeva<sup>2</sup>

FAR EAST: **Khabarovsk Krai** (<sup>2</sup>Azbukina et al., 1986; <sup>1</sup>Voronov, 2008; <sup>1</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Ermolin et al., 2018); **Primorsky Krai** (<sup>2</sup>Vassiljeva, 1972; <sup>2</sup>Vassiljeva, 1973; <sup>2</sup>Bunkina and Nazarova, 1978; <sup>2</sup>Azbukina et al., 1990; <sup>1</sup>Bardunov et al., 2002; <sup>1</sup>Azbukina et al., 2006; <sup>1</sup>Kozhevnikov, 2008; <sup>1</sup>Bau, Bulakh, and Govorova, 2011); **Sakhalin Oblast** (<sup>1</sup>Eremin, 2005; <sup>1</sup>Eremin, 2019).

***Pleurotus dryinus* (Pers.) P. Kumm.<sup>1</sup>**

= *Agaricus acerinus* Fr.<sup>2</sup> = *Agaricus corticatus* Fr.<sup>3</sup> = *Armillaria corticata* (Fr.) P. Karst.<sup>4</sup> = *Pleurotus acerinus* (Fr.) Gillet<sup>5</sup> = *Pleurotus corticatus* (Fr.) P. Kumm.<sup>6</sup>

EASTERN EUROPE: **Adygea** (<sup>6</sup>Vassiljeva, 1939; <sup>1</sup>Vaasma, Kalamees, and Raitviir, 1986; <sup>1</sup>Kummer, 2007); **Astrakhan Oblast** (<sup>1</sup>Rebriev, Aleksandrova, et al., 2012); **Belgorod Oblast** (<sup>1</sup>Bedenko, 1979a); **Chechen Republic** (<sup>1</sup>Taysumov, Krapivina, and Kushalieva, 2016); **Chelyabinsk Oblast** (<sup>5</sup>Aleksandrovskaya and Lobanova, 1968; <sup>5</sup>Stepanova and Sirko, 1977); **Crimea** (<sup>1</sup>Dudka et al., 2004); **Kabardino-Balkarian Republic** (<sup>1</sup>Shkhagapsoev and Krapivina, 2004); **Kaliningrad Oblast** (<sup>1</sup>Dedkov, Volodina, and Gubareva, 2007; <sup>1</sup>Volodina, 2007); **Karachay-Cherkess Republic** (<sup>1</sup>Kalamees and Botashev, 2000); **Karelia** (<sup>1</sup>Bondartseva et al., 2001; <sup>1</sup>Krutov et al., 2014); **Krasnodar Krai** (<sup>6</sup>Vassiljeva, 1939; <sup>1</sup>Kovalenko, 1980a; <sup>1</sup>Kovalenko, 1980b; <sup>1</sup>Shumkova, Krivorotov, and Gayday, 2018); **Kursk Oblast** (<sup>1</sup>Soshnina, 2001); **Leningrad Oblast** (<sup>4</sup>Thesleff, 1920; <sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Morozova and Kovalenko, 2000; <sup>1</sup>Zmitrovich, 2003; <sup>1</sup>Zmitrovich, Malysheva, Malysheva, and Spirin, 2004; <sup>1</sup>Popov et al., 2007; <sup>1</sup>Psurtseva, Kiyashko, Gachkova, and Belova, 2007; <sup>1</sup>Zmitrovich et al., 2015); **Lipetsk Oblast** (<sup>1</sup>Sarycheva, 2016); **Mordovia** (<sup>1</sup>Bolshakov and Ivoilov, 2012a); **Moscow Oblast** (<sup>1</sup>Gorlenko, Sidorova, and Sidorova, 1989; <sup>1</sup>Levitskaya, 1995c; <sup>1</sup>Levitskaya, 2013); **Orenburg Oblast** (<sup>1</sup>Desyatova, 2008; <sup>1</sup>Safonov, 2015); **Penza Oblast** (<sup>1</sup>Ivanov, 1981b; <sup>1</sup>Ivanov, 1982); **Perm Krai** (<sup>1</sup>Perevedentseva, 2008); **Pskov Oblast** (<sup>1</sup>Psurtseva, Kiyashko, Gachkova, and Belova, 2007; <sup>1</sup>Popov et al., 2013); **Rostov Oblast** (<sup>1</sup>Rusanov et al., 2004; <sup>1</sup>Zmitrovich et al., 2008; <sup>1</sup>Rusanov, Rebriev, and Bulgakov, 2018); **Ryazan Oblast** (<sup>1</sup>Malysheva and Volosnova, 2008; <sup>1</sup>Volosnova, 2014); **Saint Petersburg** (<sup>3</sup>Weinmann, 1828; <sup>3</sup>Weinmann, 1836; <sup>3</sup>Weinmann, 1837; <sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Zmitrovich, Malysheva, Malysheva, and Spirin, 2004; <sup>1</sup>Psurtseva, Kiyashko, Gachkova, and Belova, 2007; <sup>1</sup>Morozova and Smirnov, 2011; <sup>1</sup>Morozova, Kovalenko, Rebriev, and Malysheva, 2014; <sup>1</sup>Morozova et al., 2020); **Samara Oblast** (<sup>1</sup>Malysheva and Malysheva, 2006; <sup>1</sup>Malysheva and Malysheva, 2008); **Smolensk Oblast** (<sup>1</sup>Jaczewski, 1896); **Sverdlovsk Oblast** (<sup>5</sup>Stepanova and Sirko, 1977); **Tatarstan** (<sup>3</sup>Sorokin, 1872; <sup>5</sup>Alexeeff, 1927; <sup>1</sup>Vassiljeva, 1977); **Tula Oblast** (<sup>1</sup>Svetasheva, 2004); **Udmurt Republic** (<sup>1</sup>Tychinin and Kuzmina, 2003); **Ulyanovsk Oblast** (<sup>1</sup>Ilyukhin, 2010a; <sup>1</sup>Ilyukhin, 2010b); **Arid territories** (<sup>1</sup>Rebriev, Rusanov, et al., 2012).

SIBERIA: **Altai Republic** (<sup>1</sup>Gorbunova, 2008); **Buryatia** (<sup>1</sup>Petrov, 2013; <sup>1</sup>Pronin, 2013); **Irkutsk Oblast** (<sup>1</sup>Astapenko and Kutafjeva, 1990; <sup>1</sup>Astapenko, 1990a; <sup>1</sup>Gaykova and Popov, 2010; <sup>1</sup>Trofimova, Popov, and Merkacheva, 2020); **Khanty-Mansi Autonomous Okrug** (<sup>1</sup>Mukhin, 1993; <sup>1</sup>Filippova, Bulyonkova, and Lapshina, 2015); **Krasnoyarsk Krai** (<sup>2,3</sup>Thümen, 1878; <sup>5,6</sup>Kalchbrenner, 1878; <sup>1,5</sup>Beglyanova, 1972a; <sup>1</sup>Kosheleva and Kutafjeva, 2008b; <sup>1</sup>Kosheleva, 2010; <sup>1</sup>Stepanov, 2012; <sup>1</sup>Zauzolkova, 2015); **Omsk Oblast** (<sup>6</sup>Pilát, 1934; <sup>6</sup>Zhukov, 1980); **Sverdlovsk Oblast** (<sup>1</sup>Stepanova and Sirko, 1977); **Tomsk Oblast** (<sup>1</sup>Agaphonova, Kutafjeva, and Gashkov, 2007; <sup>1</sup>Agaphonova, Kutafjeva, and Gashkov, 2009a; <sup>1</sup>Kudashova, Gashkov, and Kutafjeva, 2013; <sup>1</sup>Kudashova, Gashkov, and Vaishlya, 2016b); **Tyumen Oblast** (<sup>1</sup>Mukhin, 1993); **Zabaykalsky Krai** (<sup>1</sup>Polyakov, Popova, and Afonina, 2017).

FAR EAST: **Amur Oblast** (<sup>1</sup>Taranina, 2005; <sup>1</sup>Streltsov, 2009; <sup>1</sup>Kochunova, 2016; <sup>1</sup>Senchik and Malikova, 2019); **Jewish Autonomous Oblast** (<sup>1</sup>Bulakh, Govorova, Nazarova, and Vassiljeva, 2007; <sup>1</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Bogacheva et al., 2018; <sup>1</sup>Erofeeva, Bukharova, and Bulakh, 2019); **Khabarovsk Krai** (<sup>1</sup>Azbukina et al., 1986; <sup>1</sup>Bau, Bulakh, and Govorova, 2011); **Magadan Oblast** (<sup>1</sup>Nazarova, 1976; <sup>1</sup>Sazanova, 2009a); **Primorsky Krai** (<sup>1</sup>Vassiljeva, 1972; <sup>1</sup>Vassiljeva, 1973; <sup>1</sup>Bunkina and Nazarova, 1978; <sup>1</sup>Azbukina et al., 1990; <sup>1</sup>Bardunov et al., 2002; <sup>1</sup>Azbukina et al., 2006; <sup>1</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Bogacheva et al., 2018).

***Pleurotus eryngii* (DC.) Quél.<sup>1</sup>**≡ *Pleurotus eryngii* var. *eryngii* (DC.) Quél.<sup>2</sup>

EASTERN EUROPE: **Belgorod Oblast** (<sup>1</sup>Bedenko, 1979a); **Crimea** (<sup>1</sup>Sarkina, 2001; <sup>1</sup>Dudka et al., 2004; <sup>1</sup>Sarkina, 2006; <sup>1</sup>Sarkina and Mironova, 2015); **Kabardino-Balkarian Republic** (<sup>1</sup>Shkhagapsoev and Krapivina, 2004); **Kalmykia** (<sup>1</sup>Baktasheva, 2014); **Rostov Oblast** (<sup>2</sup>Vyshchepan, 1992; <sup>1</sup>Fedyaeva, 2014); **Sevastopol** (<sup>1</sup>Sarkina and

Belyaeva, 2013; <sup>1</sup>Sarkina, 2016b; <sup>1</sup>Sarkina, 2020c); **Voronezh Oblast** (<sup>1</sup>Agafonov, 2011; <sup>1</sup>Agafonov, 2018); **Arid territories** (<sup>1</sup>Rebriev, Rusanov, et al., 2012).

SIBERIA: **Altai Republic** (<sup>1</sup>Gorbunova, 2003; <sup>1</sup>Gorbunova, 2006); **Sverdlovsk Oblast** (<sup>1</sup>Shiryayeva, 2018).

***Pleurotus michailowskojensis* (Henn.) Pilát**

≡ *Lentinus michailowskojensis* Henn.<sup>1</sup>

EASTERN EUROPE: **Moscow** (<sup>1</sup>Hennings, 1904; <sup>1</sup>Hennings, 1905; <sup>1</sup>Mosolov, 1906).

***Pleurotus nebrodensis* (Inzenga) Qué.**

EASTERN EUROPE: **Crimea** (Yena and Fateryga, 2015).

***Pleurotus ostreatus* (Jacq.) P. Kumm.<sup>1</sup>**

≡ *Agaricus ostreatus* Jacq.<sup>2</sup> = *Agaricus salignus* Pers.<sup>3</sup> = *Agaricus salignus* var. *fuliginus* Pers.<sup>4</sup> = *Pleurotus ostreatus* f. *salignus* (Pers.) Pilát<sup>5</sup> = *Pleurotus salignus* (Pers.) P. Kumm.<sup>6</sup>

EASTERN EUROPE: **Adygea** (<sup>1</sup>Vassiljeva, 1939; <sup>1</sup>Vaasma, Kalamees, and Raitviir, 1986; <sup>1</sup>Psurtseva, Kiyashko, Gachkova, and Belova, 2007); **Arkhangelsk Oblast** (<sup>1</sup>Lebedeva, 1933; <sup>1</sup>Ezhov, Zmitrovich, and Ruokolainen, 2019); **Astrakhan Oblast** (<sup>1</sup>Rebriev, Aleksandrova, et al., 2012); **Bashkortostan** (<sup>1,5</sup>Stepanova and Sirko, 1977); **Belgorod Oblast** (<sup>1</sup>Brezhnev, 1950; <sup>1</sup>Bedenko, 1979a; <sup>1</sup>Nikolayev, 1986); **Bryansk Oblast** (<sup>1</sup>Kruglikov, 2007; <sup>1</sup>Shakhova and Volobuev, 2020); **Chechen Republic** (<sup>6</sup>Taysumov, Krapivina, Umarov, and Astamirova, 2012; <sup>1,6</sup>Taysumov, Krapivina, and Kushalieva, 2016); **Chelyabinsk Oblast** (<sup>1</sup>Sirko and Stepanova, 1977); **Chuvash Republic** (<sup>1</sup>Marfin, 2001); **Crimea** (<sup>1</sup>Sarkina, 2001; <sup>1</sup>Isikov, 2003; <sup>1</sup>Dudka et al., 2004; <sup>1</sup>Sarkina, 2011; <sup>1</sup>Sarkina and Prydiuk, 2012); **Kabardino-Balkarian Republic** (<sup>1,6</sup>Shkhagapsoev and Krapivina, 2003; <sup>1,6</sup>Shkhagapsoev and Krapivina, 2004); **Kaliningrad Oblast** (<sup>1,6</sup>Dedkov, Volodina, and Gubareva, 2007; <sup>1</sup>Volodina, 2007); **Kaluga Oblast** (<sup>1</sup>Sionova, 2003); **Karachay-Cherkess Republic** (<sup>1</sup>Kalamees and Botashev, 2000); **Karelia** (<sup>1</sup>Freindling, 1949; <sup>1</sup>Czerepanova, Perfiljeva, and Tobias, 1982; <sup>1</sup>Bondartseva et al., 2001; <sup>1</sup>Predtechenskaya and Ruokolainen, 2013; <sup>1</sup>Predtechenskaya, 2013; <sup>1</sup>Krutov et al., 2014; <sup>1</sup>Predtechenskaya and Ruokolainen, 2014); **Kirov Oblast** (<sup>1</sup>Kirillov, 2011; <sup>1</sup>Kirillov, Perevedentseva, and Egoshina, 2011; <sup>1</sup>Stavishenko, Luginina, Kirillov, and Egoshina, 2019); **Komi Republic** (<sup>1</sup>Palamarchuk (Bobretsova), 2009; <sup>1</sup>Palamarchuk, 2012; <sup>1</sup>Palamarchuk and Kirillov, 2017; <sup>1</sup>Palamarchuk and Kirillov, 2018a); **Krasnodar Krai** (<sup>1</sup>Vassiljeva, 1939; <sup>1</sup>Kovalenko, 1980a; <sup>1</sup>Kovalenko, 1980b; <sup>1</sup>Vaasma, Kalamees, and Raitviir, 1986; <sup>1</sup>Psurtseva, Kiyashko, Gachkova, and Belova, 2007; <sup>1</sup>Shumkova, Krivorotov, and Gayday, 2018); **Kursk Oblast** (<sup>6</sup>Ryabova and Ignatenko, 1981; <sup>1</sup>Soshnina, 2001; <sup>1</sup>Baranov, 2002; <sup>1</sup>Soshnina, 2005; <sup>1</sup>Soshnina, 2013); **Leningrad Oblast** (<sup>1,6</sup>Thesleff, 1920; <sup>1</sup>Kalamees and Kovalenko, 1984; <sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Zmitrovich, 2003; <sup>1</sup>Zmitrovich, Malysheva, Malysheva, and Spirin, 2004; <sup>1</sup>Morozova, 2007; <sup>1</sup>Popov et al., 2007; <sup>1</sup>Psurtseva, Kiyashko, Gachkova, and Belova, 2007); **Lipetsk Oblast** (<sup>1</sup>Alferova, 1977; <sup>1,6</sup>Rtishcheva, 1999; <sup>1</sup>Sarycheva, 1999; <sup>1,6</sup>Afanasyev, Rtishcheva, and Starodubtseva, 2007; <sup>1</sup>Sarycheva et al., 2009; <sup>1</sup>Sarycheva, 2011; <sup>1</sup>Sarycheva, 2014a; <sup>1</sup>Sarycheva, 2016; <sup>1</sup>Sarycheva, Starodubtseva, and Sapelnikova, 2017); **Mari El Republic** (<sup>1</sup>Prokhorov, 2007); **Mordovia** (<sup>1</sup>Kuznetsov, 1960; <sup>1</sup>Chastukhin, 2011; <sup>1</sup>Ivoilov and Bolshakov, 2011a); **Moscow** (<sup>2,3</sup>Bucholtz, 1897a; <sup>2,3</sup>Bucholtz, 1897b; <sup>2,3</sup>Bucholtz, 1897c; <sup>1</sup>Hennings, 1905; <sup>2,3</sup>Mosolov, 1906; <sup>1</sup>Burova, 1968); **Moscow Oblast** (<sup>1</sup>Gorlenko, Sidorova, and Sidorova, 1989; <sup>1</sup>Levitskaya, 1995b; <sup>1</sup>Levitskaya, 2013; <sup>1</sup>Malysheva, Malysheva, Voronina, et al., 2017; <sup>1</sup>Malysheva, Malysheva, Voronina, and Kovalenko, 2018); **North Ossetia** (<sup>1</sup>Nikolayev, 2001); **Orenburg Oblast** (<sup>1</sup>Vorontsovsky, 1921; <sup>1</sup>Safonov, 2002; <sup>1</sup>Psurtseva, Kiyashko, Gachkova, and Belova, 2007; <sup>1</sup>Desyatova, 2008; <sup>1</sup>Safonov, Malenkova, Rusakov, and Leneva, 2013; <sup>1</sup>Safonov, 2015); **Penza Oblast** (<sup>2</sup>Vet, 1943; <sup>1</sup>Ivanov, 1981b; <sup>1</sup>Ivanov, 1982; <sup>1</sup>Ivanov, 2019); **Perm Krai** (<sup>1,6</sup>Perevedentseva, 2008; <sup>1</sup>Belkovskaya et al., 2014); **Pskov Oblast** (<sup>1</sup>Kovalenko and Morozova, 1999b); **Rostov Oblast** (<sup>1</sup>Rusanov et al., 2004; <sup>1</sup>Morozova et al., 2008; <sup>1</sup>Zmitrovich et al., 2008; <sup>1</sup>Rebriev and Svetasheva, 2010; <sup>1</sup>Shiryayev, Rebriev, and Knudsen, 2017; <sup>1</sup>Rebriev, 2018; <sup>1</sup>Rusanov, Rebriev, and Bulgakov, 2018); **Ryazan Oblast** (<sup>1</sup>Vanin, 1916; <sup>1</sup>Volosnova, 1997; <sup>6</sup>Volosnova, 2005; <sup>1</sup>Volosnova, 2014); **Saint Petersburg** (<sup>2,4</sup>Weinmann, 1828; <sup>2,3,4</sup>Weinmann, 1836; <sup>2,3,4</sup>Weinmann, 1837; <sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Morozova and Kovalenko, 2000; <sup>1</sup>Zmitrovich, Malysheva, Malysheva, and Spirin, 2004; <sup>1</sup>Kotkova, Morozova, and Popov, 2005; <sup>1</sup>Kotkova, Morozova, and Popov, 2006; <sup>1</sup>Morozova and Smirnov, 2011; <sup>1</sup>Morozova, Kovalenko, Rebriev, and Malysheva, 2014; <sup>1</sup>Zhukova, Morozova, Volobuev, and Bryantseva, 2017; <sup>1</sup>Morozova et al., 2020); **Samara Oblast** (<sup>1</sup>Malysheva and Malysheva, 2004; <sup>1</sup>Psurtseva, Kiyashko, Gachkova, and Belova, 2007; <sup>1</sup>Malysheva and Malysheva, 2008; <sup>1</sup>Malysheva, Malysheva, Voronina, et al., 2017; <sup>1</sup>Malysheva, Malysheva, Voronina, and Kovalenko, 2018); **Saratov Oblast** (<sup>1,6</sup>Lebedeva, 1927; <sup>1</sup>Kazakevich and Prisyazhnyuk, 1932; <sup>1</sup>Komirnaya, 1970); **Sevastopol** (<sup>1</sup>Sarkina and Belyaeva, 2013; <sup>1</sup>Sarkina, 2016b; <sup>1</sup>Sarkina, 2020c); **Smolensk Oblast** (<sup>6</sup>Jaczewski, 1893; <sup>6</sup>Jaczewski, 1895; <sup>1</sup>Jaczewski, 1896; <sup>1</sup>Burova, 1969); **Sverdlovsk Oblast** (<sup>1</sup>Tomilin, 1965); **Tatarstan** (<sup>2</sup>Sorokin, 1872; <sup>1</sup>Vassiljeva, 1977; <sup>1</sup>Potapov, 2015b); **Tula Oblast** (<sup>1</sup>Svetasheva,

2001; <sup>1</sup>Svetasheva, 2004); **Tver Oblast** (<sup>1</sup>Kurochkin, 1993; <sup>1</sup>Kurochkin and Medvedev, 2015; <sup>1</sup>Kurochkin, 2016); **Udmurt Republic** (<sup>1</sup>Tychinin and Kuzmina, 2003); **Ulyanovsk Oblast** (<sup>1</sup>Ilyukhin, 2010a; <sup>6</sup>Artemyeva, Maslennikov, and Korepov, 2015); **Volgograd Oblast** (<sup>1</sup>Burova and Nezdoininogo, 1980; <sup>1</sup>Dudka and Vedeneyev, 2014; <sup>1</sup>Dudka and Vedeneyev, 2015); **Voronezh Oblast** (<sup>1</sup>Chastukhin and Nikolaevskaya, 1953; <sup>1</sup>Chastukhin and Nikolaevskaya, 1969; <sup>1,6</sup>Rtishcheva, 1999; <sup>1,6</sup>Afanasyev, Rtishcheva, and Starodubtseva, 2007; <sup>1</sup>Selochnik, 2015; <sup>1</sup>Sarycheva, Starodubtseva, and Sapelnikova, 2017; <sup>1</sup>Kochergina and Furmenkova, 2019); **Yaroslavl Oblast** (<sup>1</sup>Lazareva, 1998a; <sup>1</sup>Lazareva, 1998b); **Arid territories** (<sup>1</sup>Rebriev, Rusanov, et al., 2012); **Northern Caucasus** (<sup>1</sup>Kovalenko, 1980b).

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FAR EAST: **Amur Oblast** (<sup>1</sup>Gordienko, Petrova, and Tarasov, 1981; <sup>1</sup>Nazarova, 1986; <sup>1</sup>Azbukina et al., 1998; <sup>1</sup>Taranina, 2005; <sup>1</sup>Kochunova, 2016; <sup>1</sup>Kochunova and Timchenko, 2019; <sup>1</sup>Kochunova, 2019); **Chukotka Autonomous Okrug** (<sup>1</sup>Sazanova, 1993); **Khabarovsk Krai** (<sup>1</sup>Azbukina et al., 1986; <sup>1</sup>Azbukina et al., 1989; <sup>1</sup>Bulakh, Vassiljeva, and Erofeeva, 2010; <sup>1</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Erofeeva and Bulakh, 2015a); **Magadan Oblast** (<sup>1</sup>Nazarova, 1976; <sup>1</sup>Sazanova, 2005; <sup>1</sup>Sazanova, 2009a; <sup>1</sup>Sazanova, 2011); **Primorsky Krai** (<sup>1</sup>Vassiljeva, 1972; <sup>1</sup>Vassiljeva, 1973; <sup>1</sup>Shalapugina, 1976; <sup>1</sup>Bulakh, 1977; <sup>1</sup>Bunkina and Nazarova, 1978; <sup>1</sup>Azbukina et al., 1984; <sup>1</sup>Azbukina et al., 1990; <sup>1</sup>Bardunov et al., 2002; <sup>1</sup>Azbukina et al., 2006; <sup>1</sup>Psurtseva, Kiyashko, Gachkova, and Belova, 2007; <sup>1</sup>Bau, Bulakh, and Govorova, 2011); **Sakhalin Oblast** (<sup>1</sup>Vassiljeva and Nazarova, 1972).

### ***Pleurotus phellodendri* (Singer) Singer**

≡ *Tectella phellodendri* Singer<sup>1</sup>

According to Singer (1986) *Tectella phellodendri* Singer is transferred to genus *Pleurotus*.

FAR EAST: **Khabarovsk Krai** (<sup>1</sup>Singer, 1943).

### ***Pleurotus pometi* (Fr.) Quél.**

EASTERN EUROPE: **Kaliningrad Oblast** (Neuhoff, 1922).

### ***Pleurotus pubescens* Peck**

EASTERN EUROPE: **Kaliningrad Oblast** (Hennings, 1895; Dedkov, Volodina, and Gubareva, 2007).

### ***Pleurotus pulmonarius* (Fr.) Quél.<sup>1</sup>**

≡ *Agaricus pulmonarius* Fr.<sup>2</sup> ≡ *Pleurotus ostreatus* f. *pulmonarius* (Fr.) Pilát<sup>3</sup> ≡ *Pleurotus ostreatus* var. *pulmonarius* (Fr.) Iordanov, Vanev & Fakirova<sup>4</sup>

EASTERN EUROPE: **Adygea** (<sup>1</sup>Vassiljeva, 1939; <sup>1</sup>Psurtseva, Kiyashko, Gachkova, and Belova, 2007); **Arkhangelsk Oblast** (<sup>1</sup>Ezhov, 2013); **Bashkortostan** (<sup>4</sup>Stepanova and Sirko, 1977); **Belgorod Oblast** (<sup>1</sup>Bedenko, 1980; <sup>1</sup>Psurtseva, Belova, and Ryabusheva, 2003; <sup>1</sup>Psurtseva, Kiyashko, Gachkova, and Belova, 2007); **Bryansk Oblast** (<sup>1</sup>Kruglikov, 2007; <sup>1</sup>Shakhova and Volobuev, 2020); **Chechen Republic** (<sup>1</sup>Taysumov, Krapivina, Umarov, and Astamirova, 2012; <sup>1</sup>Taysumov, Krapivina, and Kushaliev, 2016); **Chelyabinsk Oblast** (<sup>4</sup>Stepanova and Sirko, 1977; <sup>1</sup>Psurtseva, Kiyashko, Gachkova, and Belova, 2007; <sup>1</sup>Krasutsky, 2013; <sup>1</sup>Krasutsky, 2014); **Crimea** (<sup>1</sup>Sarkina, 2020a); **Kabardino-Balkarian Republic** (<sup>1</sup>Shkhagapsoev and Krapivina, 2004); **Kaliningrad Oblast** (<sup>1</sup>Dedkov, Volodina, and Gubareva, 2007; <sup>1</sup>Volodina, 2007); **Karachay-Cherkess Republic** (<sup>1</sup>Kalamees and Botashev, 2000); **Karelia** (<sup>1</sup>Bondartseva et al., 2001; <sup>1</sup>Predtechenskaya and Ruokolainen, 2008; <sup>1</sup>Predtechenskaya and Ruokolainen, 2013; <sup>1</sup>Predtechenskaya, 2013; <sup>1</sup>Krutov et al., 2014; <sup>1</sup>Predtechenskaya and Ruokolainen, 2014; <sup>1</sup>Predtechenskaya, 2015; <sup>1</sup>Savelev and Kikeeva,

2020); **Kirov Oblast** (<sup>1</sup>Kirillov, 2011; <sup>1</sup>Kirillov, Perevedentseva, and Egoshina, 2011; <sup>1</sup>Stavishenko, Luginina, Kirillov, and Egoshina, 2019); **Komi Republic** (<sup>1</sup>Palamarchuk, 2011b; <sup>1</sup>Palamarchuk, 2012; <sup>1</sup>Palamarchuk, 2016a; <sup>1</sup>Palamarchuk, 2016b; <sup>1</sup>Palamarchuk and Kirillov, 2017; <sup>1</sup>Palamarchuk, 2017); **Krasnodar Krai** (<sup>1</sup>Kovalenko, 1980a; <sup>1</sup>Kovalenko, 1980b; <sup>1</sup>Vaasma, Kalamees, and Raitviir, 1986; <sup>1</sup>Psurtseva, Kiyashko, Gachkova, and Belova, 2007); **Kursk Oblast** (<sup>1</sup>Baranov, 2002); **Leningrad Oblast** (<sup>1</sup>Thesleff, 1920; <sup>1</sup>Stolyarskaya, 1989; <sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Zmitrovich, 2003; <sup>1</sup>Zmitrovich, Malysheva, Malysheva, and Spirin, 2004; <sup>1</sup>Morozova, 2007; <sup>1</sup>Popov et al., 2007; <sup>1</sup>Psurtseva, Kiyashko, Gachkova, and Belova, 2007; <sup>1</sup>Zmitrovich et al., 2015); **Lipetsk Oblast** (<sup>1</sup>Sarycheva et al., 2009; <sup>1</sup>Sarycheva, 2011; <sup>1</sup>Sarycheva, 2014a; <sup>1</sup>Sarycheva, 2016); **Mari El Republic** (<sup>1</sup>Prokhorov, 2007); **Mordovia** (<sup>1</sup>Ivoilov and Bolshakov, 2011a; <sup>1</sup>Bolshakov, 2015); **Moscow Oblast** (<sup>1</sup>Gorlenko, Sidorova, and Sidorova, 1989; <sup>1</sup>Levitskaya, 1995b; <sup>1</sup>Voronina et al., 2012; <sup>1</sup>Levitskaya, 2013; <sup>1</sup>Voronina et al., 2014); **Murmansk Oblast** (<sup>2</sup>Karsten, 1876; <sup>4</sup>Pystina, Pavlova, and Shestakova, 1969; <sup>1</sup>Karatygin, Nezdoyminogo, Novozhilov, and Zhurbenko, 1999); **North Ossetia** (<sup>1</sup>Nikolayev, 2001); **Novgorod Oblast** (<sup>1</sup>Kovalenko, Morozova, Nezdoyminogo, and Popov, 2005; <sup>1</sup>Malysheva, Malysheva, and Zmitrovich, 2007; <sup>1</sup>Psurtseva, Kiyashko, Gachkova, and Belova, 2007; <sup>1</sup>Popov et al., 2013; <sup>1</sup>Baklan, 2015); **Orenburg Oblast** (<sup>1</sup>Safonov, 2002; <sup>1</sup>Desyatova, 2008; <sup>1</sup>Safonov, Malenkova, Rusakov, and Leneva, 2013; <sup>1</sup>Safonov, 2015); **Oryol Oblast** (<sup>1</sup>Volobuev and Tsutsupa, 2009); **Penza Oblast** (<sup>1</sup>Ivanov, 1981b; <sup>1</sup>Ivanov, 1982; <sup>1</sup>Ivanov, 1999; <sup>1</sup>Ivanov, 2019); **Perm Krai** (<sup>1</sup>Shkaraba, Perevedentseva, and Moshkina, 1990; <sup>1</sup>Perevedentseva, 2008; <sup>1</sup>Belkovskaya et al., 2014; <sup>1</sup>Perevedentseva and Shishigin, 2014; <sup>1</sup>Botalov, Perevedentseva, and Denisov, 2015; <sup>1</sup>Botalov, 2017); **Pskov Oblast** (<sup>1</sup>Kovalenko and Morozova, 1999b; <sup>1</sup>Kovalenko, Kolmakov, Morozova, and Popov, 2003; <sup>1</sup>Psurtseva, Kiyashko, Gachkova, and Belova, 2007; <sup>1</sup>Popov et al., 2013); **Rostov Oblast** (<sup>1</sup>Rusanov, Rebriev, and Bulgakov, 2018); **Ryazan Oblast** (<sup>1</sup>Volosnova, 1997; <sup>1</sup>Volosnova, 2014); **Saint Petersburg** (<sup>2</sup>Weinmann, 1828; <sup>2</sup>Weinmann, 1836; <sup>2</sup>Weinmann, 1837; <sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Morozova and Kovalenko, 2000; <sup>1</sup>Zmitrovich, Malysheva, Malysheva, and Spirin, 2004; <sup>1</sup>Kotkova, Morozova, and Popov, 2005; <sup>1</sup>Kotkova, Morozova, and Popov, 2006; <sup>1</sup>Kotkova, Morozova, and Popov, 2007; <sup>1</sup>Morozova and Smirnov, 2011; <sup>1</sup>Morozova, Kovalenko, Rebriev, and Malysheva, 2014; <sup>1</sup>Morozova et al., 2020); **Samara Oblast** (<sup>1</sup>Malysheva and Malysheva, 2004; <sup>1</sup>Psurtseva, Kiyashko, Gachkova, and Belova, 2007; <sup>1</sup>Malysheva and Malysheva, 2008); **Sverdlovsk Oblast** (<sup>4</sup>Stepanova and Sirko, 1977; <sup>1</sup>Marina, 2006); **Tatarstan** (<sup>1</sup>Potapov, Galejev, and Zhukov, 2013; <sup>1</sup>Potapov, 2015b); **Tula Oblast** (<sup>1</sup>Svetasheva, 2001; <sup>1</sup>Svetasheva, 2004; <sup>1</sup>Svetasheva, 2013); **Tver Oblast** (<sup>1</sup>Mukhina, 2011a; <sup>1</sup>Mukhina, 2011b; <sup>1</sup>Kotkova, 2014); **Udmurt Republic** (<sup>1</sup>Tychinin and Kuzmina, 2003); **Ulyanovsk Oblast** (<sup>1</sup>Ilyukhin, 2010a; <sup>1</sup>Ilyukhin, 2010b); **Vladimir Oblast** (<sup>1</sup>Mishulin, Blinov, and Gushchina, 2018); **Volgograd Oblast** (<sup>1</sup>Burova and Nezdoyminogo, 1980); **Vologda Oblast** (<sup>4</sup>Kutova, 1957; <sup>1</sup>Kirillova, 2007); **Yamalo-Nenets Autonomous Okrug** (<sup>4</sup>Kazanthseva, 1970; <sup>4</sup>Stepanova and Sirko, 1977); **Yaroslavl Oblast** (<sup>1</sup>Lazareva, 1997; <sup>1</sup>Lazareva, 1998a); **Arid territories** (<sup>1</sup>Rebriev, Rusanov, et al., 2012); **Lapland** (<sup>2</sup>Karsten, 1866).

**SIBERIA:** **Altai Krai** (<sup>1</sup>Gorbunova and Perova, 2006; <sup>1</sup>Gorbunova and Chubarova, 2008; <sup>1</sup>Gorbunova, Vlasenko, and Tzhubarova, 2011); **Altai Republic** (<sup>1</sup>Perova and Gorbunova, 2001; <sup>1</sup>Gorbunova, 2008); **Buryatia** (<sup>1</sup>Psurtseva, Kiyashko, Gachkova, and Belova, 2007; <sup>1</sup>Heklau and Dörfelt, 2017); **Irkutsk Oblast** (<sup>1</sup>Petrov, 1984; <sup>1</sup>Kutafjeva, 1989; <sup>1</sup>Petrov, 1989; <sup>1</sup>Astapenko, 1990a; <sup>1</sup>Muzyka, 2002; <sup>1</sup>Bardunov et al., 2005; <sup>1</sup>Psurtseva, Kiyashko, Gachkova, and Belova, 2007; <sup>1</sup>Petrov, 2008; <sup>1</sup>Muzyka, 2009; <sup>1</sup>Muzyka and Penzina, 2017); **Kemerovo Oblast** (<sup>1</sup>Killermann, 1943); **Khakassia** (<sup>1</sup>Zauzolkova and Gorbunova, 2013; <sup>1</sup>Zauzolkova, 2015); **Khanty-Mansi Autonomous Okrug** (<sup>1</sup>Mukhin, 1993; <sup>1</sup>Stavishenko, 2003; <sup>1</sup>Zvyagina, Baykalova, and Gorbunova, 2007; <sup>1</sup>Zvyagina, 2008; <sup>1</sup>Zvyagina and Baykalova, 2012; <sup>1</sup>Shepeleva et al., 2014; <sup>1</sup>Filippova, Bulyonkova, and Lapshina, 2015; <sup>1</sup>Zvyagina and Vasina, 2015; <sup>1</sup>Filippova and Bulyonkova, 2017a; <sup>1</sup>Filippova and Bulyonkova, 2017b); **Krasnoyarsk Krai** (<sup>1</sup>Nezdoyminogo, 1982a; <sup>1</sup>Lapitskaya, 1990; <sup>1</sup>Pavlov et al., 2007; <sup>1</sup>Malysheva, Malysheva, Kiyashko, et al., 2017; <sup>1</sup>Krom and Kapitonov, 2019); **Kurgan Oblast** (<sup>1</sup>Mukhin, 1993; <sup>1</sup>Bystrushkin, 2016); **Novosibirsk Oblast** (<sup>1</sup>Perova and Gorbunova, 2001; <sup>1</sup>Perova and Gorbunova, 2007; <sup>1</sup>Koropachinskiy and Banaev, 2014); **Omsk Oblast** (<sup>3</sup>Pilát, 1934; <sup>3</sup>Zhukov, 1980); **Sakha Republic** (<sup>1</sup>Karatygin, Nezdoyminogo, Novozhilov, and Zhurbenko, 1999; <sup>1</sup>Morozova et al., 2012); **Sverdlovsk Oblast** (<sup>1</sup>Mukhin, 1993; <sup>1</sup>Mukhin et al., 2003); **Tomsk Oblast** (<sup>3</sup>Zhukov, 1980; <sup>1</sup>Agaphonova, Kutafjeva, and Gashkov, 2007; <sup>1</sup>Kudashova, Gashkov, and Kutafjeva, 2013); **Tyumen Oblast** (<sup>1</sup>Mukhin, 1993); **Yamalo-Nenets Autonomous Okrug** (<sup>1</sup>Tarчевskaya, 1990; <sup>1</sup>Mukhin, 1993); **Zabaykalsky Krai** (<sup>1</sup>Karsten, 1906); **Baikalia** (<sup>1</sup>Psurtseva, Kiyashko, Gachkova, and Belova, 2007).

**FAR EAST:** **Amur Oblast** (<sup>1</sup>Bulakh, Govorova, and Taranina, 2003; <sup>1</sup>Taranina, 2005; <sup>1</sup>Kochunova, 2016; <sup>1</sup>Kochunova and Timchenko, 2019; <sup>1</sup>Kochunova, 2019); **Jewish Autonomous Oblast** (<sup>1</sup>Bulakh, Govorova, Nazarova, and Vassiljeva, 2007; <sup>1</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Erofeeva, Bukharova, and Bulakh, 2019); **Khabarovsk Krai** (<sup>1</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Erofeeva and Bulakh, 2015a); **Magadan Oblast** (<sup>1</sup>Sazanova, 1996; <sup>1</sup>Sazanova, 2005; <sup>1</sup>Sazanova, 2009a; <sup>1</sup>Sazanova, 2011; <sup>1</sup>Sazanova, 2012; <sup>1</sup>Sazanova, 2016); **Primorsky Krai** (<sup>1</sup>Azbukina et al., 1990; <sup>1</sup>Bardunov et al., 2002; <sup>1</sup>Azbukina et al., 2006; <sup>1</sup>Bau, Bulakh, Zhuang, and Li, 2007; <sup>1</sup>Psurtseva, Kiyashko,

Gachkova, and Belova, 2007; <sup>1</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Bulakh et al., 2016); **Sakhalin Oblast** (<sup>1</sup>Bulakh, Govorova, and Bogatov, 1999).

***Pluteus albotomentosus* E.F. Malysheva & Malysheva**

FAR EAST: **Primorsky Krai** (Crous et al., 2014).

***Pluteus alniphilus* Deparis**

EASTERN EUROPE: **Yamalo-Nenets Autonomous Okrug** (Justo et al., 2014).

***Pluteus americanus* (P. Banerjee & Sundb.) Justo, E.F. Malysheva & Minnis**

FAR EAST: **Primorsky Krai** (Justo et al., 2014).

***Pluteus atromarginatus* (Konrad) Kühner<sup>1</sup>**

= *Pluteus tricuspispidatus* Velen.<sup>2</sup>

EASTERN EUROPE: **Adygea** (<sup>1</sup>Vaasma, Kalamees, and Raitviir, 1986; <sup>1</sup>Sopina, 2001a); **Belgorod Oblast** (<sup>1</sup>Bedenko, 1980); **Kaliningrad Oblast** (<sup>1</sup>Dedkov, Volodina, and Gubareva, 2007; <sup>1</sup>Volodina, 2007); **Kaluga Oblast** (<sup>1</sup>Antokhina et al., 2015); **Karachay-Cherkess Republic** (<sup>1</sup>Kalamees and Botashev, 2000); **Karelia** (<sup>1</sup>Bondartseva et al., 2001; <sup>1</sup>Krutov et al., 2014; <sup>1</sup>Savelev and Kikeeva, 2020); **Kirov Oblast** (<sup>1</sup>Kirillov, 2011; <sup>1</sup>Kirillov, Perevedentseva, and Egoshina, 2011); **Komi Republic** (<sup>1</sup>Bobretsova, 2004; <sup>1</sup>Palamarchuk, 2012); **Krasnodar Krai** (<sup>1</sup>Vassiljeva, 1939; <sup>1</sup>Vaasma, Kalamees, and Raitviir, 1986); **Leningrad Oblast** (<sup>1</sup>Stolyarskaya, 1993; <sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Popov et al., 2007; <sup>1</sup>Zmitrovich et al., 2015); **Lipetsk Oblast** (<sup>1</sup>Sarycheva et al., 2009; <sup>1</sup>Sarycheva, 2014a; <sup>1</sup>Sarycheva, 2016); **Moscow Oblast** (<sup>1</sup>Voronina et al., 2014); **Novgorod Oblast** (<sup>1</sup>Svetasheva et al., 2017); **Penza Oblast** (<sup>1</sup>Ivanov, 1981b; <sup>1</sup>Ivanov, 1982; <sup>1</sup>Ivanov, 2019); **Perm Krai** (<sup>1</sup>Perevedentseva, 2008; <sup>1</sup>Belkovskaya et al., 2014); **Pskov Oblast** (<sup>2</sup>Kovalenko, Kolmakov, Morozova, and Popov, 2003; <sup>2</sup>Kolmakov, 2005b; <sup>1</sup>Popov et al., 2013); **Ryazan Oblast** (<sup>1</sup>Volosnova, 1997; <sup>1</sup>Volosnova, 2014); **Saint Petersburg** (<sup>1</sup>Morozova, Kovalenko, Rebriev, and Malysheva, 2014); **Samara Oblast** (<sup>1</sup>Malysheva, 2004; <sup>1</sup>Malysheva and Malysheva, 2008; <sup>1</sup>Malysheva, Malysheva, and Krasilnikova, 2009); **Sverdlovsk Oblast** (<sup>1</sup>Marina, 2006); **Tatarstan** (<sup>1</sup>Vassiljeva, 1977; <sup>1</sup>Potapov, Galejev, and Zhukov, 2013; <sup>1</sup>Potapov, 2015b); **Tula Oblast** (<sup>1</sup>Svetasheva, 2004; <sup>1</sup>Shcherbakov, 2010); **Tver Oblast** (<sup>1</sup>Kotkova, 2014); **Udmurt Republic** (<sup>1</sup>Kapitonov, 2008); **Vologda Oblast** (<sup>1</sup>Kirillova, 2006; <sup>1</sup>Kirillova, 2007); **Yaroslavl Oblast** (<sup>1</sup>Lazareva, 1997; <sup>1</sup>Lazareva, 1998a).

SIBERIA: **Altai Krai** (<sup>1</sup>Gorbunova, 2018b); **Altai Republic** (<sup>1</sup>Gorbunova, 2017a); **Irkutsk Oblast** (<sup>1</sup>Kutafjeva, 1983; <sup>1</sup>Petrov, 1991; <sup>1</sup>Petrov, 2008); **Khakassia** (<sup>1</sup>Zauzolkova and Gorbunova, 2013; <sup>1</sup>Zauzolkova, 2015); **Krasnoyarsk Krai** (<sup>1</sup>Beglyanova, 1972a; <sup>1</sup>Lapitskaya, 1993; <sup>1</sup>Kosheleva and Kutafjeva, 2008a; <sup>1</sup>Malysheva, Malysheva, and Justo, 2016; <sup>1</sup>Malysheva, Malysheva, Kiyashko, et al., 2017); **Novosibirsk Oblast** (<sup>1</sup>Perova and Gorbunova, 2001; <sup>1</sup>Gorbunova, 2007; <sup>1</sup>Perova and Gorbunova, 2007; <sup>1</sup>Justo et al., 2014; <sup>1</sup>Koropachinskiy and Banaev, 2014); **Tomsk Oblast** (<sup>1</sup>Perova, 1972; <sup>1</sup>Perova and Gorbunova, 2001; <sup>1</sup>Kosheleva and Kutafjeva, 2004; <sup>1</sup>Kudashova, Gashkov, and Kutafjeva, 2013).

FAR EAST: **Amur Oblast** (<sup>1</sup>Kochunova and Erofeeva, 2017); **Jewish Autonomous Oblast** (<sup>1</sup>Erofeeva, Bukharova, and Bulakh, 2019); **Primorsky Krai** (<sup>1</sup>Vassiljeva, 1973; <sup>1</sup>Bunkina and Nazarova, 1978; <sup>1</sup>Azbukina et al., 2006; <sup>1</sup>Bau, Bulakh, and Govorova, 2011); **Sakhalin Oblast** (<sup>1</sup>Vassiljeva and Nazarova, 1972).

***Pluteus aurantiorugosus* (Trog) Sacc.<sup>1</sup>**

= *Pluteus coccineus* (Masse) J.E. Lange<sup>2</sup>

EASTERN EUROPE: **Chuvash Republic** (<sup>1</sup>Gafurova, Ignatov, Tolpysheva, and Svetasheva, 2020); **Leningrad Oblast** (<sup>1</sup>Popov et al., 2007); **Novgorod Oblast** (<sup>1</sup>Bolshakov et al., 2020); **Penza Oblast** (<sup>1</sup>Ivanov, 1983); **Perm Krai** (<sup>1</sup>Perevedentseva, 2008; <sup>1</sup>Shepel', 2008; <sup>1</sup>Baklanov, 2018); **Rostov Oblast** (<sup>1</sup>Zmitrovich et al., 2008); **Saint Petersburg** (<sup>1</sup>Morozova and Smirnov, 2011; <sup>1</sup>Geltman, 2018a); **Tatarstan** (<sup>1</sup>Vassiljeva, 1977; <sup>1</sup>Potapov, Galejev, and Zhukov, 2013; <sup>1</sup>Potapov, 2015b; <sup>1</sup>Nazirov, Gorshkov, Ivanov, and Rogova, 2016); **Tula Oblast** (<sup>1</sup>Svetasheva et al., 2017); **Arid territories** (<sup>1</sup>Rebriev, Rusanov, et al., 2012).

SIBERIA: **Krasnoyarsk Krai** (<sup>1</sup>Beglyanova, 1972a); **Novosibirsk Oblast** (<sup>1</sup>Zaytseva, 1971); **Tomsk Oblast** (<sup>2</sup>Perova, 1972; <sup>1</sup>Kudashova, Gashkov, and Kutafjeva, 2013; <sup>1</sup>Kudashova, Gashkov, and Vaishlya, 2016b).

FAR EAST: **Amur Oblast** (<sup>1</sup>Azbukina et al., 1998; <sup>1</sup>Taranina, 2005; <sup>1</sup>Bogacheva et al., 2018); **Jewish Autonomous Oblast** (<sup>1</sup>Bau, Bulakh, Zhuang, and Li, 2007; <sup>1</sup>Bau, Bulakh, and Govorova, 2011); **Khabarovsk Krai** (<sup>1</sup>Azbukina et al., 1986; <sup>1</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Bogacheva et al., 2018); **Primorsky Krai** (<sup>2</sup>Vassiljeva, 1972; <sup>2</sup>Vassiljeva, 1973; <sup>2</sup>Bunkina and Nazarova, 1978; <sup>1</sup>Azbukina et al., 1984; <sup>1</sup>Azbukina et al., 1990; <sup>1</sup>Bardunov et al., 2002; <sup>1</sup>Azbukina et al., 2006; <sup>1</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Bulakh et al., 2016; <sup>1</sup>Bogacheva et al., 2018).

***Pluteus brunneidiscus* Murrill**EASTERN EUROPE: **Vologda Oblast** (Justo et al., 2014).SIBERIA: **Krasnoyarsk Krai** (Justo et al., 2014); **Novosibirsk Oblast** (Justo et al., 2014); **Tomsk Oblast** (Justo et al., 2014).***Pluteus castroae* Justo & E.F. Malysheva**EASTERN EUROPE: **Moscow Oblast** (Justo et al., 2011); **Samara Oblast** (Justo et al., 2011).***Pluteus cervinus* (Schaeff.) P. Kumm.<sup>1</sup>**≡ *Agaricus cervinus* Schaeff.<sup>2</sup> ≡ *Hyporrhodius cervinus* (Schaeff.) Henn.<sup>3</sup> ≡ *Pluteus cervinus* var. *cervinus* (Schaeff.) P. Kumm.<sup>4</sup> ≡ *Rhodosporus cervinus* (Schaeff.) J. Schröt.<sup>5</sup> = *Agaricus pluteus* Batsch<sup>6</sup> = *Pluteus atricapillus* (Batsch) Fayod<sup>7</sup> = *Pluteus atricapillus* var. *atricapillus* (Batsch) Fayod<sup>8</sup> = *Pluteus cervinus* var. *rigens* (Pers.) P. Karst.<sup>9</sup> = *Pluteus curtisii* Berk.<sup>10</sup>

EASTERN EUROPE: **Adygea** (<sup>1</sup>Vassiljeva, 1939; <sup>7,8,10</sup>Vaasma, Kalamees, and Raitviir, 1986; <sup>1</sup>Sopina, 2001a; <sup>1</sup>Kummer, 2007); **Arkhangelsk Oblast** (<sup>1</sup>Lebedeva, 1933; <sup>1</sup>Ezhov, Ershov, Ruokolainen, and Zmitrovich, 2011; <sup>1</sup>Ezhov, 2014); **Belgorod Oblast** (<sup>7</sup>Bedenko, 1979a; <sup>1</sup>Nikolayev, 1986; <sup>1</sup>Soshnina, 1995); **Bryansk Oblast** (<sup>1</sup>Kruglikov, 2007); **Chechen Republic** (<sup>1</sup>Taysumov, Krapivina, and Kushalieva, 2016); **Chelyabinsk Oblast** (<sup>1</sup>Aleksandrovskaya and Lobanova, 1968; <sup>1</sup>Stepanova and Sirko, 1977; <sup>7</sup>Sirko and Stepanova, 1977; <sup>1</sup>Krasutsky, 2013; <sup>1</sup>Krasutsky, 2014); **Crimea** (<sup>6</sup>Léveillé, 1842; <sup>1</sup>Zerova, 1962; <sup>1</sup>Moser, 1993; <sup>1</sup>Sarkina, 2001; <sup>1</sup>Dudka et al., 2004; <sup>1</sup>Sarkina, 2011; <sup>1</sup>Sarkina and Prydiuk, 2012; <sup>1</sup>Sarkina, 2014b; <sup>1</sup>Sarkina and Stavishenko, 2019); **Kabardino-Balkarian Republic** (<sup>1</sup>Singer, 1929; <sup>1</sup>Singer, 1931; <sup>1</sup>Shkhagapsoev and Krapivina, 2003; <sup>1</sup>Shkhagapsoev and Krapivina, 2004); **Kaliningrad Oblast** (<sup>9</sup>Hennings, 1895; <sup>1</sup>Dedkov, Volodina, and Gubareva, 2007; <sup>1</sup>Volodina, 2007; <sup>1</sup>Atayev and Volodina, 2020); **Kaluga Oblast** (<sup>1</sup>Sionova, 2003; <sup>1</sup>Sionova, 2006); **Karachay-Cherkess Republic** (<sup>7</sup>Kalamees and Botashev, 2000; <sup>1</sup>Justo et al., 2014); **Karelia** (<sup>1</sup>Freindling, 1949; <sup>1</sup>Czerepanova, Perfiljeva, and Tobias, 1982; <sup>7</sup>Bondartseva et al., 2001; <sup>1</sup>Predtechenskaya and Ruokolainen, 2013; <sup>1</sup>Krutov et al., 2014; <sup>1</sup>Predtechenskaya and Ruokolainen, 2014; <sup>1</sup>Predtechenskaya, 2015); **Kirov Oblast** (<sup>1</sup>Kirillov, 2011; <sup>1</sup>Kirillov, Perevedentseva, and Egoshina, 2011; <sup>4</sup>Kirillov and Luginina, 2011; <sup>1</sup>Stavishenko, Luginina, Kirillov, and Egoshina, 2019); **Komi Republic** (<sup>7</sup>Karatygin, Nezdojminogo, Novozhilov, and Zhurbenko, 1999; <sup>1</sup>Palamarchuk, 2012; <sup>1</sup>Palamarchuk, 2016a; <sup>1</sup>Palamarchuk, 2016b; <sup>1</sup>Palamarchuk and Kirillov, 2017; <sup>1</sup>Palamarchuk, 2017); **Krasnodar Krai** (<sup>1</sup>Vassiljeva, 1939; <sup>7</sup>Kovalenko, 1980a; <sup>7</sup>Vaasma, Kalamees, and Raitviir, 1986; <sup>1</sup>Sopina, 2001a); **Kursk Oblast** (<sup>1</sup>Ryabova and Ignatenko, 1981; <sup>7</sup>Soshnina, 2001; <sup>1</sup>Baranov, 2002; <sup>7</sup>Soshnina, 2005); **Leningrad Oblast** (<sup>1</sup>Thesleff, 1920; <sup>7</sup>Stolyarskaya, 1989; <sup>1,10</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Morozova and Kovalenko, 2000; <sup>1</sup>Morozova, 2007; <sup>1,10</sup>Popov et al., 2007; <sup>1</sup>Malysheva, Malysheva, and Krasilnikova, 2009; <sup>1</sup>Justo et al., 2014; <sup>1</sup>Zmitrovich et al., 2015; <sup>1</sup>Kalinina, 2018); **Lipetsk Oblast** (<sup>7</sup>Alferova, 1977; <sup>1</sup>Rtishcheva, 1999; <sup>1</sup>Sarycheva, 1999; <sup>7</sup>Afanasyev, Rtishcheva, and Starodubtseva, 2007; <sup>1</sup>Sarycheva et al., 2009; <sup>1</sup>Sarycheva, 2011; <sup>1</sup>Sarycheva, 2014a; <sup>1</sup>Sarycheva, 2016; <sup>1</sup>Sarycheva, Starodubtseva, and Sapelnikova, 2017); **Mari El Republic** (<sup>1</sup>Prokhorov, 2007); **Mordovia** (<sup>1</sup>Chastukhin, 1948a; <sup>1</sup>Chastukhin and Nikolaevskaya, 1969; <sup>1</sup>Chastukhin, 2011; <sup>1</sup>Ivoilov and Bolshakov, 2011a); **Moscow** (<sup>5</sup>Bucholtz, 1897b; <sup>5</sup>Bucholtz, 1897c; <sup>3</sup>Mosolov, 1906; <sup>1</sup>Burova, 1968); **Moscow Oblast** (<sup>7</sup>Gorlenko, Sidorova, and Sidorova, 1989; <sup>7</sup>Levitskaya, 1995c; <sup>10</sup>Levitskaya, 1998; <sup>1</sup>Voronina et al., 2012; <sup>7,10</sup>Levitskaya, 2013; <sup>1</sup>Justo et al., 2014; <sup>1</sup>Voronina et al., 2014); **Murmansk Oblast** (<sup>1</sup>Pyatina, Pavlova, and Shestakova, 1969); **North Ossetia** (<sup>1</sup>Nikolayev, 2001); **Novgorod Oblast** (<sup>1</sup>Kovalenko, Morozova, Nezdojminogo, and Popov, 2005; <sup>1</sup>Malysheva, Malysheva, and Zmitrovich, 2007; <sup>1</sup>Popov et al., 2013; <sup>1</sup>Baklan, 2015); **Orenburg Oblast** (<sup>7</sup>Safonov, 2002; <sup>1</sup>Desyatova, 2008; <sup>7</sup>Safonov, Malenkova, Rusakov, and Leneva, 2013; <sup>1</sup>Safonov, 2015); **Penza Oblast** (<sup>7,10</sup>Ivanov, 1981b; <sup>7,10</sup>Ivanov, 1982; <sup>1</sup>Ivanov, 2019); **Perm Krai** (<sup>1</sup>Naoumoff, 1915; <sup>4</sup>Perevedentseva, 2008; <sup>1</sup>Belkovskaya et al., 2014; <sup>7</sup>Perevedentseva and Shishigin, 2014; <sup>7</sup>Botalov, 2017); **Pskov Oblast** (<sup>1</sup>Kovalenko and Morozova, 1999b; <sup>1</sup>Popov, 2001a; <sup>1</sup>Kolmakov, 2005b; <sup>1</sup>Malysheva, Malysheva, and Krasilnikova, 2009; <sup>1</sup>Popov et al., 2013; <sup>1</sup>Justo et al., 2014); **Rostov Oblast** (<sup>1</sup>Rusanov et al., 2004; <sup>1</sup>Morozova et al., 2008; <sup>1</sup>Zmitrovich et al., 2008; <sup>1</sup>Rusanov, Rebriev, and Bulgakov, 2018); **Ryazan Oblast** (<sup>7</sup>Volosnova, 1997; <sup>1</sup>Volosnova, 2014); **Saint Petersburg** (<sup>6</sup>Weinmann, 1828; <sup>6</sup>Weinmann, 1836; <sup>6</sup>Weinmann, 1837; <sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Morozova and Kovalenko, 2000; <sup>1</sup>Kotkova, Morozova, and Popov, 2005; <sup>1</sup>Kotkova, Morozova, and Popov, 2006; <sup>1</sup>Morozova and Smirnov, 2011; <sup>1</sup>Justo et al., 2014; <sup>1</sup>Morozova, Kovalenko, Rebriev, and Malysheva, 2014; <sup>1</sup>Morozova et al., 2020); **Samara Oblast** (<sup>1</sup>Malysheva and Malysheva, 2004; <sup>1</sup>Malysheva, 2004; <sup>1</sup>Malysheva and Malysheva, 2008; <sup>1</sup>Malysheva, Malysheva, and Krasilnikova, 2009; <sup>1</sup>Justo et al., 2014); **Saratov Oblast** (<sup>1</sup>Lebedeva, 1927; <sup>1</sup>Nagumanov, 2015); **Smolensk Oblast** (<sup>1</sup>Jaczevski, 1896; <sup>1</sup>Burova, 1969); **Sverdlovsk Oblast** (<sup>1</sup>Stepanova and Sirko, 1977; <sup>1</sup>Marina, 2006); **Tatarstan** (<sup>1,10</sup>Vassiljeva, 1977; <sup>1</sup>Potapov, 2015b; <sup>1</sup>Potapov, 2016a); **Tula Oblast** (<sup>7</sup>Svetasheva, 2001; <sup>1,10</sup>Svetasheva, 2004; <sup>1</sup>Svetasheva, 2013; <sup>1</sup>Justo et al., 2014); **Tver Oblast** (<sup>1</sup>Chastukhin, 1948b; <sup>1</sup>Mukhina and Garibova, 2010; <sup>1,10</sup>Mukhina, 2011a; <sup>1,10</sup>Mukhina,

2011b; <sup>1</sup>Kotkova, 2014; <sup>1</sup>Kurochkin, 2016); **Udmurt Republic** (<sup>7</sup>Tychinin, 1990; <sup>7</sup>Tychinin and Kuzmina, 2003); **Ulyanovsk Oblast** (<sup>1</sup>Ilyukhin, 2009; <sup>1</sup>Ilyukhin, 2010a; <sup>1</sup>Justo et al., 2014); **Vladimir Oblast** (<sup>1</sup>Mishulin, Blinov, and Gushchina, 2018); **Volgograd Oblast** (<sup>1</sup>Dudka and Vedeneyev, 2015); **Vologda Oblast** (<sup>1</sup>Kirillova, 2006; <sup>1</sup>Kirillova, 2007; <sup>1</sup>Justo et al., 2014); **Voronezh Oblast** (<sup>1</sup>Chastukhin, 1952; <sup>1</sup>Chastukhin and Nikolaevskaya, 1953; <sup>1</sup>Chastukhin and Nikolaevskaya, 1969; <sup>1</sup>Rtishcheva, 1999; <sup>7</sup>Afanasyev, Rtishcheva, and Starodubtseva, 2007; <sup>1</sup>Selochnik, 2015; <sup>1</sup>Sarycheva, Starodubtseva, and Sapelnikova, 2017); **Yaroslavl Oblast** (<sup>7</sup>Lazareva, 1997; <sup>7</sup>Lazareva, 1998a); **Arid territories** (<sup>1</sup>Rebriev, Rusanov, et al., 2012); **Lapland** (<sup>2</sup>Karsten, 1866); **Northern Caucasus** (<sup>7</sup>Kovalenko, 1980b).

SIBERIA: **Altai Krai** (<sup>1</sup>Gorbunova and Perova, 2006; <sup>4</sup>Gorbunova and Chubarova, 2008; <sup>1</sup>Gorbunova, Vlasenko, and Tzhubarova, 2011); **Altai Republic** (<sup>1</sup>Gorbunova, 1996; <sup>1</sup>Gorbunova, 1997; <sup>1</sup>Gorbunova, 2001a; <sup>1</sup>Gorbunova, 2001b; <sup>1</sup>Gorbunova, 2008); **Buryatia** (<sup>1</sup>Nezdojminogo, 1970a); **Irkutsk Oblast** (<sup>7</sup>Kutafjeva, 1983; <sup>7,10</sup>Petrov, 1986; <sup>7</sup>Petrov, 1989; <sup>7</sup>Astapenko, 1990a; <sup>10</sup>Petrov, 1991; <sup>7</sup>Muzyka, 2002; <sup>7</sup>Bardunov et al., 2005; <sup>1,10</sup>Petrov, 2008; <sup>7</sup>Muzyka, 2009; <sup>7</sup>Muzyka and Penzina, 2017); **Khakassia** (<sup>1</sup>Zauzolkova and Gorbunova, 2013; <sup>1</sup>Zauzolkova, 2015); **Khanty-Mansi Autonomous Okrug** (<sup>7,10</sup>Mukhin, 1993; <sup>1</sup>Zvyagina, Baykalova, and Gorbunova, 2007; <sup>1</sup>Zvyagina, 2008; <sup>1</sup>Zvyagina and Baykalova, 2012; <sup>1</sup>Shepeleva et al., 2014; <sup>1</sup>Filippova and Bulyonkova, 2017a; <sup>1</sup>Filippova and Bulyonkova, 2017b); **Krasnoyarsk Krai** (<sup>1</sup>Beglyanova, 1972a; <sup>7</sup>Nezdojminogo, 1976a; <sup>1</sup>Lapitskaya, 1993; <sup>1</sup>Kosheleva and Kutafjeva, 2008a; <sup>1</sup>Kosheleva and Kutafjeva, 2008b; <sup>1</sup>Kosheleva, 2010; <sup>1</sup>Zauzolkova, 2012; <sup>1</sup>Zauzolkova, 2015; <sup>1</sup>Kryuchkova and Yaskova, 2017); **Kurgan Oblast** (<sup>7</sup>Mukhin, 1993); **Novosibirsk Oblast** (<sup>1</sup>Nozdrenko, 1970; <sup>1</sup>Zaytseva, 1971; <sup>1</sup>Perova, 1977; <sup>4</sup>Gorbunova, 2007; <sup>4</sup>Perova and Gorbunova, 2007; <sup>1</sup>Justo et al., 2014; <sup>1</sup>Koropachinskiy and Banaev, 2014); **Tomsk Oblast** (<sup>1</sup>Perova, 1972; <sup>1</sup>Milovidova, 1980; <sup>1</sup>Kosheleva and Kutafjeva, 2004; <sup>1</sup>Agaphonova, Kutafjeva, and Gashkov, 2007; <sup>1</sup>Kudashova, Gashkov, and Kutafjeva, 2013); **Yamalo-Nenets Autonomous Okrug** (<sup>7</sup>Tarchevskaya, 1990; <sup>7</sup>Karatygin, Nezdojminogo, Novozhilov, and Zhurbenko, 1999); **Zabaykalsky Krai** (<sup>1</sup>Karsten, 1911).

FAR EAST: **Amur Oblast** (<sup>1</sup>Gordienko, Petrova, and Tarasov, 1981; <sup>1</sup>Nazarova, 1986; <sup>1</sup>Taranina, 2005; <sup>1</sup>Kochunova, 2016; <sup>1</sup>Kochunova and Timchenko, 2019); **Chukotka Autonomous Okrug** (<sup>7</sup>Sazanova, 1993); **Jewish Autonomous Oblast** (<sup>1</sup>Bulakh, Govorova, Nazarova, and Vassiljeva, 2007; <sup>1</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Bogacheva et al., 2018; <sup>1</sup>Erofeeva, Bukharova, and Bulakh, 2019); **Kamchatka Krai** (<sup>7</sup>Kalamees and Vaasma, 1981); **Khabarovsk Krai** (<sup>7</sup>Azbukina et al., 1986; <sup>7,10</sup>Azbukina et al., 1989; <sup>1</sup>Bulakh, Vassiljeva, and Erofeeva, 2010; <sup>1</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Bulakh, 2013; <sup>1</sup>Bogacheva, Bulakh, Bukharova, and Egorova, 2015; <sup>1</sup>Erofeeva and Bulakh, 2015a; <sup>1</sup>Bogacheva et al., 2018); **Magadan Oblast** (<sup>1</sup>Nazarova, 1976; <sup>7</sup>Sazanova, 1996; <sup>7</sup>Sazanova, 2005; <sup>1</sup>Sazanova, 2009a; <sup>1</sup>Sazanova, 2009b; <sup>1</sup>Sazanova, 2011; <sup>1</sup>Sazanova and Golodnova, 2015); **Primorsky Krai** (<sup>1</sup>Vassiljeva, 1972; <sup>1</sup>Vassiljeva, 1973; <sup>7</sup>Shalapugina, 1976; <sup>1</sup>Bunkina and Nazarova, 1978; <sup>7</sup>Azbukina et al., 1984; <sup>7</sup>Azbukina et al., 1990; <sup>1</sup>Bardunov et al., 2002; <sup>1</sup>Azbukina et al., 2006; <sup>7</sup>Bau, Bulakh, Zhuang, and Li, 2007; <sup>1</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Bulakh et al., 2016; <sup>1</sup>Bogacheva et al., 2018; <sup>1</sup>Bogacheva, Bulakh, Bukharova, and Egorova, 2020); **Sakhalin Oblast** (<sup>1</sup>Vassiljeva and Nazarova, 1972; <sup>7</sup>Bulakh, Govorova, and Bogatov, 1999).

### *Pluteus chrysophaeus* (Schaeff.) Quél.<sup>1</sup>

= *Pluteus cyanopus* Quél.<sup>2</sup> = *Pluteus galeroides* P.D. Orton<sup>3</sup> = *Pluteus luteovirens* Rea<sup>4</sup> = *Pluteus xanthophaeus* P.D. Orton<sup>5</sup>

EASTERN EUROPE: **Adygea** (<sup>5</sup>Vaasma, Kalamees, and Raitviir, 1986; <sup>3</sup>Sopina, 2001a); **Crimea** (<sup>1</sup>Sarkina, 2001; <sup>1</sup>Dudka et al., 2004; <sup>1</sup>Sarkina, 2011); **Kabardino-Balkarian Republic** (<sup>3,4</sup>Shkhagapsoev and Krapivina, 2004); **Kaluga Oblast** (<sup>1</sup>Sionova, 2012); **Karachay-Cherkess Republic** (<sup>4</sup>Kalamees and Botashev, 2000; <sup>1</sup>Malysheva and Svetasheva, 2011; <sup>1</sup>Onipchenko et al., 2013); **Karelia** (<sup>1</sup>Krutov et al., 2014); **Krasnodar Krai** (<sup>3</sup>Sopina, 2001a); **Lipetsk Oblast** (<sup>1</sup>Alferova, 1977); **Moscow Oblast** (<sup>4</sup>Gorlenko, Sidorova, and Sidorova, 1989; <sup>4</sup>Levitskaya, 1995b; <sup>1</sup>Levitskaya, 2013); **Novgorod Oblast** (<sup>1</sup>Morozova, 2012; <sup>1</sup>Popov et al., 2013); **Orenburg Oblast** (<sup>4</sup>Desyatova, 2008; <sup>1</sup>Safonov, 2015); **Penza Oblast** (<sup>1</sup>Ivanov, 1988a); **Perm Krai** (<sup>1</sup>Perevedentseva, 2008); **Ryazan Oblast** (<sup>4</sup>Volosnova, 1997); **Samara Oblast** (<sup>1</sup>Malysheva and Malysheva, 2004; <sup>1</sup>Malysheva, 2004; <sup>1</sup>Malysheva and Malysheva, 2008); **Tatarstan** (<sup>1</sup>Vassiljeva, 1977; <sup>1</sup>Potapov, 2015b); **Tula Oblast** (<sup>1</sup>Svetasheva, 2004); **Tver Oblast** (<sup>1</sup>Mukhina, 2011a; <sup>1</sup>Mukhina, 2011b; <sup>1</sup>Kotkova, 2014); **Udmurt Republic** (<sup>1</sup>Tychinin and Kuzmina, 2003); **Ulyanovsk Oblast** (<sup>1</sup>Ilyukhin, 2009; <sup>1</sup>Ilyukhin, 2010a).

SIBERIA: **Irkutsk Oblast** (<sup>4</sup>Astapenko, 1990a); **Khanty-Mansi Autonomous Okrug** (<sup>1</sup>Zvyagina, Baykalova, and Gorbunova, 2007; <sup>1</sup>Zvyagina, 2008; <sup>1</sup>Shepeleva et al., 2014; <sup>1,2</sup>Filippova and Bulyonkova, 2017a; <sup>1,2</sup>Filippova and Bulyonkova, 2017b); **Krasnoyarsk Krai** (<sup>1</sup>Malysheva, Malysheva, Kiyashko, et al., 2017); **Novosibirsk Oblast** (<sup>1</sup>Koropachinskiy and Banaev, 2014); **Tomsk Oblast** (<sup>1</sup>Kudashova, Gashkov, and Kutafjeva, 2013).

FAR EAST: **Jewish Autonomous Oblast** (<sup>1</sup>Erofeeva, Bukharova, and Bulakh, 2019); **Kamchatka Krai** (<sup>3</sup>Kalamees and Vaasma, 1981); **Khabarovsk Krai** (<sup>1</sup>Bau, Bulakh, and Govorova, 2011); **Primorsky Krai** (<sup>1</sup>Bunkina and Nazarova, 1978; <sup>1</sup>Azbukina et al., 2006; <sup>1</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Bulakh et al., 2016).



***Pluteus cinereofuscus* J.E. Lange<sup>1</sup>**= *Pluteus olivaceus* P.D. Orton<sup>2</sup>

EASTERN EUROPE: **Adygea** (<sup>1</sup>Vaasma, Kalamees, and Raitviir, 1986); **Chechen Republic** (<sup>2</sup>Taysumov, Krapivina, and Kushalieva, 2016); **Crimea** (<sup>1</sup>Sarkina, 2001; <sup>1</sup>Dudka et al., 2004; <sup>1</sup>Sarkina, 2010b; <sup>1</sup>Sarkina, 2011; <sup>1</sup>Sarkina and Prydiuk, 2012; <sup>1</sup>Sarkina, 2014b; <sup>1</sup>Sarkina and Mironova, 2015); **Karelia** (<sup>1</sup>Savelev and Kikeeva, 2018); **Komi Republic** (<sup>1</sup>Palamarchuk, 2011a; <sup>1</sup>Palamarchuk, 2012); **Orenburg Oblast** (<sup>1</sup>Desyatova, 2008); **Penza Oblast** (<sup>1</sup>Ivanov, 1981b; <sup>1</sup>Ivanov, 1982; <sup>2</sup>Ivanov, 1983); **Perm Krai** (<sup>1</sup>Perevedentseva, 2008); **Rostov Oblast** (<sup>1</sup>Rusanov, Rebriev, and Bulgakov, 2018); **Samara Oblast** (<sup>1</sup>Malysheva, 2004; <sup>1</sup>Malysheva and Malysheva, 2005b; <sup>1</sup>Malysheva and Malysheva, 2008); **Sverdlovsk Oblast** (<sup>1</sup>Marina, 2006); **Tatarstan** (<sup>1</sup>Potapov, 2016b); **Tula Oblast** (<sup>1</sup>Svetasheva et al., 2017); **Ulyanovsk Oblast** (<sup>1</sup>Ilyukhin, 2009; <sup>1</sup>Ilyukhin, 2010a); **Arid territories** (<sup>1</sup>Rebriev, Rusanov, et al., 2012).

SIBERIA: **Altai Krai** (<sup>1</sup>Gorbunova, 2018a); **Buryatia** (<sup>1</sup>Nezdojminogo, 1970a; <sup>1</sup>Petrov, 1991); **Krasnoyarsk Krai** (<sup>1</sup>Malysheva, Malysheva, and Justo, 2016; <sup>1</sup>Malysheva, Malysheva, Kiyashko, et al., 2017); **Novosibirsk Oblast** (<sup>1</sup>Koropachinskiy and Banaev, 2014).

FAR EAST: **Primorsky Krai** (<sup>1</sup>Vassiljeva, 1973; <sup>1</sup>Bunkina and Nazarova, 1978; <sup>1</sup>Azbukina et al., 2006; <sup>1</sup>Bau, Bulakh, and Govorova, 2011).

***Pluteus diana* Pilát**EASTERN EUROPE: **Moscow Oblast** (Ševčíková et al., 2020); **Samara Oblast** (Ševčíková et al., 2020).***Pluteus diettrichii* Bres.<sup>1</sup>**= *Pluteus rimulosus* Kühner & Romagn.<sup>2</sup>

EASTERN EUROPE: **Lipetsk Oblast** (<sup>1</sup>Shcherbakov, 2014); **Pskov Oblast** (<sup>2</sup>Kovalenko, Kolmakov, Morozova, and Popov, 2003; <sup>1</sup>Kolmakov, 2005b; <sup>1</sup>Popov et al., 2013).

SIBERIA: **Krasnoyarsk Krai** (<sup>2</sup>Lapitskaya, 1993); **Novosibirsk Oblast** (<sup>2</sup>Perova and Gorbunova, 2001; <sup>1</sup>Perova and Gorbunova, 2007).

FAR EAST: **Primorsky Krai** (<sup>2</sup>Vassiljeva, 1973; <sup>2</sup>Bunkina and Nazarova, 1978; <sup>2</sup>Azbukina et al., 2006; <sup>1</sup>Bau, Bulakh, and Govorova, 2011).

***Pluteus eos* Justo & E.F. Malysheva**FAR EAST: **Primorsky Krai** (Justo et al., 2014).***Pluteus ephebeus* (Fr.) Gillet<sup>1</sup>**= *Pluteus lepiotoides* A. Pearson<sup>2</sup> = *Pluteus murinus* Bres.<sup>3</sup>

EASTERN EUROPE: **Crimea** (<sup>1</sup>Sarkina, 2001; <sup>1</sup>Dudka et al., 2004; <sup>1</sup>Sarkina, 2010b; <sup>1</sup>Sarkina, 2011; <sup>1</sup>Sarkina and Prydiuk, 2012; <sup>1</sup>Sarkina, 2013; <sup>1</sup>Sarkina, 2014b; <sup>1</sup>Sarkina and Mironova, 2015); **Lipetsk Oblast** (<sup>1</sup>Sarycheva et al., 2009; <sup>1</sup>Sarycheva, 2011; <sup>1</sup>Sarycheva, 2014a; <sup>1</sup>Sarycheva, 2016); **Moscow Oblast** (<sup>1</sup>Levitskaya, 2006; <sup>1</sup>Levitskaya, 2013); **Perm Krai** (<sup>1</sup>Perevedentseva, 2008); **Rostov Oblast** (<sup>1</sup>Morozova et al., 2008); **Samara Oblast** (<sup>1,2</sup>Malysheva, 2004; <sup>1,2</sup>Malysheva and Malysheva, 2005b; <sup>1,2</sup>Malysheva and Malysheva, 2008; <sup>1,2</sup>Malysheva, Malysheva, and Krasilnikova, 2009); **Sverdlovsk Oblast** (<sup>1</sup>Marina, 2006); **Tatarstan** (<sup>1</sup>Potapov, 2016b); **Tula Oblast** (<sup>1</sup>Svetasheva, 2004; <sup>1</sup>Shcherbakov, 2010); **Udmurt Republic** (<sup>1</sup>Kapitonov, 2013); **Ulyanovsk Oblast** (<sup>1</sup>Ilyukhin, 2010a; <sup>1</sup>Ilyukhin, 2010b); **Arid territories** (<sup>1</sup>Rebriev, Rusanov, et al., 2012).

SIBERIA: **Altai Krai** (<sup>1</sup>Gorbunova, 2018a); **Khakassia** (<sup>1</sup>Zauzolkova and Gorbunova, 2013; <sup>1</sup>Zauzolkova, 2015); **Khanty-Mansi Autonomous Okrug** (<sup>1,2</sup>Zvyagina, 2008; <sup>1,2</sup>Shepeleva et al., 2014); **Krasnoyarsk Krai** (<sup>1</sup>Zauzolkova, 2015); **Novosibirsk Oblast** (<sup>1</sup>Perova and Gorbunova, 2007); **Tomsk Oblast** (<sup>3</sup>Perova, 1972; <sup>3</sup>Perova and Gorbunova, 2001; <sup>1</sup>Kudashova, Gashkov, and Kutafjeva, 2013).

FAR EAST: **Amur Oblast** (<sup>1</sup>Kochunova and Timchenko, 2019; <sup>1</sup>Kochunova, 2019); **Jewish Autonomous Oblast** (<sup>1</sup>Bulakh, Govorova, Nazarova, and Vassiljeva, 2007; <sup>1</sup>Erofeeva, Bukharova, and Bulakh, 2019).

***Pluteus exiguus* (Pat.) Sacc.**

EASTERN EUROPE: **Crimea** (Sarkina and Mironova, 2015); **Karachay-Cherkess Republic** (Malysheva and Svetasheva, 2011); **Leningrad Oblast** (Popov et al., 2007; Malysheva, Malysheva, and Krasilnikova, 2009); **Lipetsk Oblast** (Sarycheva et al., 2009; Sarycheva, 2011; Sarycheva, 2014a; Sarycheva, 2016; Sarycheva, Starodubtseva, and Sapelnikova, 2017); **Novgorod Oblast** (Morozova, Popov, and Fedosova, 2014); **Perm Krai** (Perevedentseva, 2008); **Samara Oblast** (Malysheva and Malysheva, 2004; Malysheva, 2004; Malysheva and Malysheva, 2008); **Tatarstan** (Potapov, 2016b).

SIBERIA: **Khanty-Mansi Autonomous Okrug** (Filippova and Bulyonkova, 2017a; Filippova and Bulyonkova, 2017b; Zvyagina and Baykalova, 2017).

***Pluteus extremiorientalis* E.F. Malysheva & Malysheva**

FAR EAST: **Primorsky Krai** (Crous et al., 2014).

***Pluteus fenzlii* (Schulzer) Corriol & P.-A. Moreau**

EASTERN EUROPE: **Orenburg Oblast** (Desyatova, 2008); **Perm Krai** (Perevedentseva, Shilkova, and Botalov, 2011; Baklanov, 2018); **Samara Oblast** (Malysheva, Morozova, and Zvyagina, 2007; Malysheva and Malysheva, 2008; Malysheva, Malysheva, and Krasilnikova, 2009); **Sverdlovsk Oblast** (Shiryaeva, 2018); **Tatarstan** (Nazirov, Gorshkov, Ivanov, and Rogova, 2016; Potapov, 2016b); **Udmurt Republic** (Kapitonov, 2008; Baranova, 2012).

SIBERIA: **Irkutsk Oblast** (Muzyka and Penzina, 2017); **Khakassia** (Ankipovich, 2012); **Khanty-Mansi Autonomous Okrug** (Malysheva, Morozova, and Zvyagina, 2007; Zvyagina, 2008; Malysheva, Malysheva, and Krasilnikova, 2009; Zvyagina, 2012; Vasin and Vasina, 2013; Shepeleva et al., 2014); **Krasnoyarsk Krai** (Malysheva, Malysheva, and Justo, 2016; Malysheva, Malysheva, Kiyashko, et al., 2017; Krom and Kapitonov, 2019); **Novosibirsk Oblast** (Koropachinskiy and Banaev, 2014; Glupov and Shauro, 2018); **Tomsk Oblast** (Agaphonova, Kutafjeva, and Gashkov, 2009b; Kudashova, Gashkov, and Kutafjeva, 2013; Kudashova, Gashkov, and Vaishlya, 2016b).

***Pluteus griseobrunneus* Murrill**

EASTERN EUROPE: **Karachay-Cherkess Republic** (Vassiljeva, 1939).

***Pluteus griseoluridus* P.D. Orton**

EASTERN EUROPE: **Karelia** (Krutov et al., 2014); **Tula Oblast** (Svetasheva, 2004; Shcherbakov, 2010).

***Pluteus hiatulus* Romagn.**

EASTERN EUROPE: **Crimea** (Sarkina, 2014a; Sarkina and Stavishenko, 2019); **Leningrad Oblast** (Kovalenko and Morozova, 1999a; Morozova, 1999; Popov et al., 2007); **Lipetsk Oblast** (Alferova, 1977; Sarycheva, 1999; Sarycheva et al., 2009; Sarycheva, 2014a; Sarycheva, 2016).

SIBERIA: **Sverdlovsk Oblast** (Mukhin, 1993).

FAR EAST: **Primorsky Krai** (Vassiljeva, 1973; Bunkina and Nazarova, 1978; Azbukina et al., 2006; Bau, Bulakh, and Govorova, 2011).

***Pluteus hibbettii* Justo, E.F. Malysheva & Bulyonk.**

SIBERIA: **Novosibirsk Oblast** (Justo et al., 2014).

***Pluteus hispidulus* (Fr.) Gillet<sup>1</sup>**

= *Pluteus hispidulus* var. *cephalocystis* Schreurs<sup>2</sup>

EASTERN EUROPE: **Adygea** (<sup>1</sup>Vaasma, Kalamees, and Raitviir, 1986; <sup>1</sup>Sopina, 2001a); **Crimea** (<sup>1</sup>Dudka et al., 2004; <sup>1</sup>Sarkina, 2011); **Karachay-Cherkess Republic** (<sup>2</sup>Malysheva and Svetasheva, 2011); **Krasnodar Krai** (<sup>1</sup>Sopina, 2001a); **Leningrad Oblast** (<sup>2</sup>Kalinina, 2018); **Novgorod Oblast** (<sup>1</sup>Kalinina, 2019); **Pskov Oblast** (<sup>1</sup>Kalinina, Bolshakov, and Bulyonkova, 2020); **Samara Oblast** (<sup>1</sup>Malysheva, 2004; <sup>1</sup>Malysheva and Malysheva, 2005b; <sup>1</sup>Malysheva and Malysheva, 2008; <sup>1</sup>Malysheva, Malysheva, and Krasilnikova, 2009); **Tatarstan** (<sup>1</sup>Vassiljeva, 1977); **Ulyanovsk Oblast** (<sup>1</sup>Ilyukhin, 2009).

SIBERIA: **Altai Republic** (<sup>1</sup>Gorbunova, 2001b); **Krasnoyarsk Krai** (<sup>1</sup>Beglyanova, 1972a; <sup>2</sup>Malysheva, Malysheva, and Justo, 2016; <sup>2</sup>Malysheva, Malysheva, Kiyashko, et al., 2017); **Novosibirsk Oblast** (<sup>1</sup>Perova, 1977; <sup>1</sup>Perova and Gorbunova, 2007; <sup>1</sup>Koropachinskiy and Banaev, 2014); **Tomsk Oblast** (<sup>1</sup>Perova, 1972; <sup>1</sup>Kudashova, Gashkov, and Kutafjeva, 2013).

FAR EAST: **Amur Oblast** (<sup>1</sup>Nazarova, 1986); **Khabarovsk Krai** (<sup>1</sup>Azbukina et al., 1986; <sup>1</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Erofeeva and Bulakh, 2015a); **Primorsky Krai** (<sup>1</sup>Vassiljeva, 1973; <sup>1</sup>Bunkina and Nazarova, 1978; <sup>1</sup>Azbukina et al., 1984; <sup>1</sup>Azbukina et al., 2006; <sup>1</sup>Bau, Bulakh, and Govorova, 2011).

***Pluteus hongoi* Singer**

EASTERN EUROPE: **Krasnodar Krai** (Justo et al., 2014); **Moscow Oblast** (Justo et al., 2014); **Novgorod Oblast** (Justo et al., 2014); **Samara Oblast** (Justo et al., 2014); **Sverdlovsk Oblast** (Justo et al., 2014); **Tatarstan** (Potapov, 2016b); **Tula Oblast** (Justo et al., 2014).

SIBERIA: **Altai Krai** (Gorbunova, 2018a); **Irkutsk Oblast** (Justo et al., 2014); **Khanty-Mansi Autonomous Okrug** (Justo et al., 2014; Filippova, Bulyonkova, and Lapshina, 2015); **Krasnoyarsk Krai** (Malysheva, Malysheva, Kiyashko, et al., 2017; Krom and Kapitonov, 2019); **Novosibirsk Oblast** (Justo et al., 2014).

FAR EAST: **Primorsky Krai** (Justo et al., 2014; Bulakh et al., 2016).

***Pluteus inocybectis* A.N. Petrov**

SIBERIA: **Irkutsk Oblast** (Petrov, 1983; Petrov, 1986; Petrov, 1991; Petrov, 2008; Gaykova and Popov, 2010; Trofimova, Popov, and Merkacheva, 2020); **Krasnoyarsk Krai** (Stepanov, 2012).

***Pluteus inquilinus* Romagn.**

EASTERN EUROPE: **Karelia** (Predtechenskaya and Ruokolainen, 2013); **Moscow Oblast** (Levitskaya, 2013); **Novgorod Oblast** (Kalinina, 2019); **Oryol Oblast** (Bolshakov et al., 2020; Volobuev, Bolshakov, and Shakhova, 2020); **Saint Petersburg** (Morozova et al., 2020); **Ulyanovsk Oblast** (Ilyukhin, 2009; Ilyukhin, 2010a).

***Pluteus insidiosus* Vellinga & Schreurs**

EASTERN EUROPE: **Tatarstan** (Potapov, 2015b; Potapov, 2015d; Nazirov, Gorshkov, Ivanov, and Rogova, 2016).

***Pluteus keissleri* Singer**

EASTERN EUROPE: **Tatarstan** (Vassiljeva, 1977).

***Pluteus kovalenkoi* E.F. Malysheva**

EASTERN EUROPE: **Krasnodar Krai** (Justo et al., 2014).

***Pluteus leoninus* (Schaeff.) P. Kumm.<sup>1</sup>**

= *Pluteus sororiatius* (P. Karst.) Sacc.<sup>2</sup>

EASTERN EUROPE: **Chelyabinsk Oblast** (<sup>1</sup>Stepanova and Sirko, 1977; <sup>1</sup>Krasutsky, 2013); **Crimea** (<sup>1</sup>Moser, 1993; <sup>1</sup>Sarkina, 2001; <sup>1</sup>Dudka et al., 2004; <sup>1</sup>Sarkina, 2011); **Kabardino-Balkarian Republic** (<sup>1</sup>Shkhagapsoev and Krapivina, 2003; <sup>1</sup>Shkhagapsoev and Krapivina, 2004); **Kaliningrad Oblast** (<sup>1</sup>Dedkov, Volodina, and Gubareva, 2007; <sup>1</sup>Volodina, 2007); **Kaluga Oblast** (<sup>1</sup>Sionova, 2003); **Karachay-Cherkess Republic** (<sup>1</sup>Malysheva and Svetasheva, 2011); **Karelia** (<sup>1</sup>Bondartseva et al., 2001; <sup>1</sup>Krutov et al., 2014); **Kirov Oblast** (<sup>1</sup>Kirillov, 2011; <sup>1</sup>Kirillov, Perevedentseva, and Egoshina, 2011); **Komi Republic** (<sup>1</sup>Palamarchuk (Bobretsova), 2009; <sup>1</sup>Palamarchuk, 2012; <sup>1</sup>Palamarchuk and Kirillov, 2017; <sup>1</sup>Palamarchuk, 2017); **Krasnodar Krai** (<sup>2</sup>Vassiljeva, 1939); **Leningrad Oblast** (<sup>2</sup>Thesleff, 1920; <sup>1</sup>Kalamees and Kovalenko, 1984; <sup>1</sup>Stolyarskaya, 1993; <sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Morozova, 2007; <sup>1</sup>Popov et al., 2007; <sup>1</sup>Zmitrovich et al., 2015); **Lipetsk Oblast** (<sup>1</sup>Shcherbakov, 2014; <sup>1</sup>Sarycheva, Starodubtseva, and Sapelnikova, 2017); **Mordovia** (<sup>1</sup>Ivoilov and Bolshakov, 2011a); **Moscow Oblast** (<sup>1</sup>Gorlenko, Sidorova, and Sidorova, 1989; <sup>1</sup>Levitskaya, 1995a; <sup>1</sup>Voronina et al., 2012; <sup>1</sup>Levitskaya, 2013; <sup>1</sup>Voronina et al., 2014); **Novgorod Oblast** (<sup>1</sup>Kovalenko, Morozova, Nezdojminogo, and Popov, 2005; <sup>1</sup>Malysheva, Malysheva, and Krasilnikova, 2009; <sup>1</sup>Popov et al., 2013); **Orenburg Oblast** (<sup>1</sup>Desyatova, 2007; <sup>1</sup>Desyatova, 2008); **Penza Oblast** (<sup>1</sup>Ivanov, 1981b; <sup>1</sup>Ivanov, 1982; <sup>1</sup>Ivanov, 2019); **Perm Krai** (<sup>1</sup>Perevedentseva, 2008); **Pskov Oblast** (<sup>1</sup>Kovalenko and Morozova, 1999b; <sup>1</sup>Kolmakov and Popov, 2005; <sup>1</sup>Kolmakov, 2005b; <sup>1</sup>Popov et al., 2013); **Rostov Oblast** (<sup>1</sup>Rusanov, Rebriev, and Bulgakov, 2018); **Ryazan Oblast** (<sup>1</sup>Volosnova, 2014); **Saint Petersburg** (<sup>1</sup>Morozova et al., 2020); **Samara Oblast** (<sup>1</sup>Malysheva and Malysheva, 2004; <sup>1</sup>Malysheva, 2004; <sup>1</sup>Malysheva and Malysheva, 2008; <sup>1</sup>Malysheva, Malysheva, and Krasilnikova, 2009); **Sverdlovsk Oblast** (<sup>1</sup>Marina, 2006); **Tatarstan** (<sup>1</sup>Vassiljeva, 1977; <sup>1</sup>Potapov, 2015b); **Tula Oblast** (<sup>1</sup>Svetasheva, 2004); **Tver Oblast** (<sup>1</sup>Kurochkin, 1993; <sup>1</sup>Mukhina and Garibova, 2010; <sup>1</sup>Mukhina, 2011a; <sup>1</sup>Mukhina, 2011b; <sup>1</sup>Kotkova, 2014); **Ulyanovsk Oblast** (<sup>1</sup>Ilyukhin, 2009; <sup>1</sup>Ilyukhin, 2010a); **Vladimir Oblast** (<sup>1</sup>Mishulin, Blinov, and Gushchina, 2018); **Vologda Oblast** (<sup>1,2</sup>Kirillova, 2006; <sup>1,2</sup>Kirillova, 2007); **Voronezh Oblast** (<sup>1</sup>Sarycheva, Starodubtseva, and Sapelnikova, 2017); **Yaroslavl Oblast** (<sup>1</sup>Lazareva, 1997; <sup>1</sup>Lazareva, 1998a); **Arid territories** (<sup>1</sup>Rebriev, Rusanov, et al., 2012).

SIBERIA: **Altai Krai** (<sup>1</sup>Gorbunova and Perova, 2006; <sup>1</sup>Gorbunova, 2018a); **Altai Republic** (<sup>1</sup>Gorbunova, 2001b); **Irkutsk Oblast** (<sup>1</sup>Kutafjeva, 1983; <sup>1</sup>Petrov, 1986; <sup>1</sup>Astapenko, 1990a; <sup>1,2</sup>Petrov, 1991; <sup>1</sup>Petrov, 2008); **Khakassia** (<sup>1</sup>Zauzolkova, 2015; <sup>1</sup>Zauzolkova and Gorbunova, 2016); **Khanty-Mansi Autonomous Okrug** (<sup>1</sup>Zvyagina, Baykalova, and Gorbunova, 2007; <sup>1</sup>Zvyagina, 2008; <sup>1</sup>Shepeleva et al., 2014; <sup>1</sup>Filippova, Bulyonkova, and Lapshina, 2015; <sup>1</sup>Filippova and Bulyonkova, 2017a; <sup>1</sup>Filippova and Bulyonkova, 2017b); **Krasnoyarsk Krai** (<sup>1</sup>Beglyanova, 1972a; <sup>1</sup>Nezdojminogo, 1976a; <sup>1</sup>Lapitskaya, 1993; <sup>1</sup>Kosheleva and Kutafjeva, 2008a; <sup>1</sup>Kryuchkova, 2015; <sup>1</sup>Malysheva, Malysheva, and Justo, 2016; <sup>1</sup>Kryuchkova and Yaskova, 2017; <sup>1</sup>Malysheva, Malysheva, Kiyashko, et al., 2017; <sup>1</sup>Krom and Kapitonov, 2019); **Novosibirsk Oblast** (<sup>1</sup>Perova, 1977; <sup>1</sup>Perova and Gorbunova, 2007; <sup>1</sup>Koropachinskiy and Banaev, 2014); **Tomsk Oblast** (<sup>1</sup>Perova, 1972; <sup>1</sup>Kudashova, Gashkov, and Kutafjeva, 2013).

FAR EAST: **Amur Oblast** (<sup>1</sup>Nazarova, 1986; <sup>1</sup>Azbukina et al., 1998; <sup>1</sup>Kochunova, 2016; <sup>1</sup>Kochunova, 2019); **Jewish Autonomous Oblast** (<sup>1</sup>Bulakh, Govorova, Nazarova, and Vassiljeva, 2007; <sup>1</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Erofeeva, Bukharova, and Bulakh, 2019); **Kamchatka Krai** (<sup>1</sup>Kalamees and Vaasma, 1981); **Khabarovsk Krai** (<sup>1</sup>Azbukina et al., 1986; <sup>1</sup>Azbukina et al., 1989; <sup>1</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Erofeeva and Bulakh,

2015a); **Magadan Oblast** (<sup>1</sup>Sazanova, 1996; <sup>1</sup>Sazanova, 2005; <sup>1</sup>Sazanova, 2009a; <sup>1</sup>Sazanova, 2011); **Primorsky Krai** (<sup>1</sup>Vassiljeva, 1973; <sup>1</sup>Shalapugina, 1976; <sup>1</sup>Bunkina and Nazarova, 1978; <sup>1</sup>Azbukina et al., 1984; <sup>1</sup>Bardunov et al., 2002; <sup>1</sup>Azbukina et al., 2006; <sup>1</sup>Bau, Bulakh, Zhuang, and Li, 2007; <sup>1</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Bulakh et al., 2016; <sup>1</sup>Bogacheva, Bulakh, Bukharova, and Egorova, 2020).

***Pluteus leucoborealis* Justo, E.F. Malysheva, Bulyonk. & Minnis**

EASTERN EUROPE: **Khanty-Mansi Autonomous Okrug** (Justo et al., 2014); **Leningrad Oblast** (Morozova, 1999 [as *Pluteus curtisii* Berk., redet. in Kalinina, 2018]; Morozova and Kovalenko, 2000 [as *Pluteus curtisii* Berk., redet. in Kalinina, 2018]; Justo et al., 2014; Kalinina, 2018); **Novgorod Oblast** (Justo et al., 2014); **Pskov Oblast** (Justo et al., 2014); **Saint Petersburg** (Justo et al., 2014).

SIBERIA: **Buryatia** (Justo et al., 2014); **Khanty-Mansi Autonomous Okrug** (Justo et al., 2014; Filippova, Bulyonkova, and Lapshina, 2015); **Krasnoyarsk Krai** (Justo et al., 2014; Malysheva, Malysheva, and Justo, 2016; Malysheva, Malysheva, Kiyashko, et al., 2017; Krom and Kapitonov, 2019); **Novosibirsk Oblast** (Justo et al., 2014).

FAR EAST: **Primorsky Krai** (Justo et al., 2014).

***Pluteus liliputianus* E.F. Malysheva & Malysheva**

FAR EAST: **Primorsky Krai** (Crous, Wingfield, et al., 2019).

***Pluteus luctuosus* Boud.<sup>1</sup>**

= *Pluteus marginatus* (Quél.) Bres.<sup>2</sup>

EASTERN EUROPE: **Orenburg Oblast** (<sup>1</sup>Desyatova, 2007; <sup>1</sup>Desyatova, 2008); **Perm Krai** (<sup>1</sup>Perevedentseva, 2008).

SIBERIA: **Krasnoyarsk Krai** (<sup>1</sup>Malysheva, Malysheva, Kiyashko, et al., 2017).

FAR EAST: **Primorsky Krai** (<sup>2</sup>Vassiljeva, 1973; <sup>2</sup>Bunkina and Nazarova, 1978; <sup>2</sup>Azbukina et al., 2006; <sup>1</sup>Bau, Bulakh, and Govorova, 2011).

***Pluteus luteus* (Redhead & B. Liu) Redhead**

FAR EAST: **Primorsky Krai** (Bau, Bulakh, Zhuang, and Li, 2007; Bau, Bulakh, and Govorova, 2011).

***Pluteus nanus* (Pers.) P. Kumm.<sup>1</sup>**

≡ *Agaricus nanus* Pers.<sup>2</sup> = *Pluteus griseopus* P.D. Orton<sup>3</sup>

EASTERN EUROPE: **Adygea** (<sup>1</sup>Vassiljeva, 1939; <sup>3</sup>Vaasma, Kalamees, and Raitviir, 1986); **Chelyabinsk Oblast** (<sup>1</sup>Stepanova and Sirko, 1977); **Crimea** (<sup>1</sup>Moser, 1993; <sup>1</sup>Sarkina, 2001; <sup>1</sup>Dudka et al., 2004; <sup>3</sup>Dudka et al., 2004; <sup>1</sup>Sarkina, 2011; <sup>3</sup>Sarkina, 2011; <sup>1</sup>Sarkina and Prydiuk, 2012); **Kabardino-Balkarian Republic** (<sup>3</sup>Shkhagapsoev and Krapivina, 2003); **Kaliningrad Oblast** (<sup>1</sup>Volodina, 2007); **Kaluga Oblast** (<sup>1</sup>Sionova, 2003); **Karachay-Cherkess Republic** (<sup>1</sup>Kalamees and Botashev, 2000); **Krasnodar Krai** (<sup>1</sup>Vassiljeva, 1939; <sup>1</sup>Kovalenko, 1980a; <sup>1</sup>Kovalenko, 1980b; <sup>3</sup>Vaasma, Kalamees, and Raitviir, 1986; <sup>1</sup>Sopina, 2001a); **Leningrad Oblast** (<sup>1</sup>Thesleff, 1920; <sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Popov et al., 2007); **Lipetsk Oblast** (<sup>1</sup>Alferova, 1977; <sup>1</sup>Sarycheva, 1999; <sup>1</sup>Sarycheva et al., 2009; <sup>1</sup>Sarycheva, 2011; <sup>1</sup>Sarycheva, 2014a; <sup>1</sup>Sarycheva, 2016); **Moscow Oblast** (<sup>1</sup>Gorlenko, Sidorova, and Sidorova, 1989); **Novgorod Oblast** (<sup>1</sup>Kovalenko, Morozova, Nezdoinin, and Popov, 2005; <sup>1</sup>Popov et al., 2013); **Penza Oblast** (<sup>1</sup>Ivanov, 1981b); **Perm Krai** (<sup>1</sup>Perevedentseva, 2008); **Pskov Oblast** (<sup>1</sup>Kovalenko, Kolmakov, Morozova, and Popov, 2003; <sup>1</sup>Kolmakov, 2005b; <sup>1</sup>Malysheva, Malysheva, and Krasilnikova, 2009; <sup>1</sup>Popov et al., 2013); **Rostov Oblast** (<sup>1</sup>Fedyeva, 2014); **Ryazan Oblast** (<sup>1</sup>Volosnova, 1997); **Saint Petersburg** (<sup>2</sup>Weinmann, 1836; <sup>1</sup>Morozova and Smirnov, 2011); **Samara Oblast** (<sup>1</sup>Malysheva and Malysheva, 2004; <sup>1</sup>Malysheva, 2004; <sup>1</sup>Malysheva and Malysheva, 2008; <sup>1</sup>Malysheva, Malysheva, and Krasilnikova, 2009); **Sverdlovsk Oblast** (<sup>1</sup>Marina, 2006); **Tatarstan** (<sup>1</sup>Vassiljeva, 1977); **Tula Oblast** (<sup>1,3</sup>Svetasheva, 2004; <sup>1</sup>Svetasheva, 2013); **Tver Oblast** (<sup>1</sup>Mukhina, 2011b); **Udmurt Republic** (<sup>1</sup>Tychinin and Kuzmina, 2003); **Ulyanovsk Oblast** (<sup>1</sup>Ilyukhin, 2010a); **Vologda Oblast** (<sup>1</sup>Kirillova, 2006; <sup>1</sup>Kirillova, 2007); **Yaroslavl Oblast** (<sup>1</sup>Lazareva, 1998a; <sup>1</sup>Lazareva, 2002); **Arid territories** (<sup>1</sup>Rebriev, Rusanov, et al., 2012).

SIBERIA: **Altai Krai** (<sup>1</sup>Gorbunova and Perova, 2006; <sup>1</sup>Gorbunova and Chubarova, 2008; <sup>1</sup>Gorbunova, Vlasenko, and Tzhubarova, 2011); **Altai Republic** (<sup>1</sup>Gorbunova, 1997; <sup>1</sup>Gorbunova, 2001b); **Irkutsk Oblast** (<sup>1</sup>Astapenko, 1990a); **Khakassia** (<sup>1</sup>Zauzolkova, 2015; <sup>1</sup>Zauzolkova and Gorbunova, 2016); **Khanty-Mansi Autonomous Okrug** (<sup>1</sup>Zvyagina, Baykalova, and Gorbunova, 2007; <sup>1</sup>Zvyagina, 2008; <sup>1</sup>Shepeleva et al., 2014; <sup>1</sup>Filippova and Bulyonkova, 2017a; <sup>1</sup>Filippova and Bulyonkova, 2017b); **Krasnoyarsk Krai** (<sup>1</sup>Beglyanova, 1972a; <sup>1</sup>Kutafjeva and Kosheleva, 2005); **Novosibirsk Oblast** (<sup>1</sup>Perova, 1977; <sup>1</sup>Perova and Gorbunova, 2007; <sup>1</sup>Koropachinskiy and Banaev, 2014); **Tomsk Oblast** (<sup>1</sup>Perova, 1972; <sup>1</sup>Kudashova, Gashkov, and Kutafjeva, 2013).

FAR EAST: **Amur Oblast** (<sup>1</sup>Azbukina et al., 1998); **Kamchatka Krai** (<sup>3</sup>Kalamees and Vaasma, 1981); **Khabarovsk Krai** (<sup>1</sup>Azbukina et al., 1986; <sup>1</sup>Azbukina et al., 1989; <sup>1</sup>Bau, Bulakh, and Govorova, 2011); **Primorsky Krai** (<sup>1</sup>Vassiljeva, 1972; <sup>1</sup>Vassiljeva, 1973; <sup>1</sup>Bunkina and Nazarova, 1978; <sup>1</sup>Azbukina et al., 1984; <sup>1</sup>Azbukina et al., 1990; <sup>1</sup>Bardunov et al., 2002; <sup>1</sup>Azbukina et al., 2006; <sup>1</sup>Bau, Bulakh, Zhuang, and Li, 2007; <sup>1</sup>Bau, Bulakh, and Govorova, 2011).

***Pluteus pellitus* (Pers.) P. Kumm.**

EASTERN EUROPE: **Adygea** (Vaasma, Kalamees, and Raitviir, 1986); **Belgorod Oblast** (Bedenko, 1980); **Bryansk Oblast** (Kruglikov, 2007); **Kaliningrad Oblast** (Dedkov, Volodina, and Gubareva, 2007; Volodina, 2007); **Kaluga Oblast** (Sionova, 2012); **Kirov Oblast** (Stavishenko, Luginina, Kirillov, and Egoshina, 2019); **Komi Republic** (Palamarchuk (Bobretsova), 2009; Palamarchuk, 2012; Palamarchuk and Kirillov, 2018a); **Krasnodar Krai** (Justo et al., 2014); **Leningrad Oblast** (Kovalenko and Morozova, 1999a; Tzvelev, 2000; Popov et al., 2007; Zmitrovich et al., 2015; Geltman et al., 2018); **Lipetsk Oblast** (Sarycheva et al., 2009; Sarycheva, 2011; Sarycheva, 2014a; Sarycheva, 2016; Sarycheva, Starodubtseva, and Sapelnikova, 2017); **Moscow Oblast** (Levitskaya, 1998; Levitskaya, 2013); **Orenburg Oblast** (Desyatova, 2007; Desyatova, 2008; Safonov, 2015); **Perm Krai** (Perevedentseva, 2008; Belkovskaya et al., 2014); **Pskov Oblast** (Kovalenko, Kolmakov, Morozova, and Popov, 2003; Kolmakov, 2005b; Malysheva, Malysheva, and Krasilnikova, 2009; Popov et al., 2013); **Rostov Oblast** (Rusanov, Rebriev, and Bulgakov, 2018); **Ryazan Oblast** (Volosnova, 1997; Volosnova, 2014); **Samara Oblast** (Malysheva, 2004; Malysheva and Malysheva, 2005b; Malysheva and Malysheva, 2008; Malysheva, Malysheva, and Krasilnikova, 2009; Justo et al., 2014); **Saratov Oblast** (Nagumanov, 2015); **Smolensk Oblast** (Jaczewski, 1898); **Sverdlovsk Oblast** (Marina, 2006); **Tatarstan** (Vassiljeva, 1977); **Tula Oblast** (Svetasheva, 2004; Shcherbakov, 2010; Svetasheva, 2013); **Ulyanovsk Oblast** (Ilyukhin, 2010a); **Vologda Oblast** (Kirillova, 2006; Kirillova, 2007; Suslova et al., 2013); **Voronezh Oblast** (Agafonov, 2011; Agafonov, 2018); **Arid territories** (Rebriev, Rusanov, et al., 2012).

SIBERIA: **Altai Republic** (Gorbunova, 1997; Gorbunova, 2001b); **Buryatia** (Penzina and Petrov, 1994); **Irkutsk Oblast** (Kutafjeva, 1983; Petrov, 1986; Petrov, 1989; Astapenko, 1990a; Petrov, 1991; Petrov, 2008); **Khanty-Mansi Autonomous Okrug** (Mukhin, 1993; Zvyagina, Baykalova, and Gorbunova, 2007); **Krasnoyarsk Krai** (Beglyanova, 1972a; Nezdoyminogo, 1976a; Kosheleva and Kutafjeva, 2008a; Kosheleva and Kutafjeva, 2008b; Zauzolkova, 2012; Zauzolkova, 2015); **Novosibirsk Oblast** (Zaytseva, 1971; Perova, 1977; Gorbunova, 2007; Perova and Gorbunova, 2007; Koropachinskiy and Banaev, 2014); **Tomsk Oblast** (Perova, 1972; Agaphonova, Kutafjeva, and Gashkov, 2007; Kudashova, Gashkov, and Kutafjeva, 2013).

FAR EAST: **Kamchatka Krai** (Kalamees and Vaasma, 1981); **Khabarovsk Krai** (Azbukina et al., 1986; Azbukina et al., 1989); **Magadan Oblast** (Sazanova, 2011); **Primorsky Krai** (Vassiljeva, 1973; Shalapugina, 1976; Bunkina and Nazarova, 1978; Azbukina et al., 1984; Azbukina et al., 1990; Bardunov et al., 2002; Azbukina et al., 2006; Bau, Bulakh, and Govorova, 2011; Bulakh et al., 2016).

***Pluteus petasatus* (Fr.) Gillet<sup>1</sup>**

= *Pluteus patricius* (Schulzer) Boud.<sup>2</sup>

EASTERN EUROPE: **Adygea** (<sup>1</sup>Sopina, 2001a); **Crimea** (<sup>1</sup>Sarkina, 2001; <sup>1</sup>Dudka et al., 2004; <sup>1</sup>Sarkina and Prydiuk, 2012; <sup>1</sup>Sarkina and Stavishenko, 2019); **Kaliningrad Oblast** (<sup>1</sup>Dedkov, Volodina, and Gubareva, 2007; <sup>1</sup>Volodina, 2007); **Karelia** (<sup>2</sup>Freindling, 1949; <sup>2</sup>Bondartseva et al., 2001; <sup>1</sup>Krutov et al., 2014); **Komi Republic** (<sup>1</sup>Stepanova and Sirko, 1977; <sup>1</sup>Palamarchuk (Bobretsova), 2009; <sup>1,2</sup>Palamarchuk, 2012; <sup>1</sup>Palamarchuk and Kirillov, 2017; <sup>1</sup>Palamarchuk and Kirillov, 2018a); **Krasnodar Krai** (<sup>1</sup>Kovalenko, 1980a; <sup>1</sup>Kovalenko, 1980b); **Kursk Oblast** (<sup>1</sup>Baranov, 2002); **Leningrad Oblast** (<sup>1</sup>Thesleff, 1920; <sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Popov et al., 2007); **Lipetsk Oblast** (<sup>1</sup>Sarycheva, 2011; <sup>1</sup>Sarycheva, 2014a; <sup>1</sup>Sarycheva, 2016; <sup>1</sup>Sarycheva, Starodubtseva, and Sapelnikova, 2017); **Mordovia** (<sup>1</sup>Ivoilov and Bolshakov, 2011a); **Moscow** (<sup>2</sup>Samoilov and Morozova, 2011); **Murmansk Oblast** (<sup>2</sup>Pystina, Pavlova, and Shestakova, 1969); **Novgorod Oblast** (<sup>1</sup>Justo et al., 2014); **Orenburg Oblast** (<sup>1</sup>Korshikova, 2006; <sup>1</sup>Desyatova, 2007; <sup>1</sup>Desyatova, 2008; <sup>1</sup>Justo et al., 2014); **Perm Krai** (<sup>2</sup>Perevedentseva, 2008; <sup>1</sup>Perevedentseva, Shilkova, and Botalov, 2011); **Pskov Oblast** (<sup>1</sup>Kolmakov, 2005b; <sup>1</sup>Popov et al., 2013); **Rostov Oblast** (<sup>1</sup>Justo et al., 2014); **Ryazan Oblast** (<sup>1</sup>Volosnova, 1997; <sup>1</sup>Volosnova, 2014); **Saint Petersburg** (<sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Morozova and Smirnov, 2011; <sup>1</sup>Justo et al., 2014; <sup>1</sup>Morozova, Kovalenko, Rebriev, and Malysheva, 2014; <sup>1</sup>Morozova et al., 2020); **Samara Oblast** (<sup>1,2</sup>Malysheva, 2004; <sup>1,2</sup>Malysheva and Malysheva, 2005b; <sup>1,2</sup>Malysheva and Malysheva, 2008; <sup>1</sup>Justo et al., 2014); **Sevastopol** (<sup>1</sup>Sarkina, 2020c); **Tatarstan** (<sup>1</sup>Singer, 1943; <sup>1</sup>Vassiljeva, 1977; <sup>1</sup>Potapov, 2015b); **Tula Oblast** (<sup>1</sup>Svetasheva, 2004; <sup>1</sup>Svetasheva, 2005b; <sup>1</sup>Malysheva, Malysheva, and Krasilnikova, 2009; <sup>1</sup>Svetasheva, 2013); **Ulyanovsk Oblast** (<sup>1</sup>Ilyukhin, 2010a; <sup>1</sup>Ilyukhin, 2010b); **Volgograd Oblast** (<sup>1</sup>Dudka and Vedeneyev, 2015); **Yamalo-Nenets Autonomous Okrug** (<sup>1</sup>Stepanova and Sirko, 1977); **Yaroslavl Oblast** (<sup>1</sup>Lazareva, 1998a; <sup>1</sup>Lazareva, 2002; <sup>1</sup>Nyankovsky, 2015).

SIBERIA: **Altai Republic** (<sup>1</sup>Gorbunova, 2008); **Buryatia** (<sup>1</sup>Nezdojminogo, 1973; <sup>1</sup>Petrov, 1991; <sup>1</sup>Justo et al., 2014); **Irkutsk Oblast** (<sup>1</sup>Kutafjeva, 1983; <sup>2</sup>Petrov, 1986; <sup>1</sup>Petrov, 1991; <sup>1</sup>Petrov, 2008); **Khakassia** (<sup>1</sup>Beglyanova, 1972a; <sup>1</sup>Zauzolkova, 2015); **Khanty-Mansi Autonomous Okrug** (<sup>1</sup>Zvyagina, Baykalova, and Gorbunova, 2007; <sup>1</sup>Zvyagina, 2008; <sup>1</sup>Zvyagina and Baykalova, 2012; <sup>1</sup>Shepeleva et al., 2014; <sup>1</sup>Filippova and Bulyonkova, 2017a; <sup>1</sup>Filippova and Bulyonkova, 2017b); **Krasnoyarsk Krai** (<sup>1,2</sup>Beglyanova, 1972a; <sup>1</sup>Kosheleva and Kutafjeva, 2008b; <sup>1</sup>Kosheleva, 2010; <sup>1</sup>Zauzolkova, 2015; <sup>1</sup>Malysheva, Malysheva, Kiyashko, et al., 2017); **Novosibirsk Oblast** (<sup>2</sup>Zaytseva, 1971; <sup>1</sup>Perova and Gorbunova, 2001; <sup>1</sup>Perova and Gorbunova, 2007; <sup>1</sup>Justo et al., 2014; <sup>1</sup>Koropachinskiy and Banaev, 2014); **Tomsk Oblast** (<sup>1</sup>Perova, 1972; <sup>1,2</sup>Perova and Gorbunova, 2001; <sup>1</sup>Kudashova, Gashkov, and Kutafjeva, 2013; <sup>1</sup>Justo et al., 2014).

FAR EAST: **Amur Oblast** (<sup>1</sup>Taranina, 2005; <sup>1</sup>Kochunova, 2016); **Jewish Autonomous Oblast** (<sup>1</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Erofeeva, Bukharova, and Bulakh, 2019); **Khabarovsk Krai** (<sup>1</sup>Azbukina et al., 1986; <sup>1</sup>Azbukina et al., 1989; <sup>1</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Bulakh, 2013; <sup>1</sup>Bogacheva, Bulakh, Bukharova, and Egorova, 2015; <sup>1</sup>Erofeeva and Bulakh, 2015a); **Primorsky Krai** (<sup>1</sup>Vassiljeva, 1973; <sup>1</sup>Bunkina and Nazarova, 1978; <sup>1</sup>Azbukina et al., 1984; <sup>1</sup>Azbukina et al., 1990; <sup>1</sup>Bardunov et al., 2002; <sup>1</sup>Azbukina et al., 2006; <sup>1</sup>Bau, Bulakh, and Govorova, 2011).

### *Pluteus phlebophorus* (Ditmar) P. Kumm.

EASTERN EUROPE: **Adygea** (Vaasma, Kalamees, and Raitviir, 1986); **Crimea** (Sarkina, 2001); **Karachay-Cherkess Republic** (Kalamees and Botashev, 2000; Malysheva and Svetasheva, 2011); **Krasnodar Krai** (Vaasma, Kalamees, and Raitviir, 1986); **Lipetsk Oblast** (Sarycheva, 1999; Sarycheva et al., 2009; Sarycheva, 2011; Sarycheva, 2014a; Sarycheva, 2016); **Perm Krai** (Perevedentseva, 2008); **Tatarstan** (Potapov, 2015b; Potapov, 2016b); **Tula Oblast** (Svetasheva et al., 2017); **Udmurt Republic** (Kapitonov, 2013).

SIBERIA: **Irkutsk Oblast** (Kutafjeva, 1983); **Khanty-Mansi Autonomous Okrug** (Filippova, Bulyonkova, and Lapshina, 2015; Filippova and Bulyonkova, 2017a; Filippova and Bulyonkova, 2017b; Zvyagina and Baykalova, 2017); **Krasnoyarsk Krai** (Beglyanova, 1972a; Malysheva, Malysheva, and Justo, 2016; Malysheva, Malysheva, Kiyashko, et al., 2017; Krom and Kapitonov, 2019); **Novosibirsk Oblast** (Perova and Gorbunova, 2001; Perova and Gorbunova, 2007); **Tomsk Oblast** (Perova and Gorbunova, 2001).

### *Pluteus plautus* (Weinm.) Gillet<sup>1</sup>

≡ *Agaricus plautus* Weinm.<sup>2</sup> = *Pluteus alborugosus* Kühner & Romagn.<sup>3</sup> = *Pluteus boudieri* P.D. Orton<sup>4</sup> = *Pluteus depauperatus* Romagn.<sup>5</sup> = *Pluteus dryophiloides* P.D. Orton<sup>6</sup> = *Pluteus gracilis* (Bres.) J.E. Lange<sup>7</sup> = *Pluteus granulatus* Bres.<sup>8</sup> = *Pluteus punctipes* P.D. Orton<sup>9</sup>

EASTERN EUROPE: **Adygea** (<sup>5</sup>Vaasma, Kalamees, and Raitviir, 1986; <sup>5,6</sup>Sopina, 2001a); **Belgorod Oblast** (<sup>1</sup>Bedenko, 1980); **Kabardino-Balkarian Republic** (<sup>3,6</sup>Shkhagapsoev and Krapivina, 2004); **Karachay-Cherkess Republic** (<sup>9</sup>Kalamees and Botashev, 2000); **Karelia** (<sup>1</sup>Krutov et al., 2014); **Komi Republic** (<sup>1</sup>Palamarchuk, 2016a; <sup>1</sup>Palamarchuk, 2016b; <sup>1</sup>Palamarchuk, 2020a); **Krasnodar Krai** (<sup>1</sup>Sopina, 2001a); **Leningrad Oblast** (<sup>1</sup>Morozova and Kovalenko, 2000; <sup>1</sup>Morozova, 2007; <sup>1</sup>Popov et al., 2007; <sup>1</sup>Malysheva, Malysheva, and Krasilnikova, 2009); **Lipetsk Oblast** (<sup>1</sup>Sarycheva, 2016); **Novgorod Oblast** (<sup>5</sup>Kovalenko, Morozova, Nezdojminogo, and Popov, 2005; <sup>5</sup>Popov et al., 2013); **Orenburg Oblast** (<sup>4,8</sup>Desyatova, 2007; <sup>4,8</sup>Desyatova, 2008); **Penza Oblast** (<sup>5</sup>Ivanov, 1986); **Perm Krai** (<sup>1</sup>Perevedentseva, 2008); **Pskov Oblast** (<sup>1</sup>Kolmakov, 2005b; <sup>1</sup>Popov et al., 2013); **Rostov Oblast** (<sup>1</sup>Rebriev and Svetasheva, 2010); **Ryazan Oblast** (<sup>8</sup>Volosnova, 2014); **Saint Petersburg** (<sup>2</sup>Weinmann, 1836; <sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Morozova, Kovalenko, Rebriev, and Malysheva, 2014); **Samara Oblast** (<sup>1,8</sup>Malysheva, 2004; <sup>1</sup>Malysheva and Malysheva, 2005b; <sup>1,8</sup>Malysheva and Malysheva, 2008; <sup>1,8</sup>Malysheva, Malysheva, and Krasilnikova, 2009); **Sverdlovsk Oblast** (<sup>1</sup>Marina, 2006); **Tatarstan** (<sup>1</sup>Vassiljeva, 1977); **Tula Oblast** (<sup>5,7</sup>Svetasheva, 2004; <sup>1</sup>Svetasheva, 2013); **Ulyanovsk Oblast** (<sup>1</sup>Ilyukhin, 2010a; <sup>1</sup>Ilyukhin, 2010b); **Vologda Oblast** (<sup>4,9</sup>Kirillova, 2006; <sup>4,9</sup>Kirillova, 2007; <sup>1</sup>Suslova et al., 2013); **Arid territories** (<sup>1</sup>Rebriev, Rusanov, et al., 2012).

SIBERIA: **Khanty-Mansi Autonomous Okrug** (<sup>5</sup>Zvyagina, 2008; <sup>1</sup>Zvyagina and Baykalova, 2012; <sup>5</sup>Shepeleva et al., 2014; <sup>1</sup>Filippova, Bulyonkova, and Lapshina, 2015; <sup>1</sup>Filippova and Bulyonkova, 2017a; <sup>1</sup>Filippova and Bulyonkova, 2017b); **Krasnoyarsk Krai** (<sup>1</sup>Beglyanova, 1972a; <sup>1</sup>Malysheva, Malysheva, and Justo, 2016; <sup>1</sup>Malysheva, Malysheva, Kiyashko, et al., 2017; <sup>1</sup>Krom and Kapitonov, 2019); **Novosibirsk Oblast** (<sup>1</sup>Perova and Gorbunova, 2001; <sup>1</sup>Perova and Gorbunova, 2007; <sup>1</sup>Koropachinskiy and Banaev, 2014); **Tomsk Oblast** (<sup>1,7</sup>Perova, 1972; <sup>1,7,8</sup>Perova and Gorbunova, 2001; <sup>1</sup>Kudashova, Gashkov, and Kutafjeva, 2013).

FAR EAST: **Jewish Autonomous Oblast** (<sup>1</sup>Bulakh, Govorova, Nazarova, and Vassiljeva, 2007; <sup>1</sup>Bau, Bulakh, and Govorova, 2011); **Primorsky Krai** (<sup>1,7</sup>Vassiljeva, 1973; <sup>1,7</sup>Bunkina and Nazarova, 1978; <sup>1,7</sup>Azbukina et al., 2006; <sup>1</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Bulakh et al., 2016).

***Pluteus podospileus* Sacc. & Cub.<sup>1</sup>**= *Pluteus minutissimus* Maire<sup>2</sup> = *Pluteus podospileus* f. *minutissimus* (Maire) Vellinga<sup>3</sup>

EASTERN EUROPE: **Crimea** (<sup>1</sup>Dudka et al., 2004; <sup>1</sup>Sarkina, 2011); **Kirov Oblast** (<sup>1</sup>Kirillov, 2011; <sup>1</sup>Kirillov, Perevedentseva, and Egoshina, 2011); **Komi Republic** (<sup>1</sup>Palamarchuk, 2011a; <sup>1</sup>Palamarchuk, 2012; <sup>1</sup>Palamarchuk, 2016a; <sup>1</sup>Palamarchuk, 2016b); **Krasnodar Krai** (<sup>2</sup>Kovalenko, 1980a; <sup>2</sup>Kovalenko, 1980b; <sup>1</sup>Vaasma, Kalamees, and Raitviir, 1986); **Leningrad Oblast** (<sup>3</sup>Morozova, 2007; <sup>3</sup>Popov et al., 2007; <sup>1</sup>Malysheva, Malysheva, and Krasilnikova, 2009; <sup>1</sup>Kalinina, 2018); **Lipetsk Oblast** (<sup>1</sup>Sarycheva et al., 2009; <sup>1</sup>Sarycheva, 2011; <sup>1</sup>Sarycheva, 2014a; <sup>1</sup>Sarycheva, 2016); **Moscow Oblast** (<sup>1</sup>Voronina et al., 2012; <sup>1</sup>Voronina et al., 2014); **Novgorod Oblast** (<sup>1</sup>Arslanov, 2012); **Orenburg Oblast** (<sup>2</sup>Desyatova, 2007; <sup>2</sup>Desyatova, 2008); **Perm Krai** (<sup>1</sup>Perevedentseva, 2008); **Pskov Oblast** (<sup>1</sup>Kalinina, Bolshakov, and Bulyonkova, 2020); **Ryazan Oblast** (<sup>1</sup>Volosnova, 2014); **Saint Petersburg** (<sup>1</sup>Morozova and Smirnov, 2011; <sup>1</sup>Morozova, Kovalenko, Rebriev, and Malysheva, 2014; <sup>1</sup>Morozova et al., 2020); **Samara Oblast** (<sup>1,2</sup>Malysheva and Malysheva, 2004; <sup>1</sup>Malysheva and Malysheva, 2008; <sup>1</sup>Malysheva, Malysheva, and Krasilnikova, 2009); **Tatarstan** (<sup>1</sup>Potapov, 2015b; <sup>1</sup>Potapov, 2016b); **Tula Oblast** (<sup>1</sup>Svetasheva, 2004); **Udmurt Republic** (<sup>1</sup>Kapitonov, 2013); **Ulyanovsk Oblast** (<sup>1</sup>Ilyukhin, 2010a; <sup>1</sup>Ilyukhin, 2010b); **Volgograd Oblast** (<sup>1</sup>Dudka and Vedeneyev, 2015); **Vologda Oblast** (<sup>1</sup>Konechnaya and Suslova, 2004; <sup>1</sup>Kirillova, 2006; <sup>1</sup>Kirillova, 2007; <sup>1</sup>Malysheva, Malysheva, and Krasilnikova, 2009).

SIBERIA: **Altai Krai** (<sup>1</sup>Gorbunova, 2018a); **Khakassia** (<sup>1</sup>Zauzolkova and Gorbunova, 2013; <sup>1</sup>Zauzolkova, 2015); **Khanty-Mansi Autonomous Okrug** (<sup>1</sup>Zvyagina, 2008; <sup>1</sup>Shepeleva et al., 2014; <sup>1</sup>Filippova and Bulyonkova, 2017a; <sup>1</sup>Filippova and Bulyonkova, 2017b); **Krasnoyarsk Krai** (<sup>2</sup>Kosheleva and Kutafjeva, 2008a; <sup>1</sup>Malysheva, Malysheva, and Justo, 2016; <sup>1</sup>Malysheva, Malysheva, Kiyashko, et al., 2017; <sup>1</sup>Krom and Kapitonov, 2019); **Novosibirsk Oblast** (<sup>2</sup>Perova, 1982; <sup>2</sup>Perova and Gorbunova, 2001; <sup>1</sup>Gorbunova, 2007; <sup>1</sup>Perova and Gorbunova, 2007; <sup>1</sup>Koropachinskiy and Banaev, 2014); **Tomsk Oblast** (<sup>2</sup>Agaphonova, Kutafjeva, and Gashkov, 2009b; <sup>2</sup>Kudashova, Gashkov, and Kutafjeva, 2013).

FAR EAST: **Amur Oblast** (<sup>1</sup>Kochunova and Erofeeva, 2017); **Jewish Autonomous Oblast** (<sup>1</sup>Bulakh, Govorova, Nazarova, and Vassiljeva, 2007; <sup>1</sup>Bau, Bulakh, and Govorova, 2011); **Khabarovsk Krai** (<sup>2</sup>Azbukina et al., 1986; <sup>2</sup>Azbukina et al., 1989; <sup>1</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Erofeeva and Bulakh, 2015a); **Primorsky Krai** (<sup>2</sup>Vassiljeva, 1973; <sup>2</sup>Bunkina and Nazarova, 1978; <sup>2</sup>Azbukina et al., 1984; <sup>1</sup>Azbukina et al., 2006; <sup>1</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Bulakh et al., 2016).

***Pluteus pouzarianus* Singer**

EASTERN EUROPE: **Komi Republic** (Palamarchuk, 2020b); **Saint Petersburg** (Justo et al., 2014); **Udmurt Republic** (Kapitonov, 2013).

SIBERIA: **Khanty-Mansi Autonomous Okrug** (Filippova and Bulyonkova, 2017a; Filippova and Bulyonkova, 2017b); **Krasnoyarsk Krai** (Malysheva, Malysheva, and Justo, 2016; Malysheva, Malysheva, Kiyashko, et al., 2017); **Tomsk Oblast** (Kudashova, Gashkov, and Kutafjeva, 2013; Kudashova, Gashkov, and Vaishlya, 2016b).

***Pluteus primus* Bonnard**

EASTERN EUROPE: **Karachay-Cherkess Republic** (Justo et al., 2014).

***Pluteus pseudorobertii* M.M. Moser & Stangl<sup>1</sup>**≡ *Pluteus pseudorobertii* M.M. Moser<sup>2</sup>

EASTERN EUROPE: **Komi Republic** (<sup>1</sup>Bobretsova, 2004; <sup>1</sup>Palamarchuk, 2012); **Leningrad Oblast** (<sup>1</sup>Singer, 1938b [as *Pluteus robertii* (Fr.) P. Karst., redet. in Kovalenko and Morozova, 1999a]; <sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Popov et al., 2007); **Lipetsk Oblast** (<sup>2</sup>Sarycheva et al., 2009; <sup>1</sup>Sarycheva, 2011; <sup>1</sup>Sarycheva, 2014a; <sup>2</sup>Sarycheva, 2016); **Moscow Oblast** (<sup>1</sup>Gorlenko, Sidorova, and Sidorova, 1989); **Perm Krai** (<sup>2</sup>Perevedentseva, 2008); **Samara Oblast** (<sup>1</sup>Malysheva, 2004; <sup>1</sup>Malysheva and Malysheva, 2005b; <sup>1</sup>Malysheva and Malysheva, 2008); **Tatarstan** (<sup>1</sup>Vassiljeva, 1977).

***Pluteus pusillulus* Romagn.**

EASTERN EUROPE: **Penza Oblast** (Ivanov, 1999).

SIBERIA: **Novosibirsk Oblast** (Perova and Gorbunova, 2001; Perova and Gorbunova, 2007).

***Pluteus rangifer* Justo, E.F. Malysheva & Bulyonk.**

EASTERN EUROPE: **Karelia** (Justo et al., 2014); **Leningrad Oblast** (Kalinina, 2018); **Murmansk Oblast** (Justo et al., 2014); **Saint Petersburg** (Morozova et al., 2020); **Tatarstan** (Potapov, 2016b).

SIBERIA: **Altai Krai** (Gorbunova, 2018a); **Khanty-Mansi Autonomous Okrug** (Justo et al., 2014; Filippova, Bulyonkova, and Lapshina, 2015); **Krasnoyarsk Krai** (Malysheva, Malysheva, and Justo, 2016; Malysheva, Malysheva, Kiyashko, et al., 2017; Krom and Kapitonov, 2019).

FAR EAST: **Primorsky Krai** (Justo et al., 2014; Bulakh et al., 2016).

***Pluteus robertii* (Fr.) P. Karst.**

EASTERN EUROPE: **Crimea** (Dudka et al., 2004; Sarkina, 2011); **Murmansk Oblast** (Pystina, Pavlova, and Shestakova, 1969).

SIBERIA: **Krasnoyarsk Krai** (Beglyanova, 1972a); **Tomsk Oblast** (Kudashova, Gashkov, and Kutafjeva, 2013; Kudashova, Gashkov, and Vaishlya, 2016b).

***Pluteus romellii* (Britzelm.) Sacc.<sup>1</sup>**

= *Pluteus lutescens* (Fr.) Bres.<sup>2</sup> = *Pluteus nanus* var. *lutescens* (Fr.) P. Karst.<sup>3</sup>

EASTERN EUROPE: **Adygea** (<sup>1</sup>Vaasma, Kalamees, and Raitviir, 1986); **Crimea** (<sup>1</sup>Moser, 1993; <sup>1</sup>Sarkina, 2001; <sup>1</sup>Dudka et al., 2004; <sup>1</sup>Sarkina, 2010b; <sup>1</sup>Sarkina and Prydiuk, 2012; <sup>1</sup>Sarkina and Stavishenko, 2019); **Karachay-Cherkess Republic** (<sup>1</sup>Kalamees and Botashev, 2000); **Karelia** (<sup>1</sup>Krutov et al., 2014); **Komi Republic** (<sup>1</sup>Palamarchuk, 2020b); **Leningrad Oblast** (<sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Morozova, 1999; <sup>1</sup>Tzvelev, 2000; <sup>1</sup>Popov et al., 2007; <sup>1</sup>Geltman et al., 2018); **Lipetsk Oblast** (<sup>2</sup>Alferova, 1977; <sup>2</sup>Sarycheva, 1999; <sup>1</sup>Sarycheva et al., 2009; <sup>1</sup>Sarycheva, 2011; <sup>2</sup>Sarycheva, 2014a; <sup>1</sup>Sarycheva, 2016); **Moscow Oblast** (<sup>1</sup>Levitskaya, 1998; <sup>1</sup>Levitskaya, 2013); **Novgorod Oblast** (<sup>1</sup>Kovalenko, Morozova, Nezdojminogo, and Popov, 2005; <sup>1</sup>Malysheva, Malysheva, and Krasilnikova, 2009; <sup>1</sup>Popov et al., 2013); **Orenburg Oblast** (<sup>1</sup>Desyatova, 2007; <sup>1</sup>Desyatova, 2008); **Penza Oblast** (<sup>1</sup>Ivanov, 1981b; <sup>1</sup>Ivanov, 1982); **Perm Krai** (<sup>1</sup>Perevedentseva, 2008); **Pskov Oblast** (<sup>1</sup>Kovalenko, Kolmakov, Morozova, and Popov, 2003; <sup>1</sup>Kolmakov, 2005b; <sup>1</sup>Popov et al., 2013; <sup>1</sup>Aleksandrov et al., 2014); **Rostov Oblast** (<sup>1</sup>Morozova et al., 2008); **Ryazan Oblast** (<sup>1</sup>Volosnova, 2014); **Saint Petersburg** (<sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Morozova, 1999; <sup>1</sup>Morozova and Kovalenko, 2000; <sup>1</sup>Noskov, 2004; <sup>1</sup>Kotkova, Morozova, and Popov, 2006; <sup>1</sup>Morozova and Smirnov, 2011); **Samara Oblast** (<sup>1</sup>Malysheva and Malysheva, 2004; <sup>1</sup>Malysheva, 2004; <sup>1</sup>Malysheva and Malysheva, 2008; <sup>1</sup>Malysheva, Malysheva, and Krasilnikova, 2009); **Sverdlovsk Oblast** (<sup>1</sup>Marina, 2006); **Tatarstan** (<sup>1</sup>Potapov, 2015b; <sup>1</sup>Potapov, 2016b); **Tula Oblast** (<sup>1</sup>Svetasheva, 2004; <sup>1</sup>Svetasheva, 2013); **Tver Oblast** (<sup>1</sup>Kurochkin, 1993); **Udmurt Republic** (<sup>1</sup>Kapitonov, 2013); **Ulyanovsk Oblast** (<sup>1</sup>Ilyukhin, 2010a); **Volgograd Oblast** (<sup>1</sup>Dudka and Vedeneyev, 2015); **Vologda Oblast** (<sup>1</sup>Konechnaya and Suslova, 2004; <sup>1</sup>Kirillova, 2006; <sup>1</sup>Kirillova, 2007); **Arid territories** (<sup>1</sup>Rebriev, Rusanov, et al., 2012).

SIBERIA: **Altai Krai** (<sup>1</sup>Gorbunova and Chubarova, 2008; <sup>1</sup>Gorbunova, Vlasenko, and Tzhubarova, 2011); **Altai Republic** (<sup>2</sup>Gorbunova, 1996; <sup>2</sup>Gorbunova, 1997); **Irkutsk Oblast** (<sup>1</sup>Petrov, 1986; <sup>1</sup>Petrov, 1991; <sup>1</sup>Petrov, 2008); **Khakassia** (<sup>1</sup>Zauzolkova, 2015; <sup>1</sup>Zauzolkova and Gorbunova, 2016); **Khanty-Mansi Autonomous Okrug** (<sup>1</sup>Filippova, Bulyonkova, and Lapshina, 2015; <sup>1</sup>Filippova and Bulyonkova, 2017a; <sup>1</sup>Filippova and Bulyonkova, 2017b); **Krasnoyarsk Krai** (<sup>2</sup>Beglyanova, 1972a; <sup>1</sup>Kosheleva and Kutafjeva, 2008b; <sup>1</sup>Kosheleva, 2010; <sup>1</sup>Malysheva, Malysheva, and Justo, 2016; <sup>1</sup>Malysheva, Malysheva, Kiyashko, et al., 2017); **Novosibirsk Oblast** (<sup>2</sup>Perova, 1977; <sup>1</sup>Perova and Gorbunova, 2007; <sup>1</sup>Koropachinskiy and Banaev, 2014); **Tomsk Oblast** (<sup>1</sup>Kudashova, Gashkov, and Kutafjeva, 2013; <sup>1</sup>Kudashova, Gashkov, and Vaishlya, 2016b).

FAR EAST: **Amur Oblast** (<sup>1</sup>Kochunova, 2019); **Chukotka Autonomous Okrug** (<sup>1</sup>Sazanova, 1993); **Jewish Autonomous Oblast** (<sup>1</sup>Bulakh, Govorova, Nazarova, and Vassiljeva, 2007; <sup>1</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Bogacheva et al., 2018; <sup>1</sup>Erofeeva, Bukharova, and Bulakh, 2019); **Kamchatka Krai** (<sup>2</sup>Kalamees and Vaasma, 1981); **Khabarovsk Krai** (<sup>2</sup>Azbukina et al., 1986; <sup>1</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Erofeeva and Bulakh, 2015a; <sup>1</sup>Bogacheva et al., 2018); **Magadan Oblast** (<sup>3</sup>Nazarova, 1976; <sup>1</sup>Sazanova, 1996; <sup>1,3</sup>Sazanova, 2005; <sup>1</sup>Sazanova, 2009a; <sup>1</sup>Sazanova, 2011); **Primorsky Krai** (<sup>2</sup>Vassiljeva, 1972; <sup>2</sup>Vassiljeva, 1973; <sup>2</sup>Bunkina and Nazarova, 1978; <sup>1</sup>Azbukina et al., 1984; <sup>2</sup>Azbukina et al., 1990; <sup>1</sup>Bardunov et al., 2002; <sup>1</sup>Azbukina et al., 2006; <sup>1</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Bulakh et al., 2016; <sup>1</sup>Bogacheva et al., 2018).

***Pluteus roseipes* Höhn.**

EASTERN EUROPE: **Adygea** (Vaasma, Kalamees, and Raitviir, 1986; Sopina, 2001a); **Karachay-Cherkess Republic** (Kalamees and Botashev, 2000).

***Pluteus rugosidiscus* Murrill**

SIBERIA: **Krasnoyarsk Krai** (Malysheva, Malysheva, and Justo, 2016; Malysheva, Malysheva, Kiyashko, et al., 2017).



***Pluteus salicinus* (Pers.) P. Kumm.**

EASTERN EUROPE: **Belgorod Oblast** (Bedenko, 1979a); **Chelyabinsk Oblast** (Sirko and Stepanova, 1977; Stepanova and Sirko, 1977); **Crimea** (Dudka et al., 2004; Sarkina, 2011; Sarkina and Prydiuk, 2012; Sarkina and Stavishenko, 2019); **Kaliningrad Oblast** (Volodina, 2007; Atayev and Volodina, 2020); **Karachay-Cherkess Republic** (Kalamees and Botashev, 2000); **Karelia** (Krutov et al., 2014); **Krasnodar Krai** (Vassiljeva, 1939; Vaasma, Kalamees, and Raitviir, 1986); **Leningrad Oblast** (Kovalenko and Morozova, 1999a; Morozova, 1999; Tzvelev, 2000; Morozova, 2007; Popov et al., 2007; Malysheva, Malysheva, and Krasilnikova, 2009; Justo et al., 2014; Geltman et al., 2018); **Lipetsk Oblast** (Sarycheva et al., 2009; Sarycheva, 2011; Sarycheva, 2014a; Sarycheva, 2016; Sarycheva, Starodubtseva, and Sapelnikova, 2017); **Moscow** (Muchnik et al., 2020); **Moscow Oblast** (Levitskaya, 1995b; Levitskaya, 2013); **Murmansk Oblast** (Pystina, Pavlova, and Shestakova, 1969); **Novgorod Oblast** (Kovalenko, Morozova, Nezdojminogo, and Popov, 2005; Popov et al., 2013); **Orenburg Oblast** (Desyatova, 2007; Desyatova, 2008); **Penza Oblast** (Ivanov, 1981b; Ivanov, 1982); **Perm Krai** (Perevedentseva, 2008); **Pskov Oblast** (Popov, 2001a; Kolmakov, 2005b; Popov et al., 2013); **Rostov Oblast** (Morozova et al., 2008); **Saint Petersburg** (Morozova and Smirnov, 2011; Morozova et al., 2020); **Samara Oblast** (Malysheva, 2004; Malysheva and Malysheva, 2005b; Malysheva and Malysheva, 2008; Malysheva, Malysheva, and Krasilnikova, 2009; Justo et al., 2014); **Sverdlovsk Oblast** (Stepanova and Sirko, 1977); **Tatarstan** (Potapov, 2015b; Potapov, 2016b); **Tula Oblast** (Svetasheva, 2004; Svetasheva, 2013); **Udmurt Republic** (Tychinin, 1990; Tychinin and Kuzmina, 2003); **Ulyanovsk Oblast** (Ilyukhin, 2010a; Ilyukhin, 2010b); **Yaroslavl Oblast** (Lazareva, 1997; Lazareva, 1998a); **Arid territories** (Rebriev, Rusanov, et al., 2012).

SIBERIA: **Altai Krai** (Gorbunova and Chubarova, 2008; Gorbunova, Vlasenko, and Tzhubarova, 2011); **Irkutsk Oblast** (Kutafjeva, 1983; Petrov, 1986; Petrov, 1991; Petrov, 2008); **Khanty-Mansi Autonomous Okrug** (Filippova and Bulyonkova, 2017a; Filippova and Bulyonkova, 2017b); **Krasnoyarsk Krai** (Beglyanova, 1972a; Kutafjeva and Kosheleva, 2005; Kosheleva and Kutafjeva, 2008a; Malysheva, Malysheva, and Justo, 2016; Malysheva, Malysheva, Kiyashko, et al., 2017); **Novosibirsk Oblast** (Zaytseva, 1971; Perova and Gorbunova, 2001; Perova and Gorbunova, 2007; Justo et al., 2014); **Tomsk Oblast** (Perova, 1972; Perova and Gorbunova, 2001; Agaphonova, Kutafjeva, and Gashkov, 2007; Kudashova, Gashkov, and Kutafjeva, 2013; Kudashova, Gashkov, and Vaishlya, 2016b).

FAR EAST: **Jewish Autonomous Oblast** (Bulakh, Govorova, Nazarova, and Vassiljeva, 2007; Bau, Bulakh, and Govorova, 2011); **Primorsky Krai** (Vassiljeva, 1973; Shalapugina, 1976; Bunkina and Nazarova, 1978; Azbukina et al., 1984; Azbukina et al., 1990; Bardunov et al., 2002; Azbukina et al., 2006; Bau, Bulakh, Zhuang, and Li, 2007; Bau, Bulakh, and Govorova, 2011; Bulakh et al., 2016).

***Pluteus satur* Kühner & Romagn.<sup>1</sup>**

= *Pluteus pallescens* P.D. Orton<sup>2</sup>

EASTERN EUROPE: **Krasnodar Krai** (<sup>2</sup>Kovalenko, 1980a; <sup>2</sup>Kovalenko, 1980b; <sup>1</sup>Sopina, 2001a); **Murmansk Oblast** (<sup>2</sup>Mikhailovskii, 1975a; <sup>2</sup>Mikhailovskii, 1975b; <sup>1</sup>Karatygin, Nezdojminogo, Novozhilov, and Zhurbenko, 1999); **Novgorod Oblast** (<sup>1</sup>Kovalenko, Morozova, Nezdojminogo, and Popov, 2005; <sup>1</sup>Arslanov, 2012; <sup>1</sup>Popov et al., 2013); **Orenburg Oblast** (<sup>1</sup>Desyatova, 2008); **Pskov Oblast** (<sup>1</sup>Kovalenko, Kolmakov, Morozova, and Popov, 2003; <sup>1</sup>Popov et al., 2013).

***Pluteus semibulbosus* (Lasch) Qué.**

EASTERN EUROPE: **Crimea** (Sarkina, 2001; Dudka et al., 2004; Sarkina, 2010b; Sarkina, 2011; Sarkina and Prydiuk, 2012; Sarkina and Mironova, 2015); **Kaliningrad Oblast** (Dedkov, Volodina, and Gubareva, 2007); **Karachay-Cherkess Republic** (Malysheva and Svetasheva, 2011); **Komi Republic** (Palamarchuk, 2020b); **Lipetsk Oblast** (Alferova, 1977; Sarycheva, 1999); **Moscow Oblast** (Levitskaya, 1995c; Levitskaya, 2013); **Novgorod Oblast** (Morozova, 2012; Popov et al., 2013); **Orenburg Oblast** (Desyatova, 2008); **Perm Krai** (Perevedentseva, 2008); **Pskov Oblast** (Kalinina, Bolshakov, and Bulyonkova, 2020); **Ryazan Oblast** (Volosnova, 1997; Volosnova, 2014); **Samara Oblast** (Malysheva, 2004; Malysheva and Malysheva, 2005b; Malysheva and Malysheva, 2008; Malysheva, Malysheva, and Krasilnikova, 2009); **Tatarstan** (Vassiljeva, 1977; Potapov, 2015b); **Tula Oblast** (Svetasheva, 2004; Malysheva, Malysheva, and Krasilnikova, 2009; Svetasheva, 2013); **Tver Oblast** (Mukhina, 2011a; Mukhina, 2011b; Kotkova, 2014); **Udmurt Republic** (Tychinin and Kuzmina, 2003); **Ulyanovsk Oblast** (Ilyukhin, 2009; Ilyukhin, 2010a); **Arid territories** (Rebriev, Rusanov, et al., 2012).

SIBERIA: **Altai Krai** (Gorbunova and Perova, 2006); **Irkutsk Oblast** (Astapenko, 1990a); **Khanty-Mansi Autonomous Okrug** (Zvyagina, 2008; Shepeleva et al., 2014; Filippova and Bulyonkova, 2017a; Filippova and Bulyonkova, 2017b); **Krasnoyarsk Krai** (Beglyanova, 1972a); **Tomsk Oblast** (Kudashova, Gashkov, and Kutafjeva, 2013).

FAR EAST: **Primorsky Krai** (Vassiljeva, 1973; Bunkina and Nazarova, 1978; Azbukina et al., 1984; Azbukina et al., 2006; Bau, Bulakh, and Govorova, 2011; Bulakh et al., 2016).

***Pluteus sepiicolor* E.F. Malysheva**

FAR EAST: **Primorsky Krai** (Justo et al., 2014; Bulakh et al., 2016).

***Pluteus shikae* Justo & E.F. Malysheva**

FAR EAST: **Primorsky Krai** (Justo et al., 2014; Bulakh et al., 2016).

***Pluteus spurius* E.F. Malysheva & Malysheva**

FAR EAST: **Primorsky Krai** (Crous, Wingfield, et al., 2019).

***Pluteus thomsonii* (Berk. & Broome) Dennis**

EASTERN EUROPE: **Adygea** (Vaasma, Kalamees, and Raitviir, 1986); **Crimea** (Dudka et al., 2004; Sarkina, 2011); **Karachay-Cherkess Republic** (Kalamees and Botashev, 2000; Malysheva and Svetasheva, 2011; Onipchenko et al., 2013); **Lipetsk Oblast** (Sarycheva et al., 2009; Sarycheva, 2011; Sarycheva, 2014a; Sarycheva, 2014b; Shcherbakov, 2014; Sarycheva, 2016); **Moscow Oblast** (Levitskaya, 1998; Levitskaya, 2013); **Orenburg Oblast** (Desyatova, 2007; Desyatova, 2008); **Penza Oblast** (Ivanov, 1999); **Pskov Oblast** (Kovalenko, Kolmakov, Morozova, and Popov, 2003; Kolmakov, 2005b; Popov et al., 2013); **Rostov Oblast** (Rusanov, Rebriev, and Bulgakov, 2018); **Ryazan Oblast** (Volosnova, 2014); **Saint Petersburg** (Morozova and Smirnov, 2011; Morozova, Kovalenko, Rebriev, and Malysheva, 2014); **Samara Oblast** (Malysheva and Malysheva, 2004; Malysheva, 2004; Malysheva and Malysheva, 2008; Malysheva, Malysheva, and Krasilnikova, 2009); **Tatarstan** (Nazirov, Gorshkov, Ivanov, and Rogova, 2016; Potapov, 2016b); **Tula Oblast** (Svetasheva, 2004; Svetasheva, 2005b; Malysheva, Malysheva, and Krasilnikova, 2009; Shcherbakov, 2010); **Udmurt Republic** (Kapitonov, 2013); **Volgograd Oblast** (Dudka and Vedeneyev, 2015); **Arid territories** (Rebriev, Rusanov, et al., 2012).

SIBERIA: **Irkutsk Oblast** (Astapenko, 1990a); **Krasnoyarsk Krai** (Beglyanova, 1972a; Kosheleva and Kutafjeva, 2008a; Malysheva, Malysheva, and Justo, 2016; Malysheva, Malysheva, Kiyashko, et al., 2017).

FAR EAST: **Chukotka Autonomous Okrug** (Sazanova, 1993); **Kamchatka Krai** (Kalamees and Vaasma, 1981); **Magadan Oblast** (Sazanova, 1996; Sazanova, 2005; Sazanova, 2009a; Sazanova, 2011); **Primorsky Krai** (Vassiljeva, 1973).

***Pluteus tomentosulus* Peck<sup>1</sup>**

= *Pluteus tomentosulus* f. *brunneus* E.F. Malysheva & Justo<sup>2</sup>

EASTERN EUROPE: **Orenburg Oblast** (<sup>1</sup>Safonov, Malenkova, Rusakov, and Leneva, 2013; <sup>1</sup>Safonov, 2015).

SIBERIA: **Krasnoyarsk Krai** (<sup>2</sup>Malysheva, Malysheva, and Justo, 2016; <sup>2</sup>Malysheva, Malysheva, Kiyashko, et al., 2017; <sup>2</sup>Krom and Kapitonov, 2019).

FAR EAST: **Primorsky Krai** (<sup>1</sup>Vassiljeva, 1973; <sup>1</sup>Bunkina and Nazarova, 1978; <sup>1</sup>Azbukina et al., 2006; <sup>1</sup>Bau, Bulakh, and Govorova, 2011).

***Pluteus umbrosoides* E.F. Malysheva**

EASTERN EUROPE: **Leningrad Oblast** (Bolshakov et al., 2020); **Samara Oblast** (Malysheva, Malysheva, and Justo, 2016).

SIBERIA: **Krasnoyarsk Krai** (Malysheva, Malysheva, and Justo, 2016; Malysheva, Malysheva, Kiyashko, et al., 2017).

FAR EAST: **Primorsky Krai** (Malysheva, Malysheva, and Justo, 2016).

***Pluteus umbrosus* (Pers.) P. Kumm.<sup>1</sup>**

≡ *Agaricus umbrosus* Pers.<sup>2</sup>

EASTERN EUROPE: **Adygea** (<sup>1</sup>Vaasma, Kalamees, and Raitviir, 1986); **Chechen Republic** (<sup>1</sup>Taysumov, Krapivina, and Kushaliev, 2016); **Crimea** (<sup>1</sup>Sarkina, 2001; <sup>1</sup>Dudka et al., 2004; <sup>1</sup>Sarkina, 2011); **Kabardino-Balkarian Republic** (<sup>1</sup>Shkhagapsoev and Krapivina, 2004); **Karachay-Cherkess Republic** (<sup>1</sup>Kalamees and Botashev, 2000); **Karelia** (<sup>1</sup>Krutov et al., 2014); **Kirov Oblast** (<sup>1</sup>Kirillov, 2011; <sup>1</sup>Kirillov, Perevedentseva, and Egoshina, 2011); **Komi Republic** (<sup>1</sup>Dyogteva, 2019; <sup>1</sup>Palamarchuk et al., 2019); **Krasnodar Krai** (<sup>1</sup>Vassiljeva, 1939); **Leningrad Oblast** (<sup>1</sup>Thesleff, 1920; <sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Tzvelev, 2000; <sup>1</sup>Popov et al., 2007; <sup>1</sup>Malysheva, Malysheva, and Krasilnikova, 2009; <sup>1</sup>Geltman et al., 2018; <sup>1</sup>Geltman, 2018b); **Moscow Oblast** (<sup>1</sup>Voronina et al., 2014); **Novgorod Oblast** (<sup>1</sup>Arslanov, 2012; <sup>1</sup>Vetkin et al., 2015); **Orenburg Oblast** (<sup>1</sup>Desyatova, 2008; <sup>1</sup>Safonov, 2015); **Penza Oblast** (<sup>1</sup>Ivanov, 1981b; <sup>1</sup>Ivanov, 1982); **Perm Krai** (<sup>1</sup>Perevedentseva, 2008); **Saint Petersburg** (<sup>2</sup>Weinmann, 1836; <sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Morozova and Kovalenko, 2000; <sup>1</sup>Noskov, 2004; <sup>1</sup>Kotkova, Morozova, and Popov, 2006; <sup>1</sup>Morozova and Smirnov, 2011; <sup>1</sup>Morozova, Kovalenko, Rebriev, and Malysheva, 2014; <sup>1</sup>Geltman, 2018a;

<sup>1</sup>Morozova et al., 2020); **Samara Oblast** (<sup>1</sup>Malysheva and Malysheva, 2004; <sup>1</sup>Malysheva, 2004; <sup>1</sup>Malysheva and Malysheva, 2008); **Sverdlovsk Oblast** (<sup>1</sup>Marina, 2006; <sup>1</sup>Korytin, 2018); **Tatarstan** (<sup>1</sup>Potapov, Galejev, and Zhukov, 2013; <sup>1</sup>Potapov, 2015b); **Tula Oblast** (<sup>1</sup>Svetasheva, 2001; <sup>1</sup>Svetasheva, 2004; <sup>1</sup>Malysheva, Malysheva, and Krasilnikova, 2009; <sup>1</sup>Shcherbakov, 2010; <sup>1</sup>Svetasheva, Sheremetyeva, and Lakomov, 2019); **Ulyanovsk Oblast** (<sup>1</sup>Ilyukhin, 2010a); **Vologda Oblast** (<sup>1</sup>Konechnaya and Suslova, 2004; <sup>1</sup>Kirillova, 2006; <sup>1</sup>Kirillova, 2007).

SIBERIA: **Altai Krai** (<sup>1</sup>Gorbunova, 2018a); **Irkutsk Oblast** (<sup>1</sup>Kutafjeva and Astapenko, 1987; <sup>1</sup>Astapenko, 1990a; <sup>1</sup>Trofimova, Popov, and Merkacheva, 2020); **Khakassia** (<sup>1</sup>Zauzolkova, 2015); **Khanty-Mansi Autonomous Okrug** (<sup>1</sup>Zvyagina, Baykalova, and Gorbunova, 2007; <sup>1</sup>Filippova, Bulyonkova, and Lapshina, 2015; <sup>1</sup>Filippova and Bulyonkova, 2017a; <sup>1</sup>Filippova and Bulyonkova, 2017b); **Krasnoyarsk Krai** (<sup>1</sup>Beglyanova, 1972a; <sup>1</sup>Kosheleva and Kutafjeva, 2008a; <sup>1</sup>Zauzolkova, 2012; <sup>1</sup>Zauzolkova, 2015; <sup>1</sup>Malysheva, Malysheva, and Justo, 2016; <sup>1</sup>Malysheva, Malysheva, Kiyashko, et al., 2017; <sup>1</sup>Krom and Kapitonov, 2019); **Novosibirsk Oblast** (<sup>1</sup>Zaytseva, 1971; <sup>1</sup>Perova and Gorbunova, 2007; <sup>1</sup>Koropachinskiy and Banaev, 2014); **Tomsk Oblast** (<sup>1</sup>Kudashova, Gashkov, and Kutafjeva, 2013).

FAR EAST: **Amur Oblast** (<sup>1</sup>Kochunova and Erofeeva, 2017); **Jewish Autonomous Oblast** (<sup>1</sup>Bulakh, Govorova, Nazarova, and Vassiljeva, 2007; <sup>1</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Bogacheva et al., 2018); **Kamchatka Krai** (<sup>1</sup>Kalamees and Vaasma, 1981); **Khabarovsk Krai** (<sup>1</sup>Azbukina et al., 1986; <sup>1</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Bogacheva et al., 2018); **Magadan Oblast** (<sup>1</sup>Sazanova, 2009a; <sup>1</sup>Sazanova, 2011); **Primorsky Krai** (<sup>1</sup>Vassiljeva, 1973; <sup>1</sup>Bunkina and Nazarova, 1978; <sup>1</sup>Azbukina et al., 1984; <sup>1</sup>Azbukina et al., 1990; <sup>1</sup>Bardunov et al., 2002; <sup>1</sup>Azbukina et al., 2006; <sup>1</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Bulakh et al., 2016; <sup>1</sup>Bogacheva et al., 2018; <sup>1</sup>Bogacheva, Bulakh, Bukharova, and Egorova, 2020).

### ***Pluteus variabilicolor* Babos**

EASTERN EUROPE: **Moscow Oblast** (Levitskaya, 1998 [as *Pluteus aurantiorugosus* (Trog) Sacc., redet. in Lezzi et al., 2014]; Malysheva, Malysheva, and Krasilnikova, 2009 [as *Pluteus aurantiorugosus* (Trog) Sacc., redet. in Lezzi et al., 2014]; Levitskaya, 2013 [as *Pluteus aurantiorugosus* (Trog) Sacc., redet. in Lezzi et al., 2014]; Lezzi et al., 2014); **Samara Oblast** (Lezzi et al., 2014); **Tatarstan** (Potapov, 2016b).

### ***Pluteus velutinus* C.K. Pradeep, Justo & K.B. Vrinda**

EASTERN EUROPE: **Pskov Oblast** (Kalinina, Bolshakov, and Bulyonkova, 2020).

SIBERIA: **Krasnoyarsk Krai** (Malysheva, Malysheva, and Justo, 2016; Malysheva, Malysheva, Kiyashko, et al., 2017).

### ***Pluteus villosus* Quél.**

EASTERN EUROPE: **Adygea** (Vaasma, Kalamees, and Raitviir, 1986).

SIBERIA: **Irkutsk Oblast** (Petrov, 1991).

### ***Pogonoloma spinulosum* (Kühner & Romagn.) Sánchez-García**

≡ *Porpoloma spinulosum* (Kühner & Romagn.) Singer<sup>1</sup>

EASTERN EUROPE: **Moscow Oblast** (<sup>1</sup>Vishnevsky, 1998).

### ***Ponticulomyces kedrovayae* R.H. Petersen**

FAR EAST: **Primorsky Krai** (Ushijima, Nagasawa, Suhara, and Maekawa, 2012).

### ***Porphyrellus porphyrosporus* (Fr. & Hök) E.-J. Gilbert<sup>1</sup>**

≡ *Tylopilus porphyrosporus* (Fr. & Hök) A.H. Sm. & Thiers<sup>2</sup> = *Porphyrellus pseudoscaber* Secr. ex Singer<sup>3</sup>

EASTERN EUROPE: **Adygea** (<sup>1</sup>Vassiljeva, 1939; <sup>3</sup>Sopina, 2001a; <sup>1</sup>Zamotajlov, Sirotyuk (Kuvaeva), Akatova, and Lipka, 2012); **Kabardino-Balkarian Republic** (<sup>1</sup>Shkhagapsoev and Krapivina, 2004); **Kaliningrad Oblast** (<sup>3</sup>Dedkov, Volodina, and Gubareva, 2007; <sup>3</sup>Dedkov and Grishanov, 2010); **Karachay-Cherkess Republic** (<sup>1</sup>Kalamees and Botashev, 2000; <sup>1</sup>Onipchenko et al., 2013).

FAR EAST: **Jewish Autonomous Oblast** (<sup>2</sup>Erofeeva and Bulakh, 2015b; <sup>1</sup>Erofeeva and Bukharova, 2019; <sup>1</sup>Shlotgauer and Rubtsova, 2019); **Khabarovsk Krai** (<sup>3</sup>Azbukina et al., 1986; <sup>1</sup>Voronov, 2008; <sup>1</sup>Bau, Bulakh, and Govorova, 2011; <sup>2</sup>Erofeeva and Bulakh, 2016; <sup>3</sup>Ermolin et al., 2018); **Primorsky Krai** (<sup>1</sup>Vassiljeva, 1956; <sup>3</sup>Vassiljeva, 1972; <sup>3</sup>Vassiljeva, 1973; <sup>3</sup>Bunkina and Nazarova, 1978; <sup>3</sup>Azbukina et al., 1984; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1</sup>Azbukina et al., 2006; <sup>1</sup>Bau, Bulakh, and Govorova, 2011; <sup>2</sup>Bulakh et al., 2016); **Sakhalin Oblast** (<sup>3</sup>Vassiljeva and Nazarova, 1972; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1</sup>Bulakh, Govorova, and Bogatov, 1999; <sup>1</sup>Eremin, 2005; <sup>2</sup>Eremin, 2019).

***Porpoloma elytroides* (Scop.) Singer<sup>1</sup>**≡ *Tricholoma elytroides* (Scop.) P. Karst.<sup>2</sup>SIBERIA: **Tomsk Oblast** (<sup>2</sup>Perova, 1972; <sup>1</sup>Kudashova, Gashkov, and Kutafjeva, 2013).***Porpolomopsis calyptriformis* (Berk.) Bresinsky<sup>1</sup>**≡ *Hygrocybe calyptriformis* (Berk.) Fayod<sup>2</sup>EASTERN EUROPE: **Adygea** (<sup>2</sup>Sopina, 2004b; <sup>2</sup>Zamotajlov, Sirotyuk (Kuvaeva), Akatova, and Lipka, 2012); **Perm Krai** (<sup>2</sup>Perevedentseva, 2008; <sup>2</sup>Shepel', 2008; <sup>1</sup>Baklanov, 2018).***Protostropharia alcis* (Kytöv.) Redhead, Thorn & Malloch<sup>1</sup>**≡ *Stropharia alcis* Kytöv.<sup>2</sup>EASTERN EUROPE: **Pskov Oblast** (<sup>2</sup>Kalinina, Bolshakov, and Bulyonkova, 2020).SIBERIA: **Khanty-Mansi Autonomous Okrug** (<sup>1</sup>Zvyagina and Vasina, 2015).***Protostropharia arctica* (Kytöv.) Redhead**≡ *Stropharia arctica* Kytöv.<sup>1</sup>EASTERN EUROPE: **Nenets Autonomous Okrug** (<sup>1</sup>Kytövuori, 1999).***Protostropharia dorsipora* (Esteve-Rav. & Barrasa) Redhead**≡ *Stropharia dorsipora* Esteve-Rav. & Barrasa<sup>1</sup>SIBERIA: **Baikalia** (<sup>1</sup>Kytövuori, 1999).***Protostropharia luteonitens* (Fr.) Redhead<sup>1</sup>**≡ *Psilocybe luteonitens* (Fr.) Park.-Rhodes<sup>2</sup> ≡ *Stropharia luteonitens* (Fr.) Quél.<sup>3</sup> = *Agaricus nitens* Vahl<sup>4</sup>EASTERN EUROPE: **Bryansk Oblast** (<sup>3</sup>Kruglikov, 2007); **Kaliningrad Oblast** (<sup>2</sup>Dedkov, Volodina, and Gubareva, 2007); **Leningrad Oblast** (<sup>2</sup>Popov et al., 2007); **Moscow Oblast** (<sup>3</sup>Gorlenko, Sidorova, and Sidorova, 1989); **Penza Oblast** (<sup>3</sup>Ivanov, 1992); **Saint Petersburg** (<sup>4</sup>Weinmann, 1836; <sup>2</sup>Kovalenko and Morozova, 1999a); **Sverdlovsk Oblast** (<sup>1</sup>Shiryayeva and Palamarchuk, 2019); **Udmurt Republic** (<sup>3</sup>Tychinin and Kuzmina, 2003); **Voronezh Oblast** (<sup>3</sup>Chastukhin and Nikolaevskaya, 1969); **Arid territories** (<sup>3</sup>Rebriev, Rusanov, et al., 2012).SIBERIA: **Altai Krai** (<sup>3</sup>Gorbunova and Perova, 2006; <sup>3</sup>Gorbunova, 2006); **Altai Republic** (<sup>3</sup>Zhukov, 1979; <sup>3</sup>Gorbunova, 2003; <sup>3</sup>Gorbunova, 2006; <sup>3</sup>Gorbunova, 2010); **Irkutsk Oblast** (<sup>3</sup>Petrov, 1991; <sup>3</sup>Petrov, 2008); **Khakassia** (<sup>3</sup>Beglyanova, 1972a); **Krasnoyarsk Krai** (<sup>3</sup>Beglyanova, 1972a); **Novosibirsk Oblast** (<sup>3</sup>Perova and Gorbunova, 2001; <sup>3</sup>Perova and Gorbunova, 2007); **Tomsk Oblast** (<sup>3</sup>Perova and Gorbunova, 2001).***Protostropharia semiglobata* (Batsch) Redhead, Moncalvo & Vilgalys<sup>1</sup>**≡ *Agaricus semiglobatus* Batsch<sup>2</sup> ≡ *Stropharia semiglobata* (Batsch) Quél.<sup>3</sup> ≡ *Stropharia semiglobata* var. *semiglobata* (Batsch) Quél.<sup>4</sup> = *Agaricus stercorarius* Schumach.<sup>5</sup> = *Psalliota stercoraria* (Schumach.) P. Kumm.<sup>6</sup> = *Stropharia semiglobata* var. *stercoraria* (Schumach.) J.E. Lange<sup>7</sup> = *Stropharia stercoraria* (Schumach.) Quél.<sup>8</sup> = *Stropharia stercoraria* f. *flexuosa* (Britzelm.) Sacc.<sup>9</sup>EASTERN EUROPE: **Adygea** (<sup>8</sup>Vaasma, Kalamees, and Raitviir, 1986; <sup>3</sup>Sopina, 2001a; <sup>3</sup>Sopina, 2004b; <sup>3</sup>Psurtseva, Kiyashko, Gachkova, and Belova, 2007); **Astrakhan Oblast** (<sup>3</sup>Rebriev, Aleksandrova, et al., 2012); **Belgorod Oblast** (<sup>3</sup>Bedenko, 1980; <sup>3</sup>Psurtseva, Belova, and Ryabusheva, 2003); **Crimea** (<sup>3</sup>Sarkina and Prydiuk, 2012; <sup>3</sup>Sarkina and Mironova, 2015); **Kabardino-Balkarian Republic** (<sup>3</sup>Shkhagapsoev and Krapivina, 2003; <sup>3</sup>Shkhagapsoev and Krapivina, 2004); **Kaliningrad Oblast** (<sup>3</sup>Hennings, 1895; <sup>3</sup>Dedkov, Volodina, and Gubareva, 2007; <sup>3</sup>Volodina, 2007); **Kaluga Oblast** (<sup>3</sup>Sionova, 2012); **Karachay-Cherkess Republic** (<sup>3</sup>Kalamees and Botashev, 2000); **Karelia** (<sup>3</sup>Freindling, 1949; <sup>3</sup>Bondartseva et al., 2001; <sup>3</sup>Krutov et al., 2014; <sup>3</sup>Predtechenskaya, 2015); **Komi Republic** (<sup>3</sup>Bobretsova, 2004; <sup>3</sup>Palamarchuk, 2012; <sup>3</sup>Palamarchuk and Kirillov, 2017); **Krasnodar Krai** (<sup>6</sup>Siemaszko, 1923; <sup>3</sup>Vassiljeva, 1939; <sup>3</sup>Kovalenko, 1980a; <sup>3</sup>Kovalenko, 1980b); **Leningrad Oblast** (<sup>3,8,9</sup>Thesleff, 1920; <sup>3</sup>Stolyarskaya, 1989; <sup>3</sup>Kovalenko and Morozova, 1999a; <sup>3</sup>Morozova, 2007; <sup>3</sup>Popov et al., 2007; <sup>1</sup>Zmitrovich et al., 2015); **Lipetsk Oblast** (<sup>3</sup>Alferova, 1977; <sup>3</sup>Sarycheva, 1999; <sup>3</sup>Sarycheva et al., 2009; <sup>3</sup>Sarycheva, 2011; <sup>3</sup>Sarycheva, 2014a; <sup>3</sup>Sarycheva, 2016); **Moscow Oblast** (<sup>3</sup>Gorlenko, Sidorova, and Sidorova, 1989; <sup>3</sup>Levitskaya, 1995c; <sup>3</sup>Levitskaya, 2013); **Murmansk Oblast** (<sup>3</sup>Pystina, Pavlova, and Shestakova, 1969); **North Ossetia** (<sup>3</sup>Nikolayev, 2001); **Novgorod Oblast** (<sup>3</sup>Kovalenko, Morozova, Nezdojminogo, and Popov, 2005; <sup>3</sup>Malysheva, Malysheva, and Zmitrovich, 2007; <sup>3</sup>Popov et al., 2013); **Penza Oblast** (<sup>3</sup>Ivanov, 1982); **Perm Krai** (<sup>3</sup>Perevedentseva, 2008; <sup>3</sup>Belkovskaya et al., 2014); **Pskov Oblast** (<sup>3</sup>Popov et al., 2013); **Rostov Oblast** (<sup>3</sup>Vyshchepan, 1992; <sup>3</sup>Psurtseva, Kiyashko, Gachkova, and Belova, 2007; <sup>3</sup>Morozova et al.,

2008; <sup>3</sup>Rebriev, 2018; <sup>3</sup>Rusanov, Rebriev, and Bulgakov, 2018); **Ryazan Oblast** (<sup>3</sup>Volosnova, 1997; <sup>3</sup>Volosnova, 2014); **Saint Petersburg** (<sup>2,5</sup>Weinmann, 1836; <sup>2,5</sup>Weinmann, 1837; <sup>3</sup>Kovalenko and Morozova, 1999a; <sup>3</sup>Zhukova, Morozova, Volobuev, and Bryantseva, 2017); **Stavropol Krai** (<sup>3</sup>Lebedeva, 1930); **Sverdlovsk Oblast** (<sup>3</sup>Stepanova and Sirko, 1977; <sup>3</sup>Marina, 2006); **Tatarstan** (<sup>3</sup>Vassiljeva, 1977); **Tula Oblast** (<sup>3</sup>Svetasheva, 2004); **Tver Oblast** (<sup>3</sup>Kurochkin, 1993); **Udmurt Republic** (<sup>3</sup>Tychinin and Kuzmina, 2003); **Ulyanovsk Oblast** (<sup>3</sup>Artemyeva, Maslennikov, and Korepov, 2015); **Volgograd Oblast** (<sup>3</sup>Burova and Nezdojminogo, 1980; <sup>3</sup>Rebriev, Popov, Pridyuk, and Svetasheva, 2014); **Vologda Oblast** (<sup>3</sup>Kirillova, 2006; <sup>3</sup>Kirillova, 2007); **Voronezh Oblast** (<sup>3</sup>Sarycheva, Starodubtseva, and Sapelnikova, 2017); **Yamalo-Nenets Autonomous Okrug** (<sup>3</sup>Nezdojminogo, 1994; <sup>3</sup>Karatygin, Nezdojminogo, Novozhilov, and Zhurbenko, 1999); **Yaroslavl Oblast** (<sup>3</sup>Lazareva, 1998a; <sup>3</sup>Lazareva, 2002); **Arid territories** (<sup>3</sup>Rebriev, Rusanov, et al., 2012); **Lapland** (<sup>2</sup>Karsten, 1866).

SIBERIA: **Altai Krai** (<sup>3</sup>Gorbunova and Perova, 2006; <sup>3</sup>Gorbunova, 2006; <sup>3</sup>Gorbunova and Chubarova, 2008; <sup>3</sup>Gorbunova, Vlasenko, and Tzhubarova, 2011); **Altai Republic** (<sup>3</sup>Kovalenko, 1992; <sup>3</sup>Gorbunova, 1996; <sup>3</sup>Gorbunova, 1997; <sup>3</sup>Gorbunova, 2001b; <sup>3</sup>Gorbunova, 2003; <sup>3</sup>Gorbunova, 2006; <sup>3</sup>Gorbunova, 2008; <sup>3</sup>Gorbunova, 2010); **Buryatia** (<sup>3</sup>Nezdojminogo, 1970a; <sup>3</sup>Penzina and Petrov, 1994); **Irkutsk Oblast** (<sup>3</sup>Kutafjeva and Astapenko, 1987; <sup>7</sup>Petrov, 1991; <sup>3</sup>Muzyka, 2002; <sup>4,7</sup>Petrov, 2008; <sup>3</sup>Muzyka, 2009; <sup>3</sup>Muzyka and Penzina, 2017); **Khakassia** (<sup>3</sup>Beglyanova, 1972a; <sup>3</sup>Gorbunova and Majnagasheva, 2013; <sup>3</sup>Zauzolkova, 2015); **Krasnoyarsk Krai** (<sup>2</sup>Thümen, 1877; <sup>3</sup>Kalchbrenner, 1878; <sup>3</sup>Beglyanova, 1972a; <sup>3</sup>Nezdojminogo, 1976a; <sup>3</sup>Lapitskaya, 1993; <sup>3</sup>Zauzolkova, 2012; <sup>3</sup>Zauzolkova, 2015; <sup>1</sup>Krom and Kapitonov, 2019); **Novosibirsk Oblast** (<sup>3</sup>Zaytseva, 1971; <sup>3</sup>Gorbunova, 2006; <sup>3</sup>Gorbunova, 2007; <sup>3</sup>Perova and Gorbunova, 2007); **Tomsk Oblast** (<sup>3</sup>Kudashova, Gashkov, and Kutafjeva, 2013).

FAR EAST: **Chukotka Autonomous Okrug** (<sup>4,7</sup>Sazanova, 1993); **Kamchatka Krai** (<sup>3</sup>Kalamees and Vaasma, 1981; <sup>3</sup>Psurtsseva, Kiyashko, Gachkova, and Belova, 2007); **Khabarovsk Krai** (<sup>3</sup>Azbukina et al., 1986; <sup>3</sup>Azbukina et al., 1989; <sup>3</sup>Bau, Bulakh, and Govorova, 2011); **Magadan Oblast** (<sup>3</sup>Nazarova, 1976; <sup>3</sup>Sazanova, 1996; <sup>4</sup>Sazanova, 2005; <sup>3</sup>Sazanova, 2009a; <sup>3</sup>Sazanova, 2011); **Primorsky Krai** (<sup>8</sup>Naoumoff, 1914; <sup>3</sup>Vassiljeva, 1973; <sup>3</sup>Azbukina et al., 2006; <sup>3</sup>Bau, Bulakh, and Govorova, 2011; <sup>3</sup>Bulakh et al., 2016); **Sakhalin Oblast** (<sup>3</sup>Bulakh, Govorova, and Bogatov, 1999).

***Psathyrella alboalutacea* A.H. Sm.**

FAR EAST: **Primorsky Krai** (Vassiljeva, 1973).

***Psathyrella almerensis* Kits van Wav.**

EASTERN EUROPE: **Orenburg Oblast** (Desyatova, 2008).

***Psathyrella ammophila* (Durieu & Lév.) P.D. Orton**

EASTERN EUROPE: **Crimea** (Dudka et al., 2004; Sarkina, 2011); **Kaliningrad Oblast** (Volodina, 2007; Dedkov and Grishanov, 2010); **Volgograd Oblast** (Rebriev, Popov, and Svetasheva, 2015); **Arid territories** (Rebriev, Rusanov, et al., 2012).

SIBERIA: **Khakassia** (Gorbunova and Majnagasheva, 2013); **Khanty-Mansi Autonomous Okrug** (Filippova, Bulyonkova, and Lapshina, 2015); **Sverdlovsk Oblast** (Shiryaeva, 2018).

***Psathyrella artemisiae* (Pass.) Konrad & Maubl.**

EASTERN EUROPE: **Sverdlovsk Oblast** (Marina, 2006).

***Psathyrella atomata* (Fr.) Quél.<sup>1</sup>**

≡ *Agaricus atomatus* Fr.<sup>2</sup> ≡ *Coprinarius atomatus* (Fr.) Quél.<sup>3</sup>

EASTERN EUROPE: **Crimea** (<sup>1</sup>Sarkina, 2010b); **Leningrad Oblast** (<sup>1</sup>Thesleff, 1920); **Orenburg Oblast** (<sup>3</sup>Vorontsovsky, 1921); **Ryazan Oblast** (<sup>1</sup>Volosnova, 1997); **Saint Petersburg** (<sup>2</sup>Weinmann, 1836); **Tatarstan** (<sup>1</sup>Vassiljeva, 1977).

SIBERIA: **Tomsk Oblast** (<sup>1</sup>Milovidova, 1980; <sup>1</sup>Perova and Gorbunova, 2001; <sup>1</sup>Kudashova, Gashkov, and Kutafjeva, 2013).

***Psathyrella badiophylla* (Romagn.) Bon**

≡ *Psathyrella badiophylla* (Romagn.) Park.-Rhodes<sup>1</sup>

EASTERN EUROPE: **Lipetsk Oblast** (<sup>1</sup>Sarycheva et al., 2009; <sup>1</sup>Sarycheva, 2016).

***Psathyrella bipellis* (Quél.) A.H. Sm.**

EASTERN EUROPE: **Samara Oblast** (Malysheva and Malysheva, 2006; Malysheva and Malysheva, 2008).

FAR EAST: **Primorsky Krai** (Bulakh, 1977; Azbukina et al., 1984; Bau, Bulakh, and Govorova, 2011).

***Psathyrella candolleana* (Fr.) Maire<sup>1</sup>**

≡ *Agaricus candolleanus* Fr.<sup>2</sup> ≡ *Hypholoma candolleianum* (Fr.) Quél.<sup>3</sup> ≡ *Psathyra candolleana* (Fr.) G. Bertrand<sup>4</sup> = *Hypholoma appendiculatum* (Bull.) Quél.<sup>5</sup> = *Psathyra appendiculata* (Bull.) G. Bertrand<sup>6</sup> = *Psathyrella appendiculata* (Bull.) Maire & Werner<sup>7</sup> = *Psathyrella microlepidota* P.D. Orton<sup>8</sup>

EASTERN EUROPE: **Adygea** (<sup>1</sup>Sopina, 2001a); **Belgorod Oblast** (<sup>1</sup>Bedenko, 1979a); **Bryansk Oblast** (<sup>3</sup>Kruglikov, 2007); **Chechen Republic** (<sup>1</sup>Taysumov, Krapivina, and Kushaliev, 2016); **Chelyabinsk Oblast** (<sup>3</sup>Aleksandrovskaya and Lobanova, 1968); **Kabardino-Balkarian Republic** (<sup>1</sup>Shkhagapsoev and Krapivina, 2003; <sup>1,3</sup>Shkhagapsoev and Krapivina, 2004); **Kaliningrad Oblast** (<sup>1</sup>Dedkov, Volodina, and Gubareva, 2007; <sup>1</sup>Volodina, 2007; <sup>1</sup>Atayev and Volodina, 2020); **Kaluga Oblast** (<sup>1</sup>Sionova, 2003; <sup>1</sup>Sionova, 2006); **Karachay-Cherkess Republic** (<sup>4</sup>Vassiljeva, 1939; <sup>1</sup>Kalamees and Botashev, 2000); **Karelia** (<sup>4,6</sup>Freindling, 1949; <sup>1</sup>Bondartseva et al., 2001; <sup>1</sup>Predtechenskaya and Ruokolainen, 2013; <sup>1</sup>Predtechenskaya, 2013; <sup>1</sup>Krutov et al., 2014; <sup>1</sup>Predtechenskaya and Ruokolainen, 2014); **Kirov Oblast** (<sup>1</sup>Kirillov, 2011; <sup>1</sup>Kirillov, Perevedentseva, and Egoshina, 2011); **Komi Republic** (<sup>1</sup>Palamarchuk and Kirillov, 2017); **Krasnodar Krai** (<sup>4</sup>Vassiljeva, 1939; <sup>1</sup>Kovalenko, 1980a; <sup>1</sup>Kovalenko, 1980b; <sup>1</sup>Vaasma, Kalamees, and Raitviir, 1986; <sup>1</sup>Psurtseva, Kiyashko, Gachkova, and Belova, 2007); **Leningrad Oblast** (<sup>3,5</sup>Thesleff, 1920; <sup>1</sup>Stolyarskaya, 1989; <sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Morozova, 2007; <sup>1</sup>Popov et al., 2007; <sup>1</sup>Psurtseva, Kiyashko, Gachkova, and Belova, 2007; <sup>1</sup>Zmitrovich et al., 2015; <sup>1</sup>Kalinina, 2018); **Lipetsk Oblast** (<sup>1</sup>Sarycheva, 1999; <sup>1</sup>Sarycheva et al., 2009; <sup>1</sup>Sarycheva, 2011; <sup>1</sup>Sarycheva, 2014a; <sup>1</sup>Sarycheva, 2016; <sup>1</sup>Sarycheva, Starodubtseva, and Sapelnikova, 2017); **Mordovia** (<sup>3</sup>Chastukhin, 1948a; <sup>4</sup>Kuznetsov, 1960; <sup>1</sup>Chastukhin and Nikolaevskaya, 1969; <sup>1</sup>Ivoilov and Bolshakov, 2011a; <sup>5</sup>Chastukhin, 2011); **Moscow** (<sup>5</sup>Bucholtz, 1897b; <sup>5</sup>Bucholtz, 1897c; <sup>5</sup>Mosolov, 1906); **Moscow Oblast** (<sup>1</sup>Gorlenko, Sidorova, and Sidorova, 1989; <sup>1</sup>Levitskaya, 1995c; <sup>1</sup>Voronina et al., 2012; <sup>1</sup>Levitskaya, 2013; <sup>1</sup>Voronina et al., 2014; <sup>1</sup>Sidorova, Alexandrova, and Voronina, 2017); **Novgorod Oblast** (<sup>1</sup>Kovalenko and Morozova, 1999b; <sup>1</sup>Kovalenko, Morozova, Nezdoininog, and Popov, 2005; <sup>1</sup>Psurtseva, Kiyashko, Gachkova, and Belova, 2007; <sup>1</sup>Popov et al., 2013; <sup>1</sup>Baklan, 2015); **Orenburg Oblast** (<sup>1</sup>Korshikova, 2005; <sup>1</sup>Desyatova, 2008; <sup>1</sup>Safonov, 2015); **Penza Oblast** (<sup>1</sup>Ivanov, 1981b; <sup>1</sup>Ivanov, 1982; <sup>8</sup>Ivanov, 1986); **Perm Krai** (<sup>1</sup>Perevedentseva, 2008; <sup>1</sup>Belkovskaya et al., 2014); **Pskov Oblast** (<sup>1</sup>Kovalenko and Morozova, 1999b; <sup>1</sup>Popov, 2001a; <sup>1</sup>Popov et al., 2013); **Rostov Oblast** (<sup>1</sup>Morozova et al., 2008; <sup>1</sup>Rebriev, 2018; <sup>1</sup>Rusanov, Rebriev, and Bulgakov, 2018); **Ryazan Oblast** (<sup>1</sup>Volosnova, 1997; <sup>1</sup>Volosnova, 2014); **Saint Petersburg** (<sup>2</sup>Weinmann, 1828; <sup>2</sup>Weinmann, 1836; <sup>2</sup>Weinmann, 1837; <sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Morozova and Kovalenko, 2000; <sup>1</sup>Kotkova, Morozova, and Popov, 2005; <sup>1</sup>Kotkova, Morozova, and Popov, 2006; <sup>1</sup>Morozova and Smirnov, 2011; <sup>1</sup>Morozova, Kovalenko, Rebriev, and Malysheva, 2014; <sup>1</sup>Morozova et al., 2020); **Samara Oblast** (<sup>1</sup>Malysheva and Malysheva, 2005b; <sup>1</sup>Malysheva and Malysheva, 2008); **Sevastopol** (<sup>1</sup>Sarkina, 2020c); **Smolensk Oblast** (<sup>5</sup>Jaczevski, 1896); **Sverdlovsk Oblast** (<sup>1</sup>Stepanova and Sirko, 1977; <sup>1</sup>Marina, 2006); **Tatarstan** (<sup>1</sup>Vassiljeva, 1977); **Tula Oblast** (<sup>1</sup>Svetasheva, 2001; <sup>1</sup>Svetasheva, 2004; <sup>1</sup>Svetasheva, 2013); **Tver Oblast** (<sup>1</sup>Kurochkin, 1993); **Udmurt Republic** (<sup>1</sup>Tychinin, 1990; <sup>1</sup>Tychinin and Kuzmina, 2003); **Ulyanovsk Oblast** (<sup>1</sup>Ilyukhin, 2009; <sup>1</sup>Ilyukhin, 2010a); **Volgograd Oblast** (<sup>1</sup>Burova and Nezdoininog, 1980; <sup>1</sup>Goncharova and Vedeneyev, 2015; <sup>1</sup>Stauchan and Vedeneyev, 2015); **Vologda Oblast** (<sup>1</sup>Kirillova, 2006; <sup>1</sup>Kirillova, 2007); **Voronezh Oblast** (<sup>3,5</sup>Chastukhin, 1952; <sup>3,5</sup>Chastukhin and Nikolaevskaya, 1953; <sup>1</sup>Chastukhin and Nikolaevskaya, 1969; <sup>1</sup>Selochnik, 2015; <sup>1</sup>Kochergina and Furmenkova, 2019); **Yaroslavl Oblast** (<sup>1</sup>Lazareva, 1997; <sup>1</sup>Lazareva, 1998a); **Arid territories** (<sup>1</sup>Rebriev, Rusanov, et al., 2012); **Lapland** (<sup>2</sup>Karsten, 1866).

SIBERIA: **Altai Krai** (<sup>1</sup>Gorbunova and Perova, 2006; <sup>1</sup>Gorbunova and Chubarova, 2008; <sup>1</sup>Gorbunova, Vlasenko, and Tzhubarova, 2011); **Altai Republic** (<sup>1</sup>Kovalenko, 1992; <sup>1</sup>Gorbunova, 1996; <sup>1</sup>Gorbunova, 1997; <sup>1</sup>Gorbunova, 2001b; <sup>1</sup>Gorbunova, 2003; <sup>1</sup>Gorbunova, 2010); **Irkutsk Oblast** (<sup>1</sup>Gorbunova and Stepantsova, 2015); **Khakassia** (<sup>1</sup>Gorbunova and Majnagasheva, 2013; <sup>1</sup>Zauzolkova and Gorbunova, 2013; <sup>1</sup>Zauzolkova, 2015); **Khanty-Mansi Autonomous Okrug** (<sup>1</sup>Zvyagina and Baykalova, 2017); **Krasnoyarsk Krai** (<sup>2</sup>Thümen, 1878; <sup>3</sup>Kalchbrenner, 1878; <sup>1</sup>Beglyanova, 1972a; <sup>1</sup>Kosheleva and Kutafjeva, 2008a; <sup>1</sup>Zauzolkova, 2012; <sup>1</sup>Zauzolkova, 2015; <sup>1</sup>Krom and Kapitonov, 2019); **Novosibirsk Oblast** (<sup>1</sup>Nozdrenko, 1970; <sup>1</sup>Perova, 1977; <sup>1</sup>Gorbunova, 2006; <sup>1</sup>Gorbunova, 2007; <sup>1</sup>Perova and Gorbunova, 2007; <sup>1</sup>Koropachinskiy and Banaev, 2014); **Sverdlovsk Oblast** (<sup>1</sup>Stepanova and Sirko, 1977); **Tomsk Oblast** (<sup>3,7</sup>Milovidova, 1980; <sup>1</sup>Kudashova, Gashkov, and Kutafjeva, 2013).

FAR EAST: **Amur Oblast** (<sup>1</sup>Nazarova, 1986; <sup>1</sup>Azbukina et al., 1998; <sup>1</sup>Taranina, 2005); **Jewish Autonomous Oblast** (<sup>1</sup>Bulakh, Govorova, Nazarova, and Vassiljeva, 2007; <sup>1</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Erofeeva, Bukharova, and Bulakh, 2019); **Kamchatka Krai** (<sup>1</sup>Kalamees and Vaasma, 1981); **Khabarovsk Krai** (<sup>1</sup>Azbukina et al., 1986; <sup>1</sup>Azbukina et al., 1989; <sup>1</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Erofeeva and Bulakh, 2015a); **Magadan Oblast** (<sup>1</sup>Sazanova, 2005; <sup>1</sup>Sazanova, 2009a); **Primorsky Krai** (<sup>1</sup>Vassiljeva, 1973; <sup>1</sup>Shalapugina, 1976; <sup>1</sup>Bunkina and Nazarova, 1978; <sup>1</sup>Azbukina et al., 1984; <sup>1</sup>Azbukina et al., 1990; <sup>1</sup>Bardunov et al., 2002; <sup>1,7</sup>Azbukina et al., 2006; <sup>1</sup>Bau, Bulakh, Zhuang, and Li, 2007; <sup>1,7</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Bulakh et al., 2016; <sup>1</sup>Bogacheva, Bulakh, Bukharova, and Egorova, 2020); **Sakhalin Oblast** (<sup>1</sup>Vassiljeva and Nazarova, 1972; <sup>1</sup>Bulakh, Govorova, and Bogatov, 1999).

***Psathyrella caput-medusae* (Fr.) Konrad & Maubl.<sup>1</sup>**= *Psathyrella jerdonii* (Berk. & Broome) Konrad & Maubl.<sup>2</sup>EASTERN EUROPE: **Komi Republic** (<sup>1</sup>Palamarchuk and Kirillov, 2017); **Ryazan Oblast** (<sup>1</sup>Volosnova, 2014); **Sverdlovsk Oblast** (<sup>1</sup>Marina, 2006).SIBERIA: **Khanty-Mansi Autonomous Okrug** (<sup>1</sup>Filippova and Bulyonkova, 2017a; <sup>1</sup>Filippova and Bulyonkova, 2017b; <sup>1</sup>Zvyagina and Baykalova, 2017).FAR EAST: **Primorsky Krai** (<sup>2</sup>Azbukina et al., 1990; <sup>1</sup>Bardunov et al., 2002).***Psathyrella casca* (Fr.) Konrad & Maubl.<sup>1</sup>**≡ *Hypholoma cascum* (Fr.) Gillet<sup>2</sup>EASTERN EUROPE: **Kaliningrad Oblast** (<sup>1</sup>Dedkov, Volodina, and Gubareva, 2007); **Leningrad Oblast** (<sup>2</sup>Thesleff, 1920; <sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Popov et al., 2007); **Saint Petersburg** (<sup>2</sup>Morozova, Kovalenko, Rebriev, and Malysheva, 2014).SIBERIA: **Altai Republic** (<sup>1</sup>Gorbunova, 2017a).FAR EAST: **Primorsky Krai** (<sup>1</sup>Azbukina et al., 1984).***Psathyrella corrugis* (Pers.) Konrad & Maubl.<sup>1</sup>**≡ *Agaricus corrugis* Pers.<sup>2</sup> ≡ *Psathyra corrugis* (Pers.) Quél.<sup>3</sup> ≡ *Psathyrella gracilis* f. *corrugis* (Pers.) Kits van Wav.<sup>4</sup> = *Agaricus gracilis* Pers.<sup>5</sup> = *Coprinarius gracilis* (Fr.) P. Kumm.<sup>6</sup> = *Psathyrella caudata* (Fr.) Quél.<sup>7</sup> = *Psathyrella gracilis* (Fr.) Quél.<sup>8</sup> = *Psathyrella gracilis* f. *gracilis* (Fr.) Quél.<sup>9</sup>EASTERN EUROPE: **Belgorod Oblast** (<sup>8</sup>Bedenko, 1979a); **Crimea** (<sup>8</sup>Sarkina, 2001; <sup>8</sup>Dudka et al., 2004; <sup>8</sup>Sarkina, 2010b; <sup>4</sup>Sarkina, 2014b; <sup>1</sup>Sarkina and Mironova, 2015); **Kaliningrad Oblast** (<sup>8</sup>Hennings, 1895; <sup>4</sup>Dedkov, Volodina, and Gubareva, 2007; <sup>4</sup>Volodina, 2007); **Kaluga Oblast** (<sup>8</sup>Sionova, 2012); **Karelia** (<sup>8</sup>Krutov et al., 2014); **Kirov Oblast** (<sup>1</sup>Kirillov, 2011; <sup>1</sup>Kirillov, Perevedentseva, and Egoshina, 2011); **Krasnodar Krai** (<sup>8</sup>Kovalenko, 1980a; <sup>8</sup>Kovalenko, 1980b); **Leningrad Oblast** (<sup>3,7,8</sup>Thesleff, 1920; <sup>4,9</sup>Kovalenko and Morozova, 1999a; <sup>4,9</sup>Popov et al., 2007); **Lipetsk Oblast** (<sup>8</sup>Alferova, 1977; <sup>8</sup>Sarycheva, 1999; <sup>8</sup>Sarycheva et al., 2009; <sup>8</sup>Sarycheva, 2011; <sup>8</sup>Sarycheva, 2014a; <sup>8</sup>Sarycheva, 2016); **Moscow** (<sup>6</sup>Bucholtz, 1897a); **Murmansk Oblast** (<sup>8</sup>Pystina, Pavlova, and Shestakova, 1969); **Novgorod Oblast** (<sup>8</sup>Kovalenko, Morozova, Nezdjominogo, and Popov, 2005; <sup>8</sup>Popov et al., 2013); **Penza Oblast** (<sup>7,8</sup>Ivanov, 1986); **Perm Krai** (<sup>1</sup>Perevedentseva, 2008); **Ryazan Oblast** (<sup>1</sup>Volosnova, 2014); **Saint Petersburg** (<sup>2,5</sup>Weinmann, 1828; <sup>2,5</sup>Weinmann, 1836; <sup>2,5</sup>Weinmann, 1837; <sup>7</sup>Morozova, Kovalenko, Rebriev, and Malysheva, 2014); **Samara Oblast** (<sup>9</sup>Malysheva and Malysheva, 2008); **Sevastopol** (<sup>1</sup>Sarkina, 2016b; <sup>1</sup>Sarkina, 2020c); **Sverdlovsk Oblast** (<sup>8</sup>Stepanova and Sirko, 1977); **Tatarstan** (<sup>8</sup>Vassiljeva, 1977); **Tula Oblast** (<sup>8</sup>Svetasheva, 2004; <sup>8</sup>Svetasheva, 2013); **Udmurt Republic** (<sup>1</sup>Tychinin and Kuzmina, 2003); **Ulyanovsk Oblast** (<sup>8</sup>Ilyukhin, 2009; <sup>8</sup>Ilyukhin, 2010a; <sup>8</sup>Ilyukhin, 2010b); **Arid territories** (<sup>1</sup>Rebriev, Rusanov, et al., 2012).SIBERIA: **Altai Krai** (<sup>8</sup>Gorbunova and Perova, 2006); **Altai Republic** (<sup>8</sup>Gorbunova, 2001b; <sup>8</sup>Perova and Gorbunova, 2001; <sup>8</sup>Gorbunova, 2003; <sup>8</sup>Gorbunova, 2006; <sup>8</sup>Gorbunova, 2010); **Buryatia** (<sup>7</sup>Nezdjominogo, 1970a; <sup>7</sup>Petrov, 1991); **Krasnoyarsk Krai** (<sup>8</sup>Beglyanova, 1972a); **Novosibirsk Oblast** (<sup>8</sup>Perova and Gorbunova, 2001; <sup>8</sup>Gorbunova, 2006; <sup>8</sup>Perova and Gorbunova, 2007; <sup>1</sup>Koropachinskiy and Banaev, 2014).FAR EAST: **Magadan Oblast** (<sup>1</sup>Sazanova, 2009a; <sup>8</sup>Sazanova, 2009b; <sup>1</sup>Sazanova, 2011); **Primorsky Krai** (<sup>8</sup>Vassiljeva, 1973; <sup>8</sup>Bunkina and Nazarova, 1978; <sup>8</sup>Azbukina et al., 2006; <sup>8</sup>Bau, Bulakh, and Govorova, 2011).***Psathyrella cotonea* (Quél.) Konrad & Maubl.**EASTERN EUROPE: **Perm Krai** (Perevedentseva, 2008); **Rostov Oblast** (Psurtseva, Kiyashko, Gachkova, and Belova, 2007); **Ryazan Oblast** (Volosnova, 2014).***Psathyrella dicrani* (A.E. Jansen) Kits van Wav.**EASTERN EUROPE: **Tula Oblast** (Svetasheva, 2004; Shcherbakov, 2010).***Psathyrella fatua* (Fr.) Konrad & Maubl.<sup>1</sup>**≡ *Psathyra fatua* (Fr.) P. Kumm.<sup>2</sup>EASTERN EUROPE: **Kaluga Oblast** (<sup>1</sup>Sionova, 2003); **Karelia** (<sup>2</sup>Freindling, 1949; <sup>1</sup>Bondartseva et al., 2001; <sup>1</sup>Krutov et al., 2014); **Komi Republic** (<sup>1</sup>Palamarchuk and Kirillov, 2017); **Leningrad Oblast** (<sup>2</sup>Thesleff, 1920; <sup>1</sup>Popov et al., 2007); **Perm Krai** (<sup>1</sup>Perevedentseva, 2008; <sup>1</sup>Botalov, Perevedentseva, and Denisov, 2015; <sup>1</sup>Botalov, 2017); **Rostov Oblast** (<sup>1</sup>Rebriev and Svetasheva, 2010); **Saint Petersburg** (<sup>1</sup>Kovalenko and Morozova, 1999a); **Arid territories** (<sup>1</sup>Rebriev, Rusanov, et al., 2012).SIBERIA: **Khakassia** (<sup>1</sup>Zauzolkova, 2015); **Khanty-Mansi Autonomous Okrug** (<sup>1</sup>Filippova and Bulyonkova, 2017a; <sup>1</sup>Filippova and Bulyonkova, 2017b); **Krasnoyarsk Krai** (<sup>1</sup>Beglyanova, 1972a).

***Psathyrella fibrillosa* (Pers.) Maire<sup>1</sup>**

≡ *Psathyra fibrillosa* (Pers.) Sacc.<sup>2</sup>

EASTERN EUROPE: **Leningrad Oblast** (<sup>2</sup>Thesleff, 1920); **Perm Krai** (<sup>1</sup>Perevedentseva, 2008).

SIBERIA: **Novosibirsk Oblast** (<sup>1</sup>Perova, 1977; <sup>1</sup>Perova and Gorbunova, 2001); **Tomsk Oblast** (<sup>1</sup>Perova and Gorbunova, 2001; <sup>1</sup>Kudashova, Gashkov, and Kutafjeva, 2013).

***Psathyrella flexispora* T.J. Wallace & P.D. Orton**

SIBERIA: **Khakassia** (Gorbunova and Majnagasheva, 2013).

***Psathyrella frustulenta* (Fr.) A.H. Sm.**

EASTERN EUROPE: **Penza Oblast** (Ivanov and Nezdojminogo, 1990; Ivanov, 2019); **Tatarstan** (Vassiljeva, 1977).

SIBERIA: **Irkutsk Oblast** (Petrov, 1986; Astapenko and Kutafjeva, 1990; Petrov, 1991; Petrov, 2008); **Krasnoyarsk Krai** (Beglyanova, 1972a; Nezdojminogo, 1982a).

***Psathyrella fulvescens* (Romagn.) M.M. Moser ex A.H. Sm.<sup>1</sup>**

≡ *Psathyrella fulvescens* var. *fulvescens* (Romagn.) M.M. Moser ex A.H. Sm.<sup>2</sup>

EASTERN EUROPE: **Perm Krai** (<sup>2</sup>Perevedentseva, 2008); **Tula Oblast** (<sup>1</sup>Svetasheva, 2004).

***Psathyrella fusca* (J.E. Lange) A. Pearson**

EASTERN EUROPE: **Crimea** (Dudka et al., 2004; Sarkina and Prydiuk, 2012); **Karelia** (Krutov et al., 2014); **Samara Oblast** (Malysheva and Malysheva, 2004; Malysheva and Malysheva, 2007; Malysheva and Malysheva, 2008); **Sevastopol** (Sarkina, 2016b); **Ulyanovsk Oblast** (Ilyukhin, 2010a; Ilyukhin, 2010b); **Arid territories** (Rebriev, Rusanov, et al., 2012).

SIBERIA: **Irkutsk Oblast** (Petrov, 1986; Petrov, 1991; Petrov, 2008); **Khanty-Mansi Autonomous Okrug** (Filippova and Bulyonkova, 2017a; Filippova and Bulyonkova, 2017b).

FAR EAST: **Amur Oblast** (Taranina, 2005); **Jewish Autonomous Oblast** (Bulakh, Govorova, Nazarova, and Vassiljeva, 2007; Bau, Bulakh, and Govorova, 2011); **Khabarovsk Krai** (Azbukina et al., 1986; Bau, Bulakh, and Govorova, 2011); **Primorsky Krai** (Vassiljeva, 1972; Vassiljeva, 1973; Bunkina and Nazarova, 1978; Bardunov et al., 2002; Azbukina et al., 2006; Bau, Bulakh, and Govorova, 2011).

***Psathyrella gordonii* (Berk. & Broome) A. Pearson & Dennis<sup>1</sup>**

= *Agaricus gorteri* Weinm.<sup>2</sup>

EASTERN EUROPE: **Crimea** (<sup>1</sup>Sarkina and Mironova, 2015); **Penza Oblast** (<sup>1</sup>Ivanov and Nezdojminogo, 1990); **Saint Petersburg** (<sup>2</sup>Weinmann, 1832; <sup>2</sup>Weinmann, 1836; <sup>2</sup>Weinmann, 1837); **Volgograd Oblast** (<sup>1</sup>Burova and Nezdojminogo, 1980; <sup>1</sup>Burova and Nezdojminogo, 1982).

FAR EAST: **Primorsky Krai** (<sup>1</sup>Vassiljeva, 1973; <sup>1</sup>Bunkina and Nazarova, 1978; <sup>1</sup>Azbukina et al., 1990; <sup>1</sup>Bardunov et al., 2002; <sup>1</sup>Azbukina et al., 2006; <sup>1</sup>Bau, Bulakh, and Govorova, 2011).

***Psathyrella gyroflexa* (Fr.) Konrad & Maubl.**

EASTERN EUROPE: **Crimea** (Dudka et al., 2004; Sarkina, 2011; Sarkina and Prydiuk, 2012; Sarkina and Mironova, 2015); **Kaliningrad Oblast** (Dedkov, Volodina, and Gubareva, 2007); **Sverdlovsk Oblast** (Stepanova and Sirko, 1977); **Tatarstan** (Vassiljeva, 1977).

SIBERIA: **Krasnoyarsk Krai** (Beglyanova, 1972a).

***Psathyrella hirta* Peck**

EASTERN EUROPE: **Sverdlovsk Oblast** (Marina, 2006).

***Psathyrella laevissima* (Romagn.) Singer**

EASTERN EUROPE: **Crimea** (Dudka et al., 2004).

***Psathyrella leucotephra* (Berk. & Broome) P.D. Orton**

EASTERN EUROPE: **Crimea** (Dudka et al., 2004; Sarkina, 2011; Sarkina and Mironova, 2015); **Moscow Oblast** (Levitskaya, 1995c; Levitskaya, 2013); **Ryazan Oblast** (Volosnova, 2014); **Sevastopol** (Sarkina, 2016b; Sarkina, 2020c).

***Psathyrella longicauda* P. Karst.**

EASTERN EUROPE: **Penza Oblast** (Ivanov, 1992); **Volgograd Oblast** (Svetasheva, 2015).



***Psathyrella lutensis* (Romagn.) Bon<sup>1</sup>**≡ *Psathyrella lutensis* (Romagn.) M.M. Moser<sup>2</sup>EASTERN EUROPE: **Samara Oblast** (<sup>1</sup>Malysheva and Malysheva, 2007; <sup>1</sup>Malysheva and Malysheva, 2008); **Arid territories** (<sup>2</sup>Rebriev, Rusanov, et al., 2012).FAR EAST: **Jewish Autonomous Oblast** (<sup>1</sup>Bulakh, Govorova, Nazarova, and Vassiljeva, 2007; <sup>2</sup>Bau, Bulakh, and Govorova, 2011); **Primorsky Krai** (<sup>1</sup>Bunkina and Nazarova, 1978; <sup>2</sup>Azbukina et al., 2006; <sup>2</sup>Bau, Bulakh, and Govorova, 2011).***Psathyrella maculata* (C.S. Parker) A.H. Sm.**EASTERN EUROPE: **Moscow Oblast** (Levitskaya, 2006; Levitskaya, 2013); **Perm Krai** (Perevedentseva, 2008).SIBERIA: **Khanty-Mansi Autonomous Okrug** (Zvyagina and Baykalova, 2017); **Tomsk Oblast** (Kudashova, Gashkov, and Vaishlya, 2016a).***Psathyrella microcystis* A.H. Sm.**EASTERN EUROPE: **Moscow Oblast** (Levitskaya, 1995c).***Psathyrella microrhiza* (Lasch) Konrad & Maubl.**EASTERN EUROPE: **Komi Republic** (Palamarchuk, 2011b; Palamarchuk, 2016a; Palamarchuk, 2016b); **Orenburg Oblast** (Desyatova, 2007; Desyatova, 2008); **Penza Oblast** (Ivanov, 1988a); **Perm Krai** (Perevedentseva, 2008); **Rostov Oblast** (Morozova et al., 2008); **Sverdlovsk Oblast** (Marina, 2006); **Tula Oblast** (Svetasheva, 2004); **Tver Oblast** (Mukhina, 2011a; Mukhina, 2011b; Kotkova, 2014); **Arid territories** (Rebriev, Rusanov, et al., 2012).SIBERIA: **Altai Republic** (Gorbunova, 2019); **Krasnoyarsk Krai** (Nezdojminogo, 1982a).***Psathyrella mucrocystis* A.H. Sm.**EASTERN EUROPE: **Moscow Oblast** (Levitskaya, 2013); **Sverdlovsk Oblast** (Marina, 2006).***Psathyrella murcida* (Fr.) Kits van Wav.<sup>1</sup>**≡ *Agaricus murcidus* Fr.<sup>2</sup>EASTERN EUROPE: **Crimea** (<sup>1</sup>Moser, 1993; <sup>1</sup>Sarkina, 2001; <sup>1</sup>Dudka et al., 2004; <sup>1</sup>Sarkina, 2011); **Leningrad Oblast** (<sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Popov et al., 2007); **Saint Petersburg** (<sup>2</sup>Weinmann, 1837); **Samara Oblast** (<sup>1</sup>Malysheva and Malysheva, 2004; <sup>1</sup>Malysheva and Malysheva, 2008).***Psathyrella muricellata* (Singer) Singer**≡ *Psathyra muricellata* Singer<sup>1</sup>EASTERN EUROPE: **Saint Petersburg** (<sup>1</sup>Singer, 1938b).***Psathyrella noli-tangere* (Fr.) A. Pearson & Dennis<sup>1</sup>**≡ *Psathyra noli-tangere* (Fr.) Qué.<sup>2</sup>EASTERN EUROPE: **Kaliningrad Oblast** (<sup>1</sup>Dedkov, Volodina, and Gubareva, 2007); **Karelia** (<sup>2</sup>Freindling, 1949; <sup>1</sup>Bondartseva et al., 2001; <sup>1</sup>Krutov et al., 2014); **Kirov Oblast** (<sup>1</sup>Kirillov, 2011; <sup>1</sup>Kirillov, Perevedentseva, and Egoshina, 2011); **Murmansk Oblast** (<sup>1</sup>Pystina, Pavlova, and Shestakova, 1969; <sup>1</sup>Mikhailovskii, 1975b); **Penza Oblast** (<sup>1</sup>Ivanov, 1986); **Perm Krai** (<sup>1</sup>Perevedentseva, 2008; <sup>1</sup>Belkovskaya et al., 2014); **Samara Oblast** (<sup>1</sup>Malysheva and Malysheva, 2005b; <sup>1</sup>Malysheva and Malysheva, 2008); **Tatarstan** (<sup>1</sup>Vassiljeva, 1977).SIBERIA: **Khakassia** (<sup>1</sup>Beglyanova, 1972a; <sup>1</sup>Zauzolkova, 2015); **Krasnoyarsk Krai** (<sup>1</sup>Beglyanova, 1972a); **Tomsk Oblast** (<sup>1</sup>Perova and Gorbunova, 2001; <sup>1</sup>Kudashova, Gashkov, and Kutafjeva, 2013).***Psathyrella obtusata* (Pers.) A.H. Sm.<sup>1</sup>**≡ *Agaricus obtusatus* Pers.<sup>2</sup> ≡ *Psathyrella obtusata* var. *obtusata* (Pers.) A.H. Sm.<sup>3</sup>EASTERN EUROPE: **Adygea** (<sup>1</sup>Sopina, 2001a); **Komi Republic** (<sup>1</sup>Palamarchuk (Bobretsova), 2009; <sup>1</sup>Palamarchuk, 2012); **Krasnodar Krai** (<sup>1</sup>Kovalenko, 1980a; <sup>1</sup>Kovalenko, 1980b); **Leningrad Oblast** (<sup>1</sup>Popov et al., 2007); **Lipetsk Oblast** (<sup>1</sup>Sarycheva, 1999; <sup>1</sup>Sarycheva et al., 2009; <sup>1</sup>Sarycheva, 2011; <sup>1</sup>Sarycheva, 2014a; <sup>1</sup>Sarycheva, 2016); **Penza Oblast** (<sup>1</sup>Ivanov, 1986); **Saint Petersburg** (<sup>1</sup>Kovalenko and Morozova, 1999a); **Samara Oblast** (<sup>1</sup>Malysheva and Malysheva, 2008); **Udmurt Republic** (<sup>1</sup>Tychinin, 1990); **Vologda Oblast** (<sup>1</sup>Suslova et al., 2013); **Yaroslavl Oblast** (<sup>1</sup>Lazareva, 1998a; <sup>1</sup>Lazareva, 1998b); **Arid territories** (<sup>1</sup>Rebriev, Rusanov, et al., 2012).

SIBERIA: **Irkutsk Oblast** (<sup>1</sup>Petrov, 1986; <sup>1</sup>Petrov, 1991; <sup>1</sup>Petrov, 2008); **Khakassia** (<sup>3</sup>Zauzolkova and Gorbunova, 2013; <sup>3</sup>Zauzolkova, 2015); **Krasnoyarsk Krai** (<sup>2</sup>Borszczow and Borszczow, 1856; <sup>1</sup>Beglyanova, 1972a); **Novosibirsk Oblast** (<sup>3</sup>Koropachinskiy and Banaev, 2014); **Tomsk Oblast** (<sup>1</sup>Kudashova, Gashkov, and Vaishlya, 2016a).

FAR EAST: **Jewish Autonomous Oblast** (<sup>1</sup>Bulakh, Govorova, Nazarova, and Vassiljeva, 2007; <sup>1</sup>Bau, Bulakh, and Govorova, 2011); **Primorsky Krai** (<sup>1</sup>Vassiljeva, 1972; <sup>1</sup>Vassiljeva, 1973; <sup>1</sup>Bunkina and Nazarova, 1978; <sup>1</sup>Azbukina et al., 2006; <sup>1</sup>Bau, Bulakh, and Govorova, 2011).

***Psathyrella olympiana* A.H. Sm.<sup>1</sup>**

≡ *Psathyrella olympiana* f. *olympiana* A.H. Sm.<sup>2</sup>

EASTERN EUROPE: **Kaliningrad Oblast** (<sup>1</sup>Dedkov, Volodina, and Gubareva, 2007); **Moscow Oblast** (<sup>1</sup>Levitskaya, 2013); **Orenburg Oblast** (<sup>1</sup>Desyatova, 2008); **Perm Krai** (<sup>1</sup>Perevedentseva, 2008); **Samara Oblast** (<sup>2</sup>Malysheva and Malysheva, 2006; <sup>2</sup>Malysheva and Malysheva, 2008); **Sverdlovsk Oblast** (<sup>1</sup>Marina, 2006); **Tula Oblast** (<sup>1</sup>Svetasheva, 2004); **Ulyanovsk Oblast** (<sup>1</sup>Ilyukhin, 2010a); **Vologda Oblast** (<sup>1</sup>Bolshakov et al., 2018).

SIBERIA: **Altai Krai** (<sup>1</sup>Gorbunova, 2018a); **Tomsk Oblast** (<sup>1</sup>Kudashova, Gashkov, and Kutafjeva, 2013).

***Psathyrella orbitarum* (Romagn.) M.M. Moser**

≡ *Psathyrella prona* f. *orbitarum* (Romagn.) Kits van Wav.<sup>1</sup>

EASTERN EUROPE: **Saint Petersburg** (<sup>1</sup>Kotkova, Morozova, and Popov, 2007); **Sverdlovsk Oblast** (<sup>1</sup>Marina, 2006).

***Psathyrella panaeoloides* (Maire) Arnolds**

EASTERN EUROPE: **Kaliningrad Oblast** (Volodina, 2007); **Rostov Oblast** (Shiryayev, Rebriev, and Knudsen, 2017; Rebriev, 2018); **Ryazan Oblast** (Malysheva and Volosnova, 2008; Volosnova, 2014); **Samara Oblast** (Malysheva and Malysheva, 2008); **Sevastopol** (Sarkina, 2016b); **Arid territories** (Rebriev, Rusanov, et al., 2012).

***Psathyrella pellucidipes* (Romagn.) M.M. Moser**

EASTERN EUROPE: **Penza Oblast** (Ivanov, 1986).

***Psathyrella pennata* (Fr.) A. Pearson & Dennis<sup>1</sup>**

≡ *Agaricus pennatus* Fr.<sup>2</sup> ≡ *Psathyra pennata* (Fr.) Quél.<sup>3</sup>

EASTERN EUROPE: **Kaliningrad Oblast** (<sup>1</sup>Dedkov, Volodina, and Gubareva, 2007); **Kirov Oblast** (<sup>1</sup>Stavishenko, Luginina, Kirillov, and Egoshina, 2019); **Leningrad Oblast** (<sup>3</sup>Thesleff, 1920; <sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Popov et al., 2007); **Novgorod Oblast** (<sup>1</sup>Kovalenko, Morozova, Nezdoinog, and Popov, 2005; <sup>1</sup>Popov et al., 2013); **Penza Oblast** (<sup>1</sup>Ivanov, 1986); **Ryazan Oblast** (<sup>1</sup>Volosnova, 1997; <sup>1</sup>Volosnova, 2014); **Saint Petersburg** (<sup>2</sup>Weinmann, 1828; <sup>2</sup>Weinmann, 1836; <sup>2</sup>Weinmann, 1837); **Volgograd Oblast** (<sup>1</sup>Dudka and Vedeneyev, 2015).

SIBERIA: **Khanty-Mansi Autonomous Okrug** (<sup>1</sup>Filippova, Bulyonkova, and Lapshina, 2015); **Krasnoyarsk Krai** (<sup>1</sup>Beglyanova, 1972a; <sup>1</sup>Zauzolkova, 2015; <sup>1</sup>Zauzolkova and Gorbunova, 2016).

***Psathyrella pertinax* (Fr.) Örstadius<sup>1</sup>**

= *Psathyrella chondroderma* (Berk. & Broome) A.H. Sm.<sup>2</sup>

EASTERN EUROPE: **Krasnodar Krai** (<sup>2</sup>Sopina, 2001a); **Perm Krai** (<sup>2</sup>Perevedentseva, 2008).

SIBERIA: **Irkutsk Oblast** (<sup>2</sup>Astapenko and Kutafjeva, 1990; <sup>2</sup>Astapenko, 1990a); **Tomsk Oblast** (<sup>1</sup>Kudashova, Gashkov, and Kutafjeva, 2013).

FAR EAST: **Primorsky Krai** (<sup>2</sup>Bunkina and Nazarova, 1978; <sup>2</sup>Azbukina et al., 2006; <sup>2</sup>Bau, Bulakh, and Govorova, 2011).

***Psathyrella pervelata* Kits van Wav.**

EASTERN EUROPE: **Samara Oblast** (Malysheva and Malysheva, 2008).

***Psathyrella phaseolispora* Arnolds**

EASTERN EUROPE: **Samara Oblast** (Malysheva and Malysheva, 2007; Malysheva and Malysheva, 2008).

***Psathyrella phegophila* Romagn.**

SIBERIA: **Irkutsk Oblast** (Gorbunova and Stepantsova, 2015).

***Psathyrella piluliformis* (Bull.) P.D. Orton<sup>1</sup>**

= *Bolbitius hydrophilus* (Bull.) Fr.<sup>2</sup> = *Psathyra hydrophila* (Bull.) G. Bertrand<sup>3</sup> = *Psathyrella hydrophila* (Bull.) Maire<sup>4</sup> = *Psathyrella subpapillata* (P. Karst.) Romagn.<sup>5</sup>

EASTERN EUROPE: **Crimea** (<sup>4</sup>Dudka et al., 2004; <sup>4</sup>Sarkina and Prydiuk, 2012; <sup>1</sup>Sarkina, 2014a; <sup>1</sup>Sarkina, 2020a); **Kaliningrad Oblast** (<sup>1</sup>Volodina, 2007; <sup>1</sup>Atayev and Volodina, 2020); **Kaluga Oblast** (<sup>4</sup>Sionova, 2012); **Karelia** (<sup>1</sup>Krutov et al., 2014; <sup>1</sup>Predtechenskaya and Ruokolainen, 2014); **Kirov Oblast** (<sup>1</sup>Kirillov, 2011; <sup>1</sup>Kirillov, Perevedentseva, and Egoshina, 2011); **Komi Republic** (<sup>1</sup>Palamarchuk and Kirillov, 2017); **Krasnodar Krai** (<sup>3</sup>Vassiljeva, 1939); **Leningrad Oblast** (<sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Popov et al., 2007; <sup>1</sup>Zmitrovich et al., 2015); **Lipetsk Oblast** (<sup>1</sup>Sarycheva et al., 2009; <sup>1</sup>Sarycheva, 2011; <sup>1</sup>Sarycheva, 2014a; <sup>1</sup>Sarycheva, 2016); **Moscow Oblast** (<sup>1</sup>Levitskaya, 2013); **Murmansk Oblast** (<sup>4</sup>Pystina, Pavlova, and Shestakova, 1969); **Oryol Oblast** (<sup>1</sup>Radygina, Derzhavina, and Tsutsupa, 2014); **Penza Oblast** (<sup>4</sup>Ivanov, 1981b; <sup>4</sup>Ivanov, 1982); **Perm Krai** (<sup>1</sup>Perevedentseva, 2008); **Pskov Oblast** (<sup>1</sup>Kalinina, Bolshakov, and Bulyonkova, 2020); **Ryazan Oblast** (<sup>1</sup>Volosnova, 2014); **Saint Petersburg** (<sup>1</sup>Zhukova, Morozova, Volobuev, and Bryantseva, 2017); **Smolensk Oblast** (<sup>2</sup>Jaczevski, 1898); **Tula Oblast** (<sup>1</sup>Svetasheva, 2004); **Tver Oblast** (<sup>4</sup>Kurochkin, 1993); **Udmurt Republic** (<sup>4</sup>Tychinin and Kuzmina, 2003); **Arid territories** (<sup>1</sup>Rebriev, Rusanov, et al., 2012).

SIBERIA: **Altai Krai** (<sup>1</sup>Gorbunova and Perova, 2006); **Irkutsk Oblast** (<sup>4</sup>Kutafjeva and Astapenko, 1987; <sup>4</sup>Astapenko, 1990a); **Khakassia** (<sup>1</sup>Zauzolkova, 2015; <sup>1</sup>Zauzolkova and Gorbunova, 2016); **Krasnoyarsk Krai** (<sup>1</sup>Krom and Kapitonov, 2019); **Kurgan Oblast** (<sup>4</sup>Stepanova and Sirko, 1977).

FAR EAST: **Amur Oblast** (<sup>5</sup>Azbukina et al., 1998); **Magadan Oblast** (<sup>1</sup>Sazanova, 2009a; <sup>1</sup>Sazanova, 2009b; <sup>1</sup>Sazanova, 2011); **Primorsky Krai** (<sup>4</sup>Vassiljeva, 1973; <sup>4</sup>Azbukina et al., 1990; <sup>4</sup>Bardunov et al., 2002; <sup>1</sup>Azbukina et al., 2006; <sup>1</sup>Bau, Bulakh, and Govorova, 2011).

***Psathyrella potteri* A.H. Sm.<sup>1</sup>**

= *Psathyrella albidula* Romagn. ex M.M. Moser<sup>2</sup> = *Psathyrella prona* f. *albidula* (Romagn. ex M.M. Moser) Kits van Wav.<sup>3</sup> = *Psathyrella prona* f. *cana* Kits van Wav.<sup>4</sup>

EASTERN EUROPE: **Ryazan Oblast** (<sup>2</sup>Volosnova, 2014); **Samara Oblast** (<sup>3,4</sup>Malysheva and Malysheva, 2007; <sup>3,4</sup>Malysheva and Malysheva, 2008); **Sverdlovsk Oblast** (<sup>3,4</sup>Marina, 2006); **Ulyanovsk Oblast** (<sup>4</sup>Ilyukhin, 2010a); **Yaroslavl Oblast** (<sup>4</sup>Lazareva, 1998a; <sup>4</sup>Lazareva, 1998b); **Arid territories** (<sup>1</sup>Rebriev, Rusanov, et al., 2012).

SIBERIA: **Buryatia** (<sup>2</sup>Nezdojminogo, 1970a; <sup>2</sup>Petrov, 1991); **Krasnoyarsk Krai** (<sup>3,4</sup>Nezdojminogo, 1994; <sup>3,4</sup>Karatygin, Nezdojminogo, Novozhilov, and Zhurbenko, 1999).

***Psathyrella praecox* A.H. Sm.**

EASTERN EUROPE: **Ryazan Oblast** (Volosnova, 2014).

***Psathyrella prona* (Fr.) Gillet<sup>1</sup>**

≡ *Psathyrella prona* f. *prona* (Fr.) Gillet<sup>2</sup> ≡ *Psathyrella prona* var. *prona* (Fr.) Gillet<sup>3</sup>

EASTERN EUROPE: **Belgorod Oblast** (<sup>1</sup>Bedenko, 1979a); **Crimea** (<sup>1</sup>Moser, 1993; <sup>1</sup>Sarkina, 2001; <sup>1</sup>Dudka et al., 2004; <sup>1</sup>Sarkina, 2014b); **Komi Republic** (<sup>1</sup>Palamarchuk, 2012); **Krasnodar Krai** (<sup>1</sup>Psurtseva, Kiyashko, Gachkova, and Belova, 2007; <sup>1</sup>Kiyashko, 2009); **Leningrad Oblast** (<sup>1</sup>Popov et al., 2007); **Lipetsk Oblast** (<sup>1</sup>Alferova, 1977; <sup>1</sup>Sarycheva et al., 2009; <sup>1</sup>Sarycheva, 2011; <sup>1</sup>Sarycheva, 2014a; <sup>1</sup>Sarycheva, 2016); **Moscow Oblast** (<sup>1</sup>Levitskaya, 1995c; <sup>1</sup>Levitskaya, 2013); **Novgorod Oblast** (<sup>1</sup>Kovalenko, Morozova, Nezdojminogo, and Popov, 2005; <sup>1</sup>Popov et al., 2013); **Orenburg Oblast** (<sup>1</sup>Desyatova, 2008); **Saint Petersburg** (<sup>1</sup>Kotkova, Morozova, and Popov, 2006); **Samara Oblast** (<sup>1</sup>Malysheva and Malysheva, 2005b; <sup>2</sup>Malysheva and Malysheva, 2007; <sup>2</sup>Malysheva and Malysheva, 2008); **Tatarstan** (<sup>1</sup>Vassiljeva, 1977); **Udmurt Republic** (<sup>1</sup>Tychinin and Kuzmina, 2003); **Ulyanovsk Oblast** (<sup>2</sup>Ilyukhin, 2010a; <sup>3</sup>Ilyukhin, 2010b); **Arid territories** (<sup>1</sup>Rebriev, Rusanov, et al., 2012).

SIBERIA: **Altai Republic** (<sup>1</sup>Gorbunova, 2003; <sup>2</sup>Gorbunova, 2010); **Irkutsk Oblast** (<sup>1</sup>Gorbunova and Stepantsova, 2015); **Khakassia** (<sup>1</sup>Zauzolkova and Gorbunova, 2013; <sup>1</sup>Zauzolkova, 2015); **Krasnoyarsk Krai** (<sup>1</sup>Beglyanova, 1972a; <sup>1</sup>Kosheleva and Kutafjeva, 2008a); **Novosibirsk Oblast** (<sup>1</sup>Perova and Gorbunova, 2001; <sup>2</sup>Perova and Gorbunova, 2007; <sup>1</sup>Koropachinskiy and Banaev, 2014); **Sakha Republic** (<sup>1</sup>Nezdojminogo, 2003).

FAR EAST: **Sakhalin Oblast** (<sup>1</sup>Bulakh, 2008).

***Psathyrella pseudocasca* (Romagn.) Kits van Wav.**

EASTERN EUROPE: **Kaliningrad Oblast** (Dedkov, Volodina, and Gubareva, 2007); **Moscow Oblast** (Levitskaya, 1995c; Levitskaya, 2013); **Murmansk Oblast** (Mikhailovskii, 1975b).

SIBERIA: **Irkutsk Oblast** (Petrov, 1986; Petrov, 1991; Petrov, 2008); **Krasnoyarsk Krai** (Beglyanova, 1972a).

FAR EAST: **Primorsky Krai** (Vassiljeva, 1973; Bunkina and Nazarova, 1978; Azbukina et al., 2006; Bau, Bulakh, and Govorova, 2011).

***Psathyrella pseudogordonii* Kits van Wav.**EASTERN EUROPE: **Orenburg Oblast** (Desyatova, 2008).***Psathyrella pseudogracilis* (Romagn.) M.M. Moser**EASTERN EUROPE: **Adygea** (Vaasma, Kalamees, and Raitviir, 1986); **Crimea** (Dudka et al., 2004; Sarkina, 2011); **Arid territories** (Rebriev, Rusanov, et al., 2012).SIBERIA: **Khakassia** (Zauzolkova and Gorbunova, 2013; Zauzolkova, 2015).***Psathyrella pygmaea* (Bull.) Singer**EASTERN EUROPE: **Kabardino-Balkarian Republic** (Shkhagapsoev and Krapivina, 2004); **Lipetsk Oblast** (Alferova, 1977; Sarycheva, 1999; Sarycheva et al., 2009; Sarycheva, 2014a; Sarycheva, 2016); **Orenburg Oblast** (Desyatova, 2008); **Tula Oblast** (Svetasheva, 2004); **Ulyanovsk Oblast** (Ilyukhin, 2010a; Ilyukhin, 2010b); **Arid territories** (Rebriev, Rusanov, et al., 2012).SIBERIA: **Kemerovo Oblast** (Perova and Gorbunova, 2001); **Khakassia** (Zauzolkova and Gorbunova, 2013; Zauzolkova, 2015); **Khanty-Mansi Autonomous Okrug** (Filippova, Bulyonkova, and Lapshina, 2015; Filippova and Bulyonkova, 2017a; Filippova and Bulyonkova, 2017b); **Novosibirsk Oblast** (Perova, 1982; Perova and Gorbunova, 2001; Perova and Gorbunova, 2007); **Tomsk Oblast** (Perova and Gorbunova, 2001; Kudashova, Gashkov, and Kutafjeva, 2013).FAR EAST: **Amur Oblast** (Azbukina et al., 1998); **Jewish Autonomous Oblast** (Bulakh, Govorova, Nazarova, and Vassiljeva, 2007; Bau, Bulakh, and Govorova, 2011; Erofeeva, Bukharova, and Bulakh, 2019); **Primorsky Krai** (Vassiljeva, 1973; Bunkina and Nazarova, 1978; Azbukina et al., 1984; Azbukina et al., 1990; Bardunov et al., 2002; Azbukina et al., 2006; Bau, Bulakh, and Govorova, 2011).***Psathyrella rigidipes* (Peck) A.H. Sm.**EASTERN EUROPE: **Perm Krai** (Perevedentseva, 2008).***Psathyrella rostellata* Örstadius**EASTERN EUROPE: **Ryazan Oblast** (Volosnova, 2014).***Psathyrella saponacea* F.H. Møller<sup>1</sup>**= *Psathyrella coprophila* Watling<sup>2</sup>EASTERN EUROPE: **Astrakhan Oblast** (<sup>1,2</sup>Rebriev, Aleksandrova, et al., 2012); **Karelia** (<sup>2</sup>Bondartseva et al., 2001; <sup>2</sup>Krutov et al., 2014); **Ryazan Oblast** (<sup>1</sup>Volosnova, 2014); **Sverdlovsk Oblast** (<sup>2</sup>Marina, 2006); **Arid territories** (<sup>1</sup>Rebriev, Rusanov, et al., 2012).SIBERIA: **Novosibirsk Oblast** (<sup>2</sup>Perova and Gorbunova, 2001; <sup>2</sup>Perova and Gorbunova, 2007).***Psathyrella scobinacea* (Fr.) Konrad & Maubl.**SIBERIA: **Altai Republic** (Gorbunova, 2001b; Perova and Gorbunova, 2001).FAR EAST: **Primorsky Krai** (Vassiljeva, 1973; Bunkina and Nazarova, 1978; Azbukina et al., 2006; Bau, Bulakh, and Govorova, 2011).***Psathyrella senex* (Peck) A.H. Sm.<sup>1</sup>**= *Psathyrella friesii* Kits van Wav.<sup>2</sup> = *Psathyrella fulvescens* var. *brevicystis* Kits van Wav.<sup>3</sup> = *Psathyrella ocellata* (Romagn.) M.M. Moser<sup>4</sup>EASTERN EUROPE: **Adygea** (<sup>2</sup>Sopina, 2001a); **Karachay-Cherkess Republic** (<sup>4</sup>Malysheva and Svetasheva, 2011; <sup>4</sup>Onipchenko et al., 2013); **Krasnodar Krai** (<sup>4</sup>Sopina, 2001a); **Pskov Oblast** (<sup>4</sup>Kolmakov and Popov, 2005; <sup>4</sup>Popov et al., 2013); **Sverdlovsk Oblast** (<sup>3</sup>Marina, 2006).SIBERIA: **Krasnoyarsk Krai** (<sup>1</sup>Malysheva, Malysheva, Kiyashko, et al., 2017).FAR EAST: **Chukotka Autonomous Okrug** (<sup>4</sup>Sazanova, 1993); **Primorsky Krai** (<sup>2</sup>Azbukina et al., 2006).***Psathyrella spadiceogrisea* (Schaeff.) Maire<sup>1</sup>**≡ *Psathyra spadiceogrisea* (Schaeff.) P. Kumm.<sup>2</sup> ≡ *Psathyrella spadiceogrisea* f. *spadiceogrisea* (Schaeff.) Maire<sup>3</sup> = *Psathyrella spadiceogrisea* f. *exalbicans* (Romagn.) Kits van Wav.<sup>4</sup> = *Psathyrella spadiceogrisea* f. *vernalis* (J.E. Lange) Kits van Wav.<sup>5</sup> = *Psathyrella vernalis* (J.E. Lange) M.M. Moser<sup>6</sup>

EASTERN EUROPE: **Adygea** (<sup>3</sup>Sopina, 2001a); **Crimea** (<sup>1</sup>Sarkina, 2014a); **Kaluga Oblast** (<sup>1</sup>Sionova, 2012); **Karelia** (<sup>1</sup>Krutov et al., 2014); **Kirov Oblast** (<sup>1</sup>Kirillov, 2011; <sup>1</sup>Kirillov, Perevedentseva, and Egoshina, 2011); **Komi Republic** (<sup>1</sup>Palamarchuk and Kirillov, 2017); **Krasnodar Krai** (<sup>2</sup>Vassiljeva, 1939); **Kursk Oblast** (<sup>1</sup>Baranov, 2002); **Leningrad Oblast** (<sup>5</sup>Morozova and Kovalenko, 2000; <sup>1</sup>Popov et al., 2007; <sup>5</sup>Psurtseva, Kiyashko, Gachkova, and Belova, 2007); **Lipetsk Oblast** (<sup>1</sup>Sarycheva et al., 2009; <sup>1</sup>Sarycheva, 2011; <sup>1</sup>Sarycheva, 2014a; <sup>1</sup>Sarycheva, 2016); **Moscow Oblast** (<sup>1</sup>Gorlenko, Sidorova, and Sidorova, 1989; <sup>1</sup>Voronina et al., 2014); **Novgorod Oblast** (<sup>1</sup>Kovalenko, Morozova, Nezdojminogo, and Popov, 2005; <sup>1</sup>Popov et al., 2013); **Orenburg Oblast** (<sup>1</sup>Desyatova, 2007; <sup>1</sup>Desyatova, 2008); **Penza Oblast** (<sup>6</sup>Ivanov, 1986); **Perm Krai** (<sup>1,6</sup>Perevedentseva, 2008); **Rostov Oblast** (<sup>1</sup>Morozova et al., 2008); **Ryazan Oblast** (<sup>1</sup>Volosnova, 1997; <sup>1</sup>Volosnova, 2014); **Saint Petersburg** (<sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Morozova, Kovalenko, Rebriev, and Malysheva, 2014); **Samara Oblast** (<sup>4</sup>Malysheva and Malysheva, 2006; <sup>4</sup>Malysheva and Malysheva, 2008); **Sevastopol** (<sup>1</sup>Sarkina, 2016b); **Sverdlovsk Oblast** (<sup>3,5</sup>Marina, 2006); **Tula Oblast** (<sup>1</sup>Svetasheva, 2004); **Tver Oblast** (<sup>1</sup>Kurochkin, 1993); **Udmurt Republic** (<sup>1</sup>Tychinin and Kuzmina, 2003); **Ulyanovsk Oblast** (<sup>1</sup>Ilyukhin, 2009; <sup>1</sup>Ilyukhin, 2010a); **Volgograd Oblast** (<sup>1</sup>Dudka and Vedeneyev, 2015; <sup>1</sup>Goncharova and Vedeneyev, 2015); **Yaroslavl Oblast** (<sup>3</sup>Lazareva, 1998a; <sup>3</sup>Lazareva, 1998b); **Arid territories** (<sup>1</sup>Rebriev, Rusanov, et al., 2012).

SIBERIA: **Irkutsk Oblast** (<sup>1</sup>Petrov, 1986; <sup>1</sup>Petrov, 1989; <sup>1</sup>Astapenko and Kutafjeva, 1990; <sup>1</sup>Astapenko, 1990a; <sup>1</sup>Petrov, 2008); **Krasnoyarsk Krai** (<sup>1</sup>Beglyanova, 1972a; <sup>1</sup>Pavlov et al., 2007; <sup>1</sup>Krom and Kapitonov, 2019); **Novosibirsk Oblast** (<sup>1</sup>Nozdrenko, 1970; <sup>1</sup>Koropachinskiy and Banaev, 2014); **Tomsk Oblast** (<sup>1</sup>Agaphonova, Kutafjeva, and Gashkov, 2009b; <sup>1</sup>Kudashova, Gashkov, and Kutafjeva, 2013); **Yamalo-Nenets Autonomous Okrug** (<sup>1</sup>Tarchevskaya, 1990).

FAR EAST: **Amur Oblast** (<sup>1</sup>Azbukina et al., 1998; <sup>1</sup>Kochunova and Erofeeva, 2017); **Magadan Oblast** (<sup>1</sup>Nazarova, 1976; <sup>1</sup>Sazanova, 2009a); **Primorsky Krai** (<sup>1</sup>Vassiljeva, 1973).

#### ***Psathyrella sphaerocystis* P.D. Orton**

FAR EAST: **Jewish Autonomous Oblast** (Bulakh, Govorova, Nazarova, and Vassiljeva, 2007; Bau, Bulakh, and Govorova, 2011); **Sakhalin Oblast** (Bulakh, 2008).

#### ***Psathyrella sphagnicola* (Maire) J. Favre**

EASTERN EUROPE: **Moscow Oblast** (Gorlenko, Sidorova, and Sidorova, 1989); **Perm Krai** (Perevedentseva, 2008; Belkovskaya et al., 2014).

SIBERIA: **Buryatia** (Nezdojminogo, 1970a; Petrov, 1991); **Khanty-Mansi Autonomous Okrug** (Filippova and Thormann, 2014; Filippova, 2014; Filippova, Mourgues, and Philippe, 2014); **Krasnoyarsk Krai** (Kutafjeva and Kosheleva, 2005).

FAR EAST: **Primorsky Krai** (Vassiljeva, 1973; Bulakh et al., 2016).

#### ***Psathyrella spintrigera* (Fr.) Konrad & Maubl.**

EASTERN EUROPE: **Belgorod Oblast** (Psurtseva, Belova, and Ryabusheva, 2003); **Crimea** (Dudka et al., 2004); **Leningrad Oblast** (Psurtseva, Kiyashko, Gachkova, and Belova, 2007).

SIBERIA: **Irkutsk Oblast** (Petrov, 1986; Astapenko and Kutafjeva, 1990; Astapenko, 1990a; Petrov, 1991; Petrov, 2008); **Krasnoyarsk Krai** (Nezdojminogo, 1982a).

FAR EAST: **Primorsky Krai** (Vassiljeva, 1973; Bau, Bulakh, and Govorova, 2011).

#### ***Psathyrella squamosa* (P. Karst.) A.H. Sm.**

SIBERIA: **Khanty-Mansi Autonomous Okrug** (Filippova, Bulyonkova, and Lapshina, 2015; Filippova and Bulyonkova, 2017a; Filippova and Bulyonkova, 2017b); **Krasnoyarsk Krai** (Beglyanova, 1972a).

#### ***Psathyrella subcernua* (Schulzer) Singer**

EASTERN EUROPE: **Penza Oblast** (Ivanov, 1986).

SIBERIA: **Krasnoyarsk Krai** (Beglyanova, 1972a); **Novosibirsk Oblast** (Perova, 1982; Perova and Gorbunova, 2001; Perova and Gorbunova, 2007).

#### ***Psathyrella subnuda* (P. Karst.) A.H. Sm.**

EASTERN EUROPE: **Krasnodar Krai** (Kovalenko, 1980a; Kovalenko, 1980b); **Penza Oblast** (Ivanov, 1986); **Perm Krai** (Perevedentseva, 2008; Botalov, 2017; Botalov and Perevedentseva, 2020); **Volgograd Oblast** (Burova and Nezdojminogo, 1980).

SIBERIA: **Irkutsk Oblast** (Astapenko and Kutafjeva, 1990; Astapenko, 1990a); **Tomsk Oblast** (Agaphonova, Kutafjeva, and Gashkov, 2009b; Kudashova, Gashkov, and Kutafjeva, 2013).

***Psathyrella tephrophylla* (Romagn.) Bon**EASTERN EUROPE: **Sverdlovsk Oblast** (Marina, 2006).FAR EAST: **Jewish Autonomous Oblast** (Erofeeva, Bukharova, and Bulakh, 2019); **Primorsky Krai** (Bulakh, 2008).***Psathyrella torpens* (Fr.) Konrad & Maubl.**≡ *Agaricus torpens* Fr.<sup>1</sup>EASTERN EUROPE: **Saint Petersburg** (<sup>1</sup>Weinmann, 1828; <sup>1</sup>Weinmann, 1836).***Psathyrella trepida* (Fr.) Gillet<sup>1</sup>**≡ *Agaricus trepidus* Fr.<sup>2</sup>EASTERN EUROPE: **Crimea** (<sup>1</sup>Dudka et al., 2004; <sup>1</sup>Sarkina, 2011); **Karelia** (<sup>1</sup>Krutov et al., 2014); **Murmansk Oblast** (<sup>1</sup>Pystina, Pavlova, and Shestakova, 1969); **Nizhny Novgorod Oblast** (<sup>1</sup>Murashkinsky, 1911).SIBERIA: **Novosibirsk Oblast** (<sup>1</sup>Zaytseva, 1971).FAR EAST: **Chukotka Autonomous Okrug** (<sup>2</sup>Berkeley and Curtis, 1978).***Psathyrella typhae* (Kalchbr.) A. Pearson & Dennis<sup>1</sup>**≡ *Psathyrella typhae* var. *typhae* (Kalchbr.) A. Pearson & Dennis<sup>2</sup>EASTERN EUROPE: **Leningrad Oblast** (<sup>1</sup>Morozova, 2007; <sup>1</sup>Popov et al., 2007); **Orenburg Oblast** (<sup>2</sup>Desyatova, 2008); **Penza Oblast** (<sup>1</sup>Ivanov and Nezdoininogo, 1990); **Pskov Oblast** (<sup>1</sup>Popov, 2001a; <sup>1</sup>Popov et al., 2013).SIBERIA: **Novosibirsk Oblast** (<sup>1</sup>Glupov and Shaulo, 2018).***Psathyrella umbrina* Kits van Wav.<sup>1</sup>**≡ *Psathyrella umbrina* var. *umbrina* Kits van Wav.<sup>2</sup>EASTERN EUROPE: **Karachay-Cherkess Republic** (<sup>2</sup>Malysheva and Svetasheva, 2011; <sup>1</sup>Onipchenko et al., 2013).***Psathyrella variata* A.H. Sm.**EASTERN EUROPE: **Komi Republic** (Palamarchuk (Bobretsova), 2009; Palamarchuk, 2012); **Rostov Oblast** (Morozova et al., 2008); **Vologda Oblast** (Kirillova, 2007); **Arid territories** (Rebriev, Rusanov, et al., 2012).***Psathyrella vinosofulva* P.D. Orton<sup>1</sup>**= *Psathyrella prona* var. *utriformis* Kits van Wav.<sup>2</sup>EASTERN EUROPE: **Samara Oblast** (<sup>1</sup>Malysheva and Malysheva, 2006; <sup>1,2</sup>Malysheva and Malysheva, 2007; <sup>1,2</sup>Malysheva and Malysheva, 2008); **Sverdlovsk Oblast** (<sup>2</sup>Marina, 2006); **Yaroslavl Oblast** (<sup>1</sup>Lazareva, 1998a).***Pseudoarmillariella ectypoides* (Peck) Singer<sup>1</sup>**≡ *Clitocybe ectypoides* (Peck) Sacc.<sup>2</sup> ≡ *Clitocybula ectypoides* (Peck) Raithelh.<sup>3</sup>SIBERIA: **Krasnoyarsk Krai** (<sup>1</sup>Malysheva, Malysheva, Kiyashko, et al., 2017).FAR EAST: **Primorsky Krai** (<sup>3</sup>Vassiljeva, 1973; <sup>2</sup>Bunkina and Nazarova, 1978).***Pseudobaeospora celluloderma* Bas**EASTERN EUROPE: **Pskov Oblast** (Kalinina, Bolshakov, and Bulyonkova, 2020).***Pseudobaeospora defibulata* Singer**FAR EAST: **Primorsky Krai** (Vassiljeva, 1973).***Pseudobaeospora oligophylla* (Singer) Singer**≡ *Baeospora oligophylla* Singer<sup>1</sup>SIBERIA: **Altai Republic** (<sup>1</sup>Singer, 1938c).***Pseudobaeospora pillodii* (Quél.) Wasser**EASTERN EUROPE: **Karachay-Cherkess Republic** (Morozova and Popov, 2013); **Komi Republic** (Palamarchuk and Kirillov, 2018a); **Yamalo-Nenets Autonomous Okrug** (Bas, 2003).SIBERIA: **Altai Republic** (Wasser, 1980).

***Pseudobaeospora pyrifera* Bas & L.G. Krieglst.**EASTERN EUROPE: **Novgorod Oblast** (Morozova and Popov, 2013; Morozova, Popov, and Fedosova, 2014).***Pseudoboletus parasiticus* (Bull.) Šutara<sup>1</sup>**≡ *Boletus parasiticus* Bull.<sup>2</sup> ≡ *Xerocomus parasiticus* (Bull.) Quél.<sup>3</sup>EASTERN EUROPE: **Belgorod Oblast** (<sup>1</sup>Prisny, 2019); **Kaliningrad Oblast** (<sup>2</sup>Abromeit, 1895; <sup>3</sup>Dedkov, Volodina, and Gubareva, 2007; <sup>3</sup>Volodina, 2007); **Krasnodar Krai** (<sup>2</sup>Kiyashko, 2009); **Lipetsk Oblast** (<sup>1</sup>Sarycheva et al., 2009; <sup>1</sup>Shcherbakov, 2014); **Penza Oblast** (<sup>3</sup>Ivanov, 2013a); **Ryazan Oblast** (<sup>3</sup>Volosnova, 2005; <sup>1</sup>Ivanchev and Kazakova, 2011; <sup>1</sup>Volosnova, 2014); **Smolensk Oblast** (<sup>2</sup>Jaczewski, 1896); **Voronezh Oblast** (<sup>3</sup>Agafonov, 2011; <sup>1</sup>Agafonov, 2018).***Pseudoclitocybe cyathiformis* (Bull.) Singer<sup>1</sup>**≡ *Agaricus cyathiformis* Bull.<sup>2</sup> ≡ *Cantharellula cyathiformis* (Bull.) Singer<sup>3</sup> ≡ *Clitocybe cyathiformis* (Bull.) P. Kumm.<sup>4</sup> = *Agaricus cinerascens* Batsch<sup>5</sup>EASTERN EUROPE: **Adygea** (<sup>3</sup>Vassiljeva, 1939); **Bryansk Oblast** (<sup>4</sup>Kruglikov, 2007); **Chelyabinsk Oblast** (<sup>1</sup>Psurtseva, Kiyashko, Gachkova, and Belova, 2007); **Crimea** (<sup>4</sup>Sarkina, 2001; <sup>1</sup>Dudka et al., 2004; <sup>1</sup>Sarkina and Prydiuk, 2012); **Kaliningrad Oblast** (<sup>1</sup>Dedkov, Volodina, and Gubareva, 2007); **Kaluga Oblast** (<sup>4</sup>Sionova, 2003); **Karelia** (<sup>1</sup>Krutov et al., 2014; <sup>1</sup>Predtechenskaya, 2015); **Komi Republic** (<sup>1</sup>Palamarchuk and Kirillov, 2017); **Leningrad Oblast** (<sup>4</sup>Thesleff, 1920; <sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Popov et al., 2007); **Lipetsk Oblast** (<sup>1</sup>Sarycheva et al., 2009; <sup>1</sup>Sarycheva, 2011; <sup>1</sup>Sarycheva, 2016); **Mordovia** (<sup>1</sup>Ivoilov and Bolshakov, 2011a); **Moscow Oblast** (<sup>1</sup>Levitskaya, 1995a; <sup>1</sup>Vishnevsky, 1998; <sup>1</sup>Levitskaya, 2013); **Nizhny Novgorod Oblast** (<sup>4</sup>Murashkinsky, 1911); **North Ossetia** (<sup>1</sup>Nikolayev, 2001); **Novgorod Oblast** (<sup>1</sup>Morozova, 2012; <sup>1</sup>Popov et al., 2013); **Penza Oblast** (<sup>1</sup>Ivanov, 1983); **Perm Krai** (<sup>4</sup>Naoumoff, 1915; <sup>1</sup>Perevedentseva, 2008); **Ryazan Oblast** (<sup>1</sup>Volosnova, 1997; <sup>1</sup>Volosnova, 2014); **Saint Petersburg** (<sup>2</sup>Weinmann, 1828; <sup>2</sup>Weinmann, 1836; <sup>2</sup>Weinmann, 1837; <sup>1</sup>Kotkova, Morozova, and Popov, 2006; <sup>1</sup>Malysheva, Morozova, and Contu, 2011; <sup>1</sup>Morozova et al., 2020); **Sverdlovsk Oblast** (<sup>1</sup>Marina, 2006; <sup>1</sup>Malysheva, Morozova, and Contu, 2011); **Tatarstan** (<sup>1</sup>Potapov, 2015b; <sup>1</sup>Potapov, 2016b); **Tula Oblast** (<sup>1</sup>Svetasheva, 2004); **Tver Oblast** (<sup>1</sup>Kurochkin, 1993); **Udmurt Republic** (<sup>1</sup>Tychinin and Kuzmina, 2003); **Ulyanovsk Oblast** (<sup>1</sup>Ilyukhin, 2009; <sup>1</sup>Ilyukhin, 2010a); **Arid territories** (<sup>1</sup>Rebriev, Rusanov, et al., 2012).SIBERIA: **Altai Krai** (<sup>1</sup>Gorbunova and Perova, 2006); **Altai Republic** (<sup>3</sup>Singer, 1943; <sup>1</sup>Gorbunova, 2001a; <sup>1</sup>Perova and Gorbunova, 2001; <sup>1</sup>Gorbunova, 2008; <sup>1</sup>Gorbunova, 2010); **Buryatia** (<sup>1</sup>Nezdojminogo, 1973; <sup>1</sup>Petrov, 1991); **Irkutsk Oblast** (<sup>1</sup>Petrov, 1984; <sup>1</sup>Petrov, 1991); **Khanty-Mansi Autonomous Okrug** (<sup>1</sup>Filippova, Bulyonkova, and Lapshina, 2015; <sup>1</sup>Zvyagina and Vasina, 2015; <sup>1</sup>Filippova and Bulyonkova, 2017a; <sup>1</sup>Filippova and Bulyonkova, 2017b; <sup>1</sup>Zvyagina and Baykalova, 2017); **Krasnoyarsk Krai** (<sup>5</sup>Thümen, 1878; <sup>4</sup>Saccardo, 1896; <sup>1</sup>Beglyanova, 1972a; <sup>3</sup>Beglyanova, 1972b); **Novosibirsk Oblast** (<sup>1</sup>Perova and Gorbunova, 2001; <sup>1</sup>Gorbunova, 2007; <sup>1</sup>Perova and Gorbunova, 2007); **Sverdlovsk Oblast** (<sup>1</sup>Stepanova and Sirko, 1977); **Tomsk Oblast** (<sup>3</sup>Perova, 1972; <sup>3</sup>Perova and Gorbunova, 2001; <sup>1</sup>Kudashova, Gashkov, and Kutafjeva, 2013).FAR EAST: **Chukotka Autonomous Okrug** (<sup>2</sup>Berkeley and Curtis, 1978); **Jewish Autonomous Oblast** (<sup>1</sup>Bau, Bulakh, and Govorova, 2011); **Khabarovsk Krai** (<sup>1</sup>Azbukina et al., 1986; <sup>1</sup>Azbukina et al., 1989; <sup>1</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Bulakh, 2013; <sup>1</sup>Bogacheva, Bulakh, Bukharova, and Egorova, 2015; <sup>1</sup>Erofeeva and Bulakh, 2016); **Primorsky Krai** (<sup>1</sup>Vassiljeva, 1973; <sup>1</sup>Shalapugina, 1976; <sup>1</sup>Azbukina et al., 1984; <sup>1</sup>Bau, Bulakh, Zhuang, and Li, 2007; <sup>1</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Bulakh et al., 2016); **Sakhalin Oblast** (<sup>1</sup>Vassiljeva and Nazarova, 1972).***Pseudoclitocybe expallens* (Pers.) M.M. Moser<sup>1</sup>**≡ *Agaricus expallens* Pers.<sup>2</sup> ≡ *Clitocybe cyathiformis* var. *expallens* (Pers.) P. Karst.<sup>3</sup> ≡ *Clitocybe expallens* (Pers.) P. Kumm.<sup>4</sup> = *Clitocybe cyathiformis* var. *trivialis* (Fr.) P. Karst.<sup>5</sup>EASTERN EUROPE: **Leningrad Oblast** (<sup>3,5</sup>Thesleff, 1920; <sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Popov et al., 2007); **Saint Petersburg** (<sup>2</sup>Weinmann, 1828; <sup>2</sup>Weinmann, 1836; <sup>2</sup>Weinmann, 1837).SIBERIA: **Krasnoyarsk Krai** (<sup>2</sup>Borszczow and Borszczow, 1856; <sup>2</sup>Thümen, 1878; <sup>4</sup>Beglyanova, 1972a; <sup>1</sup>Zauzolkova, 2015); **Tomsk Oblast** (<sup>4</sup>Milovidova, 1980; <sup>1</sup>Kudashova, Gashkov, and Kutafjeva, 2013).FAR EAST: **Chukotka Autonomous Okrug** (<sup>2</sup>Berkeley and Curtis, 1978).***Pseudoclitocybe obbata* (Fr.) Singer**EASTERN EUROPE: **Adygea** (Vaasma, Kalamees, and Raitviir, 1986).FAR EAST: **Jewish Autonomous Oblast** (Bulakh, Govorova, Nazarova, and Vassiljeva, 2007).

***Pseudoclitopilus rhodoleucus* (Sacc.) Vizzini & Contu<sup>1</sup>**

≡ *Leucopaxillus rhodoleucus* (Sacc.) Kühner<sup>2</sup>

EASTERN EUROPE: **Karachay-Cherkess Republic** (<sup>2</sup>Malysheva and Svetasheva, 2011; <sup>2</sup>Onipchenko et al., 2013; <sup>1</sup>Morozova and Popov, 2014); **Mordovia** (<sup>2</sup>Silaeva et al., 2014; <sup>2</sup>Silaeva, 2017); **Rostov Oblast** (<sup>2</sup>Fedyeva, 2014); **Sverdlovsk Oblast** (<sup>2</sup>Marina, 2006); **Tatarstan** (<sup>2</sup>Vassiljeva, 1977; <sup>2</sup>Nazirov, Gorshkov, Ivanov, and Rogova, 2016); **Volgograd Oblast** (<sup>2</sup>Burova and Nezdoinog, 1982); **Arid territories** (<sup>2</sup>Rebriev, Rusanov, et al., 2012).

SIBERIA: **Altai Republic** (<sup>2</sup>Gorbunova, 2017b; <sup>2</sup>Maneev, Achimova, Sedelnikova, and Gorbunova, 2017).

***Pseudoclitopilus salmonifolius* (M.M. Moser & Lamoure) Vizzini & Contu**

≡ *Leucopaxillus salmonifolius* M.M. Moser & Lamoure<sup>1</sup>

EASTERN EUROPE: **Crimea** (<sup>1</sup>Moser, 1993; <sup>1</sup>Sarkina, 2001; <sup>1</sup>Dudka et al., 2004; <sup>1</sup>Sarkina, 2011).

***Pseudohiatula cyatheae* Singer<sup>1</sup>**

≡ *Mycena cyatheae* Singer<sup>2</sup>

EASTERN EUROPE: **Saint Petersburg** (<sup>2</sup>Singer, 1936d; <sup>1</sup>Singer, 1938b; <sup>1</sup>Singer, 1943).

***Pseudolaccaria pachyphylla* (Fr.) Vizzini & Contu<sup>1</sup>**

≡ *Pseudoomphalina pachyphylla* (Fr.) Knudsen<sup>2</sup> = *Collybia incomis* P. Karst.<sup>3</sup>

EASTERN EUROPE: **Arkhangelsk Oblast** (<sup>2</sup>Ezhov, Zmitrovich, and Ershov, 2016; <sup>1</sup>Shiryayev, Zmitrovich, and Ezhov, 2018); **Leningrad Oblast** (<sup>3</sup>Thesleff, 1920; <sup>2</sup>Kovalenko and Morozova, 1999a; <sup>2</sup>Popov et al., 2007); **Ryazan Oblast** (<sup>2</sup>Volosnova, 2014); **Arid territories** (<sup>2</sup>Rebriev, Rusanov, et al., 2012).

SIBERIA: **Khanty-Mansi Autonomous Okrug** (<sup>2</sup>Filippova and Bulyonkova, 2017a; <sup>2</sup>Filippova and Bulyonkova, 2017b).

***Pseudoomphalina compressipes* (Peck) Singer**

SIBERIA: **Irkutsk Oblast** (Petrov, 1984; Petrov, 1991; Petrov, 2008).

FAR EAST: **Amur Oblast** (Azbukina et al., 1998); **Jewish Autonomous Oblast** (Bulakh, Govorova, Nazarova, and Vassiljeva, 2007; Bau, Bulakh, and Govorova, 2011); **Primorsky Krai** (Bunkina and Nazarova, 1978; Azbukina et al., 1984; Azbukina et al., 2006; Bau, Bulakh, and Govorova, 2011).

***Pseudoomphalina kalchbrenneri* (Bres.) Singer**

EASTERN EUROPE: **Krasnodar Krai** (Kovalenko, 1980a; Kovalenko, 1980b); **Leningrad Oblast** (Malysheva, Morozova, and Contu, 2011).

SIBERIA: **Krasnoyarsk Krai** (Malysheva, Malysheva, Kiyashko, et al., 2017).

***Pseudosperma curreyi* (Berk.) Matheny & Esteve-Rav.**

≡ *Inocybe fastigiata* subsp. *curreyi* (Berk.) Dermek & J. Veselský<sup>1</sup>

EASTERN EUROPE: **Ryazan Oblast** (<sup>1</sup>Volosnova, 1997).

***Pseudosperma flavellum* (P. Karst.) Matheny & Esteve-Rav.**

≡ *Inocybe flavella* P. Karst.<sup>1</sup> ≡ *Inocybe flavella* var. *flavella* P. Karst.<sup>2</sup> = *Inocybe flavella* var. *roseipes* (Bon) Kuyper<sup>3</sup>

EASTERN EUROPE: **Karelia** (<sup>2</sup>Kovalenko, Morozova, Fomina, and Särkisilta, 1998; <sup>2</sup>Krutov et al., 2014); **Komi Republic** (<sup>1</sup>Shiryayeva and Palamarchuk, 2019); **Leningrad Oblast** (<sup>1</sup>Nezdoinog, 1996; <sup>1</sup>Popov et al., 2007); **Lipetsk Oblast** (<sup>1</sup>Sarycheva et al., 2009; <sup>1</sup>Sarycheva, 2016); **Murmansk Oblast** (<sup>1,2</sup>Nezdoinog, 1996); **Penza Oblast** (<sup>1,2,3</sup>Nezdoinog, 1996); **Saint Petersburg** (<sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Morozova and Kovalenko, 2000; <sup>1</sup>Kotkova, Morozova, and Popov, 2006); **Samara Oblast** (<sup>2</sup>Malysheva and Malysheva, 2005b; <sup>2</sup>Malysheva and Malysheva, 2008); **Tula Oblast** (<sup>1</sup>Svetasheva, 2003; <sup>1</sup>Svetasheva, 2004; <sup>1</sup>Svetasheva, 2013); **Ulyanovsk Oblast** (<sup>1</sup>Ilyukhin, 2010a; <sup>1</sup>Ilyukhin, 2010b).

SIBERIA: **Khanty-Mansi Autonomous Okrug** (<sup>1</sup>Zvyagina, 2008; <sup>1</sup>Shepeleva et al., 2014); **Tomsk Oblast** (<sup>1</sup>Agaphonova, Kutafjeva, and Gashkov, 2009a; <sup>1</sup>Kudashova, Gashkov, and Kutafjeva, 2013).

***Pseudosperma obsoletum* (Quadr.) Valade**

≡ *Inocybe obsoleta* Romagn.<sup>1</sup>

SIBERIA: **Irkutsk Oblast** (<sup>1</sup>Petrov, 1981; <sup>1</sup>Petrov, 1991; <sup>1</sup>Petrov, 2008); **Khakassia** (<sup>1</sup>Zauzolkova, 2015; <sup>1</sup>Zauzolkova and Gorbunova, 2016).



***Pseudosperma perlatum* (Cooke) Matheny & Esteve-Rav.**≡ *Inocybe perlata* (Cooke) Sacc.<sup>1</sup>EASTERN EUROPE: **Moscow Oblast** (<sup>1</sup>Levitskaya, 2013); **Penza Oblast** (<sup>1</sup>Ivanov and Nezdoininogo, 1990).SIBERIA: **Altai Republic** (<sup>1</sup>Gorbunova, 1997); **Irkutsk Oblast** (<sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdoininogo, 1990); **Khanty-Mansi Autonomous Okrug** (<sup>1</sup>Filippova and Bulyonkova, 2017a; <sup>1</sup>Filippova and Bulyonkova, 2017b); **Krasnoyarsk Krai** (<sup>1</sup>Beglyanova, 1972a; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdoininogo, 1990).FAR EAST: **Khabarovsk Krai** (<sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdoininogo, 1990; <sup>1</sup>Bau, Bulakh, and Govorova, 2011); **Primorsky Krai** (<sup>1</sup>Bunkina and Nazarova, 1978; <sup>1</sup>Azbukina et al., 1990; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdoininogo, 1990).***Pseudosperma rimosum* (Bull.) Matheny & Esteve-Rav.<sup>1</sup>**≡ *Agaricus rimosus* Bull.<sup>2</sup> ≡ *Inocybe rimosus* (Bull.) P. Kumm.<sup>3</sup> = *Inocybe destricta* (Fr.) Quél.<sup>4</sup> = *Inocybe fastigiata* (Schaeff.) Quél.<sup>5</sup> = *Inocybe fastigiata* f. *alpestris* R. Heim<sup>6</sup> = *Inocybe fastigiata* f. *fastigiata* (Schaeff.) Quél.<sup>7</sup> = *Inocybe fastigiata* f. *subcandida* Malençon<sup>8</sup>EASTERN EUROPE: **Adygea** (<sup>3</sup>Sopina, 2001a); **Arkhangelsk Oblast** (<sup>3</sup>Lebedeva, 1933); **Belgorod Oblast** (<sup>5</sup>Bedenko, 1979a; <sup>5</sup>Ryabova and Ignatenko, 1981); **Bryansk Oblast** (<sup>5</sup>Kruglikov, 2007); **Chelyabinsk Oblast** (<sup>5</sup>Aleksandrovskaya and Lobanova, 1968; <sup>5</sup>Stepanova and Sirko, 1977); **Crimea** (<sup>5</sup>Zerova, 1962; <sup>5</sup>Sarkina, 2001; <sup>5</sup>Dudka et al., 2004; <sup>5</sup>Sarkina, 2010b; <sup>5</sup>Sarkina, 2011; <sup>3</sup>Sarkina and Prydiuk, 2012; <sup>3</sup>Sarkina and Mironova, 2015; <sup>3</sup>Sarkina and Stavishenko, 2019); **Kabardino-Balkarian Republic** (<sup>3</sup>Shkhagapsoev and Krapivina, 2003; <sup>3</sup>Shkhagapsoev and Krapivina, 2004); **Kaliningrad Oblast** (<sup>3</sup>Dedkov, Volodina, and Gubareva, 2007; <sup>3</sup>Volodina, 2007; <sup>1</sup>Atayev and Volodina, 2020); **Karachay-Cherkess Republic** (<sup>3</sup>Kalamees and Botashev, 2000); **Karelia** (<sup>5</sup>Freindling, 1949; <sup>5</sup>Bondartseva et al., 2001; <sup>3</sup>Predtechenskaya and Ruokolainen, 2013; <sup>3</sup>Predtechenskaya, 2013; <sup>3</sup>Krutov et al., 2014; <sup>3</sup>Predtechenskaya and Ruokolainen, 2014; <sup>3</sup>Predtechenskaya, 2015); **Kirov Oblast** (<sup>3</sup>Kirillov, 2011; <sup>3</sup>Kirillov, Perevedentseva, and Egoshina, 2011; <sup>3</sup>Stavishenko, Luginina, Kirillov, and Egoshina, 2019); **Komi Republic** (<sup>3</sup>Karatygin, Nezdoininogo, Novozhilov, and Zhurbenko, 1999; <sup>3</sup>Palamarchuk (Bobretsova), 2009; <sup>3</sup>Palamarchuk, 2011b; <sup>3</sup>Palamarchuk, 2012; <sup>3</sup>Palamarchuk, 2016a; <sup>3</sup>Palamarchuk, 2016b; <sup>3</sup>Palamarchuk and Kirillov, 2017); **Krasnodar Krai** (<sup>5</sup>Vassiljeva, 1939; <sup>5</sup>Kovalenko, 1980a; <sup>3</sup>Shumkova, Krivorotov, and Gayday, 2018); **Kursk Oblast** (<sup>5</sup>Ryabova and Ignatenko, 1981; <sup>5</sup>Soshnina, 2005); **Leningrad Oblast** (<sup>3</sup>Thesleff, 1920; <sup>3</sup>Kovalenko and Morozova, 1999a; <sup>3</sup>Fomina, 2000; <sup>3</sup>Popov et al., 2007; <sup>3</sup>Bondartseva et al., 2015; <sup>3</sup>Zmitrovich et al., 2015; <sup>3</sup>Kalinina, 2018); **Lipetsk Oblast** (<sup>3</sup>,<sup>5</sup>Alferova, 1977; <sup>3</sup>Sarycheva, 1999; <sup>5</sup>Rtishcheva, 1999; <sup>5</sup>Afanasyev, Rtishcheva, and Starodubtseva, 2007; <sup>3</sup>Sarycheva et al., 2009; <sup>3</sup>Sarycheva, 2011; <sup>3</sup>Sarycheva, 2014a; <sup>3</sup>Sarycheva, 2016; <sup>3</sup>Sarycheva, Starodubtseva, and Sapelnikova, 2017); **Moscow Oblast** (<sup>5</sup>Gorlenko, Sidorova, and Sidorova, 1989; <sup>5</sup>Levitskaya, 1995c; <sup>3</sup>Voronina et al., 2012; <sup>3</sup>Levitskaya, 2013; <sup>3</sup>Voronina et al., 2014); **Murmansk Oblast** (<sup>5</sup>Pystina, Pavlova, and Shestakova, 1969); **North Ossetia** (<sup>3</sup>Nikolayev, 2001); **Novgorod Oblast** (<sup>3</sup>Kovalenko, Morozova, Nezdoininogo, and Popov, 2005; <sup>3</sup>Popov et al., 2013); **Orenburg Oblast** (<sup>3</sup>Desyatova, 2008); **Penza Oblast** (<sup>5</sup>Ivanov, 1982; <sup>5</sup>Ivanov, 1999; <sup>3</sup>Ivanov, 2019); **Perm Krai** (<sup>3</sup>Perevedentseva, Mukhutdinov, and Kuznetsova, 2005; <sup>3</sup>Perevedentseva, 2008; <sup>3</sup>Belkovskaya et al., 2014; <sup>3</sup>Perevedentseva and Shishigin, 2015; <sup>3</sup>Botalov, 2017); **Pskov Oblast** (<sup>3</sup>Popov et al., 2013); **Rostov Oblast** (<sup>3</sup>Rusanov et al., 2004; <sup>3</sup>Zmitrovich et al., 2008; <sup>3</sup>Rusanov, Rebriev, and Bulgakov, 2018); **Ryazan Oblast** (<sup>5</sup>Volosnova, 1997; <sup>3</sup>Volosnova, 2014); **Saint Petersburg** (<sup>2</sup>Weinmann, 1836; <sup>2</sup>Weinmann, 1837; <sup>3</sup>Kovalenko and Morozova, 1999a; <sup>3</sup>Morozova and Smirnov, 2011; <sup>3</sup>,<sup>5</sup>Morozova, Kovalenko, Rebriev, and Malysheva, 2014; <sup>3</sup>Morozova et al., 2020); **Samara Oblast** (<sup>3</sup>Malysheva and Malysheva, 2004; <sup>3</sup>Malysheva and Malysheva, 2007; <sup>3</sup>Malysheva and Malysheva, 2008); **Saratov Oblast** (<sup>5</sup>Komirnaya, 1970); **Sevastopol** (<sup>3</sup>Sarkina, 2016b; <sup>3</sup>Sarkina, 2020b; <sup>1</sup>Sarkina, 2020c); **Smolensk Oblast** (<sup>3</sup>,<sup>5</sup>Jaczevski, 1896); **Sverdlovsk Oblast** (<sup>5</sup>Stepanova and Sirko, 1977; <sup>3</sup>Marina, 2006); **Tatarstan** (<sup>5</sup>Vassiljeva, 1977); **Tula Oblast** (<sup>5</sup>Svetasheva, 2001; <sup>3</sup>Svetasheva, 2003; <sup>3</sup>Svetasheva, 2004; <sup>3</sup>Svetasheva, 2013); **Tver Oblast** (<sup>5</sup>Kurochkin, 1993); **Udmurt Republic** (<sup>3</sup>,<sup>5</sup>Tychinin, 1990; <sup>3</sup>,<sup>4</sup>,<sup>5</sup>Tychinin and Kuzmina, 2003); **Ulyanovsk Oblast** (<sup>3</sup>Ilyukhin, 2009; <sup>3</sup>Ilyukhin, 2010a); **Volgograd Oblast** (<sup>3</sup>Goncharova and Vedeneyev, 2015); **Vologda Oblast** (<sup>3</sup>Kirillova, 2007); **Voronezh Oblast** (<sup>5</sup>Chastukhin, 1952; <sup>5</sup>Chastukhin and Nikolaevskaya, 1953; <sup>5</sup>Chastukhin and Nikolaevskaya, 1969; <sup>5</sup>Rtishcheva, 1999; <sup>5</sup>Afanasyev, Rtishcheva, and Starodubtseva, 2007; <sup>3</sup>Sarycheva, Starodubtseva, and Sapelnikova, 2017); **Yamalo-Nenets Autonomous Okrug** (<sup>3</sup>Karatygin, Nezdoininogo, Novozhilov, and Zhurbenko, 1999; <sup>3</sup>Nezdoininogo, 2001); **Yaroslavl Oblast** (<sup>3</sup>Lazareva, 1998a; <sup>3</sup>Lazareva, 2002); **Arid territories** (<sup>3</sup>Rebriev, Rusanov, et al., 2012); **Northern Caucasus** (<sup>5</sup>Kovalenko, 1980b).SIBERIA: **Altai Krai** (<sup>3</sup>Gorbunova and Perova, 2006); **Altai Republic** (<sup>5</sup>Kovalenko, 1992; <sup>5</sup>Gorbunova, 1996; <sup>5</sup>Gorbunova, 1997; <sup>3</sup>Gorbunova, 2001b; <sup>3</sup>Gorbunova, 2003; <sup>3</sup>Gorbunova, 2008; <sup>3</sup>Gorbunova, 2010); **Buryatia** (<sup>5</sup>Nezdoininogo, 1970a); **Irkutsk Oblast** (<sup>5</sup>Kutafjeva, 1984; <sup>5</sup>Petrov, Nezdoininogo, and Bulakh, 1987; <sup>5</sup>Astapenko, 1990b; <sup>3</sup>Muzyka, 2002; <sup>3</sup>Bardunov et al., 2005; <sup>3</sup>Petrov, 2008; <sup>3</sup>Gorbunova and Stepantsova, 2015); **Khakassia**

(<sup>5</sup>Beglyanova, 1972a; <sup>3</sup>Zauzolkova, 2015); **Khanty-Mansi Autonomous Okrug** (<sup>3</sup>Zvyagina and Baykalova, 2017); **Krasnoyarsk Krai** (<sup>2</sup>Thümen, 1878; <sup>6</sup>Vassilkov, 1971b; <sup>3,4,5</sup>Beglyanova, 1972a; <sup>5</sup>Nezdojminogo, 1976a; <sup>3</sup>Nezdojminogo, 1993b; <sup>3</sup>Karatygin, Nezdojminogo, Novozhilov, and Zhurbenko, 1999; <sup>3</sup>Pavlov et al., 2007; <sup>3</sup>Kosheleva and Kutafjeva, 2008a; <sup>3</sup>Zauzolkova, 2012; <sup>3</sup>Kryuchkova, 2014a; <sup>5</sup>Kryuchkova, 2014a; <sup>3</sup>Zauzolkova, 2015; <sup>3</sup>Malysheva, Malysheva, Kiyashko, et al., 2017; <sup>3</sup>Krom and Kapitonov, 2019); **Kurgan Oblast** (<sup>3</sup>Bystrushkin, 2016); **Novosibirsk Oblast** (<sup>5</sup>Zaytseva, 1971; <sup>5</sup>Perova, 1977; <sup>3</sup>Gorbunova, 2007; <sup>3</sup>Perova and Gorbunova, 2007; <sup>3</sup>Koropachinskiy and Banaev, 2014); **Sakha Republic** (<sup>3</sup>Nezdojminogo, 2003); **Tomsk Oblast** (<sup>5</sup>Perova, 1972; <sup>5</sup>Milovidova, 1980; <sup>3</sup>Kosheleva and Kutafjeva, 2004; <sup>3</sup>Kudashova, Gashkov, and Kutafjeva, 2013; <sup>3</sup>Vaishlya et al., 2017).

FAR EAST: **Amur Oblast** (<sup>5</sup>Nazarova, 1986; <sup>5</sup>Azbukina et al., 1998; <sup>3</sup>Taranina, 2005; <sup>3</sup>Kochunova, 2019); **Chukotka Autonomous Okrug** (<sup>2</sup>Berkeley and Curtis, 1978; <sup>3</sup>Nezdojminogo, 1993b; <sup>3</sup>Karatygin, Nezdojminogo, Novozhilov, and Zhurbenko, 1999); **Jewish Autonomous Oblast** (<sup>3</sup>Bulakh, Govorova, Nazarova, and Vassiljeva, 2007; <sup>3</sup>Bau, Bulakh, and Govorova, 2011; <sup>3</sup>Erofeeva, Bukharova, and Bulakh, 2019); **Kamchatka Krai** (<sup>3</sup>Peintner and Horak, 2002); **Khabarovsk Krai** (<sup>5</sup>Azbukina et al., 1986; <sup>5</sup>Azbukina et al., 1989; <sup>5</sup>Bau, Bulakh, Zhuang, and Li, 2007; <sup>3</sup>Bau, Bulakh, and Govorova, 2011); **Magadan Oblast** (<sup>3</sup>Sazanova, 2005; <sup>3</sup>Sazanova, 2009a); **Primorsky Krai** (<sup>5</sup>Vassiljeva, 1972; <sup>5</sup>Vassiljeva, 1973; <sup>5</sup>Bulakh, 1977; <sup>5</sup>Bunkina and Nazarova, 1978; <sup>5</sup>Azbukina et al., 1984; <sup>7,8</sup>Azbukina et al., 1990; <sup>3</sup>Bardunov et al., 2002; <sup>3</sup>Azbukina et al., 2006; <sup>3</sup>Bau, Bulakh, and Govorova, 2011; <sup>3</sup>Bulakh et al., 2016; <sup>3</sup>Bogacheva, Bulakh, Bukharova, and Egorova, 2020).

***Pseudosperma sororium* (Kauffman) Matheny & Esteve-Rav.**

≡ *Inocybe sororia* Kauffman<sup>1</sup>

FAR EAST: **Primorsky Krai** (<sup>1</sup>Malysheva et al., 2016).

***Pseudosperma squamatum* (J.E. Lange) Matheny & Esteve-Rav.**

≡ *Inocybe squamata* J.E. Lange<sup>1</sup>

EASTERN EUROPE: **Komi Republic** (<sup>1</sup>Nezdojminogo, 1996); **Orenburg Oblast** (<sup>1</sup>Desyatova, 2008); **Perm Krai** (<sup>1</sup>Perevedentseva, Mukhutdinov, and Kuznetsova, 2005; <sup>1</sup>Perevedentseva, 2008); **Sverdlovsk Oblast** (<sup>1</sup>Marina, 2006).

SIBERIA: **Khakassia** (<sup>1</sup>Beglyanova, 1972a); **Krasnoyarsk Krai** (<sup>1</sup>Beglyanova, 1972a; <sup>1</sup>Nezdojminogo, 1996); **Novosibirsk Oblast** (<sup>1</sup>Koropachinskiy and Banaev, 2014).

***Pseudosperma umbrinellum* (Bres.) Matheny & Esteve-Rav.**

≡ *Inocybe umbrinella* Bres.<sup>1</sup>

FAR EAST: **Primorsky Krai** (<sup>1</sup>Vassiljeva, 1973).

***Pseudosperma vinosistipitatum* (Grund & D.E. Stuntz) Matheny & Esteve-Rav.**

≡ *Inocybe vinosistipitata* Grund & D.E. Stuntz<sup>1</sup>

FAR EAST: **Primorsky Krai** (<sup>1</sup>Nezdojminogo, 1996).

***Pseudosperma xanthocephalum* (P.D. Orton) Matheny & Esteve-Rav.**

≡ *Inocybe xanthocephala* P.D. Orton<sup>1</sup>

FAR EAST: **Kamchatka Krai** (<sup>1</sup>Peintner and Horak, 2002).

***Psiloboletinus lariceti* (Singer) Singer<sup>1</sup>**

≡ *Phylloporus lariceti* Singer<sup>2</sup>

EASTERN EUROPE: **Chelyabinsk Oblast** (<sup>1</sup>Sirko and Stepanova, 1977; <sup>1</sup>Stepanova and Sirko, 1977); **Sverdlovsk Oblast** (<sup>1</sup>Stepanova and Sirko, 1977); **Udmurt Republic** (<sup>1</sup>Kapitonov, 2013).

SIBERIA: **Altai Republic** (<sup>2</sup>Singer, 1938e; <sup>1</sup>Gorbunova, 2001b; <sup>1</sup>Perova and Gorbunova, 2001; <sup>1</sup>Wu et al., 2020); **Buryatia** (<sup>1</sup>Nezdojminogo, 1973; <sup>1</sup>Penzina and Petrov, 1994); **Irkutsk Oblast** (<sup>1</sup>Kutafjeva, 1982; <sup>1</sup>Petrov, 1984; <sup>1</sup>Petrov, 1989; <sup>1</sup>Astapenko, 1990b; <sup>1</sup>Muzyka, 2002; <sup>1</sup>Petrov, 2008; <sup>1</sup>Wu et al., 2020); **Khakassia** (<sup>1</sup>Beglyanova, 1972a; <sup>1</sup>Zauzolkova, 2015); **Krasnoyarsk Krai** (<sup>1</sup>Beglyanova, 1972a; <sup>1</sup>Kosheleva and Kutafjeva, 2008a; <sup>1</sup>Wu et al., 2020); **Novosibirsk Oblast** (<sup>1</sup>Perova and Gorbunova, 2007; <sup>1</sup>Wu et al., 2020); **Tomsk Oblast** (<sup>1</sup>Kudashova, Gashkov, and Kutafjeva, 2013).

FAR EAST: **Amur Oblast** (<sup>1</sup>Kochunova and Erofeeva, 2017); **Jewish Autonomous Oblast** (<sup>1</sup>Bulakh, Govorova, Nazarova, and Vassiljeva, 2007; <sup>1</sup>Bau, Bulakh, and Govorova, 2011); **Magadan Oblast** (<sup>1</sup>Rebriev, Bulakh, Sazanova, and Shiryayev, 2020); **Sakhalin Oblast** (<sup>1</sup>Vassiljeva and Nazarova, 1972; <sup>1</sup>Wu et al., 2020).

***Psilocybe coronilla* (Bull.) Noordel.<sup>1</sup>**≡ *Stropharia coronilla* (Bull.) Quél.<sup>2</sup>

EASTERN EUROPE: **Belgorod Oblast** (<sup>2</sup>Bedenko, 1980); **Crimea** (<sup>2</sup>Dudka et al., 2004; <sup>2</sup>Sarkina, 2011; <sup>2</sup>Sarkina and Mironova, 2015; <sup>1</sup>Sarkina, 2020a); **Kaliningrad Oblast** (<sup>2</sup>Dedkov, Volodina, and Gubareva, 2007; <sup>2</sup>Volodina, 2007); **Karachay-Cherkess Republic** (<sup>2</sup>Onipchenko and Kaverina, 1989; <sup>2</sup>Kalamees and Botashev, 2000); **Karelia** (<sup>2</sup>Freindling, 1949; <sup>2</sup>Czerepanova, Perfiljeva, and Tobias, 1982; <sup>2</sup>Bondartseva et al., 2001; <sup>2</sup>Psurtseva, Kiyashko, Gachkova, and Belova, 2007; <sup>2</sup>Krutov et al., 2014); **Kursk Oblast** (<sup>2</sup>Ryabova and Ignatenko, 1981; <sup>2</sup>Soshnina, 2014); **Leningrad Oblast** (<sup>2</sup>Kovalenko and Morozova, 1999a; <sup>2</sup>Popov et al., 2007); **Lipetsk Oblast** (<sup>2</sup>Sarycheva et al., 2009; <sup>2</sup>Sarycheva, 2011; <sup>2</sup>Sarycheva, 2014a; <sup>2</sup>Sarycheva, 2016); **Novgorod Oblast** (<sup>2</sup>Malysheva, Malysheva, and Zmitrovich, 2007); **Penza Oblast** (<sup>2</sup>Ivanov, 1982; <sup>2</sup>Ivanov, 1999); **Perm Krai** (<sup>2</sup>Perevedentseva, 2008); **Pskov Oblast** (<sup>2</sup>Popov, 2001a; <sup>2</sup>Popov et al., 2013); **Rostov Oblast** (<sup>2</sup>Morozova et al., 2008; <sup>1</sup>Rusanov, Rebriev, and Bulgakov, 2018; <sup>2</sup>Rebriev, 2018); **Ryazan Oblast** (<sup>2</sup>Volosnova, 2014); **Sevastopol** (<sup>2</sup>Sarkina and Belyaeva, 2013; <sup>2</sup>Sarkina, 2016b; <sup>1</sup>Sarkina, 2020c; <sup>2</sup>Sarkina, 2020b); **Tatarstan** (<sup>2</sup>Potapov, 2016b); **Tver Oblast** (<sup>2</sup>Morozova, Aleksandrova, Popov, and Malysheva, 2016); **Udmurt Republic** (<sup>2</sup>Kapitonov, 2013); **Yaroslavl Oblast** (<sup>2</sup>Lazareva, 1998a; <sup>2</sup>Lazareva, 2002); **Arid territories** (<sup>2</sup>Rebriev, Rusanov, et al., 2012).

SIBERIA: **Altai Republic** (<sup>2</sup>Gorbunova, 2006; <sup>2</sup>Gorbunova, 2010); **Irkutsk Oblast** (<sup>2</sup>Petrov, 1986; <sup>2</sup>Petrov, 1991; <sup>2</sup>Petrov, 2008); **Khakassia** (<sup>2</sup>Gorbunova and Majnagasheva, 2013; <sup>2</sup>Zauzolkova, 2015).

FAR EAST: **Jewish Autonomous Oblast** (<sup>2</sup>Bulakh, Govorova, Nazarova, and Vassiljeva, 2007; <sup>2</sup>Bau, Bulakh, and Govorova, 2011); **Khabarovsk Krai** (<sup>2</sup>Erofeeva and Bulakh, 2015a); **Primorsky Krai** (<sup>2</sup>Vassiljeva, 1973; <sup>2</sup>Bogacheva, Bulakh, Bukharova, and Egorova, 2020).

***Psilocybe cyanescens* Wakef.**EASTERN EUROPE: **Ryazan Oblast** (Volosnova, 2014).***Psilocybe medullosa* (Bres.) Borov.**≡ *Phaeogalera medullosa* (Bres.) M.M. Moser<sup>1</sup>EASTERN EUROPE: **Perm Krai** (<sup>1</sup>Botalov, 2017; <sup>1</sup>Botalov, Perevedentseva, and Shishigin, 2020).***Psilocybe nuciseda* (Fr.) Henn.**≡ *Agaricus nucisedus* Fr.<sup>1</sup>EASTERN EUROPE: **Saint Petersburg** (<sup>1</sup>Weinmann, 1828; <sup>1</sup>Weinmann, 1836; <sup>1</sup>Weinmann, 1837).***Psilocybe semilanceata* (Fr.) P. Kumm.**

EASTERN EUROPE: **Kirov Oblast** (Kirillov, 2011; Kirillov, Perevedentseva, and Egoshina, 2011); **Komi Republic** (Palamarchuk, 2012; Palamarchuk and Kirillov, 2017); **Leningrad Oblast** (Kovalenko and Morozova, 1999a; Morozova, 2007; Popov et al., 2007); **Novgorod Oblast** (Malysheva, Malysheva, and Zmitrovich, 2007; Morozova, 2012; Popov et al., 2013); **Oryol Oblast** (Radygina, Derzhavina, and Tsutsupa, 2014); **Perm Krai** (Perevedentseva, 2008); **Pskov Oblast** (Popov et al., 2013); **Ryazan Oblast** (Volosnova, 2005; Malysheva and Volosnova, 2008; Volosnova, 2014); **Saint Petersburg** (Kovalenko and Morozova, 1999a); **Sverdlovsk Oblast** (Marina, 2006); **Tatarstan** (Vassiljeva, 1977); **Tver Oblast** (Mukhina, 2011a; Mukhina, 2011b; Kotkova, 2014); **Udmurt Republic** (Tychinin and Kuzmina, 2003); **Ulyanovsk Oblast** (Ilyukhin, 2010a); **Vologda Oblast** (Kirillova, 2006; Kirillova, 2007).

FAR EAST: **Magadan Oblast** (Sazanova, 2005).***Psilocybe semistriata* (Peck) Guzmán**

SIBERIA: **Krasnoyarsk Krai** (Nezdojminogo and Kuvaev, 1993; Nezdojminogo, 1994; Nezdojminogo and Zhurbenko, 1996; Nezdojminogo, 1997a; Karatygin, Nezdojminogo, Novozhilov, and Zhurbenko, 1999).

***Psilocybe strictipes* Singer & A.H. Sm.<sup>1</sup>**= *Psilocybe semilanceata* var. *caerulescens* (Cooke) Sacc.<sup>2</sup>EASTERN EUROPE: **Kirov Oblast** (<sup>2</sup>Kirillov, 2011; <sup>2</sup>Kirillov, Perevedentseva, and Egoshina, 2011).FAR EAST: **Magadan Oblast** (<sup>1</sup>Sazanova, 2011).***Psilocybe subcoprophila* (Britzelm.) Sacc.**

EASTERN EUROPE: **Leningrad Oblast** (Morozova, 2007; Popov et al., 2007); **Orenburg Oblast** (Desyatova, 2007; Desyatova, 2008); **Yaroslavl Oblast** (Lazareva, 1998a; Lazareva, 2002).

SIBERIA: **Altai Republic** (Gorbunova, 2019); **Khakassia** (Gorbunova and Majnagasheva, 2013).

***Psilocybe subviscida* (Peck) Kauffman<sup>1</sup>**

≡ *Psilocybe subviscida* var. *subviscida* (Peck) Kauffman<sup>2</sup> = *Psilocybe graminicola* (P.D. Orton) P.D. Orton<sup>3</sup> = *Psilocybe subviscida* var. *velata* Noordel. & Verduin<sup>4</sup>

EASTERN EUROPE: **Adygea** (<sup>4</sup>Kiyashko, 2009); **Lipetsk Oblast** (<sup>4</sup>Sarycheva et al., 2009; <sup>1</sup>Sarycheva, 2011; <sup>4</sup>Sarycheva, 2016); **Ryazan Oblast** (<sup>4</sup>Volosnova, 2014); **Sverdlovsk Oblast** (<sup>3</sup>Marina, 2006); **Vologda Oblast** (<sup>4</sup>Kirillova, 2007); **Arid territories** (<sup>4</sup>Rebriev, Rusanov, et al., 2012).

SIBERIA: **Altai Republic** (<sup>1</sup>Gorbunova, 2017b); **Khakassia** (<sup>2</sup>Gorbunova and Majnagasheva, 2013).

***Psilocybe tuberosa* P. Karst.**

EASTERN EUROPE: **Bashkortostan** (Karsten, 1904).

***Psilocybe turficola* J. Favre**

EASTERN EUROPE: **Perm Krai** (Botalov, 2017); **Pskov Oblast** (Kalinina, Bolshakov, and Bulyonkova, 2020); **Tula Oblast** (Shcherbakov, 2010).

SIBERIA: **Khanty-Mansi Autonomous Okrug** (Filippova and Thormann, 2014; Filippova, 2014; Filippova, Mourgues, and Philippe, 2014; Filippova and Bulyonkova, 2017a; Filippova and Bulyonkova, 2017b).

***Pulchroboletus roseoalbidus* (Alessio & Littini) Gelardi, Vizzini & Simonini<sup>1</sup>**

≡ *Boletus roseoalbidus* (Alessio & Littini) G. Moreno & Heykoop<sup>2</sup>

EASTERN EUROPE: **Crimea** (<sup>1</sup>Sarkina and Stavishenko, 2019; <sup>1</sup>Sarkina, 2020a); **Sevastopol** (<sup>2</sup>Sarkina, 2016b; <sup>1</sup>Sarkina, 2020c).

***Pulveroboletus ravenelii* (Berk. & M.A. Curtis) Murrill**

FAR EAST: **Primorsky Krai** (Vassiljeva, 1973; Kozhevnikov, 2008; Bulakh et al., 2016; Bogacheva et al., 2018; Bogacheva, Bulakh, Bukharova, and Egorova, 2020).

***Resinomycena japonica* Redhead & Nagas.**

FAR EAST: **Jewish Autonomous Oblast** (Bau, Bulakh, Zhuang, and Li, 2007; Bau, Bulakh, and Govorova, 2011).

***Resupinatus applicatus* (Batsch) Gray<sup>1</sup>**

≡ *Agaricus applicatus* Batsch<sup>2</sup> ≡ *Hohenbuehelia applicata* (Batsch) Zerova<sup>3</sup> ≡ *Phyllotus applicatus* (Batsch) P. Karst.<sup>4</sup> ≡ *Pleurotus applicatus* (Batsch) P. Kumm.<sup>5</sup>

EASTERN EUROPE: **Astrakhan Oblast** (<sup>1</sup>Rebriev, Aleksandrova, et al., 2012); **Crimea** (<sup>2</sup>Léveillé, 1842; <sup>3</sup>Sarkina, 2001; <sup>1</sup>Dudka et al., 2004; <sup>1</sup>Sarkina and Prydiuk, 2012); **Komi Republic** (<sup>1</sup>Palamarchuk, 2012); **Leningrad Oblast** (<sup>4</sup>Thesleff, 1920; <sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Zmitrovich, 2003; <sup>1</sup>Zmitrovich, Malysheva, Malysheva, and Spirin, 2004; <sup>1</sup>Popov et al., 2007; <sup>1</sup>Zmitrovich et al., 2015); **Lipetsk Oblast** (<sup>1</sup>Sarycheva et al., 2009); **Novgorod Oblast** (<sup>1</sup>Morozova, 2012; <sup>1</sup>Popov et al., 2013); **Pskov Oblast** (<sup>1</sup>Popov et al., 2013); **Rostov Oblast** (<sup>1</sup>Morozova et al., 2008; <sup>1</sup>Rebriev, 2018); **Ryazan Oblast** (<sup>1</sup>Volosnova, 2005); **Saint Petersburg** (<sup>2</sup>Weinmann, 1828; <sup>2</sup>Weinmann, 1836; <sup>2</sup>Weinmann, 1837; <sup>1</sup>Zmitrovich, Malysheva, Malysheva, and Spirin, 2004); **Samara Oblast** (<sup>1</sup>Malysheva and Malysheva, 2005b; <sup>1</sup>Malysheva and Malysheva, 2008); **Smolensk Oblast** (<sup>5</sup>Jaczevski, 1898); **Arid territories** (<sup>1</sup>Rebriev, Rusanov, et al., 2012).

SIBERIA: **Altai Krai** (<sup>1</sup>Gorbunova, Vlasenko, and Tzhubarova, 2011); **Altai Republic** (<sup>5</sup>Burt, 1931); **Irkutsk Oblast** (<sup>1</sup>Bardunov et al., 2005); **Khanty-Mansi Autonomous Okrug** (<sup>1</sup>Filippova, Bulyonkova, and Lapshina, 2015); **Krasnoyarsk Krai** (<sup>2</sup>Thümen, 1878; <sup>1</sup>Beglyanova, 1972a; <sup>1</sup>Kosheleva and Kutafjeva, 2008a); **Novosibirsk Oblast** (<sup>5</sup>Zhukov, 1980); **Sakha Republic** (<sup>1</sup>Morozova et al., 2012); **Zabaykalsky Krai** (<sup>4</sup>Karsten, 1911).

FAR EAST: **Jewish Autonomous Oblast** (<sup>1</sup>Bulakh, Govorova, Nazarova, and Vassiljeva, 2007; <sup>1</sup>Bau, Bulakh, and Govorova, 2011); **Khabarovsk Krai** (<sup>1</sup>Azbukina et al., 1986; <sup>1</sup>Bau, Bulakh, and Govorova, 2011); **Primorsky Krai** (<sup>1</sup>Vassiljeva, 1972; <sup>1</sup>Vassiljeva, 1973; <sup>1</sup>Bunkina and Nazarova, 1978; <sup>1</sup>Azbukina et al., 1984; <sup>1</sup>Azbukina et al., 1990; <sup>1</sup>Bardunov et al., 2002; <sup>1</sup>Azbukina et al., 2006; <sup>1</sup>Bau, Bulakh, and Govorova, 2011).

***Resupinatus kavinae* (Pilát) M.M. Moser**

EASTERN EUROPE: **Crimea** (Dudka et al., 2004; Sarkina, 2011).

***Resupinatus striatulus* (Pers.) Murrill<sup>1</sup>**≡ *Phyllotus striatulus* (Pers.) P. Karst.<sup>2</sup>EASTERN EUROPE: **Leningrad Oblast** (<sup>2</sup>Thesleff, 1920).FAR EAST: **Primorsky Krai** (<sup>1</sup>Vassiljeva, 1973; <sup>1</sup>Bunkina and Nazarova, 1978; <sup>1</sup>Azbukina et al., 2006; <sup>1</sup>Bau, Bulakh, and Govorova, 2011).***Resupinatus trichotis* (Pers.) Singer**EASTERN EUROPE: **Leningrad Oblast** (Morozova, 2007; Popov et al., 2007); **Rostov Oblast** (Morozova et al., 2008); **Samara Oblast** (Malysheva and Malysheva, 2008); **Arid territories** (Rebriev, Rusanov, et al., 2012).SIBERIA: **Tomsk Oblast** (Kudashova, Gashkov, and Vaishlya, 2016a); **Yamalo-Nenets Autonomous Okrug** (Mukhin, 1993).FAR EAST: **Khabarovsk Krai** (Bau, Bulakh, and Govorova, 2011); **Primorsky Krai** (Bau, Bulakh, and Govorova, 2011; Bulakh et al., 2016; Bogacheva et al., 2018).***Retiboletus griseus* (Frost) Manfr. Binder & Bresinsky<sup>1</sup>**≡ *Boletus griseus* Frost<sup>2</sup>FAR EAST: **Primorsky Krai** (<sup>2</sup>Bulakh, 2008; <sup>2</sup>Bau, Bulakh, and Govorova, 2011; <sup>2</sup>Bulakh et al., 2016; <sup>1</sup>Bogacheva et al., 2018).***Retiboletus ornatipes* (Peck) Manfr. Binder & Bresinsky**FAR EAST: **Primorsky Krai** (Bogacheva et al., 2018).***Retiboletus retipes* (Berk. & M.A. Curtis) Manfr. Binder & Bresinsky<sup>1</sup>**≡ *Pulveroboletus retipes* (Berk. & M.A. Curtis) Singer<sup>2</sup>FAR EAST: **Primorsky Krai** (<sup>2</sup>Vassiljeva, 1956; <sup>2</sup>Vassiljeva, 1972; <sup>2</sup>Vassiljeva, 1973; <sup>1</sup>Kozhevnikov, 2008).***Rheubarbariboletus armeniacus* (Quél.) Vizzini, Simonini & Gelardi<sup>1</sup>**≡ *Xerocomus armeniacus* (Quél.) Quél.<sup>2</sup>EASTERN EUROPE: **Adygea** (<sup>2</sup>Sopina, 2001a); **Penza Oblast** (<sup>2</sup>Ivanov, 1983).FAR EAST: **Primorsky Krai** (<sup>1</sup>Bogacheva, Bulakh, Bukharova, and Egorova, 2020).***Rhizocybe pruinosa* (P. Kumm.) Vizzini, P. Alvarado & G. Moreno<sup>1</sup>**≡ *Clitocybe pruinosa* P. Kumm.<sup>2</sup> = *Clitocybe rhizophora* (Velen.) Joss.<sup>3</sup>Josserand and Pouchet (1954) replaced their name *Clitocybe rhizophora* (1931) to *Clitocybe verna* Egeland (with *C. radicellata* Godey and *C. pruinosa* P. Kumm. as synonyms). According to Alvarado et al. (2015) *C. rhizophora* sensu Josserand and Pouchet (1931) is a synonym of *Rhizocybe pruinosa* (P. Kumm.) Vizzini, P. Alvarado & G. Moreno.EASTERN EUROPE: **Karelia** (<sup>2</sup>Harmaja, 1969; <sup>2</sup>Krutov et al., 2014; <sup>2</sup>Predtechenskaya, 2015); **Komi Republic** (<sup>2</sup>Palamarchuk, 2012; <sup>2</sup>Palamarchuk and Kirillov, 2017); **Leningrad Oblast** (<sup>3</sup>Harmaja, 1969; <sup>2,3</sup>Kovalenko and Morozova, 1999a; <sup>2,3</sup>Popov et al., 2007); **Ryazan Oblast** (<sup>2</sup>Volosnova, 2014); **Saint Petersburg** (<sup>2</sup>Morozova and Smirnov, 2011; <sup>1</sup>Morozova et al., 2020).SIBERIA: **Krasnoyarsk Krai** (<sup>2</sup>Beglyanova, 1972a; <sup>1</sup>Krom and Kapitonov, 2019).***Rhizocybe vermicularis* (Fr.) Vizzini, P. Alvarado, G. Moreno & Consiglio<sup>1</sup>**≡ *Clitocybe vermicularis* (Fr.) Quél.<sup>2</sup>EASTERN EUROPE: **Belgorod Oblast** (<sup>2</sup>Bedenko, 1980); **Karelia** (<sup>2</sup>Freindling, 1949; <sup>2</sup>Bondartseva et al., 2001; <sup>2</sup>Krutov et al., 2014); **Kirov Oblast** (<sup>2</sup>Stavishenko, Luginina, Kirillov, and Egozhina, 2019); **Leningrad Oblast** (<sup>1</sup>Kalinina, 2018); **Penza Oblast** (<sup>2</sup>Ivanov, 1983); **Saint Petersburg** (<sup>2</sup>Morozova and Smirnov, 2011); **Yaroslavl Oblast** (<sup>2</sup>Lazareva, 1998a).SIBERIA: **Khanty-Mansi Autonomous Okrug** (<sup>2</sup>Filippova and Bulyonkova, 2017a; <sup>2</sup>Filippova and Bulyonkova, 2017b); **Krasnoyarsk Krai** (<sup>2</sup>Beglyanova, 1972a; <sup>1</sup>Krom and Kapitonov, 2019).FAR EAST: **Chukotka Autonomous Okrug** (<sup>2</sup>Sazanova, 1993).

***Rhizomarasmus epidryas* (Kühner ex A. Ronikier) A. Ronikier & Ronikier**

≡ *Marasmius epidryas* Kühner<sup>1</sup> ≡ *Marasmius epidryas* Kühner ex A. Ronikier<sup>2</sup>

EASTERN EUROPE: **Yamalo-Nenets Autonomous Okrug** (<sup>1</sup>Knudsen and Mukhin, 1998; <sup>1</sup>Karatygin, Nezdoyminogo, Novozhilov, and Zhurbenko, 1999; <sup>1</sup>Nezdoyminogo, 2001; <sup>2</sup>Ronikier and Ronikier, 2010).

SIBERIA: **Altai Republic** (<sup>1</sup>Singer, 1943; <sup>2</sup>Ronikier and Ronikier, 2010); **Buryatia** (<sup>1</sup>Nezdoyminogo, 1973; <sup>1</sup>Petrov, 1991; <sup>2</sup>Ronikier and Ronikier, 2010); **Krasnoyarsk Krai** (<sup>1</sup>Nezdoyminogo and Zhurbenko, 1996; <sup>1</sup>Nezdoyminogo, 1997a; <sup>1</sup>Karatygin, Nezdoyminogo, Novozhilov, and Zhurbenko, 1999; <sup>2</sup>Ronikier and Ronikier, 2010); **Sakha Republic** (<sup>1</sup>Nezdoyminogo, 1997a; <sup>1</sup>Karatygin, Nezdoyminogo, Novozhilov, and Zhurbenko, 1999; <sup>2</sup>Ronikier and Ronikier, 2010).

FAR EAST: **Chukotka Autonomous Okrug** (<sup>1</sup>Nezdoyminogo, 1997a; <sup>1</sup>Karatygin, Nezdoyminogo, Novozhilov, and Zhurbenko, 1999; <sup>2</sup>Ronikier and Ronikier, 2010).

***Rhizomarasmus setosus* (Sowerby) Antonín & A. Urb.<sup>1</sup>**

≡ *Marasmius setosus* (Sowerby) Noordel.<sup>2</sup> = *Marasmius eufoliatus* Kühner<sup>3</sup> = *Marasmius recubans* Quél.<sup>4</sup>

EASTERN EUROPE: **Adygea** (<sup>4</sup>Vaasma, Kalamees, and Raitviir, 1986); **Kaliningrad Oblast** (<sup>2</sup>Dedkov, Volodina, and Gubareva, 2007; <sup>1</sup>Atayev and Volodina, 2020); **Leningrad Oblast** (<sup>2</sup>Popov et al., 2007); **Perm Krai** (<sup>4</sup>Naoumoff, 1915; <sup>4</sup>Stepanova and Sirko, 1977); **Pskov Oblast** (<sup>2</sup>Popov et al., 2013); **Saint Petersburg** (<sup>2</sup>Kotkova, Morozova, and Popov, 2007); **Tatarstan** (<sup>3</sup>Singer, 1943); **Vologda Oblast** (<sup>2</sup>Kirillova, 2007; <sup>2</sup>Kirillova, 2009).

SIBERIA: **Altai Republic** (<sup>3</sup>Singer, 1943).

***Rhizomarasmus undatus* (Berk.) R.H. Petersen<sup>1</sup>**

≡ *Marasmius undatus* (Berk.) Fr.<sup>2</sup>

EASTERN EUROPE: **Leningrad Oblast** (<sup>2</sup>Kovalenko and Morozova, 1999a; <sup>2</sup>Popov et al., 2007).

SIBERIA: **Krasnoyarsk Krai** (<sup>1</sup>Malysheva, Malysheva, Kiyashko, et al., 2017).

***Rhodocollybia badiialba* (Murrill) Lennox**

SIBERIA: **Krasnoyarsk Krai** (Krom and Kapitonov, 2019).

***Rhodocollybia butyracea* (Bull.) Lennox<sup>1</sup>**

≡ *Agaricus butyraceus* Bull.<sup>2</sup> ≡ *Collybia butyracea* (Bull.) P. Kumm.<sup>3</sup> ≡ *Collybia butyracea* var. *butyracea* (Bull.) P. Kumm.<sup>4</sup> ≡ *Rhodocollybia butyracea* f. *butyracea* (Bull.) Lennox<sup>5</sup> = *Agaricus asema* (Fr.) Fr.<sup>6</sup> = *Collybia asema* (Fr.) Gillet<sup>7</sup> = *Collybia asema* f. *asema* (Fr.) Gillet<sup>8</sup> = *Collybia butyracea* f. *asema* (Fr.) Singer<sup>9</sup> = *Collybia butyracea* var. *asema* (Fr.) Quél.<sup>10</sup> = *Rhodocollybia butyracea* f. *asema* (Fr.) Antonín, Halling & Noordel.<sup>11</sup>

EASTERN EUROPE: **Belgorod Oblast** (<sup>3</sup>Bedenko, 1979a; <sup>3</sup>Bedenko, 1980; <sup>7</sup>Psurtseva, Belova, and Ryabusheva, 2003); **Bryansk Oblast** (<sup>3</sup>Kruglikov, 2007); **Chelyabinsk Oblast** (<sup>3</sup>Sirko and Stepanova, 1977; <sup>3</sup>Stepanova and Sirko, 1977; <sup>3</sup>Psurtseva, Kiyashko, Gachkova, and Belova, 2007); **Crimea** (<sup>3</sup>Sarkina, 2001; <sup>3</sup>Dudka et al., 2004; <sup>3</sup>Sarkina, 2010b; <sup>3</sup>Sarkina, 2011; <sup>3</sup>Sarkina and Prydiuk, 2012; <sup>3</sup>Sarkina, 2013; <sup>3</sup>Sarkina and Mironova, 2015; <sup>1</sup>Sarkina and Stavishenko, 2019); **Kabardino-Balkarian Republic** (<sup>3</sup>Shkhagapsoev and Krapivina, 2003; <sup>3</sup>Shkhagapsoev and Krapivina, 2004); **Kaliningrad Oblast** (<sup>3</sup>Dedkov, Volodina, and Gubareva, 2007; <sup>3</sup>Volodina, 2007; <sup>1</sup>Atayev and Volodina, 2020); **Kaluga Oblast** (<sup>4</sup>Sionova, 2003; <sup>8</sup>Sionova, 2012); **Karachay-Cherkess Republic** (<sup>11</sup>Kalamees and Botashev, 2000); **Karelia** (<sup>7</sup>Freindling, 1949; <sup>3,7</sup>Kovalenko, Morozova, Fomina, and Särkisilta, 1998; <sup>3,7</sup>Bondartseva et al., 2001; <sup>5,11</sup>Krutov et al., 2014; <sup>5</sup>Predtechenskaya and Ruokolainen, 2014; <sup>5</sup>Predtechenskaya, 2015; <sup>1</sup>Savelev and Kikeeva, 2018); **Kirov Oblast** (<sup>5,11</sup>Kirillov, 2011; <sup>5</sup>Kirillov and Luginina, 2011; <sup>5,11</sup>Kirillov, Perevedentseva, and Egoshina, 2011; <sup>1</sup>Stavishenko, Luginina, Kirillov, and Egoshina, 2019); **Komi Republic** (<sup>3</sup>Bobretsova, 2004; <sup>3</sup>Palamarchuk, 2011b; <sup>1</sup>Palamarchuk, 2012; <sup>1</sup>Palamarchuk, 2016a; <sup>1</sup>Palamarchuk, 2016b; <sup>11</sup>Palamarchuk, 2017; <sup>1</sup>Palamarchuk and Kirillov, 2017); **Krasnodar Krai** (<sup>3</sup>Kovalenko, 1980a; <sup>3</sup>Kovalenko, 1980b); **Kursk Oblast** (<sup>3</sup>Baranov, 2002); **Leningrad Oblast** (<sup>3</sup>Thesleff, 1920; <sup>3</sup>Nezdoyminogo, 1967; <sup>3</sup>Chastukhin and Nikolaevskaya, 1969; <sup>4,10</sup>Kalamees and Kovalenko, 1984; <sup>10</sup>Stolyarskaya, 1989; <sup>4</sup>Stolyarskaya, 1993; <sup>3,7</sup>Kovalenko and Morozova, 1999a; <sup>3</sup>Morozova and Kovalenko, 2000; <sup>3</sup>Morozova, 2007; <sup>5,11</sup>Popov et al., 2007; <sup>1</sup>Zmitrovich et al., 2015); **Lipetsk Oblast** (<sup>3</sup>Alferova, 1977; <sup>3</sup>Rtishcheva, 1999; <sup>4,10</sup>Sarycheva, 1999; <sup>3</sup>Afanasyev, Rtishcheva, and Starodubtseva, 2007; <sup>5,11</sup>Sarycheva et al., 2009; <sup>1,11</sup>Sarycheva, 2011; <sup>5,11</sup>Sarycheva, 2014a; <sup>11</sup>Sarycheva, 2016; <sup>5</sup>Sarycheva, 2016; <sup>1</sup>Sarycheva, Starodubtseva, and Sapelnikova, 2017); **Mordovia** (<sup>3</sup>Chastukhin, 1948a; <sup>3</sup>Kuznetsov, 1960; <sup>3</sup>Chastukhin and Nikolaevskaya, 1969; <sup>1</sup>Ivoilov and Bolshakov, 2011a; <sup>3</sup>Chastukhin, 2011); **Moscow Oblast** (<sup>3</sup>Gorlenko, Sidorova, and Sidorova, 1989; <sup>3</sup>Levitskaya, 1995b; <sup>3</sup>Vishnevsky, 1998; <sup>11</sup>Voronina et al., 2012; <sup>3</sup>Levitskaya, 2013; <sup>5,11</sup>Voronina et al., 2014; <sup>1</sup>Sidorova, Alexandrova, and Voronina, 2017); **Penza Oblast** (<sup>3</sup>Ivanov, 1981a); **Perm Krai** (<sup>3,10</sup>Shkaraba, Perevedentseva, and Moshkina, 1990;

<sup>5,11</sup>Perevedentseva, 2008; <sup>1</sup>Belkovskaya et al., 2014; <sup>4,10</sup>Perevedentseva and Shishigin, 2014; <sup>4,10</sup>Perevedentseva and Shishigin, 2015; <sup>4,10</sup>Botalov, 2017; <sup>4</sup>Botalov and Perevedentseva, 2018); **Pskov Oblast** (<sup>3,7</sup>Kolmakov and Popov, 2005; <sup>5,11</sup>Popov et al., 2013); **Ryazan Oblast** (<sup>3</sup>Volosnova, 1997; <sup>1</sup>Volosnova, 2014); **Saint Petersburg** (<sup>2,6</sup>Weinmann, 1828; <sup>2,6</sup>Weinmann, 1836; <sup>2,6</sup>Weinmann, 1837; <sup>3</sup>Kovalenko and Morozova, 1999a; <sup>3</sup>Kotkova, Morozova, and Popov, 2006; <sup>4,10</sup>Morozova and Smirnov, 2011; <sup>1,11</sup>Morozova et al., 2020); **Saratov Oblast** (<sup>3</sup>Nagumanov, 2015); **Sevastopol** (<sup>3</sup>Sarkina, 2016b; <sup>1</sup>Sarkina, 2020c); **Sverdlovsk Oblast** (<sup>3,10</sup>Stepanova and Sirko, 1977; <sup>3,7</sup>Marina, 2006); **Tatarstan** (<sup>3</sup>Vassiljeva, 1977; <sup>1</sup>Potapov, 2015b); **Tula Oblast** (<sup>3</sup>Svetasheva, 2001; <sup>3,7</sup>Svetasheva, 2004; <sup>1</sup>Svetasheva, 2013); **Tver Oblast** (<sup>3,10</sup>Kurochkin, 1993); **Udmurt Republic** (<sup>3</sup>Tychinin, 1990; <sup>3</sup>Tychinin and Kuzmina, 2003); **Ulyanovsk Oblast** (<sup>3</sup>Ilyukhin, 2009; <sup>3</sup>Ilyukhin, 2010a); **Volgograd Oblast** (<sup>3</sup>Dudka and Vedeneyev, 2014); **Vologda Oblast** (<sup>3</sup>Kutova, 1957; <sup>4,7</sup>Kirillova, 2007; <sup>4,7</sup>Kirillova, 2009); **Voronezh Oblast** (<sup>7</sup>Chastukhin, 1952; <sup>3,7</sup>Chastukhin and Nikolaevskaya, 1953; <sup>9</sup>Chastukhin and Nikolaevskaya, 1969; <sup>3</sup>Rtishcheva, 1999; <sup>3</sup>Afanasyev, Rtishcheva, and Starodubtseva, 2007; <sup>1</sup>Sarycheva, Starodubtseva, and Sapelnikova, 2017); **Yamalo-Nenets Autonomous Okrug** (<sup>3</sup>Kazantseva, 1972; <sup>3</sup>Stepanova and Sirko, 1977; <sup>3</sup>Karatygin, Nezdoyminogo, Novozhilov, and Zhurbenko, 1999); **Yaroslavl Oblast** (<sup>3,7</sup>Lazareva, 1997; <sup>3,7</sup>Lazareva, 1998a); **Arid territories** (<sup>1</sup>Rebriev, Rusanov, et al., 2012).

**SIBERIA:** **Altai Krai** (<sup>3</sup>Gorbunova and Perova, 2006; <sup>1</sup>Gorbunova, 2018b); **Altai Republic** (<sup>3</sup>Singer, 1943; <sup>3</sup>Kovalenko, 1992; <sup>3</sup>Gorbunova, 1997; <sup>3</sup>Gorbunova, 2001b; <sup>3</sup>Perova and Gorbunova, 2001; <sup>3</sup>Gorbunova, 2008; <sup>1</sup>Gorbunova, 2017a); **Buryatia** (<sup>3</sup>Nezdoyminogo, 1973; <sup>3</sup>Petrov, 1991); **Irkutsk Oblast** (<sup>3</sup>Kutafjeva, 1983; <sup>3</sup>Petrov, 1984; <sup>3</sup>Astapenko, 1990a; <sup>3</sup>Petrov, 1991; <sup>3</sup>Petrov, 2008); **Khakassia** (<sup>3</sup>Beglyanova, 1972a; <sup>1</sup>Zauzolkova, 2015); **Khanty-Mansi Autonomous Okrug** (<sup>1</sup>Filippova, Bulyonkova, and Lapshina, 2015; <sup>11</sup>Filippova and Bulyonkova, 2017a; <sup>1</sup>Filippova and Bulyonkova, 2017b; <sup>1</sup>Zvyagina and Baykalova, 2017); **Krasnoyarsk Krai** (<sup>2</sup>Thümen, 1878; <sup>3</sup>Perova, 1970; <sup>3,7</sup>Beglyanova, 1972a; <sup>1</sup>Kosheleva and Kutafjeva, 2008a; <sup>1</sup>Zauzolkova, 2012; <sup>1</sup>Zauzolkova, 2015; <sup>1</sup>Malysheva, Malysheva, Kiyashko, et al., 2017); **Novosibirsk Oblast** (<sup>3</sup>Nozdrenko, 1970; <sup>3</sup>Perova, 1977; <sup>3,9</sup>Perova and Gorbunova, 2007; <sup>1</sup>Koropachinskiy and Banaev, 2014); **Tomsk Oblast** (<sup>3</sup>Perova, 1972; <sup>3</sup>Agaphonova, Kutafjeva, and Gashkov, 2007; <sup>1</sup>Kudashova, Gashkov, and Kutafjeva, 2013; <sup>1</sup>Vaishlya et al., 2017); **Yamalo-Nenets Autonomous Okrug** (<sup>3</sup>Tarchevskaya, 1990; <sup>3</sup>Karatygin, Nezdoyminogo, Novozhilov, and Zhurbenko, 1999).

**FAR EAST:** **Amur Oblast** (<sup>3</sup>Nazarova, 1986; <sup>1</sup>Kochunova, 2019); **Chukotka Autonomous Okrug** (<sup>2</sup>Berkeley and Curtis, 1978; <sup>3</sup>Karatygin, Nezdoyminogo, Novozhilov, and Zhurbenko, 1999); **Jewish Autonomous Oblast** (<sup>3</sup>Bulakh, Govorova, Nazarova, and Vassiljeva, 2007; <sup>1</sup>Bau, Bulakh, and Govorova, 2011); **Khabarovsk Krai** (<sup>3</sup>Azbukina et al., 1986; <sup>3</sup>Azbukina et al., 1989; <sup>1</sup>Bau, Bulakh, and Govorova, 2011); **Magadan Oblast** (<sup>3</sup>Sazanova, 1996; <sup>3</sup>Sazanova, 2005; <sup>1</sup>Sazanova, 2009a; <sup>5</sup>Sazanova, 2011); **Primorsky Krai** (<sup>3</sup>Vassiljeva, 1973; <sup>3</sup>Bunkina and Nazarova, 1978; <sup>3</sup>Azbukina et al., 1984; <sup>3</sup>Azbukina et al., 2006; <sup>1</sup>Bau, Bulakh, and Govorova, 2011); **Sakhalin Oblast** (<sup>3</sup>Vassiljeva and Nazarova, 1972).

### ***Rhodocollybia fodiens* (Kalchbr.) Antonín & Noordel.**

**EASTERN EUROPE:** **Komi Republic** (Palamarchuk and Kirillov, 2018a).

**SIBERIA:** **Khanty-Mansi Autonomous Okrug** (Filippova and Bulyonkova, 2017a; Filippova and Bulyonkova, 2017b).

### ***Rhodocollybia giselae* Neville & Antonín**

**SIBERIA:** **Khanty-Mansi Autonomous Okrug** (Zvyagina and Baykalova, 2017).

### ***Rhodocollybia lentinoides* (Peck) Halling**

≡ *Collybia lentinoides* (Peck) Sacc.<sup>1</sup>

**SIBERIA:** **Altai Krai** (<sup>1</sup>Gorbunova and Chubarova, 2008; <sup>1</sup>Gorbunova, Vlasenko, and Tzhubarova, 2011).

### ***Rhodocollybia maculata* (Alb. & Schwein.) Singer<sup>1</sup>**

≡ *Agaricus maculatus* Alb. & Schwein.<sup>2</sup> ≡ *Collybia maculata* (Alb. & Schwein.) P. Kumm.<sup>3</sup> ≡ *Rhodocollybia maculata* var. *maculata* (Alb. & Schwein.) Singer<sup>4</sup> = *Collybia scorzonerea* (Fr.) Sacc.<sup>5</sup> = *Rhodocollybia maculata* var. *scorzonerea* (Fr.) Lennox<sup>6</sup>

**EASTERN EUROPE:** **Adygea** (<sup>3</sup>Vassiljeva, 1939); **Bryansk Oblast** (<sup>3</sup>Kruglikov, 2007); **Crimea** (<sup>3</sup>Dudka et al., 2004; <sup>3</sup>Sarkina, 2011; <sup>3</sup>Sarkina and Prydiuk, 2012); **Kaliningrad Oblast** (<sup>3</sup>Hennings, 1895; <sup>3</sup>Dedkov, Volodina, and Gubareva, 2007; <sup>3</sup>Volodina, 2007); **Karachay-Cherkess Republic** (<sup>1</sup>Kalamees and Botashev, 2000); **Karelia** (<sup>3</sup>Bondartseva et al., 2001; <sup>4</sup>Krutov et al., 2014; <sup>1</sup>Savelev and Kikeeva, 2020); **Kirov Oblast** (<sup>4</sup>Kirillov, 2011; <sup>4</sup>Kirillov, Perevedentseva, and Egoshina, 2011; <sup>1</sup>Stavishenko, Luginina, Kirillov, and Egoshina, 2019); **Komi Republic** (<sup>3</sup>Palamarchuk (Bobretsova), 2009; <sup>1</sup>Palamarchuk, 2012; <sup>1</sup>Palamarchuk, 2016a; <sup>1</sup>Palamarchuk, 2016b; <sup>1</sup>Palamarchuk

and Kirillov, 2017); **Krasnodar Krai** (<sup>3</sup>Vassiljeva, 1939); **Leningrad Oblast** (<sup>3,5</sup>Thesleff, 1920; <sup>3</sup>Stolyarskaya, 1993; <sup>3</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Popov et al., 2007; <sup>3</sup>Morozova, 2007; <sup>1</sup>Zmitrovich et al., 2015); **Lipetsk Oblast** (<sup>3</sup>Rtishcheva, 1999; <sup>3</sup>Afanasyev, Rtishcheva, and Starodubtseva, 2007; <sup>1</sup>Sarycheva et al., 2009; <sup>1</sup>Sarycheva, Starodubtseva, and Sapelnikova, 2017); **Mordovia** (<sup>3</sup>Kuznetsov, 1960; <sup>1</sup>Ivoilov and Bolshakov, 2011a); **Moscow Oblast** (<sup>3</sup>Gorlenko, Sidorova, and Sidorova, 1989; <sup>3</sup>Levitskaya, 1995b; <sup>3</sup>Vishnevsky, 1998; <sup>3</sup>Levitskaya, 2013); **Penza Oblast** (<sup>3</sup>Ivanov, 1983); **Perm Krai** (<sup>4</sup>Perevedentseva, 2008; <sup>3</sup>Botalov, 2017; <sup>3</sup>Botalov and Perevedentseva, 2020); **Pskov Oblast** (<sup>1</sup>Popov et al., 2013); **Ryazan Oblast** (<sup>3</sup>Volosnova, 1997; <sup>1</sup>Volosnova, 2014); **Saint Petersburg** (<sup>2</sup>Weinmann, 1836; <sup>2</sup>Weinmann, 1837; <sup>3</sup>Morozova and Smirnov, 2011; <sup>1</sup>Morozova et al., 2020); **Sverdlovsk Oblast** (<sup>3</sup>Marina, 2006); **Tatarstan** (<sup>3</sup>Vassiljeva, 1977); **Tver Oblast** (<sup>3</sup>Kurochkin, 1993; <sup>3</sup>Mukhina, 2011a; <sup>1</sup>Kotkova, 2014); **Udmurt Republic** (<sup>3</sup>Tychinin and Kuzmina, 2003); **Ulyanovsk Oblast** (<sup>3</sup>Ilyukhin, 2010a); **Voronezh Oblast** (<sup>3</sup>Rtishcheva, 1999; <sup>3</sup>Afanasyev, Rtishcheva, and Starodubtseva, 2007; <sup>1</sup>Sarycheva, Starodubtseva, and Sapelnikova, 2017); **Arid territories** (<sup>1</sup>Rebriev, Rusanov, et al., 2012).

**SIBERIA: Altai Republic** (<sup>3</sup>Gorbunova, 1996; <sup>3</sup>Gorbunova, 1997; <sup>3</sup>Gorbunova, 2001b; <sup>3</sup>Perova and Gorbunova, 2001); **Buryatia** (<sup>3</sup>Nezdojminogo, 1973; <sup>3</sup>Penzina and Petrov, 1994); **Irkutsk Oblast** (<sup>3</sup>Petrov, 1984; <sup>3</sup>Kutafjeva and Astapenko, 1987; <sup>3</sup>Muzyka, 2002; <sup>3</sup>Bardunov et al., 2005; <sup>3</sup>Petrov, 2008; <sup>3</sup>Muzyka and Penzina, 2017); **Khakassia** (<sup>3</sup>Beglyanova, 1972a; <sup>6</sup>Zauzolkova and Gorbunova, 2013; <sup>6</sup>Zauzolkova, 2015); **Khanty-Mansi Autonomous Okrug** (<sup>1</sup>Filippova, Bulyonkova, and Lapshina, 2015; <sup>4</sup>Filippova and Bulyonkova, 2017a; <sup>1</sup>Filippova and Bulyonkova, 2017b; <sup>4</sup>Zvyagina and Baykalova, 2017); **Krasnoyarsk Krai** (<sup>3</sup>Beglyanova, 1972a; <sup>3</sup>Beglyanova, 1972b; <sup>3</sup>Nezdojminogo, 1976a; <sup>3</sup>Lapitskaya, 1993; <sup>6</sup>Zauzolkova, 2015; <sup>1</sup>Gorbunova, 2016; <sup>1</sup>Malysheva, Malysheva, Kiyashko, et al., 2017; <sup>1</sup>Krom and Kapitonov, 2019); **Novosibirsk Oblast** (<sup>3</sup>Perova and Gorbunova, 2001; <sup>3</sup>Perova and Gorbunova, 2007); **Omsk Oblast** (<sup>3</sup>Pilát, 1934); **Tomsk Oblast** (<sup>3</sup>Perova, 1972; <sup>3</sup>Perova and Gorbunova, 2001; <sup>3</sup>Kosheleva and Kutafjeva, 2004; <sup>3</sup>Agaphonova, Kutafjeva, and Gashkov, 2007; <sup>1</sup>Kudashova, Gashkov, and Kutafjeva, 2013).

**FAR EAST: Amur Oblast** (<sup>3</sup>Taranina, 2005); **Jewish Autonomous Oblast** (<sup>3</sup>Bulakh, Govorova, Nazarova, and Vassiljeva, 2007; <sup>1</sup>Bau, Bulakh, and Govorova, 2011); **Khabarovsk Krai** (<sup>3</sup>Azbukina et al., 1989; <sup>1</sup>Bulakh, Vassiljeva, and Erofeeva, 2010; <sup>1</sup>Bulakh, 2013; <sup>1</sup>Bogacheva, Bulakh, Bukharova, and Egorova, 2015); **Magadan Oblast** (<sup>3</sup>Nazarova, 1976; <sup>3</sup>Sazanova, 1996; <sup>3</sup>Sazanova, 2005; <sup>4</sup>Sazanova, 2009a; <sup>4</sup>Sazanova, 2011); **Primorsky Krai** (<sup>3</sup>Vassiljeva, 1973; <sup>3</sup>Bunkina and Nazarova, 1978; <sup>3</sup>Azbukina et al., 1984; <sup>1</sup>Azbukina et al., 2006; <sup>1</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Bulakh et al., 2016); **Sakhalin Oblast** (<sup>3</sup>Vassiljeva and Nazarova, 1972).

### ***Rhodocollybia prolixa* (Fr.) Antonín & Noordel.<sup>1</sup>**

≡ *Collybia prolixa* (Fr.) Gillet<sup>2</sup> ≡ *Rhodocollybia prolixa* var. *prolixa* (Fr.) Antonín & Noordel.<sup>3</sup> = *Collybia distorta* (Fr.) Quél.<sup>4</sup> = *Collybia distorta* f. *distorta* (Fr.) Quél.<sup>5</sup> = *Rhodocollybia prolixa* var. *distorta* (Fr.) Antonín, Halling & Noordel.<sup>6</sup>

**EASTERN EUROPE: Crimea** (<sup>4</sup>Dudka et al., 2004); **Kaliningrad Oblast** (<sup>4</sup>Dedkov, Volodina, and Gubareva, 2007); **Kaluga Oblast** (<sup>5</sup>Sionova, 2012); **Karelia** (<sup>4</sup>Bondartseva et al., 2001; <sup>6</sup>Predtechenskaya and Ruokolainen, 2013; <sup>6</sup>Krutov et al., 2014; <sup>6</sup>Predtechenskaya and Ruokolainen, 2014; <sup>6</sup>Predtechenskaya, 2015); **Kirov Oblast** (<sup>6</sup>Kirillov, 2011; <sup>6</sup>Kirillov, Perevedentseva, and Egoshina, 2011; <sup>6</sup>Stavishenko, Luginina, Kirillov, and Egoshina, 2019); **Kursk Oblast** (<sup>2</sup>Baranov, 2002); **Leningrad Oblast** (<sup>2</sup>Kovalenko and Morozova, 1999a; <sup>2</sup>Morozova, 1999; <sup>1</sup>Popov et al., 2007); **Moscow Oblast** (<sup>4</sup>Gorlenko, Sidorova, and Sidorova, 1989; <sup>4</sup>Vishnevsky, 1998; <sup>2,4</sup>Levitskaya, 2006; <sup>2,4</sup>Levitskaya, 2013); **Penza Oblast** (<sup>4</sup>Ivanov, 1981a); **Perm Krai** (<sup>3,6</sup>Perevedentseva, 2008; <sup>6</sup>Belkovskaya et al., 2014); **Pskov Oblast** (<sup>4</sup>Kolmakov and Popov, 2005; <sup>6</sup>Popov et al., 2013); **Rostov Oblast** (<sup>4</sup>Morozova et al., 2008); **Ryazan Oblast** (<sup>4</sup>Volosnova, 1997); **Saint Petersburg** (<sup>2</sup>Kovalenko and Morozova, 1999a); **Sverdlovsk Oblast** (<sup>4</sup>Marina, 2006); **Tula Oblast** (<sup>4</sup>Svetasheva, 2004); **Udmurt Republic** (<sup>4</sup>Tychinin and Kuzmina, 2003); **Vologda Oblast** (<sup>4</sup>Kirillova, 2007; <sup>4</sup>Kirillova, 2009); **Yaroslavl Oblast** (<sup>4</sup>Lazareva, 1998a); **Arid territories** (<sup>3,6</sup>Rebriev, Rusanov, et al., 2012).

**SIBERIA: Altai Krai** (<sup>1</sup>Gorbunova, 2018a); **Altai Republic** (<sup>4</sup>Gorbunova, 1996; <sup>4</sup>Gorbunova, 1997; <sup>4</sup>Perova and Gorbunova, 2001); **Buryatia** (<sup>4</sup>Nezdojminogo, 1970a; <sup>4</sup>Petrov, 1991); **Irkutsk Oblast** (<sup>4</sup>Petrov, 1984; <sup>4</sup>Petrov, 1991; <sup>4</sup>Petrov, 2008); **Krasnoyarsk Krai** (<sup>4</sup>Beglyanova, 1972a; <sup>4</sup>Nezdojminogo, 1976a; <sup>4</sup>Pavlov et al., 2007; <sup>1</sup>Zauzolkova, 2015); **Tomsk Oblast** (<sup>4</sup>Perova, 1972; <sup>4</sup>Perova and Gorbunova, 2001; <sup>6</sup>Kudashova, Gashkov, and Kutafjeva, 2013).

**FAR EAST: Magadan Oblast** (<sup>4</sup>Sazanova, 2005; <sup>6</sup>Sazanova, 2009a); **Primorsky Krai** (<sup>4</sup>Vassiljeva, 1972; <sup>4</sup>Vassiljeva, 1973; <sup>4</sup>Azbukina et al., 1984; <sup>4</sup>Azbukina et al., 2006; <sup>6</sup>Bau, Bulakh, and Govorova, 2011); **Sakhalin Oblast** (<sup>4</sup>Vassiljeva and Nazarova, 1972).

### ***Rhodocybe lignicola* Singer**

**EASTERN EUROPE: Samara Oblast** (Malysheva and Malysheva, 2008).



***Rhodocybe parilis* (Fr.) Singer<sup>1</sup>**≡ *Clitocybe parilis* (Fr.) Gillet<sup>2</sup>EASTERN EUROPE: **Kaliningrad Oblast** (<sup>2</sup>Dedkov, Volodina, and Gubareva, 2007); **Karelia** (<sup>1</sup>Krutov et al., 2014); **Arid territories** (<sup>1</sup>Rebriev, Rusanov, et al., 2012).***Rhodophana nitellina* (Fr.) Papetti<sup>1</sup>**≡ *Rhodocybe nitellina* (Fr.) Singer<sup>2</sup> ≡ *Rhodopaxillus nitellinus* (Fr.) Singer<sup>3</sup>EASTERN EUROPE: **Belgorod Oblast** (<sup>2</sup>Bedenko, 1979a); **Crimea** (<sup>2</sup>Moser, 1993; <sup>2</sup>Sarkina, 2001; <sup>2</sup>Dudka et al., 2004; <sup>2</sup>Sarkina, 2011; <sup>2</sup>Sarkina and Prydiuk, 2012); **Karachay-Cherkess Republic** (<sup>2</sup>Malysheva and Svetasheva, 2011); **Karelia** (<sup>3</sup>Singer, 1943; <sup>3</sup>Freindling, 1949; <sup>2</sup>Bondartseva et al., 2001; <sup>2</sup>Krutov et al., 2014); **Krasnodar Krai** (<sup>3</sup>Vassiljeva, 1939); **Moscow Oblast** (<sup>2</sup>Voronina et al., 2014); **Penza Oblast** (<sup>2</sup>Ivanov, 1999); **Perm Krai** (<sup>2</sup>Perevedentseva, 2008); **Ryazan Oblast** (<sup>2</sup>Volosnova, 2005); **Vologda Oblast** (<sup>2</sup>Suslova et al., 2013).SIBERIA: **Altai Krai** (<sup>1</sup>Gorbunova, 2018a); **Altai Republic** (<sup>3</sup>Singer, 1943; <sup>1</sup>Gorbunova, 2019); **Irkutsk Oblast** (<sup>2</sup>Kutafjeva, 1989); **Krasnoyarsk Krai** (<sup>2</sup>Malysheva, Malysheva, Kiyashko, et al., 2017); **Novosibirsk Oblast** (<sup>2</sup>Koropachinskiy and Banaev, 2014).FAR EAST: **Amur Oblast** (<sup>2</sup>Azbukina et al., 1998); **Kamchatka Krai** (<sup>2</sup>Kalamees and Vaasma, 1981); **Khabarovsk Krai** (<sup>2</sup>Azbukina et al., 1986; <sup>2</sup>Bau, Bulakh, and Govorova, 2011); **Magadan Oblast** (<sup>2</sup>Nazarova, 1976; <sup>2</sup>Sazanova, 2005; <sup>2</sup>Sazanova, 2009a); **Primorsky Krai** (<sup>2</sup>Vassiljeva, 1972; <sup>2</sup>Vassiljeva, 1973; <sup>2</sup>Bunkina and Nazarova, 1978; <sup>2</sup>Azbukina et al., 1984; <sup>2</sup>Azbukina et al., 2006; <sup>2</sup>Bau, Bulakh, and Govorova, 2011; <sup>2</sup>Bulakh et al., 2016); **Sakhalin Oblast** (<sup>2</sup>Vassiljeva and Nazarova, 1972).***Rhodophana stangliana* (Bresinsky & Pfaff) Vizzini**≡ *Rhodocybe stangliana* (Bresinsky & Pfaff) Rioussset & Joss.<sup>1</sup>SIBERIA: **Novosibirsk Oblast** (<sup>1</sup>Koropachinskiy and Banaev, 2014).***Rhodotus palmatus* (Bull.) Maire<sup>1</sup>**≡ *Agaricus palmatus* Bull.<sup>2</sup>EASTERN EUROPE: **Adygea** (<sup>1</sup>Vaasma, Kalamees, and Raitviir, 1986; <sup>1</sup>Zamotajlov, Sirotyuk (Kuvaeva), Akatova, and Lipka, 2012); **Bryansk Oblast** (<sup>1</sup>Bulokhov, Panasenkov, Semenishchenkov, and Sitnikova, 2016); **Chuvash Republic** (<sup>1</sup>Vladimirova and Potapov, 2018); **Kaluga Oblast** (<sup>1</sup>Antokhina et al., 2015); **Karelia** (<sup>1</sup>Krutov et al., 2014); **Krasnodar Krai** (<sup>1</sup>Vassiljeva, 1939; <sup>1</sup>Kovalenko, 1980a; <sup>1</sup>Kovalenko, 1980b; <sup>1</sup>Vaasma, Kalamees, and Raitviir, 1986); **Leningrad Oblast** (<sup>1</sup>Tzvelev, 2000; <sup>1</sup>Zmitrovich, Malysheva, Malysheva, and Spirin, 2004; <sup>1</sup>Popov et al., 2007; <sup>1</sup>Psurtseva, Kiyashko, Gachkova, and Belova, 2007; <sup>1</sup>Geltman et al., 2018; <sup>1</sup>Geltman, 2018b); **Lipetsk Oblast** (<sup>1</sup>Sarycheva, Starodubtseva, and Sapelnikova, 2017); **Mordovia** (<sup>1</sup>Bolshakov, 2015); **Murmansk Oblast** (<sup>1</sup>Pystina, Pavlova, and Shestakova, 1969); **Orenburg Oblast** (<sup>1</sup>Desyatova, 2007; <sup>1</sup>Desyatova, 2008); **Penza Oblast** (<sup>1</sup>Ivanov, 1981b; <sup>1</sup>Ivanov, 1983; <sup>1</sup>Ivanov, 2019); **Perm Krai** (<sup>1</sup>Perevedentseva, 2008; <sup>1</sup>Shepel', 2008; <sup>1</sup>Baklanov, 2018); **Saint Petersburg** (<sup>2</sup>Weinmann, 1828; <sup>2</sup>Weinmann, 1837; <sup>1</sup>Morozova, Kovalenko, Rebriev, and Malysheva, 2014); **Samara Oblast** (<sup>1</sup>Malysheva and Malysheva, 2004; <sup>1</sup>Psurtseva, Kiyashko, Gachkova, and Belova, 2007; <sup>1</sup>Malysheva and Malysheva, 2008); **Tatarstan** (<sup>1</sup>Potapov, Galejev, and Zhukov, 2013; <sup>1</sup>Potapov, 2015b); **Tula Oblast** (<sup>1</sup>Svetasheva, 2004; <sup>1</sup>Svetasheva, 2005b; <sup>1</sup>Shcherbakov, 2010; <sup>1</sup>Svetasheva, 2018); **Udmurt Republic** (<sup>1</sup>Kapitonov, 2013); **Voronezh Oblast** (<sup>1</sup>Sarycheva, Starodubtseva, and Sapelnikova, 2017).SIBERIA: **Krasnoyarsk Krai** (<sup>1</sup>Beglyanova, 1972a); **Sverdlovsk Oblast** (<sup>1</sup>Stepanova and Sirko, 1977).FAR EAST: **Jewish Autonomous Oblast** (<sup>1</sup>Bulakh, Govorova, Nazarova, and Vassiljeva, 2007; <sup>1</sup>Bau, Bulakh, and Govorova, 2011); **Khabarovsk Krai** (<sup>1</sup>Azbukina et al., 1986; <sup>1</sup>Azbukina et al., 1989; <sup>1</sup>Bau, Bulakh, and Govorova, 2011); **Primorsky Krai** (<sup>1</sup>Vassiljeva, 1973; <sup>1</sup>Bunkina and Nazarova, 1978; <sup>1</sup>Azbukina et al., 1984; <sup>1</sup>Azbukina et al., 1990; <sup>1</sup>Bardunov et al., 2002; <sup>1</sup>Azbukina et al., 2006; <sup>1</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Bulakh et al., 2016); **Sakhalin Oblast** (<sup>1</sup>Eremin, 2005; <sup>1</sup>Eremin, 2019).***Rickenella fibula* (Bull.) Raitelh.<sup>1</sup>**≡ *Agaricus fibula* Bull.<sup>2</sup> ≡ *Gerronema fibula* (Bull.) Singer<sup>3</sup> ≡ *Mycena fibula* (Bull.) Kühner<sup>4</sup> ≡ *Omphalia fibula* (Bull.) P. Kumm.<sup>5</sup> ≡ *Omphalina fibula* (Bull.) Quél.<sup>6</sup> = *Rickenella fibula* var. *hydrina* (Fr.) Krieglst.<sup>7</sup>EASTERN EUROPE: **Adygea** (<sup>1</sup>Vaasma, Kalamees, and Raitviir, 1986); **Belgorod Oblast** (<sup>3</sup>Bedenko, 1980); **Crimea** (<sup>1</sup>Sarkina, 2014a); **Kaliningrad Oblast** (<sup>5</sup>Neuhoff, 1922; <sup>1</sup>Dedkov, Volodina, and Gubareva, 2007; <sup>1</sup>Volodina, 2007; <sup>1</sup>Atayev and Volodina, 2020); **Kaluga Oblast** (<sup>6</sup>Sionova, 2003; <sup>6</sup>Sionova, 2006; <sup>6</sup>Sionova, 2012); **Karelia** (<sup>5</sup>Freindling, 1949; <sup>1</sup>Kovalenko, Morozova, Fomina, and Särkisilta, 1998; <sup>1</sup>Bondartseva et al., 2001; <sup>1</sup>Krutov et al., 2014); **Kirov**

**Oblast** (<sup>1</sup>Kirillov, 2011; <sup>1</sup>Kirillov, Perevedentseva, and Egoshina, 2011; <sup>1</sup>Stavishenko, Luginina, Kirillov, and Egoshina, 2019); **Komi Republic** (<sup>1</sup>Palamarchuk, 2012; <sup>1</sup>Palamarchuk, 2016a; <sup>1</sup>Palamarchuk, 2016b; <sup>1</sup>Palamarchuk and Kirillov, 2017; <sup>1</sup>Palamarchuk, 2017); **Krasnodar Krai** (<sup>5</sup>Vassiljeva, 1939; <sup>3</sup>Kovalenko, 1980a; <sup>3</sup>Kovalenko, 1980b; <sup>1</sup>Vaasma, Kalamees, and Raitviir, 1986); **Leningrad Oblast** (<sup>2</sup>Weinmann, 1836; <sup>2</sup>Weinmann, 1837; <sup>5</sup>Thesleff, 1920; <sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Morozova, 2007; <sup>1</sup>Popov et al., 2007); **Lipetsk Oblast** (<sup>1</sup>Sarycheva et al., 2009; <sup>1</sup>Sarycheva, 2011; <sup>1</sup>Sarycheva, 2014a; <sup>1</sup>Sarycheva, 2016; <sup>1</sup>Sarycheva, Starodubtseva, and Sapelnikova, 2017); **Moscow Oblast** (<sup>1</sup>Levitskaya, 1995b; <sup>6</sup>Vishnevsky, 1998; <sup>1</sup>Voronina et al., 2012; <sup>1</sup>Levitskaya, 2013; <sup>1</sup>Voronina et al., 2014); **Murmansk Oblast** (<sup>3</sup>Mikhailovskii, 1975b; <sup>3</sup>Karatygin, Nezdojminogo, Novozhilov, and Zhurbenko, 1999); **Novgorod Oblast** (<sup>1</sup>Kovalenko, Morozova, Nezdojminogo, and Popov, 2005; <sup>1</sup>Popov et al., 2013); **Penza Oblast** (<sup>1</sup>Ivanov, 1981a); **Perm Krai** (<sup>1</sup>Perevedentseva, Nezdojminogo, and Kovalenko, 1990; <sup>1</sup>Perevedentseva, 2008; <sup>1</sup>Botalov, 2017); **Pskov Oblast** (<sup>6</sup>Popov, 2001a; <sup>1</sup>Popov et al., 2013); **Rostov Oblast** (<sup>1</sup>Rusanov et al., 2004; <sup>1</sup>Morozova et al., 2008; <sup>1</sup>Zmitrovich et al., 2008); **Ryazan Oblast** (<sup>1</sup>Volosnova, 1997; <sup>1</sup>Volosnova, 2014); **Saint Petersburg** (<sup>2</sup>Weinmann, 1828; <sup>2</sup>Weinmann, 1836; <sup>2</sup>Weinmann, 1837; <sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Kotkova, Morozova, and Popov, 2005; <sup>1</sup>Morozova and Smirnov, 2011; <sup>1</sup>Morozova, Kovalenko, Rebriev, and Malysheva, 2014; <sup>1</sup>Morozova et al., 2020); **Sverdlovsk Oblast** (<sup>3</sup>Stepanova and Sirko, 1977; <sup>1</sup>Marina, 2006); **Tatarstan** (<sup>3</sup>Vassiljeva, 1977; <sup>1</sup>Potapov, 2016a); **Tula Oblast** (<sup>6</sup>Svetasheva, 2001; <sup>1</sup>Svetasheva, 2004; <sup>1</sup>Svetasheva, 2013); **Tver Oblast** (<sup>1</sup>Kurochkin, 1993; <sup>1</sup>Mukhina, 2011a; <sup>1</sup>Mukhina, 2011b; <sup>1</sup>Kotkova, 2014); **Udmurt Republic** (<sup>1</sup>Kapitonov, 2013); **Vologda Oblast** (<sup>1</sup>Kirillova, 2009); **Voronezh Oblast** (<sup>1</sup>Sarycheva, Starodubtseva, and Sapelnikova, 2017); **Yaroslavl Oblast** (<sup>1</sup>Lazareva, 1998a); **Arid territories** (<sup>1</sup>Rebriev, Rusanov, et al., 2012); **Lapland** (<sup>2</sup>Karsten, 1866).

**SIBERIA: Altai Krai** (<sup>3</sup>Gorbunova and Perova, 2006; <sup>1</sup>Gorbunova and Chubarova, 2008; <sup>1</sup>Gorbunova, Vlasenko, and Tzhubarova, 2011); **Altai Republic** (<sup>1</sup>Kovalenko, 1992; <sup>6</sup>Gorbunova, 2001a; <sup>6</sup>Gorbunova, 2001b; <sup>1</sup>Kalamees, 2008; <sup>3</sup>Gorbunova, 2008; <sup>1,7</sup>Gorbunova, 2010); **Buryatia** (<sup>3</sup>Nezdojminogo, 1973); **Irkutsk Oblast** (<sup>1</sup>Petrov, 1984; <sup>1</sup>Kutafjeva, 1989; <sup>1</sup>Petrov, 1989; <sup>1</sup>Astapenko, 1990a; <sup>1</sup>Bardunov et al., 2005; <sup>1</sup>Petrov, 2008; <sup>1</sup>Petrov, 2013; <sup>1</sup>Gorbunova and Stepanova, 2015); **Khakassia** (<sup>1</sup>Zauzolkova and Gorbunova, 2013; <sup>1</sup>Zauzolkova, 2015); **Khanty-Mansi Autonomous Okrug** (<sup>1</sup>Zvyagina, 2008; <sup>1</sup>Shepeleva et al., 2014; <sup>1</sup>Zvyagina and Vasina, 2015; <sup>1,4</sup>Filippova and Bulyonkova, 2017a; <sup>1,4</sup>Filippova and Bulyonkova, 2017b; <sup>1</sup>Zvyagina and Baykalova, 2017); **Krasnoyarsk Krai** (<sup>2</sup>Borszczow and Borszczow, 1856; <sup>3</sup>Beglyanova, 1972a; <sup>1</sup>Zauzolkova, 2012; <sup>1</sup>Zauzolkova, 2015; <sup>1</sup>Krom and Kapitonov, 2019); **Novosibirsk Oblast** (<sup>3</sup>Perova, 1977; <sup>1</sup>Gorbunova, 2007; <sup>1</sup>Perova and Gorbunova, 2007; <sup>1</sup>Koropachinskiy and Banaev, 2014); **Tomsk Oblast** (<sup>4</sup>Perova, 1972; <sup>1</sup>Kudashova, Gashkov, and Kutafjeva, 2013).

**FAR EAST: Amur Oblast** (<sup>3</sup>Nazarova, 1986; <sup>1</sup>Azbukina et al., 1998); **Chukotka Autonomous Okrug** (<sup>2</sup>Berkeley and Curtis, 1978; <sup>1</sup>Sazanova, 1993); **Jewish Autonomous Oblast** (<sup>1</sup>Bulakh, Govorova, Nazarova, and Vassiljeva, 2007; <sup>1</sup>Bau, Bulakh, and Govorova, 2011); **Kamchatka Krai** (<sup>1</sup>Kalamees and Vaasma, 1981); **Khabarovsk Krai** (<sup>3</sup>Azbukina et al., 1986; <sup>1</sup>Azbukina et al., 1989; <sup>1</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Bulakh, 2013; <sup>1</sup>Bogacheva, Bulakh, Bukharova, and Egorova, 2015; <sup>1</sup>Erofeeva and Bulakh, 2015a); **Magadan Oblast** (<sup>3</sup>Nazarova, 1976; <sup>1</sup>Sazanova, 1996; <sup>1</sup>Sazanova, 2005; <sup>1</sup>Sazanova, 2009a; <sup>1</sup>Sazanova, 2009b; <sup>1</sup>Sazanova, 2011); **Primorsky Krai** (<sup>4</sup>Vassiljeva, 1972; <sup>4</sup>Vassiljeva, 1973; <sup>4</sup>Bunkina and Nazarova, 1978; <sup>3</sup>Azbukina et al., 1984; <sup>1</sup>Azbukina et al., 1990; <sup>1</sup>Bardunov et al., 2002; <sup>1</sup>Azbukina et al., 2006; <sup>4</sup>Bau, Bulakh, Zhuang, and Li, 2007; <sup>1</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Bulakh et al., 2016; <sup>1</sup>Bogacheva, Bulakh, Bukharova, and Egorova, 2020); **Sakhalin Oblast** (<sup>4</sup>Vassiljeva and Nazarova, 1972; <sup>1</sup>Bulakh, Govorova, and Bogatov, 1999).

### ***Rickenella mellea* (Singer & Cléménçon) Lamoure**

**EASTERN EUROPE: Komi Republic** (Shiryaeva and Palamarchuk, 2019); **Penza Oblast** (Ivanov, 1999).

**SIBERIA: Irkutsk Oblast** (Gorbunova and Stepanova, 2015); **Krasnoyarsk Krai** (Krom and Kapitonov, 2019).

### ***Rickenella swartzii* (Fr.) Kuyper<sup>1</sup>**

≡ *Agaricus swartzii* Fr.<sup>2</sup> ≡ *Mycena swartzii* (Fr.) A.H. Sm.<sup>3</sup> ≡ *Omphalina swartzii* (Fr.) Kotl. & Pouzar<sup>4</sup> = *Agaricus setipes* var. *acrocyanus* Fr.<sup>5</sup>

**EASTERN EUROPE: Kaluga Oblast** (<sup>4</sup>Sionova, 2012); **Leningrad Oblast** (<sup>1</sup>Kalinina, 2018); **Murmansk Oblast** (<sup>2</sup>Karsten, 1866; <sup>5</sup>Karsten, 1876; <sup>1</sup>Kalamees and Raitviir, 2006); **Pskov Oblast** (<sup>1</sup>Psurtseva, Kiyashko, Gachkova, and Belova, 2007); **Udmurt Republic** (<sup>1</sup>Kapitonov, 2013); **Vologda Oblast** (<sup>1</sup>Kirillova, 2007; <sup>1</sup>Kirillova, 2009).

**SIBERIA: Altai Krai** (<sup>1</sup>Gorbunova, 2018a); **Khanty-Mansi Autonomous Okrug** (<sup>1</sup>Zvyagina and Vasina, 2015; <sup>1</sup>Filippova and Bulyonkova, 2017a; <sup>1</sup>Filippova and Bulyonkova, 2017b; <sup>1</sup>Zvyagina and Baykalova, 2017); **Novosibirsk Oblast** (<sup>1</sup>Perova and Gorbunova, 2007; <sup>1</sup>Koropachinskiy and Banaev, 2014); **Tomsk Oblast** (<sup>3</sup>Perova, 1972).

**FAR EAST: Jewish Autonomous Oblast** (<sup>1</sup>Bau, Bulakh, and Govorova, 2011); **Magadan Oblast** (<sup>1</sup>Rebriev, Bulakh, Sazanova, and Shiryaev, 2020); **Primorsky Krai** (<sup>1</sup>Bau, Bulakh, and Govorova, 2011).

***Ripartites albidoincarnatus* (Britzelm.) Konrad & Maubl.**SIBERIA: **Krasnoyarsk Krai** (Beglyanova, 1972b).***Ripartites metrodii* Huijsman**EASTERN EUROPE: **Novgorod Oblast** (Arslanov, 2012); **Penza Oblast** (Ivanov, 1999); **Perm Krai** (Perevedentseva, 2008); **Pskov Oblast** (Kolmakov and Popov, 2005; Popov et al., 2013); **Samara Oblast** (Malysheva and Malysheva, 2004; Malysheva and Malysheva, 2008); **Tula Oblast** (Svetasheva, 2004; Shcherbakov, 2010).***Ripartites tricholoma* (Alb. & Schwein.) P. Karst.<sup>1</sup>**≡ *Agaricus tricholoma* Alb. & Schwein.<sup>2</sup> = *Ripartites helomorphus* (Fr.) P. Karst.<sup>3</sup> = *Ripartites strigiceps* (Fr.) P. Karst.<sup>4</sup>EASTERN EUROPE: **Belgorod Oblast** (<sup>1</sup>Bedenko, 1980); **Kirov Oblast** (<sup>1</sup>Kirillov, 2011; <sup>1</sup>Kirillov, Perevedentseva, and Egoshina, 2011); **Komi Republic** (<sup>1</sup>Palamarchuk, 2011a; <sup>1</sup>Palamarchuk, 2012; <sup>1</sup>Dyogteva, 2019; <sup>1</sup>Palamarchuk et al., 2019); **Leningrad Oblast** (<sup>1</sup>Nezdojminogo, 1967; <sup>1,3</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Tzvelev, 2000; <sup>1,3</sup>Popov et al., 2007; <sup>1</sup>Geltman et al., 2018; <sup>1</sup>Geltman, 2018b); **Moscow** (<sup>1</sup>Burova, 1968); **Moscow Oblast** (<sup>1</sup>Voronina et al., 2014); **Novgorod Oblast** (<sup>1</sup>Morozova, 2012); **Perm Krai** (<sup>4</sup>Perevedentseva, Nezdojminogo, and Kovalenko, 1990; <sup>1</sup>Perevedentseva, 2008; <sup>1</sup>Perevedentseva and Shishigin, 2014); **Pskov Oblast** (<sup>1</sup>Popov et al., 2013); **Ryazan Oblast** (<sup>1</sup>Volosnova, 1997; <sup>1</sup>Volosnova, 2014); **Saint Petersburg** (<sup>2</sup>Weinmann, 1836; <sup>2</sup>Weinmann, 1837; <sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Noskov, 2004); **Sverdlovsk Oblast** (<sup>1</sup>Marina, 2006); **Tatarstan** (<sup>1</sup>Vassiljeva, 1977); **Ulyanovsk Oblast** (<sup>1</sup>Ilyukhin, 2009; <sup>1</sup>Ilyukhin, 2010a); **Arid territories** (<sup>1</sup>Rebriev, Rusanov, et al., 2012).SIBERIA: **Altai Republic** (<sup>1</sup>Gorbunova, 2017a); **Buryatia** (<sup>1,3</sup>Nezdojminogo, 1970a; <sup>1,3</sup>Petrov, 1991); **Irkutsk Oblast** (<sup>1</sup>Kutafjeva, 1983; <sup>3</sup>Petrov, 1984; <sup>1</sup>Astapenko, 1990a; <sup>3</sup>Petrov, 1991; <sup>3</sup>Petrov, 2008); **Khakassia** (<sup>3</sup>Beglyanova, 1972a; <sup>3</sup>Beglyanova, 1972b; <sup>1</sup>Zauzolkova and Gorbunova, 2013; <sup>1</sup>Zauzolkova, 2015); **Krasnoyarsk Krai** (<sup>3</sup>Beglyanova, 1972a; <sup>1</sup>Malysheva, Malysheva, Kiyashko, et al., 2017); **Novosibirsk Oblast** (<sup>1</sup>Perova and Gorbunova, 2001; <sup>1</sup>Perova and Gorbunova, 2007); **Tomsk Oblast** (<sup>1</sup>Perova and Gorbunova, 2001; <sup>1</sup>Kudashova, Gashkov, and Kutafjeva, 2013; <sup>1</sup>Kudashova, Gashkov, and Vaishlya, 2016b).FAR EAST: **Magadan Oblast** (<sup>1</sup>Nazarova, 1976; <sup>1</sup>Sazanova, 2009a); **Primorsky Krai** (<sup>1</sup>Vassiljeva, 1972; <sup>1</sup>Vassiljeva, 1973; <sup>1</sup>Bunkina and Nazarova, 1978; <sup>1</sup>Azbukina et al., 1984; <sup>1</sup>Azbukina et al., 2006; <sup>1</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Bogacheva, Bulakh, Bukharova, and Egorova, 2020); **Sakhalin Oblast** (<sup>1</sup>Vassiljeva and Nazarova, 1972).***Romagnesiella clavus* (Romagn.) Contu, Matheny, P.-A. Moreau, Vizzini & A. de Haan**≡ *Galerina clavus* Romagn.<sup>1</sup>SIBERIA: **Irkutsk Oblast** (<sup>1</sup>Petrov, 1991; <sup>1</sup>Nezdojminogo, 1996).***Roridomyces lamprosporus* (Corner) Rexer<sup>1</sup>**≡ *Mycena lamprospora* (Corner) E. Horak<sup>2</sup>FAR EAST: **Primorsky Krai** (<sup>2</sup>Bulakh, 2007; <sup>2</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Bogacheva et al., 2018).***Roridomyces roridus* (Fr.) Rexer<sup>1</sup>**≡ *Agaricus roridus* Fr.<sup>2</sup> ≡ *Mycena rorida* (Fr.) Quél.<sup>3</sup>EASTERN EUROPE: **Chelyabinsk Oblast** (<sup>3</sup>Stepanova and Sirko, 1977); **Kaluga Oblast** (<sup>1</sup>Sionova, 2012); **Kirov Oblast** (<sup>1</sup>Stavishenko, Luginina, Kirillov, and Egoshina, 2019); **Komi Republic** (<sup>3</sup>Karatygin, Nezdojminogo, Novozhilov, and Zhurbenko, 1999; <sup>1</sup>Palamarchuk, 2012; <sup>1</sup>Palamarchuk, 2016a); **Leningrad Oblast** (<sup>3</sup>Thesleff, 1920; <sup>3</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Morozova, 2007; <sup>3</sup>Popov et al., 2007); **Moscow Oblast** (<sup>3</sup>Levitskaya, 1995b; <sup>3</sup>Vishnevsky, 1998; <sup>3</sup>Levitskaya, 2013); **Murmansk Oblast** (<sup>2</sup>Karsten, 1866; <sup>2</sup>Karsten, 1876; <sup>3</sup>Karsten, 1889); **Novgorod Oblast** (<sup>3</sup>Kovalenko, Morozova, Nezdojminogo, and Popov, 2005; <sup>1</sup>Popov et al., 2013); **Perm Krai** (<sup>3</sup>Perevedentseva, 2008; <sup>3</sup>Perevedentseva and Shishigin, 2014; <sup>3</sup>Botalov, 2017; <sup>3</sup>Botalov and Perevedentseva, 2020); **Pskov Oblast** (<sup>3</sup>Kovalenko and Morozova, 1999b; <sup>1</sup>Popov et al., 2013); **Ryazan Oblast** (<sup>3</sup>Volosnova, 2005; <sup>1</sup>Volosnova, 2014); **Saint Petersburg** (<sup>1</sup>Morozova and Smirnov, 2011); **Sverdlovsk Oblast** (<sup>1</sup>Marina, 2006); **Tatarstan** (<sup>3</sup>Vassiljeva, 1977); **Tula Oblast** (<sup>3</sup>Svetasheva, 2001; <sup>1</sup>Svetasheva, 2004); **Tver Oblast** (<sup>3</sup>Mukhina, 2011a; <sup>1</sup>Kotkova, 2014); **Udmurt Republic** (<sup>1</sup>Kapitonov, 2013); **Vologda Oblast** (<sup>1</sup>Kirillova, 2007; <sup>1</sup>Kirillova, 2009); **Yaroslavl Oblast** (<sup>3</sup>Lazareva, 1998a).SIBERIA: **Altai Republic** (<sup>3</sup>Gorbunova, 2008); **Irkutsk Oblast** (<sup>3</sup>Petrov, 1984; <sup>3</sup>Petrov, 1991; <sup>3</sup>Petrov, 2008); **Khakassia** (<sup>1</sup>Zauzolkova and Gorbunova, 2013; <sup>1</sup>Zauzolkova, 2015); **Khanty-Mansi Autonomous Okrug** (<sup>1</sup>Filippova and Bulyonkova, 2017a; <sup>1</sup>Filippova and Bulyonkova, 2017b; <sup>1</sup>Zvyagina and Baykalova, 2017); **Krasnoyarsk Krai**

(<sup>3</sup>Beglyanova, 1972a; <sup>3</sup>Beglyanova, 1972b; <sup>3</sup>Nezdojminogo, 1982a; <sup>1</sup>Gorbunova, 2016; <sup>1</sup>Krom and Kapitonov, 2019); **Tomsk Oblast** (<sup>3</sup>Agaphonova, Kutafjeva, and Gashkov, 2009b; <sup>1</sup>Kudashova, Gashkov, and Kutafjeva, 2013).

FAR EAST: **Amur Oblast** (<sup>3</sup>Gordienko, Petrova, and Tarasov, 1981); **Kamchatka Krai** (<sup>3</sup>Kalamees and Vaasma, 1981); **Khabarovsk Krai** (<sup>3</sup>Azbukina et al., 1989; <sup>1</sup>Bulakh, 2013; <sup>1</sup>Bogacheva, Bulakh, Bukharova, and Egorova, 2015); **Magadan Oblast** (<sup>1</sup>Sazanova and Golodnova, 2015; <sup>1</sup>Sazanova, 2015); **Primorsky Krai** (<sup>3</sup>Vassiljeva, 1973; <sup>3</sup>Bunkina and Nazarova, 1978; <sup>3</sup>Azbukina et al., 2006; <sup>3</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Bulakh et al., 2016); **Sakhalin Oblast** (<sup>3</sup>Vassiljeva and Nazarova, 1972; <sup>3</sup>Bulakh, Govorova, and Bogatov, 1999).

***Rubroboletus dupainii* (Boud.) Kuan Zhao & Zhu L. Yang**

≡ *Boletus dupainii* Boud.<sup>1</sup> ≡ *Suillellus dupainii* (Boud.) Blanco-Dios<sup>2</sup>

EASTERN EUROPE: **Crimea** (<sup>2</sup>Sarkina, 2020a); **Krasnodar Krai** (<sup>1</sup>Kovalenko, 1980a; <sup>1</sup>Kovalenko, 1980b; <sup>1</sup>Litvinskaya, 2007; <sup>2</sup>Litvinskaya, 2017).

FAR EAST: **Primorsky Krai** (<sup>1</sup>Vassiljeva, 1956; <sup>1</sup>Vassiljeva, 1973; <sup>1</sup>Azbukina et al., 1990; <sup>1</sup>Bardunov et al., 2002).

***Rubroboletus legaliae* (Pilát & Dermek) Della Magg. & Trassin.<sup>1</sup>**

≡ *Boletus legaliae* Pilát<sup>2</sup> ≡ *Boletus legaliae* Pilát & Dermek<sup>3</sup>

EASTERN EUROPE: **Crimea** (<sup>2</sup>Dovgal and Korzhenevsky, 2018); **Lipetsk Oblast** (<sup>2</sup>Shcherbakov, 2014; <sup>3</sup>Sarycheva, 2014a; <sup>1</sup>Tibpromma et al., 2017); **Penza Oblast** (<sup>1</sup>Tibpromma et al., 2017); **Sevastopol** (<sup>2</sup>Sarkina, 2016b; <sup>2</sup>Dovgal and Korzhenevsky, 2018; <sup>1</sup>Sarkina, 2020c); **Tatarstan** (<sup>2</sup>Nazirov, Gorshkov, Ivanov, and Rogova, 2016; <sup>1</sup>Potapov, 2016b); **Tula Oblast** (<sup>2</sup>Shcherbakov, 2010; <sup>1</sup>Tibpromma et al., 2017); **Volgograd Oblast** (<sup>1</sup>Rebriev, Svetasheva, Popov, and Zmitrovich, 2013 [as *Boletus pseudoregius* (Heinr. Huber) Estadès, redet. in Tibpromma et al., 2017]; <sup>1</sup>Rebriev, Popov, Pridyuk, and Svetasheva, 2014 [as *Boletus pseudoregius* (Heinr. Huber) Estadès, redet. in Tibpromma et al., 2017]; <sup>1</sup>Rebriev, Popov, and Svetasheva, 2015 [as *Boletus pseudoregius* (Heinr. Huber) Estadès, redet. in Tibpromma et al., 2017]; <sup>1</sup>Tibpromma et al., 2017); **Arid territories** (<sup>2</sup>Rebriev, Rusanov, et al., 2012).

***Rubroboletus lupinus* (Fr.) Costanzo, Gelardi, Simonini & Vizzini<sup>1</sup>**

≡ *Boletus lupinus* Fr.<sup>2</sup>

EASTERN EUROPE: **Crimea** (<sup>2</sup>Sarkina, 2014a; <sup>1</sup>Sarkina, 2020a); **Kaliningrad Oblast** (<sup>2</sup>Dedkov, Volodina, and Gubareva, 2007; <sup>2</sup>Dedkov and Grishanov, 2010); **Sevastopol** (<sup>2</sup>Sarkina, 2016b; <sup>1</sup>Sarkina, 2020c).

***Rubroboletus pulchrotinctus* (Alessio) Kuan Zhao & Zhu L. Yang**

≡ *Boletus pulchrotinctus* Alessio<sup>1</sup> ≡ *Suillellus pulchrotinctus* (Alessio) Blanco-Dios<sup>2</sup>

EASTERN EUROPE: **Crimea** (<sup>1</sup>Sarkina, 2010b; <sup>1</sup>Sarkina, 2013; <sup>1</sup>Yena and Fateryga, 2015; <sup>1</sup>Dovgal and Korzhenevsky, 2018); **Sevastopol** (<sup>1</sup>Sarkina, 2016b; <sup>1</sup>Dovgal and Korzhenevsky, 2018; <sup>2</sup>Sarkina, 2020b; <sup>2</sup>Sarkina, 2020c).

***Rubroboletus rhodoxanthus* (Krombh.) Kuan Zhao & Zhu L. Yang<sup>1</sup>**

≡ *Boletus rhodoxanthus* (Krombh.) Kallenb.<sup>2</sup> ≡ *Suillellus rhodoxanthus* (Krombh.) Blanco-Dios<sup>3</sup>

EASTERN EUROPE: **Crimea** (<sup>2</sup>Dudka et al., 2004; <sup>2</sup>Akulov and Pryidiuk, 2007; <sup>2</sup>Sarkina, 2010b; <sup>2</sup>Sarkina, 2011; <sup>2</sup>Sarkina and Pryidiuk, 2012; <sup>2</sup>Sarkina, 2013; <sup>2</sup>Yena and Fateryga, 2015); **Krasnodar Krai** (<sup>2</sup>Kovalenko, 1980a; <sup>2</sup>Kovalenko, 1980b; <sup>2</sup>Litvinskaya, 2007; <sup>3</sup>Litvinskaya, 2017); **Penza Oblast** (<sup>2</sup>Ivanov, 1986; <sup>2</sup>Ivanov, 2013a); **Sevastopol** (<sup>2</sup>Sarkina, 2016b; <sup>2</sup>Dovgal and Korzhenevsky, 2018; <sup>1</sup>Sarkina, 2020c).

FAR EAST: **Primorsky Krai** (<sup>2</sup>Vassiljeva, 1973; <sup>2</sup>Azbukina et al., 2006; <sup>2</sup>Kozhevnikov, 2008; <sup>2</sup>Bau, Bulakh, and Govorova, 2011; <sup>2</sup>Bogacheva et al., 2018).

***Rubroboletus rubrosanguineus* (Cheype) Kuan Zhao & Zhu L. Yang<sup>1</sup>**

≡ *Boletus rubrosanguineus* Cheype<sup>2</sup>

EASTERN EUROPE: **Adygea** (<sup>2</sup>Zamotajlov, Sirotyuk (Kuvaeva), Akatova, and Lipka, 2012); **Karachay-Cherkess Republic** (<sup>2</sup>Onipchenko et al., 2013; <sup>1</sup>Tibpromma et al., 2017).

***Rubroboletus satanas* (Lenz) Kuan Zhao & Zhu L. Yang<sup>1</sup>**

≡ *Boletus satanas* Lenz<sup>2</sup>

EASTERN EUROPE: **Belgorod Oblast** (<sup>2</sup>Bedenko, 1980); **Crimea** (<sup>2</sup>Zerova, 1962; <sup>2</sup>Sarkina, 2001; <sup>2</sup>Dudka et al., 2004; <sup>2</sup>Akulov and Pryidiuk, 2007; <sup>2</sup>Sarkina, 2010b; <sup>2</sup>Sarkina, 2011; <sup>2</sup>Sarkina and Pryidiuk, 2012; <sup>2</sup>Sarkina, 2013; <sup>2</sup>Dovgal and Korzhenevsky, 2018; <sup>1</sup>Sarkina and Stavishenko, 2019); **Kaliningrad Oblast** (<sup>2</sup>Dedkov, Volodina, and Gubareva, 2007; <sup>2</sup>Dedkov and Grishanov, 2010); **Karachay-Cherkess Republic** (<sup>2</sup>Kalamees and Botashev, 2000);

<sup>2</sup>Onipchenko et al., 2013); **Krasnodar Krai** (<sup>2</sup>Kovalenko, 1980a; <sup>2</sup>Kovalenko, 1980b); **Lipetsk Oblast** (<sup>2</sup>Sarycheva, 2014a; <sup>2</sup>Shcherbakov, 2014; <sup>2</sup>Sarycheva, 2016); **North Ossetia** (<sup>2</sup>Nikolayev, 2001); **Penza Oblast** (<sup>2</sup>Ivanov, 2013a); **Rostov Oblast** (<sup>2</sup>Rusanov et al., 2004; <sup>2</sup>Zmitrovich et al., 2008); **Sevastopol** (<sup>2</sup>Sarkina, 2016b; <sup>2</sup>Dovgal and Korzhenevsky, 2018; <sup>1</sup>Sarkina, 2020c); **Tula Oblast** (<sup>2</sup>Shcherbakov, 2010); **Ulyanovsk Oblast** (<sup>1</sup>Svetasheva et al., 2017); **Arid territories** (<sup>2</sup>Rebriev, Rusanov, et al., 2012).

***Rugiboletus extremiorientalis* (Lj.N. Vassiljeva) G. Wu & Zhu L. Yang**

≡ *Krombholzia extremiorientalis* Lj.N. Vassiljeva<sup>1</sup> ≡ *Leccinum extremiorientale* (Lj.N. Vassiljeva) Singer<sup>2</sup>

FAR EAST: **Primorsky Krai** (<sup>1</sup>Vassiljeva, 1950; <sup>1</sup>Vassiljeva, 1956; <sup>1</sup>Vassiljeva, 1972; <sup>2</sup>Vassiljeva, 1973; <sup>2</sup>Azbukina et al., 1990; <sup>2</sup>Bardunov et al., 2002; <sup>2</sup>Azbukina et al., 2006; <sup>2</sup>Kozhevnikov, 2008; <sup>2</sup>Bau, Bulakh, and Govorova, 2011; <sup>2</sup>Gladkova and Sibirina, 2017; <sup>2</sup>Bogacheva et al., 2018; <sup>2</sup>Bogacheva, Bulakh, Bukharova, and Egorova, 2020).

***Rugosomyces obscuratus* (P. Karst.) Kalamees**

SIBERIA: **Altai Republic** (Kalamees, 2004).

FAR EAST: **Kamchatka Krai** (Kalamees, 2004).

***Rugosomyces persicolor* (Fr.) Bon<sup>1</sup>**

≡ *Calocybe persicolor* (Fr.) Singer<sup>2</sup>

EASTERN EUROPE: **Kaliningrad Oblast** (<sup>2</sup>Dedkov, Volodina, and Gubareva, 2007); **Leningrad Oblast** (<sup>1</sup>Morozova, 2007; <sup>1</sup>Popov et al., 2007); **Saint Petersburg** (<sup>1</sup>Kalamees, 2004; <sup>1</sup>Morozova and Smirnov, 2011); **Tula Oblast** (<sup>1</sup>Svetasheva et al., 2017).

SIBERIA: **Altai Krai** (<sup>1</sup>Gorbunova, 2018a).

FAR EAST: **Amur Oblast** (<sup>2</sup>Azbukina et al., 1998); **Jewish Autonomous Oblast** (<sup>2</sup>Bulakh, Govorova, Nazarova, and Vassiljeva, 2007; <sup>2</sup>Bau, Bulakh, and Govorova, 2011; <sup>2</sup>Bogacheva et al., 2018); **Khabarovsk Krai** (<sup>2</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Bulakh, 2013; <sup>1</sup>Bogacheva, Bulakh, Bukharova, and Egorova, 2015; <sup>1</sup>Erofeeva and Bulakh, 2015a); **Primorsky Krai** (<sup>2</sup>Azbukina et al., 2006; <sup>2</sup>Bau, Bulakh, and Govorova, 2011; <sup>2</sup>Bogacheva et al., 2018; <sup>2</sup>Bogacheva, Bulakh, Bukharova, and Egorova, 2020).

***Russula acrifolia* Romagn.**

EASTERN EUROPE: **Adygea** (Sopina, 2004a); **Karachay-Cherkess Republic** (Kalamees and Botashev, 2000); **Karelia** (Kovalenko, Morozova, Fomina, and Särkisilta, 1998; Krutov et al., 2014); **Kirov Oblast** (Kirillov, 2011; Kirillov, Perevedentseva, and Egoshina, 2011); **Leningrad Oblast** (Kovalenko and Morozova, 1999a; Fomina, 2000; Popov et al., 2007; Zmitrovich et al., 2015); **Perm Krai** (Perevedentseva, 2008; Perevedentseva and Shilkova, 2010; Belkovskaya et al., 2014; Perevedentseva and Shishigin, 2014; Perevedentseva and Shishigin, 2015); **Pskov Oblast** (Kovalenko, Kolmakov, Morozova, and Popov, 2003; Popov et al., 2013; Kolmakov, 2015); **Saint Petersburg** (Morozova et al., 2020); **Samara Oblast** (Malysheva and Malysheva, 2005b; Malysheva and Malysheva, 2008); **Sverdlovsk Oblast** (Marina, 2006); **Udmurt Republic** (Kapitonov, 2013); **Ulyanovsk Oblast** (Ilyukhin, 2010a); **Vologda Oblast** (Kirillova, 2007; Kirillova and Podolskaya, 2012); **Yaroslavl Oblast** (Lazareva, 1998a).

SIBERIA: **Altai Republic** (Kovalenko, 1992; Perova and Gorbunova, 2001); **Khanty-Mansi Autonomous Okrug** (Filippova, Bulyonkova, and Lapshina, 2015; Filippova and Bulyonkova, 2017a; Filippova and Bulyonkova, 2017b); **Tomsk Oblast** (Kudashova, Gashkov, and Kutafjeva, 2013; Vaishlya et al., 2017).

***Russula adusta* (Pers.) Fr.<sup>1</sup>**

≡ *Agaricus adustus* Pers.<sup>2</sup> = *Russula nigricans* Fr.<sup>3</sup>

EASTERN EUROPE: **Adygea** (<sup>3</sup>Kovalenko, 1979a; <sup>3</sup>Vaasma, Kalamees, and Raitviir, 1986; <sup>3</sup>Sopina, 2004a); **Arkhangelsk Oblast** (<sup>1</sup>Ezhov, 2014); **Belgorod Oblast** (<sup>1,3</sup>Bedenko, 1979a; <sup>3</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990); **Bryansk Oblast** (<sup>1,3</sup>Kruglikov, 2007); **Chelyabinsk Oblast** (<sup>1</sup>Aleksandrovskaya and Lobanova, 1968; <sup>1</sup>Stepanova and Sirko, 1977; <sup>3</sup>Sirko and Stepanova, 1977); **Crimea** (<sup>1,3</sup>Sarkina, 2001; <sup>1,3</sup>Dudka et al., 2004; <sup>1,3</sup>Sarkina, 2010a; <sup>1,3</sup>Sarkina, 2011; <sup>1,3</sup>Sarkina and Prydiuk, 2012; <sup>1,3</sup>Sarkina and Stavishenko, 2019; <sup>1</sup>Sarkina, 2020a); **Kabardino-Balkarian Republic** (<sup>1</sup>Shkhagapsoev and Krapivina, 2003; <sup>1</sup>Shkhagapsoev and Krapivina, 2004); **Kaliningrad Oblast** (<sup>3</sup>Dedkov, Volodina, and Gubareva, 2007; <sup>3</sup>Volodina, 2007; <sup>1</sup>Atayev and Volodina, 2020); **Kaluga Oblast** (<sup>1,3</sup>Sionova, 2003); **Karachay-Cherkess Republic** (<sup>3</sup>Kalamees and Botashev, 2000); **Karelia** (<sup>1</sup>Freindling, 1949; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1</sup>Kovalenko, Morozova, Fomina, and Särkisilta, 1998; <sup>1</sup>Bondartseva et al., 2001; <sup>1</sup>Predtechenskaya, 2013; <sup>1</sup>Krutov et al., 2014; <sup>1</sup>Predtechenskaya and Ruokolainen, 2014; <sup>1</sup>Predtechenskaya, 2015); **Kirov Oblast** (<sup>1,3</sup>Kirillov, 2011; <sup>1,3</sup>Kirillov, Perevedentseva, and Egoshina, 2011; <sup>3</sup>Stavishenko,

Luginina, Kirillov, and Egoshina, 2019); **Kostroma Oblast** (<sup>1</sup>Veremyeva, 1986); **Krasnodar Krai** (<sup>1,3</sup>Kovalenko, 1980a; <sup>1</sup>Kovalenko, 1980b; <sup>3</sup>Sopina, 2004a); **Leningrad Oblast** (<sup>1,3</sup>Thesleff, 1920; <sup>1</sup>Singer, 1942; <sup>1</sup>Kalamees and Kovalenko, 1984; <sup>1,3</sup>Bulakh, Wasser, Nazarova, and Nezdoyminogo, 1990; <sup>1</sup>Stolyarskaya, 1993; <sup>1,3</sup>Kovalenko and Morozova, 1999a; <sup>1,3</sup>Fomina, 2000; <sup>1,3</sup>Morozova, 2007; <sup>1,3</sup>Popov et al., 2007; <sup>1</sup>Zmitrovich et al., 2015; <sup>1</sup>Malysheva, Malysheva, Shchepin, and Novozhilov, 2018; <sup>3</sup>Kalinina, 2018); **Lipetsk Oblast** (<sup>1,3</sup>Rtishcheva, 1999; <sup>1,3</sup>Afanasyev, Rtishcheva, and Starodubtseva, 2007; <sup>1,3</sup>Sarycheva et al., 2009; <sup>1,3</sup>Sarycheva, 2011; <sup>1,3</sup>Sarycheva, 2014a; <sup>1,3</sup>Sarycheva, 2016; <sup>1</sup>Sarycheva, Starodubtseva, and Sapelnikova, 2017); **Mari El Republic** (<sup>3</sup>Bulakh, Wasser, Nazarova, and Nezdoyminogo, 1990); **Mordovia** (<sup>1</sup>Kuznetsov, 1960; <sup>1</sup>Chastukhin, 2011; <sup>1,3</sup>Ivoilov and Bolshakov, 2011b); **Moscow** (<sup>1,3</sup>Bucholtz, 1897b; <sup>1,3</sup>Bucholtz, 1897c; <sup>1,3</sup>Mosolov, 1906); **Moscow Oblast** (<sup>1,3</sup>Gorlenko, Sidorova, and Sidorova, 1989; <sup>1,3</sup>Bulakh, Wasser, Nazarova, and Nezdoyminogo, 1990; <sup>1,3</sup>Levitskaya, 1995a; <sup>1,3</sup>Vishnevsky and Sidorova, 1997; <sup>1,3</sup>Levitskaya, 2013; <sup>3</sup>Voronina et al., 2014); **Murmansk Oblast** (<sup>1</sup>Mikhailovskii, 1975b; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdoyminogo, 1990; <sup>1</sup>Karatygin, Nezdoyminogo, Novozhilov, and Zhurbenko, 1999); **Orenburg Oblast** (<sup>3</sup>Vorontsovsky, 1921); **Penza Oblast** (<sup>1,3</sup>Ivanov, 1981a; <sup>3</sup>Bulakh, Wasser, Nazarova, and Nezdoyminogo, 1990; <sup>1</sup>Ivanov, 2019); **Perm Krai** (<sup>1,3</sup>Perevedentseva, 2008; <sup>1,3</sup>Perevedentseva and Shilkova, 2010; <sup>1</sup>Belkovskaya et al., 2014; <sup>1,3</sup>Botalov, 2017); **Pskov Oblast** (<sup>1</sup>Kovalenko and Morozova, 1999b); **Rostov Oblast** (<sup>1</sup>Morozova et al., 2008); **Ryazan Oblast** (<sup>1</sup>Volosnova, 1997; <sup>1,3</sup>Volosnova, 2014); **Saint Petersburg** (<sup>2</sup>Weinmann, 1828; <sup>2</sup>Weinmann, 1836; <sup>2</sup>Weinmann, 1837; <sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1,3</sup>Morozova et al., 2020); **Saratov Oblast** (<sup>3</sup>Komirnyaya, 1970); **Smolensk Oblast** (<sup>3</sup>Jaczewski, 1896; <sup>1</sup>Burova, 1969; <sup>3</sup>Bulakh, Wasser, Nazarova, and Nezdoyminogo, 1990); **Sverdlovsk Oblast** (<sup>1</sup>Stepanova and Sirko, 1977; <sup>1</sup>Marina, 2006); **Tatarstan** (<sup>1</sup>Vassiljeva, 1977; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdoyminogo, 1990; <sup>3</sup>Potapov, 2015b); **Tula Oblast** (<sup>3</sup>Svetasheva, 2001; <sup>3</sup>Svetasheva, 2004); **Tver Oblast** (<sup>3</sup>Bulakh, Wasser, Nazarova, and Nezdoyminogo, 1990; <sup>1,3</sup>Kurochkin, 1993); **Udmurt Republic** (<sup>1,3</sup>Tychinin and Kuzmina, 2003); **Vologda Oblast** (<sup>1</sup>Kutova, 1957; <sup>1</sup>Kirillova and Podolskaya, 2012); **Voronezh Oblast** (<sup>1,3</sup>Rtishcheva, 1999; <sup>1,3</sup>Afanasyev, Rtishcheva, and Starodubtseva, 2007; <sup>1</sup>Sarycheva, Starodubtseva, and Sapelnikova, 2017); **Yamalo-Nenets Autonomous Okrug** (<sup>1</sup>Karatygin, Nezdoyminogo, Novozhilov, and Zhurbenko, 1999; <sup>1</sup>Nezdoyminogo, 2001); **Yaroslavl Oblast** (<sup>1,3</sup>Lazareva, 1998a); **Arid territories** (<sup>1,3</sup>Rebriev, Rusanov, et al., 2012); **Northern Caucasus** (<sup>3</sup>Kovalenko, 1980b).

SIBERIA: **Altai Republic** (<sup>1</sup>Gorbunova, 2001b; <sup>1</sup>Perova and Gorbunova, 2001); **Buryatia** (<sup>1</sup>Nezdoyminogo, 1970a); **Irkutsk Oblast** (<sup>1</sup>Kutafjeva, 1984; <sup>1</sup>Petrov, Nezdoyminogo, and Bulakh, 1987; <sup>1</sup>Astapenko, 1990b; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdoyminogo, 1990; <sup>1</sup>Muzyka, 2002; <sup>1</sup>Bardunov et al., 2005; <sup>1</sup>Petrov, 2008; <sup>1</sup>Muzyka, 2009; <sup>1</sup>Muzyka and Penzina, 2017); **Khanty-Mansi Autonomous Okrug** (<sup>1</sup>Zvyagina and Baykalova, 2012; <sup>3</sup>Zvyagina and Vasina, 2015; <sup>1</sup>Zvyagina and Baykalova, 2017); **Krasnoyarsk Krai** (<sup>1</sup>Beglyanova, 1972a; <sup>1</sup>Nezdoyminogo, 1976a; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdoyminogo, 1990; <sup>1</sup>Lapitskaya, 1993; <sup>1</sup>Kosheleva and Kutafjeva, 2008a; <sup>1</sup>Kosheleva and Kutafjeva, 2008b; <sup>1</sup>Kosheleva, 2010; <sup>1</sup>Zauzolkova, 2015; <sup>1</sup>Krom and Kapitonov, 2019); **Novosibirsk Oblast** (<sup>3</sup>Perova and Gorbunova, 2001; <sup>1</sup>Gorbunova, 2007; <sup>3</sup>Perova and Gorbunova, 2007; <sup>1</sup>Koropachinskiy and Banaev, 2014); **Sakha Republic** (<sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdoyminogo, 1990); **Sverdlovsk Oblast** (<sup>1</sup>Stepanova and Sirko, 1977); **Tomsk Oblast** (<sup>1</sup>Milovidova, 1980; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdoyminogo, 1990; <sup>1</sup>Perova and Gorbunova, 2001; <sup>1,3</sup>Kudashova, Gashkov, and Kutafjeva, 2013; <sup>1</sup>Vaishlya et al., 2017); **Yamalo-Nenets Autonomous Okrug** (<sup>3</sup>Tarchevskaya, 1990).

FAR EAST: **Amur Oblast** (<sup>1</sup>Bulakh, Govorova, and Taranina, 2003; <sup>1</sup>Taranina, 2005; <sup>1</sup>Kochunova, 2019); **Jewish Autonomous Oblast** (<sup>1,3</sup>Bulakh, Govorova, Nazarova, and Vassiljeva, 2007; <sup>1,3</sup>Bau, Bulakh, and Govorova, 2011); **Khabarovsk Krai** (<sup>1,3</sup>Azbukina et al., 1986; <sup>1,3</sup>Azbukina et al., 1989; <sup>1,3</sup>Bulakh, Wasser, Nazarova, and Nezdoyminogo, 1990; <sup>3</sup>Bau, Bulakh, Zhuang, and Li, 2007; <sup>1,3</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Bulakh, 2013; <sup>1</sup>Bogacheva, Bulakh, Bukharova, and Egorova, 2015); **Magadan Oblast** (<sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdoyminogo, 1990; <sup>1</sup>Sazanova, 1996; <sup>1</sup>Sazanova, 2005; <sup>1</sup>Sazanova, 2009a; <sup>1</sup>Sazanova, 2011); **Primorsky Krai** (<sup>3</sup>Vassiljeva, 1972; <sup>3</sup>Vassiljeva, 1973; <sup>1,3</sup>Shalapugina, 1976; <sup>1,3</sup>Azbukina et al., 1984; <sup>1,3</sup>Azbukina et al., 1990; <sup>1,3</sup>Bulakh, Wasser, Nazarova, and Nezdoyminogo, 1990; <sup>1,3</sup>Bardunov et al., 2002; <sup>1</sup>Azbukina et al., 2006; <sup>1,3</sup>Bau, Bulakh, and Govorova, 2011; <sup>3</sup>Malysheva et al., 2016); **Sakhalin Oblast** (<sup>1</sup>Vassiljeva and Nazarova, 1972; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdoyminogo, 1990).

### ***Russula aeruginea* Lindblad ex Fr.**

EASTERN EUROPE: **Arkhangelsk Oblast** (Ezhov, Zmitrovich, and Ruokolainen, 2019); **Belgorod Oblast** (Bedenko, 1979a); **Bryansk Oblast** (Kruglikov, 2007); **Chechen Republic** (Taysumov, Krapivina, Umarov, and Astamirova, 2012); **Chelyabinsk Oblast** (Sirko and Stepanova, 1977; Stepanova and Sirko, 1977); **Crimea** (Sarkina, 2001; Dudka et al., 2004; Sarkina, 2010a; Sarkina, 2010b; Sarkina, 2011; Sarkina and Prydiuk, 2012; Sarkina and Mironova, 2015; Sarkina and Stavishenko, 2019); **Kabardino-Balkarian Republic** (Singer, 1929; Singer, 1931; Singer, 1938a; Shkhagapsoev and Krapivina, 2004); **Kaliningrad Oblast** (Dedkov, Volodina, and Gubareva, 2007; Volodina, 2007; Atayev and Volodina, 2020); **Karachay-Cherkess Republic** (Vassiljeva, 1939); **Karelia** (Freindling, 1949; Bulakh,

Wasser, Nazarova, and Nezdjominogo, 1990; Kovalenko, Morozova, Fomina, and Särkisilta, 1998; Bondartseva et al., 2001; Predtechenskaya and Ruokolainen, 2008; Predtechenskaya and Ruokolainen, 2013; Krutov et al., 2014; Predtechenskaya and Ruokolainen, 2014; Predtechenskaya, 2015; Savelev and Kikeeva, 2018); **Kirov Oblast** (Kirillov and Luginina, 2011; Kirillov, 2011; Kirillov, Perevedentseva, and Egoshina, 2011; Stavishenko, Luginina, Kirillov, and Egoshina, 2019); **Komi Republic** (Karatygin, Nezdjominogo, Novozhilov, and Zhurbenko, 1999; Bobretsova, 2004; Palamarchuk, 2012; Palamarchuk, 2016a; Palamarchuk, 2016b; Palamarchuk and Kirillov, 2017; Palamarchuk, 2017); **Krasnodar Krai** (Vassiljeva, 1939; Kovalenko, 1980a; Kovalenko, 1980b); **Leningrad Oblast** (Thesleff, 1920; Kalamees and Kovalenko, 1984; Bulakh, Wasser, Nazarova, and Nezdjominogo, 1990; Stolyarskaya, 1993; Kovalenko and Morozova, 1999a; Morozova, 2007; Popov et al., 2007; Zmitrovich et al., 2015); **Lipetsk Oblast** (Afanasyev, Rtishcheva, and Starodubtseva, 2007; Sarycheva et al., 2009; Sarycheva, 2011; Sarycheva, 2014a; Sarycheva, 2016; Sarycheva, Starodubtseva, and Sapelnikova, 2017); **Mari El Republic** (Bulakh, Wasser, Nazarova, and Nezdjominogo, 1990); **Mordovia** (Kuznetsov, 1960; Bulakh, Wasser, Nazarova, and Nezdjominogo, 1990; Ivoilov and Bolshakov, 2011b); **Moscow Oblast** (Gorlenko, Sidorova, and Sidorova, 1989; Levitskaya, 1995a; Vishnevsky and Sidorova, 1997; Levitskaya, 2013; Voronina et al., 2014; Sidorova, Alexandrova, and Voronina, 2017); **Murmansk Oblast** (Pystina, Pavlova, and Shestakova, 1969; Mikhailovskii, 1975b; Bulakh, Wasser, Nazarova, and Nezdjominogo, 1990; Nezdjominogo, 1997b; Karatygin, Nezdjominogo, Novozhilov, and Zhurbenko, 1999); **Orenburg Oblast** (Desyatova, 2008); **Penza Oblast** (Ivanov, 1983; Bulakh, Wasser, Nazarova, and Nezdjominogo, 1990; Ivanov, 2019); **Perm Krai** (Perevedentseva, 2008; Perevedentseva and Shilkova, 2010; Belkovskaya et al., 2014; Perevedentseva and Shishigin, 2015); **Pskov Oblast** (Kovalenko and Morozova, 1999b; Kovalenko, Kolmakov, Morozova, and Popov, 2003; Popov et al., 2013; Kolmakov, 2015); **Rostov Oblast** (Rusanov et al., 2004; Zmitrovich et al., 2008); **Ryazan Oblast** (Volosnova, 1997; Volosnova, 2014); **Saint Petersburg** (Morozova and Smirnov, 2011; Morozova, Kovalenko, Rebriev, and Malysheva, 2014; Morozova et al., 2020); **Samara Oblast** (Malysheva and Malysheva, 2005b; Malysheva and Malysheva, 2008; Malysheva, Malysheva, Voronina, et al., 2017; Malysheva, Malysheva, Voronina, and Kovalenko, 2018); **Sevastopol** (Sarkina, 2016b; Sarkina, 2020c); **Sverdlovsk Oblast** (Stepanova and Sirko, 1977; Marina, 2006); **Tatarstan** (Vassiljeva, 1977; Bulakh, Wasser, Nazarova, and Nezdjominogo, 1990); **Tula Oblast** (Svetasheva, 2001; Svetasheva, 2004; Svetasheva, 2013); **Tver Oblast** (Kurochkin, 1993; Mukhina and Garibova, 2010; Mukhina, 2011a; Mukhina, 2011b; Kotkova, 2014); **Udmurt Republic** (Tychinin and Kuzmina, 2003); **Ulyanovsk Oblast** (Ilyukhin, 2009; Ilyukhin, 2010a); **Vologda Oblast** (Kirillova, 2005; Kirillova, 2007; Kirillova and Podolskaya, 2012); **Voronezh Oblast** (Chastukhin and Nikolaevskaya, 1953; Chastukhin and Nikolaevskaya, 1969; Rtishcheva, 1999; Afanasyev, Rtishcheva, and Starodubtseva, 2007; Sarycheva, Starodubtseva, and Sapelnikova, 2017); **Yamalo-Nenets Autonomous Okrug** (Karatygin, Nezdjominogo, Novozhilov, and Zhurbenko, 1999); **Yaroslavl Oblast** (Lazareva, 1998a); **Arid territories** (Rebriev, Rusanov, et al., 2012); **Northern Caucasus** (Singer, 1938a).

**SIBERIA:** **Altai Krai** (Gorbunova and Perova, 2006; Gorbunova, Vlasenko, and Tzhubarova, 2011); **Altai Republic** (Singer, 1938a; Gorbunova, 1997; Gorbunova, 2001a; Gorbunova, 2001b; Gorbunova, 2008); **Buryatia** (Nezdjominogo, 1970a); **Irkutsk Oblast** (Kutafjeva, 1984; Petrov, Nezdjominogo, and Bulakh, 1987; Petrov, 1989; Bulakh, Wasser, Nazarova, and Nezdjominogo, 1990; Muzyka, 2002; Bardunov et al., 2005; Petrov, 2008; Muzyka, 2009); **Khanty-Mansi Autonomous Okrug** (Zvyagina and Baykalova, 2012; Filippova, Bulyonkova, and Lapshina, 2015; Zvyagina and Vasina, 2015; Filippova and Bulyonkova, 2017a; Filippova and Bulyonkova, 2017b; Zvyagina and Baykalova, 2017); **Krasnoyarsk Krai** (Beglyanova, 1972a; Nezdjominogo, 1976a; Bulakh, Wasser, Nazarova, and Nezdjominogo, 1990; Lapitskaya, 1993; Kosheleva and Kutafjeva, 2008a; Kryuchkova, 2009; Zauzolkova, 2012; Kryuchkova, 2014a; Zauzolkova, 2015); **Novosibirsk Oblast** (Zaytseva, 1971; Perova, 1977; Gorbunova, 2007; Perova and Gorbunova, 2007; Koropachinskiy and Banaev, 2014); **Sakha Republic** (Karatygin, Nezdjominogo, Novozhilov, and Zhurbenko, 1999); **Tomsk Oblast** (Milovidova, 1980; Kudashova, Gashkov, and Kutafjeva, 2013; Vaishlya et al., 2017); **Tyumen Oblast** (Bulakh, Wasser, Nazarova, and Nezdjominogo, 1990); **Yamalo-Nenets Autonomous Okrug** (Kapitonov, 2015).

**FAR EAST:** **Amur Oblast** (Bulakh, Wasser, Nazarova, and Nezdjominogo, 1990; Azbukina et al., 1998; Bulakh, Govorova, and Taranina, 2003; Taranina, 2005); **Chukotka Autonomous Okrug** (Bulakh, Wasser, Nazarova, and Nezdjominogo, 1990; Sazanova, 1993; Karatygin, Nezdjominogo, Novozhilov, and Zhurbenko, 1999); **Jewish Autonomous Oblast** (Bulakh, Govorova, Nazarova, and Vassiljeva, 2007; Bau, Bulakh, and Govorova, 2011); **Kamchatka Krai** (Kalamees and Vaasma, 1981; Karatygin, Nezdjominogo, Novozhilov, and Zhurbenko, 1999); **Khabarovsk Krai** (Azbukina et al., 1986; Azbukina et al., 1989; Bulakh, Wasser, Nazarova, and Nezdjominogo, 1990; Bau, Bulakh, and Govorova, 2011; Bulakh, 2013; Bogacheva, Bulakh, Bukharova, and Egorova, 2015); **Magadan Oblast** (Bulakh, Wasser, Nazarova, and Nezdjominogo, 1990; Sazanova, 1996; Sazanova, 2005; Sazanova, 2009a; Sazanova, 2009b; Sazanova, 2011; Sazanova, 2012; Sazanova and Golodnova, 2015); **Primorsky Krai** (Vassiljeva, 1972; Vassiljeva, 1973; Bunkina and Nazarova, 1978; Azbukina et al., 1984; Bulakh, Wasser, Nazarova, and Nezdjominogo,

1990; Azbukina et al., 2006; Bau, Bulakh, and Govorova, 2011; Bulakh et al., 2016); **Sakhalin Oblast** (Vassiljeva and Nazarova, 1972).

***Russula albonigra* (Krombh.) Fr.**

EASTERN EUROPE: **Adygea** (Vassiljeva, 1939; Sopina, 2004a); **Crimea** (Zerova, 1962; Sarkina, 2001; Dudka et al., 2004; Sarkina, 2010a; Sarkina, 2010b; Sarkina, 2011; Sarkina and Prydiuk, 2012; Sarkina, 2013; Sarkina and Stavishenko, 2019); **Kaliningrad Oblast** (Dedkov, Volodina, and Gubareva, 2007); **Kaluga Oblast** (Sionova, 2003); **Karelia** (Kovalenko, Morozova, Fomina, and Särkisilta, 1998; Bondartseva et al., 2001; Krutov et al., 2014); **Kirov Oblast** (Kirillov, 2011; Kirillov, Perevedentseva, and Egoshina, 2011); **Krasnodar Krai** (Vassiljeva, 1939); **Leningrad Oblast** (Malysheva, Malysheva, Shchepin, and Novozhilov, 2018); **Mari El Republic** (Bulakh, Wasser, Nazarova, and Nezdoininogo, 1990); **Moscow Oblast** (Gorlenko, Sidorova, and Sidorova, 1989; Levitskaya, 1995a; Vishnevsky and Sidorova, 1997; Levitskaya, 2013); **Penza Oblast** (Ivanov, 1981a; Bulakh, Wasser, Nazarova, and Nezdoininogo, 1990); **Perm Krai** (Perevedentseva, 2008; Perevedentseva and Shilkova, 2010; Belkovskaya et al., 2014); **Pskov Oblast** (Kovalenko, Kolmakov, Morozova, and Popov, 2003; Popov et al., 2013; Kolmakov, 2015); **Ryazan Oblast** (Volosnova, 1997; Volosnova, 2014); **Saint Petersburg** (Morozova and Smirnov, 2011; Morozova et al., 2020); **Tula Oblast** (Svetasheva, 2004; Shcherbakov, 2010; Svetasheva, Aleksandrova, Zaytseva, and Solovjova, 2017); **Udmurt Republic** (Kapitonov, 2013); **Vologda Oblast** (Kirillova, 2005; Kirillova, 2007; Kirillova and Podolskaya, 2012); **Yaroslavl Oblast** (Lazareva, 1997; Lazareva, 1998a); **Northern Caucasus** (Singer, 1938a).

SIBERIA: **Altai Republic** (Gorbunova, 2001b; Perova and Gorbunova, 2001); **Irkutsk Oblast** (Astapenko, 1990b); **Khanty-Mansi Autonomous Okrug** (Zvyagina, Baykalova, and Gorbunova, 2007); **Krasnoyarsk Krai** (Beglyanova, 1972a; Bulakh, Wasser, Nazarova, and Nezdoininogo, 1990; Pavlov et al., 2007; Krom and Kapitonov, 2019); **Tomsk Oblast** (Agaphonova, Kutafjeva, and Gashkov, 2009a; Kudashova, Gashkov, and Kutafjeva, 2013; Kudashova, Gashkov, and Vaishlya, 2016b; Vaishlya et al., 2017).

FAR EAST: **Amur Oblast** (Bulakh, Wasser, Nazarova, and Nezdoininogo, 1990); **Jewish Autonomous Oblast** (Bulakh, Govorova, Nazarova, and Vassiljeva, 2007; Bau, Bulakh, and Govorova, 2011); **Khabarovsk Krai** (Azbukina et al., 1989; Bulakh, Wasser, Nazarova, and Nezdoininogo, 1990); **Primorsky Krai** (Vassiljeva, 1973; Shalapugina, 1976; Bunkina and Nazarova, 1978; Azbukina et al., 1984; Bulakh, Wasser, Nazarova, and Nezdoininogo, 1990; Azbukina et al., 2006; Bau, Bulakh, and Govorova, 2011; Malysheva et al., 2014; Malysheva et al., 2016; Bogacheva, Bulakh, Bukharova, and Egorova, 2020); **Sakhalin Oblast** (Vassiljeva and Nazarova, 1972; Bulakh, Wasser, Nazarova, and Nezdoininogo, 1990).

***Russula alnetorum* Romagn.<sup>1</sup>**

= *Russula pumila* Rouzeau & F. Massart<sup>2</sup>

EASTERN EUROPE: **Penza Oblast** (<sup>2</sup>Ivanov, 1983); **Ryazan Oblast** (<sup>1</sup>Volosnova, 2014); **Sverdlovsk Oblast** (<sup>1</sup>Marina, 2006).

FAR EAST: **Primorsky Krai** (<sup>1</sup>Bulakh, 1989; <sup>1</sup>Azbukina et al., 1990; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdoininogo, 1990; <sup>1</sup>Bardunov et al., 2002; <sup>1</sup>Azbukina et al., 2006; <sup>1</sup>Bau, Bulakh, and Govorova, 2011).

***Russula alpigenes* (Bon) Bon**

SIBERIA: **Tyva Republic** (Gorbunova, 2015).

***Russula alutacea* (Fr.) Fr.<sup>1</sup>**

≡ *Agaricus alutaceus* Fr.<sup>2</sup> = *Russula olivascens* Fr.<sup>3</sup> = *Russula roseipes* subsp. *dictyospora* Singer<sup>4</sup> = *Russula xerampelina* var. *olivascens* (Fr.) Quél.<sup>5</sup>

EASTERN EUROPE: **Belgorod Oblast** (<sup>3</sup>Bedenko, 1979a; <sup>1</sup>Bedenko, 1980); **Bryansk Oblast** (<sup>1</sup>Kruglikov, 2007); **Crimea** (<sup>1</sup>Dudka et al., 2004; <sup>5</sup>Sarkina, 2010a); **Kabardino-Balkarian Republic** (<sup>1</sup>Singer, 1931; <sup>1</sup>Shkhagapsoev and Krapivina, 2004); **Kaliningrad Oblast** (<sup>1</sup>Dedkov, Volodina, and Gubareva, 2007; <sup>3</sup>Volodina, 2007); **Krasnodar Krai** (<sup>1</sup>Sopina, 2004a); **Leningrad Oblast** (<sup>1</sup>Nezdoininogo, 1967; <sup>1</sup>Chastukhin and Nikolaevskaya, 1969; <sup>5</sup>Kalamees and Kovalenko, 1984; <sup>1,5</sup>Kovalenko and Morozova, 1999a; <sup>1,5</sup>Popov et al., 2007); **Moscow Oblast** (<sup>1</sup>Gorlenko, Sidorova, and Sidorova, 1989; <sup>1</sup>Levitskaya, 1995a; <sup>3</sup>Vishnevsky and Sidorova, 1997; <sup>1</sup>Levitskaya, 2013); **North Ossetia** (<sup>1</sup>Nikolayev, 2001); **Penza Oblast** (<sup>3</sup>Ivanov, 1983); **Pskov Oblast** (<sup>1</sup>Kolmakov, 2015); **Saint Petersburg** (<sup>2</sup>Weinmann, 1828; <sup>2</sup>Weinmann, 1836; <sup>2</sup>Weinmann, 1837; <sup>1</sup>Kovalenko and Morozova, 1999a); **Smolensk Oblast** (<sup>1,3</sup>Jaczewski, 1895; <sup>3</sup>Jaczewski, 1896); **Tatarstan** (<sup>1,3</sup>Vassiljeva, 1977); **Tula Oblast** (<sup>1</sup>Svetasheva, 2004; <sup>1</sup>Svetasheva, 2013); **Tver Oblast** (<sup>1</sup>Kotkova, 2014).



SIBERIA: **Altai Republic** (<sup>3,4,5</sup>Singer, 1938a); **Irkutsk Oblast** (<sup>1</sup>Petrov, Nezdoyminogo, and Bulakh, 1987; <sup>1</sup>Petrov, 1991; <sup>1</sup>Muzyka, 2002; <sup>1</sup>Petrov, 2008); **Khanty-Mansi Autonomous Okrug** (<sup>1</sup>Filippova, Bulyonkova, and Lapshina, 2015); **Krasnoyarsk Krai** (<sup>1,3</sup>Kryuchkova, 2009; <sup>1</sup>Zauzolkova, 2012; <sup>1</sup>Zauzolkova, 2015); **Kurgan Oblast** (<sup>1</sup>Bystrushkin, 2016); **Novosibirsk Oblast** (<sup>4</sup>Singer, 1938a; <sup>1,3</sup>Perova and Gorbunova, 2001; <sup>1</sup>Perova and Gorbunova, 2007); **Tomsk Oblast** (<sup>1,3</sup>Perova and Gorbunova, 2001; <sup>1,3</sup>Kudashova, Gashkov, and Kutafjeva, 2013).

FAR EAST: **Amur Oblast** (<sup>1</sup>Gordienko, Petrova, and Tarasov, 1981); **Jewish Autonomous Oblast** (<sup>1</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Bogacheva et al., 2018); **Khabarovsk Krai** (<sup>1</sup>Bulakh, 2013; <sup>1</sup>Bogacheva, Bulakh, Bukharova, and Egorova, 2015; <sup>1</sup>Erofeeva and Bulakh, 2015a; <sup>1</sup>Bogacheva et al., 2018); **Primorsky Krai** (<sup>1</sup>Vassiljeva, 1972; <sup>1,3</sup>Vassiljeva, 1973; <sup>3</sup>Shalapugina, 1976; <sup>1,3</sup>Bunkina and Nazarova, 1978; <sup>3</sup>Azbukina et al., 1984; <sup>1,3</sup>Azbukina et al., 2006; <sup>1</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Bulakh et al., 2016; <sup>1</sup>Bogacheva et al., 2018; <sup>1</sup>Bogacheva, Bulakh, Bukharova, and Egorova, 2020).

### ***Russula amarissima* Romagn. & E.-J. Gilbert**

EASTERN EUROPE: **Chelyabinsk Oblast** (Sirko and Stepanova, 1977; Stepanova and Sirko, 1977).

### ***Russula amethystina* Qué.**

EASTERN EUROPE: **Krasnodar Krai** (Sopina, 2004a); **Leningrad Oblast** (Morozova and Kovalenko, 2000; Popov et al., 2007); **Moscow Oblast** (Levitskaya, 1995a; Vishnevsky and Sidorova, 1997; Levitskaya, 2013); **Penza Oblast** (Ivanov, 1983); **Sverdlovsk Oblast** (Marina, 2006).

SIBERIA: **Khanty-Mansi Autonomous Okrug** (Filippova and Bulyonkova, 2017a; Filippova and Bulyonkova, 2017b); **Tomsk Oblast** (Kudashova, Gashkov, and Vaishlya, 2016a; Vaishlya et al., 2017).

FAR EAST: **Primorsky Krai** (Malysheva et al., 2016).

### ***Russula amoena* Qué.**

EASTERN EUROPE: **Belgorod Oblast** (Bedenko, 1980); **Kirov Oblast** (Kirillov, 2011; Kirillov, Perevedentseva, and Egoshina, 2011).

FAR EAST: **Jewish Autonomous Oblast** (Erofeeva, Bukharova, and Bulakh, 2019).

### ***Russula amoenata* Britzelm.**

EASTERN EUROPE: **Moscow Oblast** (Vishnevsky and Sidorova, 1997).

### ***Russula amoenolens* Romagn.**

EASTERN EUROPE: **Crimea** (Sarkina and Mironova, 2015; Sarkina and Stavishenko, 2019); **Moscow Oblast** (Levitskaya, 1995a; Levitskaya, 2013).

### ***Russula anatina* Romagn.**

EASTERN EUROPE: **Orenburg Oblast** (Desyatova, 2008); **Penza Oblast** (Ivanov, 1983); **Perm Krai** (Perevedentseva, 2008; Perevedentseva and Shilkova, 2010; Botalov, 2017).

### ***Russula anthracina* Romagn.**

EASTERN EUROPE: **Samara Oblast** (Malysheva and Malysheva, 2005b; Malysheva and Malysheva, 2008).

SIBERIA: **Altai Krai** (Gorbunova, 2018a; Gorbunova, 2018b); **Tomsk Oblast** (Kudashova, Gashkov, and Vaishlya, 2016a; Vaishlya et al., 2017).

### ***Russula aquosa* Leclair<sup>1</sup>**

= *Russula carminea* (Jul. Schäff.) Kühner & Romagn.<sup>2</sup>

EASTERN EUROPE: **Kaliningrad Oblast** (<sup>1</sup>Dedkov, Volodina, and Gubareva, 2007; <sup>1</sup>Volodina, 2007); **Karachay-Cherkess Republic** (<sup>1</sup>Onipchenko and Kaverina, 1989; <sup>1</sup>Kalamees and Botashev, 2000); **Karelia** (<sup>1</sup>Krutov et al., 2014); **Komi Republic** (<sup>1</sup>Palamarchuk, 2012); **Leningrad Oblast** (<sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Fomina, 2000; <sup>1</sup>Morozova and Kovalenko, 2000; <sup>1</sup>Fomina, 2001; <sup>1</sup>Popov et al., 2007); **Moscow Oblast** (<sup>1</sup>Levitskaya, 1995a; <sup>1</sup>Vishnevsky and Sidorova, 1997; <sup>1</sup>Levitskaya, 2013); **Penza Oblast** (<sup>1</sup>Ivanov, 1983); **Perm Krai** (<sup>1</sup>Perevedentseva, 2008; <sup>1</sup>Perevedentseva and Shilkova, 2010; <sup>1</sup>Belkovskaya et al., 2014); **Sverdlovsk Oblast** (<sup>1</sup>Marina, 2006); **Vologda Oblast** (<sup>1</sup>Kirillova, 2005; <sup>1</sup>Kirillova, 2007; <sup>1</sup>Kirillova and Podolskaya, 2012).

SIBERIA: **Altai Republic** (<sup>1</sup>Gorbunova, 2019); **Irkutsk Oblast** (<sup>2</sup>Petrov, Nezdoyminogo, and Bulakh, 1987; <sup>2</sup>Bulakh, Wasser, Nazarova, and Nezdoyminogo, 1990; <sup>2</sup>Petrov, 1991; <sup>2</sup>Petrov, 2008); **Khanty-Mansi Autonomous**

**Okrug** (<sup>1</sup>Filippova, Bulyonkova, and Lapshina, 2015; <sup>1</sup>Filippova and Bulyonkova, 2017a; <sup>1</sup>Filippova and Bulyonkova, 2017b).

FAR EAST: **Chukotka Autonomous Okrug** (<sup>2</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>2</sup>Karatygin, Nezdojminogo, Novozhilov, and Zhurbenko, 1999).

***Russula atroglauca* Einhell.**

SIBERIA: **Khanty-Mansi Autonomous Okrug** (Filippova and Bulyonkova, 2017a; Filippova and Bulyonkova, 2017b).

***Russula atropurpurea* (Krombh.) Britzelm.<sup>1</sup>**

= *Russula undulata* Velen.<sup>2</sup>

EASTERN EUROPE: **Kirov Oblast** (<sup>1</sup>Kirillov, 2011; <sup>1</sup>Kirillov, Perevedentseva, and Egoshina, 2011); **Leningrad Oblast** (<sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Popov et al., 2007); **Mordovia** (<sup>1</sup>Bolshakov and Ivoilov, 2012a); **Moscow Oblast** (<sup>1</sup>Levitskaya, 1995a; <sup>1</sup>Vishnevsky and Sidorova, 1997; <sup>1</sup>Levitskaya, 2013); **Oryol Oblast** (<sup>2</sup>Radygina, Derzhavina, and Tsutsupa, 2014); **Perm Krai** (<sup>1</sup>Perevedentseva, 2008; <sup>1</sup>Perevedentseva and Shilkova, 2010; <sup>1</sup>Perevedentseva and Shishigin, 2015; <sup>1</sup>Botalov, 2017); **Pskov Oblast** (<sup>1</sup>Kolmakov, 2015); **Saint Petersburg** (<sup>1</sup>Morozova and Smirnov, 2011); **Tula Oblast** (<sup>1</sup>Svetasheva, 2004); **Udmurt Republic** (<sup>1</sup>Tychinin and Kuzmina, 2003); **Yaroslavl Oblast** (<sup>2</sup>Lazareva, 1998a).

SIBERIA: **Altai Republic** (<sup>1</sup>Gorbunova, 2008; <sup>1</sup>Gorbunova, 2017b); **Tomsk Oblast** (<sup>2</sup>Vaishlya et al., 2017).

FAR EAST: **Khabarovsk Krai** (<sup>1</sup>Azbukina et al., 1986); **Primorsky Krai** (<sup>1</sup>Bau, Bulakh, Zhuang, and Li, 2007; <sup>1</sup>Bau, Bulakh, and Govorova, 2011).

***Russula atrorubens* Quél.**

EASTERN EUROPE: **Karelia** (Krutov et al., 2014; Savelev and Kikeeva, 2020); **Leningrad Oblast** (Stolyarskaya, 1993; Kovalenko and Morozova, 1999a; Fomina, 2000; Fomina, 2001; Morozova, 2007; Popov et al., 2007; Zmitrovich et al., 2015; Malysheva, Malysheva, Shchepin, and Novozhilov, 2018); **Moscow Oblast** (Levitskaya, 1995a; Levitskaya, 2013); **Vologda Oblast** (Kirillova, 2005; Kirillova, 2007; Kirillova and Podolskaya, 2012).

SIBERIA: **Khanty-Mansi Autonomous Okrug** (Filippova, Bulyonkova, and Lapshina, 2015); **Krasnoyarsk Krai** (Malysheva, Malysheva, Kiyashko, et al., 2017).

***Russula aurantiaca* (Jul. Schäff.) Romagn.**

EASTERN EUROPE: **Belgorod Oblast** (Bedenko, 1980); **Chelyabinsk Oblast** (Sirko and Stepanova, 1977; Stepanova and Sirko, 1977); **Pskov Oblast** (Kolmakov, 2015); **Samara Oblast** (Malysheva and Malysheva, 2008).

SIBERIA: **Novosibirsk Oblast** (Perova, 1977; Perova and Gorbunova, 2001; Perova and Gorbunova, 2007).

***Russula aurea* Pers.<sup>1</sup>**

= *Russula aurata* Fr.<sup>2</sup>

EASTERN EUROPE: **Adygea** (<sup>1</sup>Sopina, 2004a); **Belgorod Oblast** (<sup>2</sup>Bedenko, 1980; <sup>2</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990); **Chelyabinsk Oblast** (<sup>1</sup>Bolshakov, Bogdanov, Knyazev, and Lagunov, 2017); **Crimea** (<sup>2</sup>Sarkina, 2001; <sup>2</sup>Dudka et al., 2004; <sup>2</sup>Sarkina, 2010a; <sup>1</sup>Sarkina and Prydiuk, 2012; <sup>1</sup>Sarkina and Stavishenko, 2019); **Kaliningrad Oblast** (<sup>1</sup>Dedkov, Volodina, and Gubareva, 2007; <sup>1</sup>Volodina, 2007); **Kaluga Oblast** (<sup>2</sup>Sionova, 2003; <sup>1</sup>Sionova, 2009; <sup>1</sup>Antokhina et al., 2015); **Karelia** (<sup>1</sup>Kovalenko, Morozova, Fomina, and Särkisilta, 1998; <sup>1</sup>Bondartseva et al., 2001; <sup>1</sup>Krutov et al., 2014); **Krasnodar Krai** (<sup>2</sup>Vassiljeva, 1939); **Leningrad Oblast** (<sup>2</sup>Kalamees and Kovalenko, 1984; <sup>2</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Tzvelev, 2000; <sup>1</sup>Popov et al., 2007; <sup>1</sup>Geltman et al., 2018; <sup>1</sup>Geltman, 2018b); **Lipetsk Oblast** (<sup>1</sup>Sarycheva et al., 2009; <sup>1</sup>Sarycheva, 2011; <sup>1</sup>Sarycheva, 2014a; <sup>1</sup>Sarycheva, 2016); **Mordovia** (<sup>1</sup>Ivoilov and Bolshakov, 2011b; <sup>1</sup>Bolshakov and Ivoilov, 2012b; <sup>1</sup>Silaeva, 2017); **Moscow Oblast** (<sup>2</sup>Gorlenko, Sidorova, and Sidorova, 1989; <sup>1</sup>Varlygina, Zubakin, and Sobolev, 2008; <sup>1</sup>Varlygina, Zubakin, Nikitsky, and Sviridov, 2018); **Penza Oblast** (<sup>2</sup>Ivanov, 1981a; <sup>2</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990); **Saint Petersburg** (<sup>1</sup>Geltman, 2018a); **Sverdlovsk Oblast** (<sup>1</sup>Korytin, 2018; <sup>1</sup>Shiryayeva, 2018); **Tatarstan** (<sup>1</sup>Potapov, 2015b; <sup>1</sup>Potapov, 2016b); **Tula Oblast** (<sup>1</sup>Svetasheva, 2004; <sup>1</sup>Shcherbakov, 2010; <sup>1</sup>Svetasheva, 2013; <sup>1</sup>Svetasheva, 2018; <sup>1</sup>Svetasheva, Sheremetyeva, and Lakomov, 2019); **Udmurt Republic** (<sup>2</sup>Tychinin and Kuzmina, 2003); **Vologda Oblast** (<sup>1</sup>Konechnaya and Suslova, 2004; <sup>1</sup>Kirillova, 2007; <sup>1</sup>Kirillova and Podolskaya, 2012); **Yaroslavl Oblast** (<sup>1</sup>Lazareva, 1998a); **Northern Caucasus** (<sup>2</sup>Singer, 1938a).

SIBERIA: **Altai Republic** (<sup>2</sup>Kovalenko, 1992; <sup>2</sup>Gorbunova, 1996; <sup>2</sup>Gorbunova, 1997; <sup>2</sup>Perova and Gorbunova, 2001); **Buryatia** (<sup>2</sup>Petrov, 1991); **Irkutsk Oblast** (<sup>2</sup>Kutafjeva, 1984; <sup>2</sup>Petrov, Nezdojminogo, and Bulakh, 1987);

<sup>2</sup>Astapenko, 1990b; <sup>2</sup>Petrov, 1991; <sup>1</sup>Petrov, 2008; <sup>2</sup>Heklau and Dörfelt, 2017); **Khakassia** (<sup>1</sup>Zauzolkova, 2015); **Krasnoyarsk Krai** (<sup>2</sup>Beglyanova, 1972a; <sup>2</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>2</sup>Lapitskaya, 1993; <sup>2</sup>Pavlov et al., 2007; <sup>1</sup>Kosheleva and Kutafjeva, 2008a; <sup>1</sup>Kosheleva and Kutafjeva, 2008b; <sup>2</sup>Kosheleva, 2010; <sup>1</sup>Stepanov, 2012; <sup>1</sup>Zauzolkova, 2015; <sup>1</sup>Krom and Kapitonov, 2019); **Kurgan Oblast** (<sup>1</sup>Bystrushkin, 2016); **Novosibirsk Oblast** (<sup>2</sup>Perova and Gorbunova, 2001; <sup>1</sup>Gorbunova, 2007; <sup>1</sup>Perova and Gorbunova, 2007; <sup>1</sup>Koropachinskiy and Banaev, 2014); **Tomsk Oblast** (<sup>2</sup>Milovidova, 1980; <sup>1</sup>Kudashova, Gashkov, and Kutafjeva, 2013; <sup>1</sup>Vaishlya et al., 2017); **Siberia** (<sup>2</sup>Singer, 1942).

FAR EAST: **Amur Oblast** (<sup>2</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>2</sup>Taranina, 2005; <sup>1</sup>Kochunova, 2019); **Jewish Autonomous Oblast** (<sup>1</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Erofeeva and Bulakh, 2015b); **Khabarovsk Krai** (<sup>2</sup>Azbukina et al., 1989; <sup>2</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Erofeeva and Bulakh, 2015a); **Primorsky Krai** (<sup>2</sup>Vassiljeva, 1972; <sup>2</sup>Vassiljeva, 1973; <sup>2</sup>Shalapugina, 1976; <sup>2</sup>Bunkina and Nazarova, 1978; <sup>2</sup>Azbukina et al., 1984; <sup>2</sup>Azbukina et al., 1990; <sup>2</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>2</sup>Bardunov et al., 2002; <sup>2</sup>Azbukina et al., 2006; <sup>2</sup>Bau, Bulakh, Zhuang, and Li, 2007; <sup>1</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Bulakh et al., 2016; <sup>1</sup>Bogacheva, Bulakh, Bukharova, and Egorova, 2020).

### ***Russula aurora* Krombh.<sup>1</sup>**

= *Russula rosea* Quél.<sup>2</sup> = *Russula velutipes* Velen.<sup>3</sup>

EASTERN EUROPE: **Adygea** (<sup>3</sup>Sopina, 2004a); **Crimea** (<sup>2</sup>Sarkina, 2001; <sup>2</sup>Dudka et al., 2004; <sup>2</sup>Sarkina, 2010a; <sup>2</sup>Sarkina, 2010b; <sup>2</sup>Sarkina, 2011; <sup>2</sup>Sarkina, 2014b; <sup>2</sup>Sarkina, 2016a); **Kaluga Oblast** (<sup>2</sup>Sionova, 2003); **Leningrad Oblast** (<sup>2</sup>Chastukhin and Nikolaevskaya, 1969; <sup>2</sup>Kovalenko and Morozova, 1999a; <sup>2</sup>Popov et al., 2007); **Lipetsk Oblast** (<sup>2</sup>Afanasyev, Rtishcheva, and Starodubtseva, 2007; <sup>2</sup>Sarycheva, Starodubtseva, and Sapelnikova, 2017); **Moscow Oblast** (<sup>2</sup>Levitskaya, 1995a; <sup>2</sup>Vishnevsky and Sidorova, 1997; <sup>2</sup>Levitskaya, 2013); **Orenburg Oblast** (<sup>3</sup>Desyatova, 2008); **Perm Krai** (<sup>1,2</sup>Perevedentseva, 2008; <sup>1</sup>Perevedentseva and Shilkova, 2010; <sup>1,2</sup>Belkovskaya et al., 2014); **Smolensk Oblast** (<sup>2</sup>Burova, 1969); **Tula Oblast** (<sup>1</sup>Svetasheva, 2004); **Voronezh Oblast** (<sup>2</sup>Afanasyev, Rtishcheva, and Starodubtseva, 2007; <sup>2</sup>Sarycheva, Starodubtseva, and Sapelnikova, 2017); **Arid territories** (<sup>1</sup>Rebriev, Rusanov, et al., 2012).

SIBERIA: **Altai Republic** (<sup>2</sup>Gorbunova, 2008); **Kurgan Oblast** (<sup>1</sup>Bystrushkin, 2016); **Tomsk Oblast** (<sup>1,2</sup>Kudashova, Gashkov, and Kutafjeva, 2013; <sup>1</sup>Vaishlya et al., 2017).

FAR EAST: **Jewish Autonomous Oblast** (<sup>2</sup>Bulakh, Govorova, Nazarova, and Vassiljeva, 2007; <sup>1</sup>Bau, Bulakh, and Govorova, 2011); **Khabarovsk Krai** (<sup>2</sup>Azbukina et al., 1989; <sup>2</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1</sup>Bau, Bulakh, and Govorova, 2011); **Primorsky Krai** (<sup>2</sup>Bulakh, 1977; <sup>2</sup>Azbukina et al., 1984; <sup>2</sup>Azbukina et al., 1990; <sup>2</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>2</sup>Bardunov et al., 2002; <sup>1</sup>Bau, Bulakh, and Govorova, 2011).

### ***Russula azurea* Bres.**

EASTERN EUROPE: **Adygea** (Sopina, 2004a); **Bryansk Oblast** (Kruglikov, 2007); **Krasnodar Krai** (Vassiljeva, 1939; Kovalenko, 1980a; Kovalenko, 1980b); **Kursk Oblast** (Soshnina, 2017); **Moscow** (Burova, 1968); **Moscow Oblast** (Vishnevsky and Sidorova, 1997); **Perm Krai** (Perevedentseva, 2008; Perevedentseva and Shilkova, 2010); **Sverdlovsk Oblast** (Stepanova and Sirko, 1977; Marina, 2006); **Tambov Oblast** (Elenevskiy, 2002; Konakov et al., 2019); **Tatarstan** (Shchepovskiy, Bojko, Gorshkov, and Rogova, 2006; Yupina, Marfin, Sapayev, and Potapov, 2006); **Udmurt Republic** (Tychinin and Kuzmina, 2003); **Vologda Oblast** (Konechnaya and Suslova, 2004; Kirillova, 2007; Kirillova and Podolskaya, 2012); **Voronezh Oblast** (Agafonov, 2011; Agafonov, 2018); **Arid territories** (Rebriev, Rusanov, et al., 2012).

SIBERIA: **Tomsk Oblast** (Milovidova, 1980; Kudashova, Gashkov, and Kutafjeva, 2013; Kudashova, Gashkov, and Vaishlya, 2016b).

FAR EAST: **Primorsky Krai** (Vassiljeva, 1972; Vassiljeva, 1973).

### ***Russula badia* Quél.**

EASTERN EUROPE: **Crimea** (Sarkina, 2001; Dudka et al., 2004; Sarkina, 2010a); **Kaliningrad Oblast** (Dedkov, Volodina, and Gubareva, 2007; Volodina, 2007); **Karelia** (Freindling, 1949; Bondartseva et al., 2001; Krutov et al., 2014); **Krasnodar Krai** (Vassiljeva, 1939); **Perm Krai** (Perevedentseva, 2008; Perevedentseva and Shilkova, 2010; Belkovskaya et al., 2014); **Tatarstan** (Vassiljeva, 1977); **Northern Caucasus** (Singer, 1938a).

SIBERIA: **Khanty-Mansi Autonomous Okrug** (Filippova and Bulyonkova, 2017a; Filippova and Bulyonkova, 2017b); **Tomsk Oblast** (Kudashova, Gashkov, and Kutafjeva, 2013; Vaishlya et al., 2017).

***Russula bella* Hongo**

FAR EAST: **Primorsky Krai** (Bulakh, 1989; Azbukina et al., 1990; Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990).

***Russula betularum* Hora<sup>1</sup>**

≡ *Russula emetica* var. *betularum* (Hora) Romagn.<sup>2</sup>

EASTERN EUROPE: **Kaliningrad Oblast** (<sup>1</sup>Dedkov, Volodina, and Gubareva, 2007; <sup>1</sup>Volodina, 2007; <sup>1</sup>Atayev and Volodina, 2020); **Karelia** (<sup>1</sup>Krutov et al., 2014; <sup>1</sup>Savelev and Kikeeva, 2020); **Kirov Oblast** (<sup>1</sup>Kirillov, 2011; <sup>1</sup>Kirillov, Perevedentseva, and Egoshina, 2011); **Komi Republic** (<sup>1</sup>Palamarchuk, 2016a; <sup>1</sup>Palamarchuk, 2016b; <sup>1</sup>Palamarchuk, 2020a); **Leningrad Oblast** (<sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Fomina, 2000; <sup>1</sup>Fomina, 2001; <sup>1</sup>Popov et al., 2007; <sup>1</sup>Zmitrovich et al., 2015); **Moscow Oblast** (<sup>1</sup>Levitskaya, 1995a; <sup>1</sup>Vishnevsky and Sidorova, 1997; <sup>1</sup>Levitskaya, 2013); **Novgorod Oblast** (<sup>1</sup>Kovalenko, Morozova, Nezdojminogo, and Popov, 2005; <sup>1</sup>Popov et al., 2013); **Penza Oblast** (<sup>2</sup>Ivanov, 1981a; <sup>1</sup>Ivanov, 2019); **Perm Krai** (<sup>1</sup>Perevedentseva, 2008; <sup>1</sup>Perevedentseva and Shilkova, 2010; <sup>1</sup>Belkovskaya et al., 2014; <sup>1</sup>Perevedentseva and Shishigin, 2014; <sup>1</sup>Perevedentseva and Shishigin, 2015; <sup>1</sup>Botalov, 2017); **Pskov Oblast** (<sup>1</sup>Kalinina, Bolshakov, and Bulyonkova, 2020); **Saint Petersburg** (<sup>1</sup>Morozova and Smirnov, 2011; <sup>1</sup>Morozova et al., 2020); **Sverdlovsk Oblast** (<sup>1</sup>Marina, 2006); **Tula Oblast** (<sup>1</sup>Svetasheva, 2004; <sup>1</sup>Svetasheva, 2005b); **Tver Oblast** (<sup>1</sup>Mukhina, 2011a; <sup>1</sup>Mukhina, 2011b; <sup>1</sup>Kotkova, 2014); **Vologda Oblast** (<sup>1</sup>Kirillova, 2005; <sup>1</sup>Kirillova, 2007; <sup>1</sup>Kirillova and Podolskaya, 2012).

SIBERIA: **Khanty-Mansi Autonomous Okrug** (<sup>1</sup>Zvyagina and Baykalova, 2017); **Kurgan Oblast** (<sup>1</sup>Bystrushkin, 2016); **Tomsk Oblast** (<sup>1</sup>Kudashova, Gashkov, and Kutafjeva, 2013).

FAR EAST: **Magadan Oblast** (<sup>2</sup>Sazanova, 1996; <sup>2</sup>Sazanova, 2005; <sup>1</sup>Sazanova, 2009a; <sup>1</sup>Sazanova, 2011).

***Russula blackfordiae* Peck**

EASTERN EUROPE: **Belgorod Oblast** (Bedenko, 1980); **Perm Krai** (Perevedentseva, 2008; Perevedentseva and Shilkova, 2010); **Ryazan Oblast** (Volosnova, 2005); **Tatarstan** (Vassiljeva, 1977).

SIBERIA: **Irkutsk Oblast** (Petrov, 1991; Petrov, 2008); **Novosibirsk Oblast** (Perova, 1977; Perova and Gorbunova, 2001); **Tomsk Oblast** (Kudashova, Gashkov, and Kutafjeva, 2013).

FAR EAST: **Amur Oblast** (Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990); **Chukotka Autonomous Okrug** (Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990); **Jewish Autonomous Oblast** (Bulakh, Govorova, Nazarova, and Vassiljeva, 2007); **Khabarovsk Krai** (Azbukina et al., 1989; Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990); **Magadan Oblast** (Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; Sazanova, 1996; Sazanova, 2005; Sazanova, 2009a; Sazanova, 2011; Sazanova, 2012); **Primorsky Krai** (Vassiljeva, 1972; Vassiljeva, 1973; Azbukina et al., 1984; Azbukina et al., 1990; Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; Bardunov et al., 2002); **Sakhalin Oblast** (Vassiljeva and Nazarova, 1972; Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; Bulakh, Govorova, and Bogatov, 1999).

***Russula brevipes* Peck**

SIBERIA: **Tomsk Oblast** (Kudashova, Gashkov, and Kutafjeva, 2013; Kudashova, Gashkov, and Vaishlya, 2016b; Vaishlya et al., 2017).

***Russula brunneola* Burl.**

FAR EAST: **Jewish Autonomous Oblast** (Bulakh, Govorova, Nazarova, and Vassiljeva, 2007; Bau, Bulakh, and Govorova, 2011; Bogacheva et al., 2018); **Khabarovsk Krai** (Azbukina et al., 1989; Bulakh, 1989; Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; Bau, Bulakh, and Govorova, 2011; Bogacheva et al., 2018); **Primorsky Krai** (Bulakh, 1989; Azbukina et al., 1990; Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; Bardunov et al., 2002; Bau, Bulakh, and Govorova, 2011; Bulakh et al., 2016; Bogacheva et al., 2018; Bogacheva, Bulakh, Bukharova, and Egorova, 2020); **Sakhalin Oblast** (Eremin, 2005; Bogacheva et al., 2018; Eremin, 2019).

***Russula brunneoviolacea* Crawshay**

EASTERN EUROPE: **Belgorod Oblast** (Bedenko, 1980; Bulakh, 1989; Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990); **Karelia** (Predtechenskaya and Ruokolainen, 2013); **Moscow Oblast** (Levitskaya, 1995a; Vishnevsky and Sidorova, 1997; Levitskaya, 2013); **Perm Krai** (Perevedentseva, 2008; Perevedentseva and Shilkova, 2010; Belkovskaya et al., 2014); **Pskov Oblast** (Kolmakov, 2015); **Samara Oblast** (Malysheva and Malysheva, 2005b; Malysheva and Malysheva, 2008).

SIBERIA: **Altai Republic** (Gorbunova, 1997; Perova and Gorbunova, 2001); **Irkutsk Oblast** (Petrov, 1989; Petrov, 1991; Petrov, 2008); **Khakassia** (Zauzolkova and Gorbunova, 2013; Zauzolkova, 2015).

FAR EAST: **Khabarovsk Krai** (Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; Bau, Bulakh, and Govorova, 2011; Bulakh, 2013; Bogacheva, Bulakh, Bukharova, and Egorova, 2015); **Primorsky Krai** (Bulakh, 1989; Azbukina et al., 1990; Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; Bardunov et al., 2002; Malysheva et al., 2014; Bulakh et al., 2016; Malysheva et al., 2016).

***Russula caerulea* Fr.**

EASTERN EUROPE: **Kaluga Oblast** (Bulakh, 1989; Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990).

SIBERIA: **Altai Krai** (Gorbunova and Perova, 2006); **Irkutsk Oblast** (Petrov, 1991; Petrov, 2008).

FAR EAST: **Primorsky Krai** (Bulakh, 1989; Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990).

***Russula carpini* R. Girard & Heinem.**

EASTERN EUROPE: **Adygea** (Sopina, 2004a); **Kaliningrad Oblast** (Dedkov, Volodina, and Gubareva, 2007); **Krasnodar Krai** (Sopina, 2004a).

FAR EAST: **Primorsky Krai** (Bulakh, 1989; Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990).

***Russula cavipes* Britzelm.**

SIBERIA: **Khakassia** (Zauzolkova and Gorbunova, 2013; Zauzolkova, 2015); **Khanty-Mansi Autonomous Okrug** (Zvyagina and Baykalova, 2017).

***Russula cessans* A. Pearson**

EASTERN EUROPE: **Kaliningrad Oblast** (Dedkov, Volodina, and Gubareva, 2007; Volodina, 2007); **Karelia** (Kovalenko, Morozova, Fomina, and Särkisilta, 1998; Krutov et al., 2014); **Leningrad Oblast** (Morozova, 2007); **Moscow Oblast** (Levitskaya, 1995a; Levitskaya, 2013); **Orenburg Oblast** (Korshikova, 2006; Desyatova, 2008); **Tula Oblast** (Svetasheva, 2004; Shcherbakov, 2010).

***Russula chamaeleon* Singer**

EASTERN EUROPE: **Saint Petersburg** (Singer, 1937; Singer, 1942).

***Russula chloroides* (Krombh.) Bres.**

EASTERN EUROPE: **Adygea** (Vaasma, Kalamees, and Raitviir, 1986; Sopina, 2004a); **Crimea** (Moser, 1993; Sarkina, 2001; Dudka et al., 2004; Sarkina, 2010a; Sarkina, 2011; Sarkina and Prydiuk, 2012); **Karachay-Cherkess Republic** (Kalamees and Botashev, 2000); **Karelia** (Kovalenko, Morozova, Fomina, and Särkisilta, 1998; Bondartseva et al., 2001; Krutov et al., 2014); **Komi Republic** (Palamarchuk, 2016a; Palamarchuk, 2016b); **Leningrad Oblast** (Kovalenko and Morozova, 1999a; Popov et al., 2007); **Moscow Oblast** (Vishnevsky and Sidorova, 1997; Levitskaya, 2006; Levitskaya, 2013); **Novgorod Oblast** (Morozova, 2012; Popov et al., 2013); **Penza Oblast** (Ivanov, 1988a; Ivanov, 2019); **Perm Krai** (Perevedentseva, 2008; Perevedentseva and Shilkova, 2010; Belkovskaya et al., 2014); **Pskov Oblast** (Kovalenko and Morozova, 1999b); **Saint Petersburg** (Morozova et al., 2020); **Samara Oblast** (Malysheva and Malysheva, 2008); **Sverdlovsk Oblast** (Marina, 2006); **Tatarstan** (Potapov, 2016a); **Tula Oblast** (Svetasheva, 2004); **Ulyanovsk Oblast** (Svetasheva et al., 2017).

SIBERIA: **Krasnoyarsk Krai** (Krom and Kapitonov, 2019); **Tomsk Oblast** (Agaphonova, Kutafjeva, and Gashkov, 2009a; Kudashova, Gashkov, and Kutafjeva, 2013).

FAR EAST: **Primorsky Krai** (Malysheva et al., 2014; Malysheva et al., 2016).

***Russula citrinoclora* Singer**

EASTERN EUROPE: **Komi Republic** (Karatygin, Nezdojminogo, Novozhilov, and Zhurbenko, 1999); **Yamalo-Nenets Autonomous Okrug** (Knudsen and Mukhin, 1998; Karatygin, Nezdojminogo, Novozhilov, and Zhurbenko, 1999).

SIBERIA: **Altai Republic** (Singer, 1938a); **Khanty-Mansi Autonomous Okrug** (Zvyagina and Baykalova, 2017).

FAR EAST: **Khabarovsk Krai** (Azbukina et al., 1986).

***Russula claroflava* Grove<sup>1</sup>**

= *Russula constans* Britzelm.<sup>2</sup> = *Russula flava* Romell<sup>3</sup>

EASTERN EUROPE: **Arkhangelsk Oblast** (<sup>1</sup>Ezhov, Ershov, Ruokolainen, and Zmitrovich, 2011; <sup>1</sup>Ezhov, 2014; <sup>1</sup>Ezhov, Zmitrovich, and Ruokolainen, 2019); **Belgorod Oblast** (<sup>3</sup>Bedenko, 1979a; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990); **Bryansk Oblast** (<sup>1</sup>Kruglikov, 2007); **Chelyabinsk Oblast** (<sup>3</sup>Sirko and Stepanova, 1977;

<sup>3</sup>Stepanova and Sirko, 1977); **Crimea** (<sup>1</sup>Sarkina, 2010a; <sup>1</sup>Sarkina and Mironova, 2015; <sup>1</sup>Sarkina and Stavishenko, 2019); **Kabardino-Balkarian Republic** (<sup>1</sup>Shkhagapsoev and Krapivina, 2003; <sup>1</sup>Shkhagapsoev and Krapivina, 2004); **Kaliningrad Oblast** (<sup>1</sup>Dedkov, Volodina, and Gubareva, 2007; <sup>1</sup>Volodina, 2007; <sup>1</sup>Atayev and Volodina, 2020); **Kaluga Oblast** (<sup>1</sup>Sionova, 2003; <sup>1</sup>Sionova, 2006); **Karelia** (<sup>3</sup>Freindling, 1949; <sup>1</sup>Kovalenko, Morozova, Fomina, and Särkisilta, 1998; <sup>1</sup>Bondartseva et al., 2001; <sup>1</sup>Predtechenskaya and Ruokolainen, 2008; <sup>1</sup>Predtechenskaya and Ruokolainen, 2013; <sup>1</sup>Predtechenskaya, 2013; <sup>1</sup>Krutov et al., 2014; <sup>1</sup>Predtechenskaya and Ruokolainen, 2014; <sup>1</sup>Predtechenskaya, 2015; <sup>1</sup>Savelev and Kikeeva, 2020); **Kirov Oblast** (<sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdoininogo, 1990; <sup>1</sup>Kirillov, 2011; <sup>1</sup>Kirillov, Perevedentseva, and Egoshina, 2011; <sup>1</sup>Stavishenko, Luginina, Kirillov, and Egoshina, 2019); **Komi Republic** (<sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdoininogo, 1990; <sup>1</sup>Palamarchuk, 2012; <sup>1</sup>Palamarchuk, 2016a; <sup>1</sup>Palamarchuk, 2016b; <sup>1</sup>Palamarchuk and Kirillov, 2017); **Kostroma Oblast** (<sup>3</sup>Burova, 1982); **Krasnodar Krai** (<sup>1</sup>Kovalenko, 1980a; <sup>1</sup>Kovalenko, 1980b); **Leningrad Oblast** (<sup>2</sup>Thesleff, 1920; <sup>1</sup>Nezdoininogo, 1967; <sup>3</sup>Kalamees and Kovalenko, 1984; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdoininogo, 1990; <sup>3</sup>Stolyarskaya, 1993; <sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Fomina, 2000; <sup>1</sup>Morozova and Kovalenko, 2000; <sup>1</sup>Fomina, 2001; <sup>1</sup>Morozova, 2007; <sup>1</sup>Popov et al., 2007; <sup>1</sup>Zmitrovich et al., 2015; <sup>1</sup>Kalinina, 2018); **Lipetsk Oblast** (<sup>3</sup>Rtishcheva, 1999; <sup>3</sup>Afanasyev, Rtishcheva, and Starodubtseva, 2007; <sup>1</sup>Sarycheva et al., 2009; <sup>1</sup>Sarycheva, Starodubtseva, and Sapelnikova, 2017); **Mordovia** (<sup>3</sup>Kuznetsov, 1960; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdoininogo, 1990; <sup>1</sup>Ivoilov and Bolshakov, 2011b; <sup>3</sup>Chastukhin, 2011); **Moscow Oblast** (<sup>3</sup>Gorlenko, Sidorova, and Sidorova, 1989; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdoininogo, 1990; <sup>1</sup>Levitskaya, 1995a; <sup>3</sup>Vishnevsky and Sidorova, 1997; <sup>1</sup>Voronina et al., 2012; <sup>1</sup>Levitskaya, 2013; <sup>1</sup>Voronina et al., 2014); **Murmansk Oblast** (<sup>1</sup>Mikhailovskii, 1975b; <sup>3</sup>Mikhailovskii, 1975b; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdoininogo, 1990; <sup>1</sup>Karatygin, Nezdoininogo, Novozhilov, and Zhurbenko, 1999); **Novgorod Oblast** (<sup>1</sup>Kovalenko, Morozova, Nezdoininogo, and Popov, 2005; <sup>1</sup>Malysheva, Malysheva, and Zmitrovich, 2007; <sup>1</sup>Popov et al., 2013); **Penza Oblast** (<sup>3</sup>Ivanov, 1981a; <sup>1</sup>Ivanov, 2019); **Perm Krai** (<sup>3</sup>Shkaraba, Perevedentseva, and Moshkina, 1990; <sup>1</sup>Perevedentseva, 2008; <sup>1</sup>Perevedentseva and Shilkova, 2010; <sup>1</sup>Belkovskaya et al., 2014; <sup>1</sup>Perevedentseva and Shishigin, 2014; <sup>1</sup>Perevedentseva and Shishigin, 2015; <sup>1</sup>Botalov, 2017); **Pskov Oblast** (<sup>1</sup>Kovalenko, Kolmakov, Morozova, and Popov, 2003; <sup>1</sup>Popov et al., 2013; <sup>1</sup>Kolmakov, 2015); **Rostov Oblast** (<sup>1</sup>Rusanov et al., 2004; <sup>1</sup>Zmitrovich et al., 2008); **Ryazan Oblast** (<sup>1</sup>Volosnova, 1997; <sup>1</sup>Volosnova, 2014); **Saint Petersburg** (<sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Morozova and Smirnov, 2011; <sup>1</sup>Morozova et al., 2020); **Samara Oblast** (<sup>1</sup>Malysheva and Malysheva, 2008); **Saratov Oblast** (<sup>1</sup>Nagumanov, 2015); **Smolensk Oblast** (<sup>1</sup>Burova, 1969); **Sverdlovsk Oblast** (<sup>1</sup>Stepanova and Sirko, 1977; <sup>1</sup>Marina, 2006); **Tatarstan** (<sup>3</sup>Vassiljeva, 1977); **Tula Oblast** (<sup>1</sup>Svetasheva, 2001; <sup>1</sup>Svetasheva, 2004; <sup>1</sup>Svetasheva, 2013); **Tver Oblast** (<sup>3</sup>Kurochkin, 1993; <sup>1</sup>Mukhina, 2011a; <sup>1</sup>Mukhina, 2011b; <sup>1</sup>Kotkova, 2014); **Udmurt Republic** (<sup>1</sup>Tychinin and Kuzmina, 2003); **Ulyanovsk Oblast** (<sup>1</sup>Ilyukhin, 2009; <sup>1</sup>Ilyukhin, 2010a; <sup>1</sup>Artemyeva, Maslennikov, and Korepov, 2015); **Vladimir Oblast** (<sup>1</sup>Mishulin, Blinov, and Gushchina, 2018); **Vologda Oblast** (<sup>1</sup>Kirillova, 2005; <sup>1</sup>Kirillova, 2007; <sup>1</sup>Kirillova and Podolskaya, 2012); **Voronezh Oblast** (<sup>3</sup>Rtishcheva, 1999; <sup>3</sup>Afanasyev, Rtishcheva, and Starodubtseva, 2007; <sup>1</sup>Sarycheva, Starodubtseva, and Sapelnikova, 2017; <sup>1</sup>Kochergina and Furmenkova, 2019); **Yamalo-Nenets Autonomous Okrug** (<sup>1</sup>Stepanova and Sirko, 1977; <sup>1</sup>Karatygin, Nezdoininogo, Novozhilov, and Zhurbenko, 1999; <sup>1</sup>Nezdoininogo, 2001); **Yaroslavl Oblast** (<sup>1</sup>Lazareva, 1997; <sup>1</sup>Lazareva, 1998a); **Arid territories** (<sup>1</sup>Rebriev, Rusanov, et al., 2012).

**SIBERIA: Altai Krai** (<sup>1</sup>Gorbunova and Perova, 2006); **Altai Republic** (<sup>1</sup>Kovalenko, 1992; <sup>3</sup>Gorbunova, 1997; <sup>1</sup>Gorbunova, 2001b; <sup>1</sup>Perova and Gorbunova, 2001; <sup>1</sup>Gorbunova, 2008); **Buryatia** (<sup>1</sup>Nezdoininogo, 1970a; <sup>3</sup>Penzina and Petrov, 1994); **Irkutsk Oblast** (<sup>3</sup>Kutafjeva, 1984; <sup>3</sup>Petrov, Nezdoininogo, and Bulakh, 1987; <sup>3</sup>Astapenko, 1990b; <sup>3</sup>Bardunov et al., 2005; <sup>3</sup>Petrov, 2008); **Khakassia** (<sup>1</sup>Zauzolkova, 2015); **Khanty-Mansi Autonomous Okrug** (<sup>1</sup>Zvyagina and Baykalova, 2012; <sup>1</sup>Filippova, Bulyonkova, and Lapshina, 2015; <sup>1</sup>Filippova and Bulyonkova, 2017a; <sup>1</sup>Filippova and Bulyonkova, 2017b; <sup>1</sup>Zvyagina and Baykalova, 2017); **Krasnoyarsk Krai** (<sup>1</sup>Beglyanova, 1972a; <sup>1</sup>Nezdoininogo, 1976a; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdoininogo, 1990; <sup>3</sup>Lapitskaya, 1993; <sup>1</sup>Kutafjeva and Kosheleva, 2005; <sup>1</sup>Kryuchkova, 2009; <sup>1</sup>Kryuchkova, 2014a); **Kurgan Oblast** (<sup>1</sup>Bystrushkin, 2016); **Novosibirsk Oblast** (<sup>3</sup>Perova, 1977; <sup>1</sup>Perova and Gorbunova, 2001; <sup>1</sup>Gorbunova, 2007; <sup>1</sup>Koropachinskiy and Banaev, 2014); **Sverdlovsk Oblast** (<sup>1</sup>Stepanova and Sirko, 1977); **Tomsk Oblast** (<sup>1</sup>Milovidova, 1980; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdoininogo, 1990; <sup>1</sup>Kosheleva and Kutafjeva, 2004; <sup>1</sup>Kudashova, Gashkov, and Kutafjeva, 2013); **Yamalo-Nenets Autonomous Okrug** (<sup>3</sup>Tarchevskaya, 1990; <sup>1</sup>Karatygin, Nezdoininogo, Novozhilov, and Zhurbenko, 1999).

**FAR EAST: Amur Oblast** (<sup>1</sup>Tomilin, 1962; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdoininogo, 1990); **Khabarovsk Krai** (<sup>1</sup>Azbukina et al., 1986; <sup>1</sup>Azbukina et al., 1989; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdoininogo, 1990; <sup>1</sup>Bau, Bulakh, and Govorova, 2011); **Magadan Oblast** (<sup>3</sup>Nazarova, 1976; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdoininogo, 1990; <sup>1</sup>Sazanova, 2005; <sup>1</sup>Sazanova, 2009a; <sup>1</sup>Sazanova and Golodnova, 2015; <sup>1</sup>Sazanova, 2016); **Primorsky Krai** (<sup>1</sup>Vassiljeva, 1973; <sup>1</sup>Shalapugina, 1976; <sup>3</sup>Azbukina et al., 1984; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdoininogo, 1990; <sup>1</sup>Bau, Bulakh, and Govorova, 2011).

***Russula clavipes* Velen.**EASTERN EUROPE: **Komi Republic** (Palamarchuk, 2012; Palamarchuk, 2016a).SIBERIA: **Khanty-Mansi Autonomous Okrug** (Filippova, Bulyonkova, and Lapshina, 2015; Zvyagina and Baykalova, 2017).***Russula consobrina* (Fr.) Fr.**EASTERN EUROPE: **Bryansk Oblast** (Kruglikov, 2007); **Chelyabinsk Oblast** (Aleksandrovskaya and Lobanova, 1968); **Kabardino-Balkarian Republic** (Shkhagapsoev and Krapivina, 2004); **Kaliningrad Oblast** (Volodina, 2007); **Kaluga Oblast** (Sionova, 2003; Sionova, 2006); **Karelia** (Kovalenko, Morozova, Fomina, and Särkisilta, 1998; Bondartseva et al., 2001; Krutov et al., 2014); **Komi Republic** (Karatygin, Nezdoyminogo, Novozhilov, and Zhurbenko, 1999; Palamarchuk, 2012; Palamarchuk and Kirillov, 2018a); **Krasnodar Krai** (Vassiljeva, 1939); **Leningrad Oblast** (Thesleff, 1920; Kovalenko and Morozova, 1999a; Fomina, 2000; Fomina, 2001; Popov et al., 2007; Zmitrovich et al., 2015); **Mordovia** (Chastukhin, 1948a; Chastukhin, 2011; Ivoilov and Bolshakov, 2011b); **Moscow Oblast** (Gorlenko, Sidorova, and Sidorova, 1989; Levitskaya, 1995a; Levitskaya, 2013; Malysheva, Malysheva, Voronina, et al., 2017; Malysheva, Malysheva, Voronina, and Kovalenko, 2018); **Novgorod Oblast** (Kovalenko, Morozova, Nezdoyminogo, and Popov, 2005); **Perm Krai** (Perevedentseva, 2008; Perevedentseva and Shilkova, 2010; Perevedentseva and Shishigin, 2015); **Pskov Oblast** (Kolmakov, 2015); **Saint Petersburg** (Kovalenko and Morozova, 1999a; Morozova and Smirnov, 2011; Morozova et al., 2020); **Samara Oblast** (Malysheva and Malysheva, 2008); **Smolensk Oblast** (Jaczewski, 1896); **Sverdlovsk Oblast** (Stepanova and Sirko, 1977; Marina, 2006); **Tatarstan** (Vassiljeva, 1977); **Tula Oblast** (Svetasheva, 2004); **Tver Oblast** (Kurochkin, 1993); **Udmurt Republic** (Tychinin and Kuzmina, 2003); **Ulyanovsk Oblast** (Ilyukhin, 2010a); **Vologda Oblast** (Kirillova, 2007; Kirillova and Podolskaya, 2012); **Yaroslavl Oblast** (Lazareva, 1998a); EASTERN EUROPE (Singer, 1942).SIBERIA: **Buryatia** (Nezdoyminogo, 1970a; Petrov, 1991); **Irkutsk Oblast** (Kutafjeva, 1984; Muzyka, 2002; Gorbunova and Stepanova, 2015); **Khanty-Mansi Autonomous Okrug** (Filippova, Bulyonkova, and Lapshina, 2015; Filippova and Bulyonkova, 2017a; Filippova and Bulyonkova, 2017b; Zvyagina and Baykalova, 2017); **Krasnoyarsk Krai** (Nezdoyminogo, 1982a); **Novosibirsk Oblast** (Koropachinskiy and Banaev, 2014); **Tomsk Oblast** (Milovidova, 1980; Kudashova, Gashkov, and Kutafjeva, 2013); **Yamalo-Nenets Autonomous Okrug** (Tarchevskaya, 1990; Karatygin, Nezdoyminogo, Novozhilov, and Zhurbenko, 1999); SIBERIA (Singer, 1942).FAR EAST: **Chukotka Autonomous Okrug** (Bulakh, Wasser, Nazarova, and Nezdoyminogo, 1990; Sazanova, 1993; Karatygin, Nezdoyminogo, Novozhilov, and Zhurbenko, 1999); **Magadan Oblast** (Bulakh, Wasser, Nazarova, and Nezdoyminogo, 1990; Sazanova, 1996; Sazanova, 2005; Sazanova, 2009a; Sazanova, 2009b; Sazanova, 2011; Sazanova, 2012); **Primorsky Krai** (Bulakh, 1977).***Russula crassotunicata* Singer**SIBERIA: **Khakassia** (Zauzolkova and Gorbunova, 2013; Zauzolkova, 2015).***Russula cremeoavellanea* Singer**EASTERN EUROPE: **Karelia** (Kovalenko, Morozova, Fomina, and Särkisilta, 1998; Krutov et al., 2014); **Orenburg Oblast** (Desyatova, 2008); **Samara Oblast** (Malysheva and Malysheva, 2008); **Sverdlovsk Oblast** (Marina, 2006); **Tatarstan** (Vassiljeva, 1977).***Russula cristulispora* Singer**EASTERN EUROPE: **Krasnodar Krai** (Vassiljeva, 1939; Singer, 1941); **Northern Caucasus** (Singer, 1938a).***Russula cuprea* Krombh.<sup>1</sup>**= *Russula cinnamomicolor* Krombh.<sup>2</sup> = *Russula urens* Romell ex Singer<sup>3</sup>EASTERN EUROPE: **Adygea** (<sup>2</sup>Vassiljeva, 1939); **Crimea** (<sup>1</sup>Dudka et al., 2004; <sup>1</sup>Sarkina, 2010a; <sup>1</sup>Sarkina, 2011); **Kaliningrad Oblast** (<sup>2</sup>Dedkov, Volodina, and Gubareva, 2007; <sup>2</sup>Volodina, 2007); **Moscow Oblast** (<sup>3</sup>Levitskaya, 2006; <sup>3</sup>Levitskaya, 2013); **Yaroslavl Oblast** (<sup>2</sup>Lazareva, 1998a); **Northern Caucasus** (<sup>2</sup>Singer, 1938a).SIBERIA: **Khanty-Mansi Autonomous Okrug** (<sup>1</sup>Zvyagina and Baykalova, 2017); **Tomsk Oblast** (<sup>1</sup>Kudashova, Gashkov, and Vaishlya, 2016a).FAR EAST: **Amur Oblast** (<sup>3</sup>Bulakh, Wasser, Nazarova, and Nezdoyminogo, 1990; <sup>3</sup>Azbukina et al., 1998); **Khabarovsk Krai** (<sup>3</sup>Azbukina et al., 1989; <sup>3</sup>Bulakh, 1989; <sup>3</sup>Bulakh, Wasser, Nazarova, and Nezdoyminogo, 1990); **Primorsky Krai** (<sup>3</sup>Bulakh, 1989; <sup>3</sup>Bulakh, Wasser, Nazarova, and Nezdoyminogo, 1990; <sup>3</sup>Azbukina et al., 2006; <sup>1</sup>Bau, Bulakh, and Govorova, 2011); **Sakhalin Oblast** (<sup>3</sup>Bulakh, 1989; <sup>3</sup>Bulakh, Wasser, Nazarova, and Nezdoyminogo, 1990).

***Russula curtipes* F.H. Møller & Jul. Schäff.**

EASTERN EUROPE: **Adygea** (Sopina, 2004a); **Crimea** (Sarkina, 2001; Dudka et al., 2004; Sarkina, 2010b; Sarkina, 2011; Sarkina, 2013).

***Russula cyanoxantha* (Schaeff.) Fr.<sup>1</sup>**

≡ *Russula cyanoxantha* f. *cyanoxantha* (Schaeff.) Fr.<sup>2</sup> ≡ *Russula cyanoxantha* var. *cyanoxantha* (Schaeff.) Fr.<sup>3</sup>  
= *Russula cutedructa* Cooke<sup>4</sup> = *Russula cyanoxantha* f. *atroviolacea* J.E. Lange<sup>5</sup> = *Russula cyanoxantha* f. *peltereaui* Singer<sup>6</sup> = *Russula flavoviridis* Romagn.<sup>7</sup>

EASTERN EUROPE: **Adygea** (<sup>1</sup>Sopina, 2004a); **Belgorod Oblast** (<sup>5</sup>Bedenko, 1980); **Bryansk Oblast** (<sup>1</sup>Kruglikov, 2007); **Chechen Republic** (<sup>1</sup>Taysumov, Krapivina, Umarov, and Astamirova, 2012); **Chelyabinsk Oblast** (<sup>1</sup>Aleksandrovskaya and Lobanova, 1968; <sup>1</sup>Sirko and Stepanova, 1977; <sup>1</sup>Stepanova and Sirko, 1977); **Crimea** (<sup>1</sup>Sarkina, 2001; <sup>1</sup>Dudka et al., 2004; <sup>1</sup>Sarkina, 2010a; <sup>1</sup>Sarkina, 2010b; <sup>1</sup>Sarkina, 2011; <sup>1</sup>Sarkina, 2013; <sup>1</sup>Sarkina and Stavishenko, 2019); **Kabardino-Balkarian Republic** (<sup>1</sup>Shkhagapsoev and Krapivina, 2004); **Kaliningrad Oblast** (<sup>1</sup>Dedkov, Volodina, and Gubareva, 2007; <sup>1</sup>Volodina, 2007; <sup>1</sup>Atayev and Volodina, 2020); **Kaluga Oblast** (<sup>1</sup>Sionova, 2003; <sup>1</sup>Sionova, 2006); **Karelia** (<sup>2,6</sup>Kovalenko, Morozova, Fomina, and Särkisilta, 1998; <sup>7</sup>Bondartseva et al., 2001; <sup>3</sup>Predtechenskaya, 2013; <sup>1,3</sup>Krutov et al., 2014; <sup>1</sup>Predtechenskaya, 2015; <sup>1</sup>Savelev and Kikeeva, 2018); **Kostroma Oblast** (<sup>1</sup>Burova, 1982); **Krasnodar Krai** (<sup>1</sup>Vassiljeva, 1939; <sup>1</sup>Kovalenko, 1980a; <sup>1</sup>Kovalenko, 1980b; <sup>1</sup>Sopina, 2004a); **Leningrad Oblast** (<sup>2</sup>Kovalenko and Morozova, 1999a; <sup>2</sup>Morozova, 1999; <sup>2</sup>Fomina, 2000; <sup>2,6</sup>Morozova and Kovalenko, 2000; <sup>3</sup>Fomina, 2001; <sup>1</sup>Popov et al., 2007; <sup>2,6</sup>Kalinina, 2018); **Lipetsk Oblast** (<sup>1</sup>Rtishcheva, 1999; <sup>1</sup>Afanasyev, Rtishcheva, and Starodubtseva, 2007; <sup>1</sup>Sarycheva et al., 2009; <sup>1</sup>Sarycheva, 2011; <sup>1</sup>Sarycheva, 2014a; <sup>1</sup>Sarycheva, 2016; <sup>1</sup>Sarycheva, Starodubtseva, and Sapelnikova, 2017); **Mari El Republic** (<sup>1</sup>Prokhorov, 2007); **Mordovia** (<sup>1</sup>Ivoilov and Bolshakov, 2011b); **Moscow** (<sup>1</sup>Burova, 1968; <sup>1</sup>Vishnevsky and Sidorova, 1997); **Moscow Oblast** (<sup>1</sup>Gorlenko, Sidorova, and Sidorova, 1989; <sup>2,6</sup>Levitskaya, 1995a; <sup>1</sup>Vishnevsky and Sidorova, 1997; <sup>1</sup>Voronina et al., 2012; <sup>1</sup>Levitskaya, 2013; <sup>1</sup>Voronina et al., 2014; <sup>1</sup>Sidorova, Alexandrova, and Voronina, 2017); **Murmansk Oblast** (<sup>1</sup>Pystina, Pavlova, and Shestakova, 1969); **North Ossetia** (<sup>1</sup>Nikolayev, 2001); **Novgorod Oblast** (<sup>2</sup>Kovalenko, Morozova, Nezdjminogo, and Popov, 2005; <sup>3</sup>Popov et al., 2013); **Penza Oblast** (<sup>4</sup>Ivanov, 1981a; <sup>1</sup>Ivanov, 1983); **Perm Krai** (<sup>1</sup>Perevedentseva, 2008; <sup>1</sup>Perevedentseva and Shilkova, 2010); **Pskov Oblast** (<sup>2</sup>Kovalenko, Kolmakov, Morozova, and Popov, 2003; <sup>3</sup>Popov et al., 2013; <sup>1</sup>Kolmakov, 2015); **Rostov Oblast** (<sup>1</sup>Rusanov et al., 2004; <sup>1</sup>Zmitrovich et al., 2008; <sup>1</sup>Rusanov, Rebriev, and Bulgakov, 2018); **Ryazan Oblast** (<sup>1</sup>Volosnova, 1997; <sup>1</sup>Volosnova, 2014); **Saint Petersburg** (<sup>1</sup>Morozova, Kovalenko, Rebriev, and Malysheva, 2014; <sup>1</sup>Morozova et al., 2020); **Samara Oblast** (<sup>2</sup>Malysheva and Malysheva, 2008); **Sverdlovsk Oblast** (<sup>2,6</sup>Marina, 2006); **Tula Oblast** (<sup>2</sup>Svetasheva, 2004); **Tver Oblast** (<sup>1</sup>Kurochkin, 1993); **Udmurt Republic** (<sup>1</sup>Tychinin and Kuzmina, 2003); **Ulyanovsk Oblast** (<sup>1</sup>Ilyukhin, 2010a); **Vologda Oblast** (<sup>2</sup>Kirillova, 2005; <sup>2</sup>Kirillova, 2007; <sup>2</sup>Kirillova and Podolskaya, 2012); **Voronezh Oblast** (<sup>1</sup>Rtishcheva, 1999; <sup>1</sup>Afanasyev, Rtishcheva, and Starodubtseva, 2007; <sup>1</sup>Sarycheva, Starodubtseva, and Sapelnikova, 2017); **Yaroslavl Oblast** (<sup>2</sup>Lazareva, 1997; <sup>2</sup>Lazareva, 1998a); **Arid territories** (<sup>1</sup>Rebriev, Rusanov, et al., 2012); **Northern Caucasus** (<sup>1</sup>Singer, 1938a).

SIBERIA: **Altai Krai** (<sup>1</sup>Gorbunova and Perova, 2006; <sup>1</sup>Gorbunova, Vlasenko, and Tzhubarova, 2011); **Altai Republic** (<sup>1</sup>Gorbunova, 2001b); **Irkutsk Oblast** (<sup>1</sup>Petrov, Nezdjminogo, and Bulakh, 1987; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdjminogo, 1990; <sup>1</sup>Petrov, 2008; <sup>1</sup>Muzyka, 2009; <sup>1</sup>Muzyka and Penzina, 2017); **Krasnoyarsk Krai** (<sup>1</sup>Kosheleva and Kutafjeva, 2008a; <sup>1</sup>Zauzolkova, 2012; <sup>1</sup>Zauzolkova, 2015); **Novosibirsk Oblast** (<sup>1</sup>Perova, 1977; <sup>1</sup>Gorbunova, 2007; <sup>1</sup>Perova and Gorbunova, 2007); **Sakha Republic** (<sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdjminogo, 1990); **Tomsk Oblast** (<sup>1</sup>Perova, 1972; <sup>1</sup>Milovidova, 1980; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdjminogo, 1990; <sup>1</sup>Kudashova, Gashkov, and Kutafjeva, 2013; <sup>1</sup>Vaishlya et al., 2017); **Yamalo-Nenets Autonomous Okrug** (<sup>1</sup>Tarchevskaya, 1990).

FAR EAST: **Amur Oblast** (<sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdjminogo, 1990; <sup>1</sup>Azbukina et al., 1998; <sup>1</sup>Taranina, 2005; <sup>1</sup>Kochunova, 2019); **Jewish Autonomous Oblast** (<sup>1</sup>Bulakh, Govorova, Nazarova, and Vassiljeva, 2007; <sup>1</sup>Bau, Bulakh, and Govorova, 2011); **Khabarovsk Krai** (<sup>1</sup>Azbukina et al., 1986; <sup>1</sup>Azbukina et al., 1989; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdjminogo, 1990; <sup>1</sup>Bau, Bulakh, Zhuang, and Li, 2007; <sup>1</sup>Bulakh, Vassiljeva, and Erofeeva, 2010; <sup>1</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Erofeeva and Bulakh, 2015a); **Magadan Oblast** (<sup>1</sup>Nazarova, 1976); **Primorsky Krai** (<sup>1</sup>Vassiljeva, 1972; <sup>1</sup>Vassiljeva, 1973; <sup>1</sup>Shalapugina, 1976; <sup>1</sup>Bunkina and Nazarova, 1978; <sup>1</sup>Azbukina et al., 1984; <sup>1</sup>Azbukina et al., 1990; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdjminogo, 1990; <sup>1</sup>Bardunov et al., 2002; <sup>1</sup>Azbukina et al., 2006; <sup>1</sup>Bau, Bulakh, Zhuang, and Li, 2007; <sup>1</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Malysheva et al., 2014; <sup>1</sup>Bulakh et al., 2016; <sup>1</sup>Malysheva et al., 2016; <sup>1</sup>Bogacheva, Bulakh, Bukharova, and Egorova, 2020); **Sakhalin Oblast** (<sup>1</sup>Vassiljeva and Nazarova, 1972; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdjminogo, 1990).



***Russula decipiens* (Singer) Bon<sup>1</sup>**≡ *Russula decipiens* (Singer) Kühner & Romagn.<sup>2</sup>

FAR EAST: **Jewish Autonomous Oblast** (<sup>2</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Bogacheva et al., 2018); **Khabarovsk Krai** (<sup>2</sup>Azbukina et al., 1989; <sup>2</sup>Bulakh, 1989; <sup>2</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1</sup>Bogacheva et al., 2018); **Primorsky Krai** (<sup>2</sup>Bulakh, 1989; <sup>2</sup>Azbukina et al., 1990; <sup>2</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>2</sup>Bardunov et al., 2002; <sup>2</sup>Azbukina et al., 2006; <sup>2</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Bulakh et al., 2016; <sup>1</sup>Bogacheva et al., 2018; <sup>1</sup>Bogacheva, Bulakh, Bukharova, and Egorova, 2020).

***Russula decolorans* (Fr.) Fr.<sup>1</sup>**≡ *Agaricus decolorans* Fr.<sup>2</sup>

EASTERN EUROPE: **Arkhangelsk Oblast** (<sup>1</sup>Ezhov, Ershov, Ruokolainen, and Zmitrovich, 2011; <sup>1</sup>Ezhov, 2014); **Belgorod Oblast** (<sup>1</sup>Bedenko, 1980; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990); **Bryansk Oblast** (<sup>1</sup>Kruglikov, 2007); **Chelyabinsk Oblast** (<sup>1</sup>Aleksandrovskaia and Lobanova, 1968); **Crimea** (<sup>1</sup>Sarkina, 2001; <sup>1</sup>Dudka et al., 2004; <sup>1</sup>Sarkina, 2010a; <sup>1</sup>Sarkina, 2010b; <sup>1</sup>Sarkina, 2011; <sup>1</sup>Sarkina and Prydiuk, 2012; <sup>1</sup>Sarkina, 2013; <sup>1</sup>Sarkina, 2014b; <sup>1</sup>Sarkina, 2016a; <sup>1</sup>Sarkina and Stavishenko, 2019); **Kabardino-Balkarian Republic** (<sup>1</sup>Shkhagapsoev and Krapivina, 2004); **Kaliningrad Oblast** (<sup>1</sup>Neuhoff, 1922; <sup>1</sup>Dedkov, Volodina, and Gubareva, 2007; <sup>1</sup>Volodina, 2007); **Karelia** (<sup>1</sup>Freindling, 1949; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1</sup>Kovalenko, Morozova, Fomina, and Särkisilta, 1998; <sup>1</sup>Bondartseva et al., 2001; <sup>1</sup>Predtechenskaya and Ruokolainen, 2013; <sup>1</sup>Krutov et al., 2014; <sup>1</sup>Predtechenskaya and Ruokolainen, 2014; <sup>1</sup>Predtechenskaya, 2015; <sup>1</sup>Savelev and Kikeeva, 2018); **Kirov Oblast** (<sup>1</sup>Kirillov, 2011; <sup>1</sup>Kirillov, Perevedentseva, and Egoshina, 2011; <sup>1</sup>Stavishenko, Luginina, Kirillov, and Egoshina, 2019); **Komi Republic** (<sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1</sup>Bobretsova, 2004; <sup>1</sup>Palamarchuk, 2012; <sup>1</sup>Palamarchuk, 2016a; <sup>1</sup>Palamarchuk, 2016b; <sup>1</sup>Palamarchuk and Kirillov, 2017; <sup>1</sup>Palamarchuk, 2017); **Kostroma Oblast** (<sup>1</sup>Burova, 1982; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990); **Leningrad Oblast** (<sup>1</sup>Borszczow, 1857; <sup>1</sup>Thesleff, 1920; <sup>1</sup>Chastukhin and Nikolaevskaya, 1969; <sup>1</sup>Kalamees and Kovalenko, 1984; <sup>1</sup>Stolyarskaya, 1989; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Fomina, 2000; <sup>1</sup>Morozova and Kovalenko, 2000; <sup>1</sup>Fomina, 2001; <sup>1</sup>Morozova, 2007; <sup>1</sup>Popov et al., 2007; <sup>1</sup>Zmitrovich et al., 2015; <sup>1</sup>Malysheva, Malysheva, Shchepin, and Novozhilov, 2018); **Lipetsk Oblast** (<sup>1</sup>Alferova, 1977; <sup>1</sup>Sarycheva et al., 2009; <sup>1</sup>Sarycheva, 2011; <sup>1</sup>Sarycheva, 2014a; <sup>1</sup>Sarycheva, 2016); **Mari El Republic** (<sup>1</sup>Prokhorov, 2007); **Moscow Oblast** (<sup>1</sup>Gorlenko, Sidorova, and Sidorova, 1989; <sup>1</sup>Levitskaya, 1995a; <sup>1</sup>Vishnevsky and Sidorova, 1997; <sup>1</sup>Voronina et al., 2012; <sup>1</sup>Levitskaya, 2013; <sup>1</sup>Voronina et al., 2014; <sup>1</sup>Sidorova, Alexandrova, and Voronina, 2017); **Murmansk Oblast** (<sup>1</sup>Pystina, Pavlova, and Shestakova, 1969); **Novgorod Oblast** (<sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1</sup>Kovalenko, Morozova, Nezdojminogo, and Popov, 2005; <sup>1</sup>Popov et al., 2013); **Penza Oblast** (<sup>1</sup>Ivanov, 1981a; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990); **Perm Krai** (<sup>1</sup>Perevedentseva, 2008; <sup>1</sup>Perevedentseva and Shilkova, 2010; <sup>1</sup>Belkovskaya et al., 2014; <sup>1</sup>Perevedentseva and Shishigin, 2014; <sup>1</sup>Perevedentseva and Shishigin, 2015; <sup>1</sup>Botalov, 2017; <sup>1</sup>Botalov and Perevedentseva, 2018); **Pskov Oblast** (<sup>1</sup>Popov, 2001a; <sup>1</sup>Popov et al., 2013; <sup>1</sup>Kolmakov, 2015); **Ryazan Oblast** (<sup>1</sup>Volosnova, 2005; <sup>1</sup>Volosnova, 2014); **Saint Petersburg** (<sup>2</sup>Weinmann, 1828; <sup>2</sup>Weinmann, 1836; <sup>2</sup>Weinmann, 1837; <sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Morozova and Smirnov, 2011; <sup>1</sup>Morozova et al., 2020); **Sevastopol** (<sup>1</sup>Sarkina, 2016b; <sup>1</sup>Sarkina, 2020c); **Sverdlovsk Oblast** (<sup>1</sup>Tomilin, 1965; <sup>1</sup>Stepanova and Sirko, 1977; <sup>1</sup>Marina, 2006); **Tatarstan** (<sup>1</sup>Vassiljeva, 1977; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990); **Tver Oblast** (<sup>1</sup>Kurochkin, 1993); **Udmurt Republic** (<sup>1</sup>Tychinin and Kuzmina, 2003); **Vologda Oblast** (<sup>1</sup>Kirillova, 2005; <sup>1</sup>Kirillova, 2007; <sup>1</sup>Kirillova and Podolskaya, 2012); **Voronezh Oblast** (<sup>1</sup>Kochergina and Furmenkova, 2019); **Yamalo-Nenets Autonomous Okrug** (<sup>1</sup>Karatygin, Nezdojminogo, Novozhilov, and Zhurbenko, 1999); **Yaroslavl Oblast** (<sup>1</sup>Lazareva, 1997; <sup>1</sup>Lazareva, 1998a); **Arid territories** (<sup>1</sup>Rebriev, Rusanov, et al., 2012).

SIBERIA: **Altai Krai** (<sup>1</sup>Gorbunova, 2018b); **Altai Republic** (<sup>1</sup>Singer, 1938a; <sup>1</sup>Kovalenko, 1992; <sup>1</sup>Gorbunova, 2001b; <sup>1</sup>Gorbunova, 2010); **Buryatia** (<sup>1</sup>Nezdojminogo, 1970a); **Irkutsk Oblast** (<sup>1</sup>Kutafjeva, 1984; <sup>1</sup>Petrov, Nezdojminogo, and Bulakh, 1987; <sup>1</sup>Petrov, 1989; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1</sup>Bardunov et al., 2005; <sup>1</sup>Petrov, 2008; <sup>1</sup>Gorbunova and Stepantsova, 2015); **Khanty-Mansi Autonomous Okrug** (<sup>1</sup>Filippova, Bulyonkova, and Lapshina, 2015; <sup>1</sup>Makarova, Makarov, Zvyagina, and Bobrikov, 2015; <sup>1</sup>Zvyagina and Vasina, 2015; <sup>1</sup>Filippova and Bulyonkova, 2017a; <sup>1</sup>Filippova and Bulyonkova, 2017b; <sup>1</sup>Zvyagina and Baykalova, 2017); **Krasnoyarsk Krai** (<sup>1</sup>Beglyanova, 1972a; <sup>1</sup>Nezdojminogo, 1976a; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1</sup>Lapitskaya, 1993); **Kurgan Oblast** (<sup>1</sup>Bystrushkin, 2016); **Novosibirsk Oblast** (<sup>1</sup>Perova, 1977; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1</sup>Perova and Gorbunova, 2007); **Tomsk Oblast** (<sup>1</sup>Milovidova, 1980; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1</sup>Kudashova, Gashkov, and Kutafjeva, 2013; <sup>1</sup>Vaishlyya et al., 2017); **Yamalo-Nenets Autonomous Okrug** (<sup>1</sup>Tarchevskaya, 1990; <sup>1</sup>Karatygin, Nezdojminogo, Novozhilov, and Zhurbenko, 1999).

FAR EAST: **Chukotka Autonomous Okrug** (<sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990); **Jewish Autonomous Oblast** (<sup>1</sup>Bulakh, Govorova, Nazarova, and Vassiljeva, 2007; <sup>1</sup>Bau, Bulakh, and Govorova, 2011); **Kamchatka Krai** (<sup>1</sup>Kalamees and Vaasma, 1981; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1</sup>Karatygin, Nezdojminogo, Novozhilov, and Zhurbenko, 1999); **Khabarovsk Krai** (<sup>1</sup>Bulakh, Vassiljeva, and Erofeeva, 2010; <sup>1</sup>Bulakh, 2013; <sup>1</sup>Bogacheva, Bulakh, Bukharova, and Egorova, 2015; <sup>1</sup>Erofeeva and Bulakh, 2015a); **Magadan Oblast** (<sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1</sup>Sazanova, 1996; <sup>1</sup>Sazanova, 2005; <sup>1</sup>Sazanova, 2009a; <sup>1</sup>Sazanova, 2009b; <sup>1</sup>Sazanova, 2011; <sup>1</sup>Sazanova and Golodnova, 2015).

***Russula delica* Fr.<sup>1</sup>**

= *Agaricus vellereus* var. *exsuccus* (Pers.) Fr.<sup>2</sup> = *Lactarius vellereus* var. *exsuccus* (Pers.) Cooke<sup>3</sup> = *Russula delica* var. *bresadolae* Singer<sup>4</sup> = *Russula delica* var. *glaucophylla* Qué<sup>5</sup>.

EASTERN EUROPE: **Adygea** (<sup>1</sup>Vassiljeva, 1939; <sup>1</sup>Vaasma, Kalamees, and Raitviir, 1986; <sup>1</sup>Sopina, 2004a); **Karelia** (<sup>3</sup>Lebedeva, 1933); **Belgorod Oblast** (<sup>1</sup>Bedenko, 1979a; <sup>1</sup>Ryabova and Ignatenko, 1981); **Bryansk Oblast** (<sup>1</sup>Kruglikov, 2007); **Chelyabinsk Oblast** (<sup>1</sup>Aleksandrovskaya and Lobanova, 1968; <sup>1</sup>Sirko and Stepanova, 1977); **Crimea** (<sup>1</sup>Moser, 1993; <sup>1</sup>Sarkina, 2001; <sup>1</sup>Dudka et al., 2004; <sup>1</sup>Sarkina, 2010a; <sup>1</sup>Sarkina, 2010b; <sup>1</sup>Sarkina, 2011; <sup>1</sup>Sarkina and Prydiuk, 2012; <sup>1</sup>Sarkina, 2014b; <sup>1</sup>Sarkina and Mironova, 2015; <sup>1</sup>Sarkina, 2016a; <sup>1</sup>Sarkina and Stavishenko, 2019); **Kabardino-Balkarian Republic** (<sup>1</sup>Singer, 1929; <sup>1</sup>Shkhagapsoev and Krapivina, 2004); **Kaliningrad Oblast** (<sup>1</sup>Dedkov, Volodina, and Gubareva, 2007); **Kaluga Oblast** (<sup>1</sup>Sionova, 2003); **Karachay-Cherkess Republic** (<sup>1</sup>Kalamees and Botashev, 2000); **Karelia** (<sup>1</sup>Karsten, 1866; <sup>5</sup>Freindling, 1949; <sup>1</sup>Bondartseva et al., 2001; <sup>1</sup>Krutov et al., 2014; <sup>1</sup>Predtechenskaya and Ruokolainen, 2014; <sup>1</sup>Savelev and Kikeeva, 2018); **Kirov Oblast** (<sup>1</sup>Kirillov, 2011; <sup>1</sup>Kirillov, Perevedentseva, and Egoshina, 2011; <sup>1</sup>Stavishenko, Luginina, Kirillov, and Egoshina, 2019); **Komi Republic** (<sup>1</sup>Karatygin, Nezdojminogo, Novozhilov, and Zhurbenko, 1999; <sup>1</sup>Palamarchuk, 2011b; <sup>1</sup>Palamarchuk, 2012; <sup>1</sup>Palamarchuk, 2016a; <sup>1</sup>Palamarchuk, 2016b); **Krasnodar Krai** (<sup>1</sup>Vassiljeva, 1939; <sup>1</sup>Kovalenko, 1980a; <sup>1</sup>Kovalenko, 1980b; <sup>1</sup>Vaasma, Kalamees, and Raitviir, 1986); **Kursk Oblast** (<sup>1</sup>Ryabova and Ignatenko, 1981; <sup>1</sup>Soshnina, 2001; <sup>1</sup>Soshnina, 2005); **Leningrad Oblast** (<sup>1</sup>Thesleff, 1920; <sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Fomina, 2000; <sup>1</sup>Popov et al., 2007); **Lipetsk Oblast** (<sup>1</sup>Alferova, 1977; <sup>1</sup>Sarycheva, 1999; <sup>1</sup>Afanasyev, Rtishcheva, and Starodubtseva, 2007; <sup>1</sup>Sarycheva et al., 2009; <sup>1</sup>Sarycheva, 2011; <sup>1</sup>Sarycheva, 2014a; <sup>1</sup>Sarycheva, 2016; <sup>1</sup>Sarycheva, Starodubtseva, and Sapelnikova, 2017); **Mordovia** (<sup>1</sup>Tsinger, 1966; <sup>1</sup>Ivoilov and Bolshakov, 2011b; <sup>3</sup>Chastukhin, 2011); **Moscow Oblast** (<sup>1</sup>Gorlenko, Sidorova, and Sidorova, 1989; <sup>1</sup>Levitskaya, 1995a; <sup>1</sup>Vishnevsky and Sidorova, 1997; <sup>1</sup>Voronina et al., 2012; <sup>1</sup>Levitskaya, 2013; <sup>1</sup>Voronina et al., 2014; <sup>1</sup>Sidorova, Alexandrova, and Voronina, 2017); **Murmansk Oblast** (<sup>1</sup>Pystina, Pavlova, and Shestakova, 1969); **North Ossetia** (<sup>1</sup>Nikolayev, 2001); **Orenburg Oblast** (<sup>1</sup>Korshikova, 2005; <sup>1</sup>Desyatova, 2008); **Penza Oblast** (<sup>1</sup>Ivanov, 1981a; <sup>1</sup>Ivanov, 2019); **Perm Krai** (<sup>1</sup>Perevedentseva, 2008; <sup>1</sup>Perevedentseva and Shilkova, 2010; <sup>1</sup>Belkovskaya et al., 2014); **Pskov Oblast** (<sup>1</sup>Kovalenko, Kolmakov, Morozova, and Popov, 2003; <sup>1</sup>Popov et al., 2013; <sup>1</sup>Kolmakov, 2015); **Ryazan Oblast** (<sup>1</sup>Volosnova, 2014); **Saint Petersburg** (<sup>2</sup>Weinmann, 1828; <sup>2</sup>Weinmann, 1836; <sup>2</sup>Weinmann, 1837; <sup>1</sup>Morozova et al., 2020); **Samara Oblast** (<sup>1</sup>Malysheva and Malysheva, 2005b; <sup>1</sup>Malysheva and Malysheva, 2008); **Saratov Oblast** (<sup>1</sup>Komirnaya, 1952; <sup>1</sup>Komirnaya, 1970); **Sevastopol** (<sup>1</sup>Sarkina, 2016b; <sup>1</sup>Sarkina, 2020c); **Smolensk Oblast** (<sup>1</sup>Jaczewski, 1896); **Sverdlovsk Oblast** (<sup>1</sup>Tomilin, 1965; <sup>1</sup>Marina, 2006); **Tatarstan** (<sup>1</sup>Vassiljeva, 1977; <sup>1</sup>Potapov, 2015b); **Tula Oblast** (<sup>1</sup>Svetasheva, 2001; <sup>1</sup>Svetasheva, 2004; <sup>1</sup>Svetasheva, 2013); **Tver Oblast** (<sup>1</sup>Kurochkin, 1993; <sup>1</sup>Mukhina and Garibova, 2010; <sup>1</sup>Mukhina, 2011a; <sup>1</sup>Mukhina, 2011b; <sup>1</sup>Kotkova, 2014); **Udmurt Republic** (<sup>1</sup>Tychinin and Kuzmina, 2003); **Ulyanovsk Oblast** (<sup>1</sup>Ilyukhin, 2010a; <sup>1</sup>Ilyukhin, 2010b); **Vologda Oblast** (<sup>1</sup>Kirillova, 2007; <sup>1</sup>Kirillova and Podolskaya, 2012); **Voronezh Oblast** (<sup>1</sup>Rtishcheva, 1999; <sup>1</sup>Afanasyev, Rtishcheva, and Starodubtseva, 2007; <sup>1</sup>Sarycheva, Starodubtseva, and Sapelnikova, 2017; <sup>1</sup>Kochergina and Furmenkova, 2019); **Yamalo-Nenets Autonomous Okrug** (<sup>1</sup>Karatygin, Nezdojminogo, Novozhilov, and Zhurbenko, 1999; <sup>1</sup>Nezdojminogo, 2001); **Yaroslavl Oblast** (<sup>1</sup>Lazareva, 1998a); **Northern Caucasus** (<sup>4,5</sup>Singer, 1938a; <sup>1</sup>Vassiljeva, 1939).

SIBERIA: **Altai Krai** (<sup>1</sup>Gorbunova and Perova, 2006; <sup>1</sup>Gorbunova, Vlasenko, and Tzhubarova, 2011); **Altai Republic** (<sup>4</sup>Singer, 1938a; <sup>1</sup>Kovalenko, 1992; <sup>1</sup>Gorbunova, 1996; <sup>1</sup>Gorbunova, 1997; <sup>1</sup>Gorbunova, 2001a; <sup>1</sup>Gorbunova, 2001b; <sup>1</sup>Gorbunova, 2008); **Buryatia** (<sup>1</sup>Nezdojminogo, 1970a); **Irkutsk Oblast** (<sup>1</sup>Kutafjeva, 1984; <sup>1</sup>Petrov, Nezdojminogo, and Bulakh, 1987; <sup>1</sup>Petrov, 1989; <sup>1</sup>Astapenko, 1990b; <sup>1</sup>Muzyka, 2002; <sup>1</sup>Bardunov et al., 2005; <sup>1</sup>Petrov, 2008; <sup>1</sup>Muzyka, 2009; <sup>1</sup>Muzyka and Penzina, 2017); **Khakassia** (<sup>1</sup>Zauzolkova and Gorbunova, 2013; <sup>1</sup>Zauzolkova, 2015); **Khanty-Mansi Autonomous Okrug** (<sup>1</sup>Zvyagina, Baykalova, and Gorbunova, 2007; <sup>1</sup>Zvyagina, 2008; <sup>1</sup>Shepeleva et al., 2014; <sup>1</sup>Filippova, Bulyonkova, and Lapshina, 2015); **Krasnoyarsk Krai** (<sup>1</sup>Vassilkov, 1971b; <sup>1</sup>Beglyanova, 1972a; <sup>1</sup>Stepanova and Tomilin, 1973; <sup>1</sup>Nezdojminogo, 1976a; <sup>1</sup>Lapitskaya, 1993; <sup>1</sup>Karatygin, Nezdojminogo, Novozhilov, and Zhurbenko, 1999; <sup>1</sup>Pavlov et al., 2007; <sup>1</sup>Zauzolkova, 2012; <sup>1</sup>Zauzolkova, 2015; <sup>1</sup>Gorbunova, 2016); **Kurgan Oblast** (<sup>1</sup>Bystrushkin, 2016); **Novosibirsk Oblast** (<sup>1</sup>Gorbunova, 2007; <sup>1</sup>Perova and Gorbunova, 2007; <sup>1</sup>Koropachinskiy and Banaev, 2014); **Sakha Republic** (<sup>1</sup>Karatygin, Nezdojminogo, Novozhilov, and Zhurbenko, 1999); **Tomsk Oblast**

(<sup>1</sup>Milovidova, 1980; <sup>1</sup>Kosheleva and Kutafjeva, 2004; <sup>1</sup>Kudashova, Gashkov, and Kutafjeva, 2013; <sup>1</sup>Vaishlya et al., 2017).

FAR EAST: **Amur Oblast** (<sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdoininogo, 1990; <sup>1</sup>Bulakh, Govorova, and Taranina, 2003; <sup>1</sup>Taranina, 2005; <sup>1</sup>Kochunova, 2019); **Chukotka Autonomous Okrug** (<sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdoininogo, 1990; <sup>1</sup>Sazanova, 1993; <sup>1</sup>Karatygin, Nezdoininogo, Novozhilov, and Zhurbenko, 1999); **Jewish Autonomous Oblast** (<sup>1</sup>Bulakh, Govorova, Nazarova, and Vassiljeva, 2007; <sup>1</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Erofeeva, Bukharova, and Bulakh, 2019); **Kamchatka Krai** (<sup>1</sup>Kalamees and Vaasma, 1981; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdoininogo, 1990; <sup>1</sup>Karatygin, Nezdoininogo, Novozhilov, and Zhurbenko, 1999); **Khabarovsk Krai** (<sup>1</sup>Azbukina et al., 1986; <sup>1</sup>Azbukina et al., 1989; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdoininogo, 1990; <sup>1</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Bulakh, 2013; <sup>1</sup>Bogacheva, Bulakh, Bukharova, and Egorova, 2015); **Magadan Oblast** (<sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdoininogo, 1990; <sup>1</sup>Sazanova, 2005; <sup>1</sup>Sazanova, 2009a); **Primorsky Krai** (<sup>1</sup>Vassiljeva, 1972; <sup>1</sup>Vassiljeva, 1973; <sup>1</sup>Shalapugina, 1976; <sup>1</sup>Bunkina and Nazarova, 1978; <sup>1</sup>Azbukina et al., 1984; <sup>1</sup>Azbukina et al., 1990; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdoininogo, 1990; <sup>1</sup>Bardunov et al., 2002; <sup>1</sup>Azbukina et al., 2006; <sup>1</sup>Bau, Bulakh, Zhuang, and Li, 2007; <sup>1</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Bulakh et al., 2016); **Sakhalin Oblast** (<sup>1</sup>Vassiljeva and Nazarova, 1972; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdoininogo, 1990).

### ***Russula densifolia* Secr. ex Gillet**

EASTERN EUROPE: **Adygea** (Kovalenko, 1979a; Kovalenko, 1980b; Sopina, 2004a); **Belgorod Oblast** (Bedenko, 1979a; Bulakh, Wasser, Nazarova, and Nezdoininogo, 1990); **Kirov Oblast** (Bulakh, Wasser, Nazarova, and Nezdoininogo, 1990); **Krasnodar Krai** (Kovalenko, 1980a; Sopina, 2004a); **Leningrad Oblast** (Kovalenko and Morozova, 1999a; Popov et al., 2007); **Mordovia** (Bolshakov and Ivoilov, 2012a; Bolshakov and Ivoilov, 2012b; Silaeva, 2017); **Moscow Oblast** (Levitskaya, 1995a; Vishnevsky and Sidorova, 1997; Levitskaya, 2013); **Perm Krai** (Perevedentseva, 2008; Perevedentseva and Shilkova, 2010); **Ryazan Oblast** (Volosnova, 2014); **Tatarstan** (Vassiljeva, 1977; Bulakh, Wasser, Nazarova, and Nezdoininogo, 1990); **Tula Oblast** (Svetasheva, 2004; Shcherbakov, 2010); **Tver Oblast** (Bulakh, Wasser, Nazarova, and Nezdoininogo, 1990); **Ulyanovsk Oblast** (Ilyukhin, 2009); **Vologda Oblast** (Kirillova and Podolskaya, 2012); **Yaroslavl Oblast** (Lazareva, 1997; Lazareva, 1998a).

SIBERIA: **Altai Republic** (Singer, 1938a; Perova and Gorbunova, 2001); **Irkutsk Oblast** (Petrov, Nezdoininogo, and Bulakh, 1987; Bulakh, Wasser, Nazarova, and Nezdoininogo, 1990; Petrov, 1991; Petrov, 2008; Muzyka, 2009); **Khanty-Mansi Autonomous Okrug** (Filippova, Bulyonkova, and Lapshina, 2015); **Krasnoyarsk Krai** (Beglyanova, 1972a; Bulakh, Wasser, Nazarova, and Nezdoininogo, 1990; Krom and Kapitonov, 2019); **Kurgan Oblast** (Bystrushkin, 2016); **Novosibirsk Oblast** (Perova, 1977; Perova and Gorbunova, 2001; Gorbunova, 2007; Perova and Gorbunova, 2007; Koropachinskiy and Banaev, 2014); **Tomsk Oblast** (Milovidova, 1980; Bulakh, Wasser, Nazarova, and Nezdoininogo, 1990; Perova and Gorbunova, 2001; Kudashova, Gashkov, and Kutafjeva, 2013; Vaishlya et al., 2017).

FAR EAST: **Amur Oblast** (Azbukina et al., 1998); **Khabarovsk Krai** (Bulakh, Wasser, Nazarova, and Nezdoininogo, 1990; Bau, Bulakh, and Govorova, 2011); **Magadan Oblast** (Nazarova, 1976); **Primorsky Krai** (Vassiljeva, 1972; Vassiljeva, 1973; Bunkina and Nazarova, 1978; Azbukina et al., 1990; Bulakh, Wasser, Nazarova, and Nezdoininogo, 1990; Bardunov et al., 2002; Azbukina et al., 2006; Bau, Bulakh, and Govorova, 2011; Bulakh et al., 2016).

### ***Russula dryadicola* R. Fellner & Landa**

SIBERIA: **Altai Krai** (Gorbunova, 2018a).

### ***Russula emetica* (Schaeff.) Pers.<sup>1</sup>**

≡ *Agaricus emeticus* Schaeff.<sup>2</sup> ≡ *Russula emetica* var. *emetica* (Schaeff.) Pers.<sup>3</sup> = *Russula alpestris* (Boud.) Singer<sup>4</sup> = *Russula alpina* (A. Blytt & Rostr.) F.H. Møller & Jul. Schäff.<sup>5</sup> = *Russula emetica* subsp. *alpestris* (Boud.) Singer<sup>6</sup> = *Russula emetica* subsp. *alpina* A. Blytt<sup>7</sup> = *Russula emetica* var. *alpestris* (Boud.) Singer<sup>8</sup> = *Russula emetica* var. *alpestris* Singer<sup>9</sup> = *Russula emetica* var. *gregaria* Kauffman<sup>10</sup>

EASTERN EUROPE: **Adygea** (<sup>10</sup>Kovalenko, 1979a); **Belgorod Oblast** (<sup>1</sup>Bedenko, 1979a); **Bryansk Oblast** (<sup>1</sup>Kruglikov, 2007); **Chelyabinsk Oblast** (<sup>1</sup>Sirko and Stepanova, 1977); **Crimea** (<sup>1</sup>Zerova, 1962; <sup>1</sup>Sarkina, 2001; <sup>1</sup>Dudka et al., 2004; <sup>1</sup>Sarkina, 2010a; <sup>1</sup>Sarkina, 2010b; <sup>1</sup>Sarkina, 2011; <sup>1</sup>Sarkina, 2013); **Kabardino-Balkarian Republic** (<sup>8</sup>Singer, 1931; <sup>6</sup>Singer, 1938a); **Kaliningrad Oblast** (<sup>1</sup>Hennings, 1895; <sup>1</sup>Neuhoff, 1922; <sup>1</sup>Dedkov, Volodina, and Gubareva, 2007; <sup>1</sup>Volodina, 2007); **Kaluga Oblast** (<sup>1</sup>Sionova, 2003; <sup>1</sup>Sionova, 2006); **Karachay-Cherkess Republic** (<sup>1</sup>Kalamees and Botashev, 2000); **Karelia** (<sup>1,10</sup>Freindling, 1949; <sup>3</sup>Kovalenko, Morozova, Fomina, and Särkisilta, 1998; <sup>1,10</sup>Bondartseva et al., 2001; <sup>1</sup>Predtechenskaya and Ruokolainen, 2013; <sup>3</sup>Predtechenskaya, 2013; <sup>1,3,10</sup>Krutov et al., 2014; <sup>3</sup>Predtechenskaya and Ruokolainen, 2014; <sup>1</sup>Savelev and Kikeeva, 2020); **Kirov Oblast** (<sup>3</sup>Kirillov and

Luginina, 2011; <sup>3</sup>Kirillov, 2011; <sup>3</sup>Kirillov, Perevedentseva, and Egoshina, 2011; <sup>1</sup>Stavishenko, Luginina, Kirillov, and Egoshina, 2019); **Komi Republic** (<sup>1</sup>Karatygin, Nezdoininogo, Novozhilov, and Zhurbenko, 1999; <sup>3</sup>Bobretsova, 2004; <sup>1</sup>Palamarchuk, 2012; <sup>1</sup>Palamarchuk and Kirillov, 2017); **Kostroma Oblast** (<sup>1</sup>Burova, 1982); **Krasnodar Krai** (<sup>6</sup>Singer, 1938a; <sup>4</sup>Vassiljeva, 1939; <sup>1</sup>Kovalenko, 1980a; <sup>1</sup>Shumkova, Krivorotov, and Gayday, 2018); **Leningrad Oblast** (<sup>1</sup>Thesleff, 1920; <sup>1</sup>Nezdoininogo, 1967; <sup>1</sup>Chastukhin and Nikolaevskaya, 1969; <sup>1</sup>Kalamees and Kovalenko, 1984; <sup>3</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Morozova and Kovalenko, 2000; <sup>3</sup>Fomina, 2000; <sup>3</sup>Fomina, 2001; <sup>1</sup>Morozova, 2007; <sup>1</sup>Popov et al., 2007; <sup>1</sup>Zmitrovich et al., 2015); **Lipetsk Oblast** (<sup>1</sup>Alferova, 1977; <sup>1</sup>Sarycheva, 1999; <sup>3</sup>Afanasyev, Rtishcheva, and Starodubtseva, 2007; <sup>1</sup>Sarycheva et al., 2009; <sup>1</sup>Sarycheva, 2011; <sup>1</sup>Sarycheva, 2014a; <sup>1</sup>Sarycheva, 2016; <sup>3</sup>Sarycheva, Starodubtseva, and Sapelnikova, 2017); **Mordovia** (<sup>1</sup>Kuznetsov, 1960; <sup>1</sup>Ivoilov and Bolshakov, 2011b); **Moscow** (<sup>2</sup>Weinmann, 1836; <sup>1</sup>Bucholtz, 1897a); **Moscow Oblast** (<sup>1</sup>Levitskaya, 1995a; <sup>1</sup>Vishnevsky and Sidorova, 1997; <sup>1</sup>Levitskaya, 2013); **Murmansk Oblast** (<sup>1</sup>Pystina, Pavlova, and Shestakova, 1969; <sup>1</sup>Mikhailovskii, 1975b; <sup>1</sup>Karatygin, Nezdoininogo, Novozhilov, and Zhurbenko, 1999); **Novgorod Oblast** (<sup>1</sup>Malysheva, Malysheva, and Zmitrovich, 2007); **Oryol Oblast** (<sup>1</sup>Radygina, Derzhavina, and Tsutsupa, 2014); **Penza Oblast** (<sup>2</sup>Vet, 1943); **Perm Krai** (<sup>1</sup>Shkaraba, Perevedentseva, and Moshkina, 1990; <sup>3,9</sup>Perevedentseva, 2008; <sup>3,9</sup>Perevedentseva and Shilkova, 2010; <sup>1,6</sup>Belkovskaya et al., 2014; <sup>1</sup>Botalov, 2017; <sup>1</sup>Botalov and Perevedentseva, 2018); **Pskov Oblast** (<sup>3</sup>Kovalenko, Kolmakov, Morozova, and Popov, 2003; <sup>3</sup>Popov et al., 2013; <sup>1</sup>Kolmakov, 2015); **Rostov Oblast** (<sup>1</sup>Rusanov et al., 2004; <sup>1</sup>Zmitrovich et al., 2008); **Ryazan Oblast** (<sup>1</sup>Volosnova, 1997; <sup>1</sup>Volosnova, 2014); **Saint Petersburg** (<sup>2</sup>Weinmann, 1828; <sup>2</sup>Weinmann, 1836; <sup>2</sup>Weinmann, 1837; <sup>3</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Kotkova, Morozova, and Popov, 2005; <sup>1</sup>Morozova and Smirnov, 2011; <sup>1</sup>Morozova et al., 2020); **Samara Oblast** (<sup>3</sup>Malysheva and Malysheva, 2005b; <sup>3</sup>Malysheva and Malysheva, 2008); **Sevastopol** (<sup>1</sup>Sarkina, 2016b; <sup>1</sup>Sarkina, 2020c); **Smolensk Oblast** (<sup>1</sup>Jaczewski, 1893; <sup>1</sup>Jaczewski, 1895); **Sverdlovsk Oblast** (<sup>1</sup>Tomilin, 1965; <sup>3</sup>Marina, 2006); **Tatarstan** (<sup>1</sup>Vassiljeva, 1977); **Tula Oblast** (<sup>3</sup>Svetasheva, 2004); **Tver Oblast** (<sup>1</sup>Kurochkin, 1993; <sup>1</sup>Mukhina, 2011a; <sup>1</sup>Mukhina, 2011b; <sup>1</sup>Kotkova, 2014); **Udmurt Republic** (<sup>1</sup>Tychinin and Kuzmina, 2003); **Ulyanovsk Oblast** (<sup>1</sup>Ilyukhin, 2009; <sup>1</sup>Ilyukhin, 2010a); **Vladimir Oblast** (<sup>2</sup>Weinmann, 1836); **Vologda Oblast** (<sup>1</sup>Kutova, 1957; <sup>3</sup>Kirillova, 2005; <sup>1</sup>Kirillova, 2007; <sup>1</sup>Kirillova and Podolskaya, 2012); **Voronezh Oblast** (<sup>3</sup>Afanasyev, Rtishcheva, and Starodubtseva, 2007; <sup>3</sup>Sarycheva, Starodubtseva, and Sapelnikova, 2017; <sup>1</sup>Kochergina and Furmenkova, 2019); **Yamalo-Nenets Autonomous Okrug** (<sup>1</sup>Karatygin, Nezdoininogo, Novozhilov, and Zhurbenko, 1999); **Yaroslavl Oblast** (<sup>1</sup>Lazareva, 1997; <sup>3</sup>Lazareva, 1998a); **Arid territories** (<sup>1</sup>Rebriev, Rusanov, et al., 2012); **Lapland** (<sup>1</sup>Karsten, 1866); **Northern Caucasus** (<sup>1</sup>Kovalenko, 1980b).

**SIBERIA: Altai Krai** (<sup>1</sup>Gorbunova, Vlasenko, and Tzhubarova, 2011); **Altai Republic** (<sup>6</sup>Singer, 1938a; <sup>1</sup>Gorbunova, 1997; <sup>1</sup>Perova and Gorbunova, 2001; <sup>1</sup>Gorbunova, 2008; <sup>1</sup>Gorbunova, 2010; <sup>1</sup>Gorbunova, 2017b); **Buryatia** (<sup>1</sup>Nezdoininogo, 1970a; <sup>5</sup>Nezdoininogo, 1973; <sup>5,8</sup>Petrov, 1991; <sup>1</sup>Penzina and Petrov, 1994); **Irkutsk Oblast** (<sup>1</sup>Petrov, Nezdoininogo, and Bulakh, 1987; <sup>1,8</sup>Petrov, 1989; <sup>1</sup>Astapenko and Kutafjeva, 1990; <sup>1</sup>Astapenko, 1990a; <sup>1</sup>Astapenko, 1990b; <sup>8</sup>Petrov, 1991; <sup>1</sup>Muzyka, 2002; <sup>3,9</sup>Bardunov et al., 2005; <sup>1</sup>Petrov, 2008); **Khanty-Mansi Autonomous Okrug** (<sup>1</sup>Filippova and Bulyonkova, 2017a; <sup>1</sup>Filippova and Bulyonkova, 2017b; <sup>1</sup>Zvyagina and Baykalova, 2017); **Krasnoyarsk Krai** (<sup>7</sup>Vassilkov, 1971b; <sup>1</sup>Beglyanova, 1972a; <sup>1</sup>Stepanova and Tomilin, 1973; <sup>1</sup>Lapitskaya, 1993; <sup>1</sup>Kutafjeva and Kosheleva, 2005; <sup>1</sup>Kosheleva and Kutafjeva, 2008a; <sup>1</sup>Kryuchkova, 2009); **Kurgan Oblast** (<sup>1</sup>Bystrushkin, 2016); **Novosibirsk Oblast** (<sup>1</sup>Zaytseva, 1971; <sup>1</sup>Perova and Gorbunova, 2001; <sup>1</sup>Gorbunova, 2007; <sup>1</sup>Perova and Gorbunova, 2007); **Tomsk Oblast** (<sup>1</sup>Perova, 1972; <sup>1</sup>Milovidova, 1980; <sup>1</sup>Perova and Gorbunova, 2001; <sup>3</sup>Kudashova, Gashkov, and Kutafjeva, 2013; <sup>1</sup>Vaishlya et al., 2017); **Yamalo-Nenets Autonomous Okrug** (<sup>1</sup>Tarчевskaya, 1990); **Zabaykalsky Krai** (<sup>1</sup>Karsten, 1906; <sup>1</sup>Karsten, 1911).

**FAR EAST: Amur Oblast** (<sup>1</sup>Gordienko, Petrova, and Tarasov, 1981; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdoininogo, 1990; <sup>1</sup>Azbukina et al., 1998); **Chukotka Autonomous Okrug** (<sup>1</sup>Berkeley and Curtis, 1978; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdoininogo, 1990; <sup>1</sup>Sazanova, 1993); **Jewish Autonomous Oblast** (<sup>1</sup>Bulakh, Govorova, Nazarova, and Vassiljeva, 2007; <sup>1</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Erofeeva, Bukharova, and Bulakh, 2019); **Khabarovsk Krai** (<sup>1</sup>Azbukina et al., 1986; <sup>1</sup>Azbukina et al., 1989; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdoininogo, 1990; <sup>1</sup>Bulakh, Vassiljeva, and Erofeeva, 2010; <sup>1</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Bulakh, 2013; <sup>1</sup>Bogacheva, Bulakh, Bukharova, and Egorova, 2015; <sup>1</sup>Erofeeva and Bulakh, 2015a); **Magadan Oblast** (<sup>1</sup>Nazarova, 1976; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdoininogo, 1990; <sup>1</sup>Sazanova, 2005; <sup>1</sup>Sazanova, 2009a; <sup>1</sup>Sazanova, 2009b; <sup>1</sup>Sazanova, 2011; <sup>1</sup>Sazanova, 2012; <sup>1</sup>Sazanova and Golodnova, 2015); **Primorsky Krai** (<sup>1</sup>Vassiljeva, 1972; <sup>1</sup>Vassiljeva, 1973; <sup>1</sup>Shalapugina, 1976; <sup>1</sup>Bunkina and Nazarova, 1978; <sup>1</sup>Azbukina et al., 1984; <sup>1</sup>Azbukina et al., 1990; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdoininogo, 1990; <sup>1</sup>Bardunov et al., 2002; <sup>1</sup>Azbukina et al., 2006; <sup>1</sup>Bau, Bulakh, Zhuang, and Li, 2007; <sup>1</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Bulakh et al., 2016; <sup>1</sup>Bogacheva, Bulakh, Bukharova, and Egorova, 2020); **Sakhalin Oblast** (<sup>1</sup>Vassiljeva and Nazarova, 1972; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdoininogo, 1990).

***Russula emeticicolor* Jul. Schäff.**

EASTERN EUROPE: **Adygea** (Sopina, 2004a); **Perm Krai** (Perevedentseva, 2008; Perevedentseva and Shilkova, 2010; Perevedentseva and Shishigin, 2015).

***Russula exalbicans* (Pers.) Melzer & Zvára<sup>1</sup>**

= *Russula exalbicans* f. *decolorata* Singer<sup>2</sup> = *Russula pulchella* I.G. Borshch.<sup>3</sup>

EASTERN EUROPE: **Belgorod Oblast** (<sup>3</sup>Bedenko, 1980; <sup>3</sup>Bulakh, Wasser, Nazarova, and Nezdjominogo, 1990); **Crimea** (<sup>3</sup>Sarkina, 2010b; <sup>3</sup>Sarkina, 2014b; <sup>3</sup>Sarkina and Mironova, 2015; <sup>3</sup>Sarkina, 2016a); **Kaliningrad Oblast** (<sup>3</sup>Dedkov, Volodina, and Gubareva, 2007; <sup>3</sup>Volodina, 2007; <sup>1</sup>Atayev and Volodina, 2020); **Kaluga Oblast** (<sup>3</sup>Sionova, 2003; <sup>3</sup>Sionova, 2006); **Karelia** (<sup>3</sup>Kovalenko, Morozova, Fomina, and Särkisilta, 1998; <sup>1</sup>Savelev and Kikeeva, 2018); **Komi Republic** (<sup>3</sup>Bulakh, Wasser, Nazarova, and Nezdjominogo, 1990; <sup>3</sup>Palamarchuk (Bobretsova), 2009; <sup>3</sup>Palamarchuk, 2012); **Leningrad Oblast** (<sup>3</sup>Kalamees and Kovalenko, 1984; <sup>3</sup>Bulakh, Wasser, Nazarova, and Nezdjominogo, 1990; <sup>3</sup>Kovalenko and Morozova, 1999a; <sup>3</sup>Popov et al., 2007); **Lipetsk Oblast** (<sup>1</sup>Sarycheva et al., 2009; <sup>1</sup>Sarycheva, 2016); **Moscow Oblast** (<sup>3</sup>Vishnevsky and Sidorova, 1997); **Murmansk Oblast** (<sup>1</sup>Mikhailovskii, 1975b); **Orenburg Oblast** (<sup>1</sup>Korshikova, 2005 [as *Russula persicina* Krombh., redet. in Shiryaeva and Palamarchuk, 2019]; <sup>3</sup>Desyatova, 2008); **Penza Oblast** (<sup>3</sup>Ivanov, 1981a; <sup>1</sup>Ivanov, 2019); **Pskov Oblast** (<sup>1</sup>Kolmakov, 2015); **Saint Petersburg** (<sup>3</sup>Borszczow, 1857; <sup>3</sup>Kovalenko and Morozova, 1999a); **Tatarstan** (<sup>3</sup>Vassiljeva, 1977; <sup>3</sup>Bulakh, Wasser, Nazarova, and Nezdjominogo, 1990); **Tver Oblast** (<sup>3</sup>Kurochkin, 1993); **Udmurt Republic** (<sup>3</sup>Tychinin and Kuzmina, 2003); **Vologda Oblast** (<sup>3</sup>Kirillova, 2007).

SIBERIA: **Altai Krai** (<sup>3</sup>Gorbunova and Perova, 2006; <sup>1</sup>Gorbunova, 2018b); **Altai Republic** (<sup>2</sup>Singer, 1938a; <sup>3</sup>Gorbunova, 1997; <sup>3</sup>Perova and Gorbunova, 2001); **Buryatia** (<sup>3</sup>Nezdjominogo, 1970a; <sup>3</sup>Petrov, 1991); **Irkutsk Oblast** (<sup>3</sup>Kutafjeva, 1984; <sup>3</sup>Astapenko, 1990b; <sup>3</sup>Bulakh, Wasser, Nazarova, and Nezdjominogo, 1990; <sup>3</sup>Petrov, 1991; <sup>3</sup>Petrov, 2008); **Krasnoyarsk Krai** (<sup>3</sup>Vassilkov, 1971b; <sup>3</sup>Beglyanova, 1972a; <sup>3</sup>Stepanova and Tomilin, 1973; <sup>3</sup>Bulakh, Wasser, Nazarova, and Nezdjominogo, 1990; <sup>3</sup>Lapitskaya, 1993); **Novosibirsk Oblast** (<sup>3</sup>Perova, 1977; <sup>3</sup>Perova and Gorbunova, 2001; <sup>3</sup>Perova and Gorbunova, 2007; <sup>1</sup>Koropachinskiy and Banaev, 2014); **Tomsk Oblast** (<sup>3</sup>Bulakh, Wasser, Nazarova, and Nezdjominogo, 1990; <sup>3</sup>Perova and Gorbunova, 2001; <sup>1</sup>Kudashova, Gashkov, and Kutafjeva, 2013); **Yamalo-Nenets Autonomous Okrug** (<sup>3</sup>Tarchevskaya, 1990).

FAR EAST: **Chukotka Autonomous Okrug** (<sup>3</sup>Bulakh, Wasser, Nazarova, and Nezdjominogo, 1990); **Jewish Autonomous Oblast** (<sup>1</sup>Bulakh, Govorova, Nazarova, and Vassiljeva, 2007; <sup>3</sup>Bau, Bulakh, and Govorova, 2011); **Kamchatka Krai** (<sup>3</sup>Kalamees and Vaasma, 1981; <sup>3</sup>Bulakh, Wasser, Nazarova, and Nezdjominogo, 1990); **Khabarovsk Krai** (<sup>1</sup>Bulakh, 2013; <sup>1</sup>Bogacheva, Bulakh, Bukharova, and Egorova, 2015); **Magadan Oblast** (<sup>3</sup>Sazanova, 2005; <sup>1</sup>Sazanova, 2009a; <sup>1</sup>Sazanova and Golodnova, 2015); **Primorsky Krai** (<sup>3</sup>Bulakh, Wasser, Nazarova, and Nezdjominogo, 1990); **Sakhalin Oblast** (<sup>3</sup>Vassiljeva and Nazarova, 1972; <sup>3</sup>Bulakh, Wasser, Nazarova, and Nezdjominogo, 1990).

***Russula faginea* Romagn.**

EASTERN EUROPE: **Adygea** (Sopina, 2004a); **Crimea** (Dudka et al., 2004; Sarkina, 2010a; Sarkina, 2011).

SIBERIA: **Altai Republic** (Gorbunova, 1997; Perova and Gorbunova, 2001).

***Russula farinipes* Romell**

EASTERN EUROPE: **Belgorod Oblast** (Bedenko, 1979a; Bulakh, Wasser, Nazarova, and Nezdjominogo, 1990); **Crimea** (Sarkina, 2001; Dudka et al., 2004; Sarkina, 2010a; Sarkina, 2010b; Sarkina and Prydiuk, 2012; Sarkina, 2014b; Sarkina and Mironova, 2015; Sarkina, 2016a; Sarkina and Stavishenko, 2019); **Karelia** (Krutov et al., 2014); **Krasnodar Krai** (Kovalenko, 1980a; Kovalenko, 1980b); **Leningrad Oblast** (Kovalenko and Morozova, 1999a; Tzvelev, 2000; Popov et al., 2007; Zmitrovich et al., 2015; Geltman et al., 2018; Geltman, 2018b); **Lipetsk Oblast** (Sarycheva et al., 2009; Sarycheva, 2011; Sarycheva, 2014a; Sarycheva, 2016); **Mordovia** (Ivoilov and Bolshakov, 2011b); **Penza Oblast** (Ivanov, 1983; Bulakh, Wasser, Nazarova, and Nezdjominogo, 1990); **Ryazan Oblast** (Volosnova, 2005); **Sevastopol** (Sarkina, 2016b; Sarkina, 2020c); **Sverdlovsk Oblast** (Shiryaeva and Palamarchuk, 2019); **Tula Oblast** (Svetasheva, 2004; Svetasheva, Aleksandrova, Zaytseva, and Solovjova, 2017); **Arid territories** (Rebriev, Rusanov, et al., 2012).

SIBERIA: **Tomsk Oblast** (Kudashova, Gashkov, and Kutafjeva, 2013; Kudashova, Gashkov, and Vaishlya, 2016b).

FAR EAST: **Khabarovsk Krai** (Azbukina et al., 1986; Bulakh, Wasser, Nazarova, and Nezdjominogo, 1990; Bau, Bulakh, and Govorova, 2011); **Primorsky Krai** (Bulakh, 1977; Azbukina et al., 1984; Bulakh, Wasser, Nazarova, and Nezdjominogo, 1990).

***Russula favrei* M.M. Moser**

EASTERN EUROPE: **Adygea** (Sopina, 2004a); **Komi Republic** (Palamarchuk, 2012); **Perm Krai** (Perevedentseva, 2008; Perevedentseva and Shilkova, 2010; Belkovskaya et al., 2014); **Sverdlovsk Oblast** (Marina, 2006); **Vologda Oblast** (Kirillova, 2007; Kirillova and Podolskaya, 2012).

SIBERIA: **Khanty-Mansi Autonomous Okrug** (Zvyagina and Baykalova, 2017).

***Russula fellea* (Fr.) Fr.**

EASTERN EUROPE: **Bashkortostan** (Stepanova and Sirko, 1977); **Crimea** (Zerova, 1962; Sarkina, 2001; Dudka et al., 2004; Sarkina, 2010a; Sarkina, 2011; Sarkina and Prydiuk, 2012); **Kabardino-Balkarian Republic** (Shkhagapsoev and Krapivina, 2003; Shkhagapsoev and Krapivina, 2004); **Kaliningrad Oblast** (Dedkov, Volodina, and Gubareva, 2007; Atayev and Volodina, 2020); **Karelia** (Bulakh, Wasser, Nazarova, and Nezdjominogo, 1990; Krutov et al., 2014); **Krasnodar Krai** (Vassiljeva, 1939; Kovalenko, 1980a; Kovalenko, 1980b); **Leningrad Oblast** (Kovalenko and Morozova, 1999a; Popov et al., 2007); **Lipetsk Oblast** (Sarycheva et al., 2009; Sarycheva, 2011; Sarycheva, 2016); **Moscow Oblast** (Gorlenko, Sidorova, and Sidorova, 1989); **Murmansk Oblast** (Pystina, Pavlova, and Shestakova, 1969); **Orenburg Oblast** (Desyatova, 2008); **Pskov Oblast** (Kolmakov, 2015); **Ryazan Oblast** (Volosnova, 2014); **Tula Oblast** (Svetasheva, 2004); **Northern Caucasus** (Singer, 1938a).

SIBERIA: **Krasnoyarsk Krai** (Pavlov et al., 2007; Zauzolkova, 2012; Zauzolkova, 2015); **Kurgan Oblast** (Bystrushkin, 2016).

FAR EAST: **Khabarovsk Krai** (Erofeeva and Bulakh, 2015a; Bogacheva et al., 2018); **Primorsky Krai** (Bulakh, Wasser, Nazarova, and Nezdjominogo, 1990; Bulakh et al., 2016; Bogacheva et al., 2018).

***Russula felleicolor* Bon & Jamoni**

SIBERIA: **Krasnoyarsk Krai** (Gorbunova, 2016).

***Russula ferreri* Singer**

EASTERN EUROPE: **Tatarstan** (Vassiljeva, 1977).

***Russula firmula* Jul. Schäff.**

EASTERN EUROPE: **Belgorod Oblast** (Bedenko, 1980); **Chelyabinsk Oblast** (Sirko and Stepanova, 1977; Stepanova and Sirko, 1977); **Kaliningrad Oblast** (Dedkov, Volodina, and Gubareva, 2007; Volodina, 2007); **Rostov Oblast** (Rusanov et al., 2004; Zmitrovich et al., 2008); **Sverdlovsk Oblast** (Marina, 2006); **Tula Oblast** (Svetasheva, 2004); **Yaroslavl Oblast** (Lazareva, 1998a); **Arid territories** (Rebriev, Rusanov, et al., 2012).

SIBERIA: **Novosibirsk Oblast** (Perova and Gorbunova, 2007).

FAR EAST: **Primorsky Krai** (Malysheva et al., 2014; Malysheva et al., 2016).

***Russula flavida* Frost ex Peck**

FAR EAST: **Primorsky Krai** (Bulakh, 1989; Azbukina et al., 1990; Bulakh, Wasser, Nazarova, and Nezdjominogo, 1990; Bardunov et al., 2002; Kozhevnikov, 2008; Bogacheva et al., 2018).

***Russula floccosa* Lj.N. Vassiljeva**

FAR EAST: **Primorsky Krai** (Vassiljeva, 1950; Vassiljeva, 1972; Vassiljeva, 1973).

***Russula foetens* Pers.<sup>1</sup>**

≡ *Agaricus foetens* (Pers.) Pers.<sup>2</sup> = *Russula foetens* var. *minor* Singer<sup>3</sup>

EASTERN EUROPE: **Adygea** (<sup>1</sup>Vassiljeva, 1939; <sup>1</sup>Vaasma, Kalamees, and Raitviir, 1986; <sup>1</sup>Sopina, 2004a); **Arkhangelsk Oblast** (<sup>1</sup>Lebedeva, 1933; <sup>1</sup>Ezhov, Ershov, Ruokolainen, and Zmitrovich, 2011; <sup>1</sup>Ezhov, 2014); **Belgorod Oblast** (<sup>1</sup>Bedenko, 1979a); **Bryansk Oblast** (<sup>1</sup>Kruglikov, 2007); **Chechen Republic** (<sup>1</sup>Taysumov, Krapivina, Umarov, and Astamirova, 2012); **Chelyabinsk Oblast** (<sup>1</sup>Aleksandrovskaia and Lobanova, 1968; <sup>1</sup>Sirko and Stepanova, 1977); **Chuvash Republic** (<sup>1</sup>Marfin, 2001); **Crimea** (<sup>1</sup>Zerova, 1962; <sup>1</sup>Sarkina, 2001; <sup>1</sup>Dudka et al., 2004; <sup>1</sup>Sarkina, 2010a; <sup>1</sup>Sarkina, 2010b; <sup>1</sup>Sarkina, 2011; <sup>1</sup>Sarkina and Prydiuk, 2012; <sup>1</sup>Sarkina, 2013; <sup>1</sup>Sarkina and Mironova, 2015; <sup>1</sup>Sarkina and Stavishenko, 2019); **Kabardino-Balkarian Republic** (<sup>1</sup>Shkhagapsoev and Krapivina, 2004); **Kaliningrad Oblast** (<sup>1</sup>Hennings, 1895; <sup>1</sup>Dedkov, Volodina, and Gubareva, 2007; <sup>1</sup>Volodina, 2007; <sup>1</sup>Atayev and Volodina, 2020); **Kaluga Oblast** (<sup>1</sup>Sionova, 2003; <sup>1</sup>Sionova, 2006); **Karachay-Cherkess Republic** (<sup>1</sup>Kalamees and Botashev, 2000); **Karelia** (<sup>1</sup>Freindling, 1949; <sup>1</sup>Kovalenko, Morozova, Fomina, and Särkisilta, 1998; <sup>1</sup>Bondartseva et al., 2001; <sup>1</sup>Krutov et al., 2014; <sup>1</sup>Pretechenskaya and Ruokolainen, 2014; <sup>1</sup>Savelev and Kikeeva, 2018); **Kirov Oblast** (<sup>1</sup>Kirillov, 2011);

<sup>1</sup>Kirillov, Perevedentseva, and Egoshina, 2011; <sup>1</sup>Stavishenko, Luginina, Kirillov, and Egoshina, 2019); **Komi Republic** (<sup>1</sup>Palamarchuk (Bobretsova), 2009; <sup>1</sup>Palamarchuk, 2012; <sup>1</sup>Palamarchuk and Kirillov, 2017); **Kostroma Oblast** (<sup>1</sup>Veremyeva, 1986); **Krasnodar Krai** (<sup>1</sup>Vassiljeva, 1939; <sup>1</sup>Kovalenko, 1980a; <sup>1</sup>Vaasma, Kalamees, and Raitviir, 1986); **Kursk Oblast** (<sup>1</sup>Ryabova and Ignatenko, 1981; <sup>1</sup>Soshnina, 2005); **Leningrad Oblast** (<sup>1</sup>Thesleff, 1920; <sup>1</sup>Chastukhin and Nikolaevskaya, 1969; <sup>1</sup>Kalamees and Kovalenko, 1984; <sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Fomina, 2000; <sup>1</sup>Fomina, 2001; <sup>1</sup>Popov et al., 2007; <sup>1</sup>Kalinina, 2018); **Lipetsk Oblast** (<sup>1</sup>Alferova, 1977; <sup>1</sup>Rtishcheva, 1999; <sup>1</sup>Sarycheva, 1999; <sup>1</sup>Afanasyev, Rtishcheva, and Starodubtseva, 2007; <sup>1</sup>Sarycheva et al., 2009; <sup>1</sup>Sarycheva, 2011; <sup>1</sup>Sarycheva, 2014a; <sup>1</sup>Sarycheva, 2016; <sup>1</sup>Sarycheva, Starodubtseva, and Sapelnikova, 2017); **Mordovia** (<sup>1</sup>Kuznetsov, 1960; <sup>1</sup>Chastukhin, 2011; <sup>1</sup>Ivoilov and Bolshakov, 2011b); **Moscow** (<sup>1</sup>Bucholtz, 1897a; <sup>1</sup>Bucholtz, 1897b; <sup>1</sup>Bucholtz, 1897c; <sup>1</sup>Mosolov, 1906; <sup>1</sup>Burova, 1968); **Moscow Oblast** (<sup>1</sup>Heyden, 1899; <sup>1</sup>Gorlenko, Sidorova, and Sidorova, 1989; <sup>1</sup>Levitskaya, 1995a; <sup>1</sup>Vishnevsky and Sidorova, 1997; <sup>1</sup>Voronina et al., 2012; <sup>1</sup>Levitskaya, 2013; <sup>1</sup>Voronina et al., 2014); **North Ossetia** (<sup>1</sup>Nikolayev, 2001); **Novgorod Oblast** (<sup>1</sup>Kovalenko, Morozova, Nezdojminogo, and Popov, 2005; <sup>1</sup>Popov et al., 2013); **Orenburg Oblast** (<sup>1</sup>Desyatova, 2008); **Penza Oblast** (<sup>1</sup>Ivanov, 1981a; <sup>1</sup>Ivanov, 2019); **Perm Krai** (<sup>1</sup>Perevedentseva, 2008; <sup>1</sup>Perevedentseva and Shilkova, 2010; <sup>1</sup>Belkovskaya et al., 2014; <sup>1</sup>Perevedentseva and Shishigin, 2015; <sup>1</sup>Botalov, 2017); **Pskov Oblast** (<sup>1</sup>Popov, 2001a; <sup>1</sup>Popov et al., 2013; <sup>1</sup>Kolmakov, 2015); **Ryazan Oblast** (<sup>1</sup>Volosnova, 1997; <sup>1</sup>Volosnova, 2014); **Saint Petersburg** (<sup>2</sup>Weinmann, 1836; <sup>2</sup>Weinmann, 1837; <sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Morozova, Kovalenko, Rebriev, and Malysheva, 2014; <sup>1</sup>Morozova et al., 2020); **Samara Oblast** (<sup>1</sup>Malysheva and Malysheva, 2004; <sup>1</sup>Malysheva and Malysheva, 2008); **Sevastopol** (<sup>1</sup>Sarkina, 2016b; <sup>1</sup>Sarkina, 2020c); **Smolensk Oblast** (<sup>1</sup>Jaczewski, 1895); **Sverdlovsk Oblast** (<sup>1</sup>Tomilin, 1965; <sup>1</sup>Marina, 2006); **Tatarstan** (<sup>1</sup>Vassiljeva, 1977; <sup>1</sup>Potapov, 2015b); **Tula Oblast** (<sup>1</sup>Svetasheva, 2001; <sup>1</sup>Svetasheva, 2004; <sup>1</sup>Svetasheva, 2013); **Tver Oblast** (<sup>1</sup>Kurochkin, 1993; <sup>1</sup>Mukhina, 2011a; <sup>1</sup>Mukhina, 2011b; <sup>1</sup>Kotkova, 2014); **Udmurt Republic** (<sup>1</sup>Tychinin and Kuzmina, 2003); **Ulyanovsk Oblast** (<sup>1</sup>Ilyukhin, 2009; <sup>1</sup>Ilyukhin, 2010a); **Vladimir Oblast** (<sup>1</sup>Mishulin, Blinov, and Gushchina, 2018); **Volgograd Oblast** (<sup>1</sup>Burova and Nezdojminogo, 1982); **Vologda Oblast** (<sup>1</sup>Kirillova, 2007; <sup>1</sup>Kirillova and Podolskaya, 2012); **Voronezh Oblast** (<sup>1</sup>Chastukhin, 1952; <sup>1</sup>Chastukhin and Nikolaevskaya, 1953; <sup>1</sup>Chastukhin and Nikolaevskaya, 1969; <sup>1</sup>Rtishcheva, 1999; <sup>1</sup>Afanasyev, Rtishcheva, and Starodubtseva, 2007; <sup>1</sup>Selochnik, 2015; <sup>1</sup>Sarycheva, Starodubtseva, and Sapelnikova, 2017); **Yaroslavl Oblast** (<sup>1</sup>Lazareva, 1997; <sup>1</sup>Lazareva, 1998a); **Arid territories** (<sup>1</sup>Rebriev, Rusanov, et al., 2012); **Northern Caucasus** (<sup>1</sup>Singer, 1938a; <sup>1</sup>Kovalenko, 1980b).

**SIBERIA:** **Altai Krai** (<sup>1</sup>Gorbunova and Perova, 2006; <sup>1</sup>Gorbunova, Vlasenko, and Tzhubarova, 2011); **Altai Republic** (<sup>1</sup>Singer, 1938a; <sup>3</sup>Singer, 1938a; <sup>1</sup>Kovalenko, 1992; <sup>1</sup>Gorbunova, 1996; <sup>1</sup>Gorbunova, 1997; <sup>1</sup>Gorbunova, 2001b; <sup>1</sup>Gorbunova, 2008); **Buryatia** (<sup>1</sup>Nezdojminogo, 1970a); **Irkutsk Oblast** (<sup>1</sup>Kutafjeva, 1984; <sup>1</sup>Petrov, Nezdojminogo, and Bulakh, 1987; <sup>1</sup>Astapenko, 1990b; <sup>1</sup>Muzyka, 2002; <sup>1</sup>Bardunov et al., 2005; <sup>1</sup>Petrov, 2008; <sup>1</sup>Muzyka, 2009; <sup>1</sup>Muzyka and Penzina, 2017); **Khanty-Mansi Autonomous Okrug** (<sup>1</sup>Zvyagina, Baykalova, and Gorbunova, 2007; <sup>1</sup>Zvyagina, 2008; <sup>1</sup>Shepeleva et al., 2014; <sup>1</sup>Filippova and Bulyonkova, 2017a; <sup>1</sup>Filippova and Bulyonkova, 2017b); **Krasnoyarsk Krai** (<sup>1</sup>Perova, 1970; <sup>1</sup>Beglyanova, 1972a; <sup>1</sup>Nezdojminogo, 1976a; <sup>1</sup>Lapitskaya, 1993; <sup>1</sup>Kosheleva and Kutafjeva, 2008a; <sup>1</sup>Kosheleva and Kutafjeva, 2008b; <sup>1</sup>Kosheleva, 2010; <sup>1</sup>Zauzolkova, 2012; <sup>1</sup>Zauzolkova, 2015; <sup>1</sup>Malysheva, Malysheva, Kiyashko, et al., 2017; <sup>1</sup>Krom and Kapitonov, 2019); **Kurgan Oblast** (<sup>1</sup>Bystrushkin, 2016); **Novosibirsk Oblast** (<sup>1</sup>Zaytseva, 1971; <sup>1</sup>Perova, 1977; <sup>1</sup>Gorbunova, 2007; <sup>1</sup>Perova and Gorbunova, 2007; <sup>1</sup>Koropachinskiy and Banaev, 2014); **Sakha Republic** (<sup>1</sup>Birkenhof, 1936); **Tomsk Oblast** (<sup>1</sup>Milovidova, 1980; <sup>1</sup>Kosheleva and Kutafjeva, 2004; <sup>1</sup>Kudashova, Gashkov, and Kutafjeva, 2013; <sup>1</sup>Vaishlya et al., 2017).

**FAR EAST:** **Amur Oblast** (<sup>1</sup>Tomilin, 1962; <sup>1</sup>Azbukina et al., 1998; <sup>1</sup>Bulakh, Govorova, and Taranina, 2003; <sup>1</sup>Taranina, 2005; <sup>1</sup>Kochunova, 2019); **Jewish Autonomous Oblast** (<sup>1</sup>Bulakh, Govorova, Nazarova, and Vassiljeva, 2007; <sup>1</sup>Bau, Bulakh, and Govorova, 2011); **Kamchatka Krai** (<sup>1</sup>Kalamees and Vaasma, 1981); **Khabarovsk Krai** (<sup>1</sup>Azbukina et al., 1986; <sup>1</sup>Azbukina et al., 1989; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Erofeeva and Bulakh, 2015a); **Primorsky Krai** (<sup>1</sup>Vassiljeva, 1972; <sup>1</sup>Vassiljeva, 1973; <sup>1</sup>Shalapugina, 1976; <sup>1</sup>Bulakh, 1977; <sup>1</sup>Bunkina and Nazarova, 1978; <sup>1</sup>Azbukina et al., 1984; <sup>1</sup>Azbukina et al., 1990; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1</sup>Bardunov et al., 2002; <sup>1</sup>Azbukina et al., 2006; <sup>1</sup>Bau, Bulakh, Zhuang, and Li, 2007; <sup>1</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Bulakh et al., 2016; <sup>1</sup>Bogacheva, Bulakh, Bukharova, and Egorova, 2020); **Sakhalin Oblast** (<sup>1</sup>Vassiljeva and Nazarova, 1972; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990).

### ***Russula font-queri* Singer**

**EASTERN EUROPE:** **Belgorod Oblast** (Bedenko, 1980); **Karelia** (Kovalenko, Morozova, Fomina, and Särkisilta, 1998; Krutov et al., 2014); **Tatarstan** (Vassiljeva, 1977); **Vologda Oblast** (Kirillova, 2005; Kirillova, 2007; Kirillova and Podolskaya, 2012); **EASTERN EUROPE** (Malysheva, Malysheva, Voronina, et al., 2017; Malysheva, Malysheva, Voronina, and Kovalenko, 2018).

***Russula fragilis* Fr.<sup>1</sup>**

≡ *Agaricus fragilis* Pers.<sup>2</sup> ≡ *Russula fragilis* var. *fragilis* Fr.<sup>3</sup> = *Russula fallax* (Schaeff.) Fr.<sup>4</sup> = *Russula fragilis* f. *griseoviolacea* Britzelm.<sup>5</sup> = *Russula fragilis* f. *violascens* (Secr. ex Gillet) Sacc.<sup>6</sup> = *Russula fragilis* var. *knauthii* (Singer) Kuyper & Vuure<sup>7</sup> = *Russula fragilis* var. *violascens* Secr. ex Gillet<sup>8</sup>

EASTERN EUROPE: **Bashkortostan** (<sup>1</sup>Stepanova and Sirko, 1977); **Belgorod Oblast** (<sup>1</sup>Bedenko, 1980); **Bryansk Oblast** (<sup>1</sup>Kruglikov, 2007); **Chechen Republic** (<sup>1</sup>Taysumov, Krapivina, Umarov, and Astamirova, 2012); **Chelyabinsk Oblast** (<sup>1</sup>Aleksandrovskaya and Lobanova, 1968; <sup>1</sup>Stepanova and Sirko, 1977); **Crimea** (<sup>1</sup>Sarkina, 2001; <sup>1</sup>Dudka et al., 2004; <sup>1</sup>Sarkina, 2010a; <sup>1</sup>Sarkina, 2010b; <sup>1</sup>Sarkina, 2011; <sup>1</sup>Sarkina and Prydiuk, 2012; <sup>1</sup>Sarkina, 2013); **Kabardino-Balkarian Republic** (<sup>1</sup>Shkhagapsoev and Krapivina, 2004); **Kaliningrad Oblast** (<sup>1</sup>Dedkov, Volodina, and Gubareva, 2007; <sup>1</sup>Volodina, 2007); **Kaluga Oblast** (<sup>1</sup>Sionova, 2003; <sup>1</sup>Sionova, 2006); **Karachay-Cherkess Republic** (<sup>4</sup>Vassiljeva, 1939); **Karelia** (<sup>1</sup>Lebedeva, 1933; <sup>1,4,5,6</sup>Freindling, 1949; <sup>1,4,5,6</sup>Bondartseva et al., 2001; <sup>3</sup>Predtechenskaya and Ruokolainen, 2013; <sup>3,5,6</sup>Krutov et al., 2014; <sup>3</sup>Predtechenskaya and Ruokolainen, 2014); **Kirov Oblast** (<sup>1</sup>Kirillov and Luginina, 2011; <sup>1</sup>Kirillov, 2011; <sup>1</sup>Kirillov, Perevedentseva, and Egoshina, 2011; <sup>1</sup>Stavishenko, Luginina, Kirillov, and Egoshina, 2019); **Krasnodar Krai** (<sup>1</sup>Kovalenko, 1980a; <sup>1</sup>Kovalenko, 1980b); **Leningrad Oblast** (<sup>1</sup>Thesleff, 1920; <sup>1</sup>Kalamees and Kovalenko, 1984; <sup>1</sup>Stolyarskaya, 1993; <sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Morozova, 2007; <sup>1</sup>Popov et al., 2007; <sup>1</sup>Zmitrovich et al., 2015); **Lipetsk Oblast** (<sup>1</sup>Rtishcheva, 1999; <sup>1</sup>Afanasyev, Rtishcheva, and Starodubtseva, 2007; <sup>1</sup>Sarycheva et al., 2009; <sup>1</sup>Sarycheva, 2011; <sup>1</sup>Sarycheva, 2014a; <sup>1</sup>Sarycheva, 2016; <sup>1</sup>Sarycheva, Starodubtseva, and Sapelnikova, 2017); **Moscow** (<sup>1</sup>Bucholtz, 1897b; <sup>1</sup>Bucholtz, 1897c; <sup>1</sup>Mosolov, 1906; <sup>1</sup>Burova, 1968); **Moscow Oblast** (<sup>1</sup>Gorlenko, Sidorova, and Sidorova, 1989; <sup>1</sup>Levitskaya, 1995a; <sup>1</sup>Vishnevsky and Sidorova, 1997; <sup>3</sup>Voronina et al., 2012; <sup>1</sup>Levitskaya, 2013; <sup>1</sup>Voronina et al., 2014); **Murmansk Oblast** (<sup>8</sup>Pystina, Pavlova, and Shestakova, 1969; <sup>1</sup>Mikhailovskii, 1975b; <sup>1</sup>Karatygin, Nezdoyminogo, Novozhilov, and Zhurbenko, 1999); **Nizhny Novgorod Oblast** (<sup>1</sup>Murashkinsky, 1911); **Perm Krai** (<sup>1</sup>Shkaraba, Perevedentseva, and Moshkina, 1990; <sup>3</sup>Perevedentseva, 2008; <sup>3</sup>Perevedentseva and Shilkova, 2010; <sup>1</sup>Belkovskaya et al., 2014; <sup>1</sup>Botalov, 2015; <sup>1</sup>Perevedentseva and Shishigin, 2015; <sup>1</sup>Botalov, 2017); **Pskov Oblast** (<sup>7</sup>Kovalenko, Kolmakov, Morozova, and Popov, 2003; <sup>3,7</sup>Popov et al., 2013; <sup>1</sup>Kolmakov, 2015); **Ryazan Oblast** (<sup>1</sup>Volosnova, 2005; <sup>1</sup>Volosnova, 2014); **Saint Petersburg** (<sup>2</sup>Weinmann, 1828; <sup>2</sup>Weinmann, 1837; <sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Morozova and Smirnov, 2011; <sup>1,4</sup>Morozova, Kovalenko, Rebriev, and Malysheva, 2014; <sup>1</sup>Morozova et al., 2020); **Samara Oblast** (<sup>1</sup>Malysheva and Malysheva, 2008); **Saratov Oblast** (<sup>1</sup>Nagumanov, 2015); **Sverdlovsk Oblast** (<sup>1</sup>Stepanova and Sirko, 1977; <sup>1</sup>Marina, 2006); **Tatarstan** (<sup>1</sup>Vassiljeva, 1977); **Tula Oblast** (<sup>1</sup>Svetasheva, 2001; <sup>1</sup>Svetasheva, 2004); **Tver Oblast** (<sup>1</sup>Kurochkin, 1993); **Udmurt Republic** (<sup>1</sup>Tychinin and Kuzmina, 2003); **Ulyanovsk Oblast** (<sup>1</sup>Ilyukhin, 2010a); **Vladimir Oblast** (<sup>2</sup>Weinmann, 1836); **Vologda Oblast** (<sup>1</sup>Kirillova, 2005; <sup>1</sup>Kirillova, 2007; <sup>1</sup>Kirillova and Podolskaya, 2012); **Voronezh Oblast** (<sup>1</sup>Rtishcheva, 1999; <sup>1</sup>Afanasyev, Rtishcheva, and Starodubtseva, 2007; <sup>1</sup>Sarycheva, Starodubtseva, and Sapelnikova, 2017); **Yaroslavl Oblast** (<sup>1</sup>Lazareva, 1997; <sup>3</sup>Lazareva, 1998a).

SIBERIA: **Altai Krai** (<sup>1</sup>Gorbunova and Perova, 2006; <sup>3</sup>Gorbunova, Vlasenko, and Tzhubarova, 2011); **Altai Republic** (<sup>1</sup>Gorbunova, 1997; <sup>1</sup>Gorbunova, 2008); **Buryatia** (<sup>1</sup>Nezdoyminogo, 1973); **Irkutsk Oblast** (<sup>1</sup>Kutafjeva, 1984; <sup>1</sup>Petrov, Nezdoyminogo, and Bulakh, 1987; <sup>1</sup>Kutafjeva and Astapenko, 1989; <sup>1</sup>Petrov, 1989; <sup>1</sup>Astapenko, 1990a; <sup>1</sup>Astapenko, 1990b; <sup>1</sup>Muzyka, 2002; <sup>1</sup>Bardunov et al., 2005; <sup>1</sup>Petrov, 2008; <sup>1</sup>Muzyka, 2009; <sup>1</sup>Muzyka and Penzina, 2017); **Khakassia** (<sup>1</sup>Zauzolkova, 2015); **Krasnoyarsk Krai** (<sup>1</sup>Thümen, 1878; <sup>1</sup>Perova, 1970; <sup>1</sup>Beglyanova, 1972a; <sup>1</sup>Lapitskaya, 1993; <sup>1</sup>Pavlov et al., 2007; <sup>1</sup>Kosheleva and Kutafjeva, 2008a; <sup>1</sup>Kosheleva and Kutafjeva, 2008b; <sup>1</sup>Kosheleva, 2010; <sup>1</sup>Kryuchkova, 2014a); **Kurgan Oblast** (<sup>1</sup>Bystrushkin, 2016); **Novosibirsk Oblast** (<sup>3</sup>Gorbunova, 2007; <sup>3</sup>Perova and Gorbunova, 2007); **Sverdlovsk Oblast** (<sup>1</sup>Stepanova and Sirko, 1977); **Tomsk Oblast** (<sup>1</sup>Milovidova, 1980; <sup>1</sup>Kosheleva and Kutafjeva, 2004; <sup>3</sup>Kudashova, Gashkov, and Kutafjeva, 2013; <sup>1</sup>Vaishlya et al., 2017); **Yamalo-Nenets Autonomous Okrug** (<sup>1</sup>Tarchevskaya, 1990); **Zabaykalsky Krai** (<sup>1</sup>Karsten, 1911).

FAR EAST: **Chukotka Autonomous Okrug** (<sup>1</sup>Berkeley and Curtis, 1978); **Jewish Autonomous Oblast** (<sup>1</sup>Bulakh, Govorova, Nazarova, and Vassiljeva, 2007; <sup>1</sup>Bau, Bulakh, and Govorova, 2011); **Khabarovsk Krai** (<sup>1</sup>Azbukina et al., 1986; <sup>1</sup>Azbukina et al., 1989; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdoyminogo, 1990; <sup>1</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Bulakh, 2013; <sup>1</sup>Bogacheva, Bulakh, Bukharova, and Egorova, 2015); **Magadan Oblast** (<sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdoyminogo, 1990; <sup>1</sup>Sazanova, 2005; <sup>1</sup>Sazanova, 2009a; <sup>3</sup>Sazanova, 2009b; <sup>3</sup>Sazanova, 2011); **Primorsky Krai** (<sup>1</sup>Bunkina and Nazarova, 1978; <sup>1</sup>Azbukina et al., 1984; <sup>1</sup>Azbukina et al., 1990; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdoyminogo, 1990; <sup>1</sup>Bardunov et al., 2002; <sup>1</sup>Azbukina et al., 2006; <sup>1</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Bulakh et al., 2016; <sup>1</sup>Bogacheva, Bulakh, Bukharova, and Egorova, 2020); **Sakhalin Oblast** (<sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdoyminogo, 1990).

***Russula fragrantissima* Romagn.**

EASTERN EUROPE: **Krasnodar Krai** (Kovalenko, 1980a; Kovalenko, 1980b).



***Russula furcata* Pers.<sup>1</sup>**≡ *Agaricus furcatus* (Pers.) Pers.<sup>2</sup>

EASTERN EUROPE: **Adygea** (<sup>1</sup>Vassiljeva, 1939); **Leningrad Oblast** (<sup>1</sup>Thesleff, 1920); **Saint Petersburg** (<sup>2</sup>Weinmann, 1828; <sup>2</sup>Weinmann, 1836; <sup>2</sup>Weinmann, 1837; <sup>1</sup>Morozova, Kovalenko, Rebriev, and Malysheva, 2014); **Arid territories** (<sup>1</sup>Rebriev, Rusanov, et al., 2012); **Northern Caucasus** (<sup>1</sup>Singer, 1938a).

SIBERIA: **Krasnoyarsk Krai** (<sup>1</sup>Thümen, 1878; <sup>1</sup>Zauzolkova, 2015).

***Russula gracilis* Burl.**EASTERN EUROPE: **Karelia** (Bondartseva et al., 2001).

SIBERIA: **Irkutsk Oblast** (Petrov, Nezdoininog, and Bulakh, 1987; Petrov, 1991; Petrov, 2008); **Novosibirsk Oblast** (Perova, 1977; Perova and Gorbunova, 2001; Perova and Gorbunova, 2007); **Tomsk Oblast** (Perova, 1972; Kudashova, Gashkov, and Kutafjeva, 2013).

FAR EAST: **Chukotka Autonomous Okrug** (Sazanova, 1993); **Primorsky Krai** (Bulakh, 1977; Azbukina et al., 1984; Azbukina et al., 1990; Bardunov et al., 2002).

***Russula gracillima* Jul. Schäff.<sup>1</sup>**= *Russula altaica* (Singer) Singer<sup>2</sup> = *Russula gracilis* subsp. *altaica* Singer<sup>3</sup>

EASTERN EUROPE: **Karachay-Cherkess Republic** (<sup>1</sup>Kalamees and Botashev, 2000); **Karelia** (<sup>1</sup>Predtechenskaya and Ruokolainen, 2013; <sup>1</sup>Krutov et al., 2014); **Komi Republic** (<sup>2</sup>Bulakh, 1989; <sup>2</sup>Bulakh, Wasser, Nazarova, and Nezdoininog, 1990; <sup>2</sup>Karatygin, Nezdoininog, Novozhilov, and Zhurbenko, 1999); **Leningrad Oblast** (<sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Fomina, 2000; <sup>1</sup>Morozova, 2007; <sup>1</sup>Popov et al., 2007; <sup>1</sup>Zmitrovich et al., 2015); **Moscow Oblast** (<sup>1</sup>Levitskaya, 1995a; <sup>1</sup>Levitskaya, 2013); **Murmansk Oblast** (<sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdoininog, 1990); **Perm Krai** (<sup>1</sup>Perevedentseva, 2008; <sup>1</sup>Perevedentseva and Shilkova, 2010; <sup>1</sup>Belkovskaya et al., 2014); **Pskov Oblast** (<sup>1</sup>Kalinina, Bolshakov, and Bulyonkova, 2020); **Sverdlovsk Oblast** (<sup>1</sup>Marina, 2006); **Tula Oblast** (<sup>1</sup>Svetasheva, 2004); **Ulyanovsk Oblast** (<sup>1</sup>Ilyukhin, 2010b); **Vologda Oblast** (<sup>1</sup>Kirillova, 2005; <sup>1</sup>Kirillova, 2007; <sup>1</sup>Kirillova and Podolskaya, 2012); **Yamalo-Nenets Autonomous Okrug** (<sup>2</sup>Karatygin, Nezdoininog, Novozhilov, and Zhurbenko, 1999; <sup>2</sup>Nezdoininog, 2001); **Yaroslavl Oblast** (<sup>1</sup>Lazareva, 1998a).

SIBERIA: **Altai Krai** (<sup>2</sup>Gorbunova, Vlasenko, and Tzhubarova, 2011); **Altai Republic** (<sup>3</sup>Singer, 1938a; <sup>3</sup>Singer, 1942; <sup>2</sup>Bulakh, 1989; <sup>2</sup>Gorbunova, 2003; <sup>1</sup>Gorbunova, 2008; <sup>2</sup>Gorbunova, 2010); **Irkutsk Oblast** (<sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdoininog, 1990); **Khanty-Mansi Autonomous Okrug** (<sup>1</sup>Filippova and Bulyonkova, 2017a; <sup>1</sup>Filippova and Bulyonkova, 2017b); **Krasnoyarsk Krai** (<sup>1</sup>Kosheleva and Kutafjeva, 2008b; <sup>1</sup>Kosheleva, 2010); **Kurgan Oblast** (<sup>1</sup>Bystrushkin, 2016); **Novosibirsk Oblast** (<sup>1</sup>Koropachinskiy and Banaev, 2014); **Sakha Republic** (<sup>2</sup>Karatygin, Nezdoininog, Novozhilov, and Zhurbenko, 1999); **Tomsk Oblast** (<sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdoininog, 1990; <sup>1</sup>Perova and Gorbunova, 2001; <sup>1</sup>Kudashova, Gashkov, and Kutafjeva, 2013).

FAR EAST: **Amur Oblast** (<sup>1</sup>Bulakh, Govorova, and Taranina, 2003); **Chukotka Autonomous Okrug** (<sup>2</sup>Bulakh, 1989; <sup>1,2</sup>Bulakh, Wasser, Nazarova, and Nezdoininog, 1990; <sup>2</sup>Nezdoininog, 1997a; <sup>2</sup>Karatygin, Nezdoininog, Novozhilov, and Zhurbenko, 1999); **Jewish Autonomous Oblast** (<sup>1</sup>Bulakh, Govorova, Nazarova, and Vassiljeva, 2007; <sup>1</sup>Bau, Bulakh, and Govorova, 2011); **Khabarovsk Krai** (<sup>1</sup>Azbukina et al., 1989; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdoininog, 1990; <sup>1</sup>Bau, Bulakh, and Govorova, 2011); **Magadan Oblast** (<sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdoininog, 1990; <sup>1</sup>Sazanova, 2005; <sup>1</sup>Sazanova, 2009a); **Primorsky Krai** (<sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdoininog, 1990; <sup>1</sup>Bau, Bulakh, and Govorova, 2011).

***Russula granulata* Peck**

FAR EAST: **Jewish Autonomous Oblast** (Bau, Bulakh, and Govorova, 2011); **Khabarovsk Krai** (Azbukina et al., 1986; Azbukina et al., 1989; Bulakh, 1989; Bulakh, Wasser, Nazarova, and Nezdoininog, 1990; Bau, Bulakh, and Govorova, 2011); **Primorsky Krai** (Azbukina et al., 1984; Bulakh, 1989; Bulakh, Wasser, Nazarova, and Nezdoininog, 1990; Azbukina et al., 2006; Bau, Bulakh, and Govorova, 2011; Malysheva et al., 2014; Malysheva et al., 2016; Bogacheva, Bulakh, Bukharova, and Egorova, 2020); **Sakhalin Oblast** (Eremin, 2005; Eremin, 2019).

***Russula grata* Britzelm.<sup>1</sup>**= *Russula laurocerasi* Melzer<sup>2</sup>

EASTERN EUROPE: **Kaliningrad Oblast** (<sup>2</sup>Dedkov, Volodina, and Gubareva, 2007; <sup>2</sup>Volodina, 2007); **Leningrad Oblast** (<sup>2</sup>Kovalenko and Morozova, 1999a; <sup>2</sup>Morozova, 1999; <sup>2</sup>Morozova and Kovalenko, 2000; <sup>2</sup>Tzvelev, 2000; <sup>2</sup>Popov et al., 2007; <sup>1</sup>Kalinina, 2018; <sup>2</sup>Geltman et al., 2018; <sup>2</sup>Geltman, 2018b); **Moscow Oblast** (<sup>1</sup>Levitskaya, 1995a); **Novgorod Oblast** (<sup>1</sup>Morozova, 2012; <sup>1</sup>Popov et al., 2013); **Perm Krai** (<sup>1</sup>Perevedentseva, 2008; <sup>1</sup>Perevedentseva and

Shilkova, 2010; <sup>2</sup>Perevedentseva and Shishigin, 2015); **Sverdlovsk Oblast** (<sup>1</sup>Marina, 2006); **Tula Oblast** (<sup>1</sup>Svetasheva, 2004).

FAR EAST: **Jewish Autonomous Oblast** (<sup>1</sup>Bau, Bulakh, and Govorova, 2011); **Khabarovsk Krai** (<sup>2</sup>Azbukina et al., 1986; <sup>2</sup>Azbukina et al., 1989; <sup>2</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>2</sup>Bau, Bulakh, Zhuang, and Li, 2007; <sup>1</sup>Bau, Bulakh, and Govorova, 2011); **Primorsky Krai** (<sup>2</sup>Vassiljeva, 1972; <sup>1,2</sup>Vassiljeva, 1973; <sup>2</sup>Bunkina and Nazarova, 1978; <sup>2</sup>Azbukina et al., 1990; <sup>2</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>2</sup>Bardunov et al., 2002; <sup>2</sup>Azbukina et al., 2006; <sup>1</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Bulakh et al., 2016; <sup>1</sup>Bogacheva, Bulakh, Bukharova, and Egorova, 2020); **Sakhalin Oblast** (<sup>2</sup>Vassiljeva and Nazarova, 1972).

### ***Russula graveolens* Romell<sup>1</sup>**

= *Russula purpurea* Gillet<sup>2</sup> = *Russula xerampelina* var. *rubra* (Britzelm.) Singer<sup>3</sup>

EASTERN EUROPE: **Adygea** (<sup>1</sup>Sopina, 2004a); **Crimea** (<sup>1</sup>Dudka et al., 2004); **Kaliningrad Oblast** (<sup>1</sup>Atayev and Volodina, 2020); **Krasnodar Krai** (<sup>3</sup>Vassiljeva, 1939); **Mordovia** (<sup>3</sup>Kuznetsov, 1960; <sup>3</sup>Chastukhin, 2011); **Murmansk Oblast** (<sup>3</sup>Pystina, Pavlova, and Shestakova, 1969); **Penza Oblast** (<sup>1</sup>Ivanov, 1981a); **Pskov Oblast** (<sup>1</sup>Popov et al., 2013; <sup>1</sup>Kolmakov, 2015); **Saint Petersburg** (<sup>3</sup>Morozova, Kovalenko, Rebriev, and Malysheva, 2014); **Tula Oblast** (<sup>1</sup>Svetasheva, 2004; <sup>1</sup>Svetasheva, 2013); **Northern Caucasus** (<sup>3</sup>Singer, 1938a).

SIBERIA: **Krasnoyarsk Krai** (<sup>2</sup>Saccardo, 1889).

FAR EAST: **Magadan Oblast** (<sup>3</sup>Sazanova, 1996; <sup>3</sup>Sazanova, 2005).

### ***Russula grisea* Fr.<sup>1</sup>**

= *Russula palumbina* Paulet ex Quél.<sup>2</sup>

EASTERN EUROPE: **Adygea** (<sup>1</sup>Sopina, 2004a); **Bashkortostan** (<sup>1</sup>Stepanova and Sirko, 1977); **Belgorod Oblast** (<sup>2</sup>Bedenko, 1979a; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990); **Crimea** (<sup>1</sup>Sarkina, 2010b; <sup>1</sup>Sarkina, 2014b; <sup>1</sup>Sarkina and Mironova, 2015; <sup>1</sup>Sarkina, 2016a); **Kaliningrad Oblast** (<sup>1</sup>Dedkov, Volodina, and Gubareva, 2007; <sup>1</sup>Volodina, 2007); **Kaluga Oblast** (<sup>1</sup>Sionova, 2003); **Karelia** (<sup>1</sup>Bondartseva et al., 2001; <sup>1</sup>Krutov et al., 2014); **Krasnodar Krai** (<sup>1</sup>Kovalenko, 1980a; <sup>1</sup>Kovalenko, 1980b); **Kursk Oblast** (<sup>1</sup>Ryabova and Ignatenko, 1981; <sup>1</sup>Soshnina, 2005); **Leningrad Oblast** (<sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Popov et al., 2007); **Lipetsk Oblast** (<sup>2</sup>Alferova, 1977; <sup>1</sup>Sarycheva, 1999; <sup>2</sup>Rtishcheva, 1999; <sup>2</sup>Afanasyev, Rtishcheva, and Starodubtseva, 2007; <sup>1</sup>Sarycheva et al., 2009; <sup>1</sup>Sarycheva, 2011; <sup>1</sup>Sarycheva, Starodubtseva, and Sapelnikova, 2017); **Moscow** (<sup>1</sup>Burova, 1968; <sup>1</sup>Samoilov and Morozova, 2011); **Moscow Oblast** (<sup>1</sup>Vishnevsky and Sidorova, 1997); **Murmansk Oblast** (<sup>1</sup>Pystina, Pavlova, and Shestakova, 1969; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990); **Orenburg Oblast** (<sup>1</sup>Desyatova, 2008); **Penza Oblast** (<sup>1</sup>Ivanov, 1981a; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990); **Perm Krai** (<sup>1</sup>Perevedentseva, 2008; <sup>1</sup>Perevedentseva and Shilkova, 2010; <sup>1</sup>Perevedentseva and Shishigin, 2015; <sup>1</sup>Botalov, 2017); **Pskov Oblast** (<sup>1</sup>Kolmakov, 2015); **Ryazan Oblast** (<sup>1</sup>Volosnova, 1997; <sup>1</sup>Volosnova, 2014); **Saint Petersburg** (<sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Morozova, Kovalenko, Rebriev, and Malysheva, 2014); **Sverdlovsk Oblast** (<sup>1</sup>Tomilin, 1965; <sup>1</sup>Stepanova and Sirko, 1977); **Tatarstan** (<sup>1</sup>Vassiljeva, 1977; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990); **Tver Oblast** (<sup>1</sup>Kurochkin, 1993); **Udmurt Republic** (<sup>1</sup>Tychinin and Kuzmina, 2003); **Vologda Oblast** (<sup>1</sup>Kutova, 1957); **Voronezh Oblast** (<sup>2</sup>Rtishcheva, 1999; <sup>2</sup>Afanasyev, Rtishcheva, and Starodubtseva, 2007; <sup>1</sup>Selochnik, 2015; <sup>1</sup>Sarycheva, Starodubtseva, and Sapelnikova, 2017).

SIBERIA: **Buryatia** (<sup>1</sup>Nezdojminogo, 1970a; <sup>1</sup>Petrov, 1991); **Irkutsk Oblast** (<sup>1</sup>Petrov, Nezdojminogo, and Bulakh, 1987; <sup>1</sup>Astapenko, 1990b; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1</sup>Petrov, 1991; <sup>1</sup>Muzyka, 2002; <sup>1</sup>Petrov, 2008); **Krasnoyarsk Krai** (<sup>1</sup>Beglyanova, 1972a; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1</sup>Zauzolkova, 2015; <sup>1</sup>Zauzolkova and Gorbunova, 2016); **Novosibirsk Oblast** (<sup>2</sup>Perova, 1977; <sup>1</sup>Perova and Gorbunova, 2001; <sup>1</sup>Koropachinskiy and Banaev, 2014); **Tomsk Oblast** (<sup>1</sup>Milovidova, 1980; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1</sup>Kudashova, Gashkov, and Kutafjeva, 2013; <sup>1</sup>Vaishlya et al., 2017); **Yamalo-Nenets Autonomous Okrug** (<sup>1</sup>Tarчевskaya, 1990).

FAR EAST: **Amur Oblast** (<sup>1</sup>Bulakh, Govorova, and Taranina, 2003; <sup>1</sup>Bogacheva et al., 2018); **Jewish Autonomous Oblast** (<sup>1</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Bogacheva et al., 2018); **Kamchatka Krai** (<sup>1</sup>Kalamees and Vaasma, 1981; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990); **Primorsky Krai** (<sup>1</sup>Azbukina et al., 1990; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1</sup>Bardunov et al., 2002; <sup>1</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Bogacheva et al., 2018); **Sakhalin Oblast** (<sup>1</sup>Bogacheva et al., 2018).

### ***Russula helodes* Melzer**

EASTERN EUROPE: **Tatarstan** (Vassiljeva, 1977); **Vologda Oblast** (Kirillova and Podolskaya, 2012).

***Russula heterophylla* (Fr.) Fr.<sup>1</sup>**

≡ *Agaricus furcatus* β *heterophyllus* Fr.<sup>2</sup> = *Russula heterophylla* f. *adusta* J.E. Lange<sup>3</sup>

EASTERN EUROPE: **Adygea** (<sup>1</sup>Sopina, 2004a); **Belgorod Oblast** (<sup>3</sup>Bedenko, 1980); **Kaliningrad Oblast** (<sup>1</sup>Dedkov, Volodina, and Gubareva, 2007; <sup>1</sup>Volodina, 2007); **Karelia** (<sup>1</sup>Krutov et al., 2014); **Krasnodar Krai** (<sup>1</sup>Kovalenko, 1980a; <sup>1</sup>Kovalenko, 1980b; <sup>1</sup>Vaasma, Kalamees, and Raitviir, 1986; <sup>1</sup>Shumkova, Krivorotov, and Gayday, 2018); **Leningrad Oblast** (<sup>1</sup>Thesleff, 1920; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdoininogo, 1990; <sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Morozova, 2007; <sup>1</sup>Popov et al., 2007; <sup>1</sup>Zmitrovich et al., 2015); **Lipetsk Oblast** (<sup>1</sup>Rtishcheva, 1999; <sup>1</sup>Afanasyev, Rtishcheva, and Starodubtseva, 2007; <sup>1</sup>Sarycheva et al., 2009; <sup>1</sup>Sarycheva, Starodubtseva, and Sapelnikova, 2017); **Moscow Oblast** (<sup>1</sup>Gorlenko, Sidorova, and Sidorova, 1989; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdoininogo, 1990; <sup>1</sup>Vishnevsky and Sidorova, 1997; <sup>1</sup>Varlygina, Zubakin, and Sobolev, 2008; <sup>1</sup>Varlygina, Zubakin, Nikitsky, and Sviridov, 2018); **Novgorod Oblast** (<sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdoininogo, 1990); **Penza Oblast** (<sup>1</sup>Ivanov, 1981a; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdoininogo, 1990; <sup>1</sup>Ivanov, 2019); **Perm Krai** (<sup>1</sup>Perevedentseva, 2008; <sup>1</sup>Perevedentseva and Shilkova, 2010; <sup>1</sup>Belkovskaya et al., 2014); **Pskov Oblast** (<sup>1</sup>Kolmakov, 2015); **Saint Petersburg** (<sup>2</sup>Weinmann, 1828; <sup>2</sup>Weinmann, 1836; <sup>2</sup>Weinmann, 1837; <sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Morozova, Kovalenko, Rebriev, and Malysheva, 2014); **Tula Oblast** (<sup>1</sup>Svetasheva, 2004; <sup>1</sup>Svetasheva, 2013); **Vladimir Oblast** (<sup>1</sup>Mishulin, Blinov, and Gushchina, 2018); **Voronezh Oblast** (<sup>1</sup>Rtishcheva, 1999; <sup>1</sup>Afanasyev, Rtishcheva, and Starodubtseva, 2007; <sup>1</sup>Sarycheva, Starodubtseva, and Sapelnikova, 2017); **Yaroslavl Oblast** (<sup>1</sup>Lazareva, 1998a).

SIBERIA: **Altai Republic** (<sup>1</sup>Gorbunova, 2001b); **Khanty-Mansi Autonomous Okrug** (<sup>1</sup>Zvyagina and Baykalova, 2017); **Krasnoyarsk Krai** (<sup>1</sup>Lapitskaya, 1993); **Novosibirsk Oblast** (<sup>1</sup>Perova and Gorbunova, 2001; <sup>1</sup>Perova and Gorbunova, 2007); **Tomsk Oblast** (<sup>1</sup>Milovidova, 1980; <sup>1</sup>Kudashova, Gashkov, and Kutafjeva, 2013; <sup>1</sup>Vaishlya et al., 2017); **Tyumen Oblast** (<sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdoininogo, 1990).

FAR EAST: **Amur Oblast** (<sup>1</sup>Kochunova and Erofeeva, 2017; <sup>1</sup>Kochunova, 2019); **Jewish Autonomous Oblast** (<sup>1</sup>Bulakh, Govorova, Nazarova, and Vassiljeva, 2007; <sup>1</sup>Bau, Bulakh, and Govorova, 2011); **Khabarovsk Krai** (<sup>1</sup>Azbukina et al., 1986; <sup>1</sup>Azbukina et al., 1989; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdoininogo, 1990; <sup>1</sup>Bulakh, Vassiljeva, and Erofeeva, 2010; <sup>1</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Erofeeva and Bulakh, 2015a); **Primorsky Krai** (<sup>1</sup>Azbukina et al., 1990; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdoininogo, 1990; <sup>1</sup>Bardunov et al., 2002; <sup>1</sup>Azbukina et al., 2006; <sup>1</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Bulakh et al., 2016).

***Russula heterospora* Beardslee**

= *Russula cremea* (Murrill) Singer<sup>1</sup>

FAR EAST: **Primorsky Krai** (<sup>1</sup>Azbukina et al., 1990; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdoininogo, 1990; <sup>1</sup>Bardunov et al., 2002).

***Russula hydrophila* Horniček<sup>1</sup>**

= *Russula griseascens* (Bon & Gaugué) Marti<sup>2</sup>

EASTERN EUROPE: **Komi Republic** (<sup>2</sup>Palamarchuk (Bobretsova), 2009; <sup>2</sup>Palamarchuk, 2012); **Leningrad Oblast** (<sup>2</sup>Kovalenko and Morozova, 1999a; <sup>2</sup>Fomina, 2000; <sup>2</sup>Morozova, 2007; <sup>2</sup>Popov et al., 2007); **Sverdlovsk Oblast** (<sup>2</sup>Marina, 2006); **Vologda Oblast** (<sup>2</sup>Kirillova and Podolskaya, 2012).

SIBERIA: **Khanty-Mansi Autonomous Okrug** (<sup>2</sup>Filippova and Bulyonkova, 2017a; <sup>2</sup>Filippova and Bulyonkova, 2017b; <sup>2</sup>Zvyagina and Baykalova, 2017); **Kurgan Oblast** (<sup>1</sup>Bystrushkin, 2016).

***Russula illota* Romagn.**

EASTERN EUROPE: **Tula Oblast** (Svetasheva, 2004; Svetasheva, 2005b; Shcherbakov, 2010; Svetasheva, 2013).

SIBERIA: **Altai Krai** (Gorbunova, 2018a; Gorbunova, 2018b); **Khanty-Mansi Autonomous Okrug** (Zvyagina and Baykalova, 2017); **Tomsk Oblast** (Agaphonova, Kutafjeva, and Gashkov, 2009a).

***Russula integra* (L.) Fr.<sup>1</sup>**

≡ *Russula alutacea* subsp. *integra* (L.) Singer<sup>2</sup> ≡ *Russula integra* var. *integra* (L.) Fr.<sup>3</sup> = *Russula adulterina* (Fr.) Peck<sup>4</sup> = *Russula alutacea* f. *pseudo-olivascens* Singer<sup>5</sup> = *Russula alutacea* f. *purpurella* Singer<sup>6</sup> = *Russula integra* var. *oreas* Romagn.<sup>7</sup>

EASTERN EUROPE: **Adygea** (<sup>1</sup>Vaasma, Kalamees, and Raitviir, 1986); **Bashkortostan** (<sup>1</sup>Stepanova and Sirko, 1977); **Belgorod Oblast** (<sup>1</sup>Bedenko, 1979a; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdoininogo, 1990); **Crimea** (<sup>1</sup>Sarkina, 2001; <sup>1</sup>Dudka et al., 2004; <sup>1</sup>Sarkina, 2010a; <sup>1</sup>Sarkina, 2010b; <sup>1</sup>Sarkina, 2011; <sup>1</sup>Sarkina and Prydiuk, 2012; <sup>1</sup>Sarkina and Stavishenko, 2019); **Ivanovo Oblast** (<sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdoininogo, 1990); **Kaliningrad Oblast** (<sup>1</sup>Volodina, 2007); **Kaluga Oblast** (<sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdoininogo, 1990; <sup>1</sup>Sionova, 2003);

**Karachay-Cherkess Republic** (<sup>2</sup>Vassiljeva, 1939); **Karelia** (<sup>7</sup>Kovalenko, Morozova, Fomina, and Särkisilta, 1998; <sup>3</sup>Krutov et al., 2014; <sup>3</sup>Predtechenskaya and Ruokolainen, 2014; <sup>7</sup>Krutov et al., 2014; <sup>3</sup>Predtechenskaya, 2015); **Komi Republic** (<sup>1</sup>Palamarchuk, 2011a; <sup>1</sup>Palamarchuk, 2012; <sup>1</sup>Palamarchuk and Kirillov, 2017); **Krasnodar Krai** (<sup>1</sup>Vaasma, Kalamees, and Raitviir, 1986); **Kursk Oblast** (<sup>1</sup>Ryabova and Ignatenko, 1981); **Leningrad Oblast** (<sup>1</sup>Thesleff, 1920; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdjominogo, 1990; <sup>3,7</sup>Kovalenko and Morozova, 1999a; <sup>3,7</sup>Popov et al., 2007); **Mordovia** (<sup>1</sup>Ivoilov and Bolshakov, 2011b); **Moscow** (<sup>1</sup>Bucholtz, 1897b); **Moscow Oblast** (<sup>1</sup>Gorlenko, Sidorova, and Sidorova, 1989; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdjominogo, 1990; <sup>1</sup>Levitskaya, 1995a; <sup>1</sup>Vishnevsky and Sidorova, 1997; <sup>1</sup>Levitskaya, 2013); **Murmansk Oblast** (<sup>1</sup>Pystina, Pavlova, and Shestakova, 1969; <sup>1</sup>Mikhailovskii, 1975b); **Perm Krai** (<sup>3</sup>Perevedentseva, 2008; <sup>3</sup>Perevedentseva and Shilkova, 2010; <sup>1</sup>Belkovskaya et al., 2014; <sup>1</sup>Perevedentseva and Shishigin, 2015); **Pskov Oblast** (<sup>1</sup>Kolmakov, 2015); **Ryazan Oblast** (<sup>1</sup>Volosnova, 1997); **Saint Petersburg** (<sup>1</sup>Morozova, Kovalenko, Rebriev, and Malysheva, 2014); **Smolensk Oblast** (<sup>1</sup>Jaczewski, 1896; <sup>1</sup>Burova, 1969; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdjominogo, 1990); **Sverdlovsk Oblast** (<sup>1</sup>Stepanova and Sirko, 1977; <sup>1</sup>Marina, 2006); **Tatarstan** (<sup>1</sup>Vassiljeva, 1977; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdjominogo, 1990); **Tula Oblast** (<sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdjominogo, 1990; <sup>1</sup>Svetasheva, 2001; <sup>3</sup>Svetasheva, 2004); **Udmurt Republic** (<sup>1</sup>Tychinin and Kuzmina, 2003); **Arid territories** (<sup>1</sup>Rebriev, Rusanov, et al., 2012); **Northern Caucasus** (<sup>6</sup>Singer, 1938a).

SIBERIA: **Altai Krai** (<sup>3</sup>Gorbunova, Vlasenko, and Tzhubarova, 2011); **Altai Republic** (<sup>5</sup>Singer, 1938a); **Irkutsk Oblast** (<sup>1</sup>Kutafjeva, 1984; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdjominogo, 1990); **Khakassia** (<sup>1</sup>Zauzolkova, 2015); **Krasnoyarsk Krai** (<sup>1</sup>Borszczow and Borszczow, 1856; <sup>1,4</sup>Kalchbrenner, 1878; <sup>1,4</sup>Thümen, 1878; <sup>1,4</sup>Beglyanova, 1972a; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdjominogo, 1990; <sup>4</sup>Zauzolkova, 2015); **Novosibirsk Oblast** (<sup>1</sup>Perova, 1977; <sup>1</sup>Perova and Gorbunova, 2001; <sup>1</sup>Perova and Gorbunova, 2007); **Omsk Oblast** (<sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdjominogo, 1990); **Tomsk Oblast** (<sup>1</sup>Milovidova, 1980; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdjominogo, 1990; <sup>3</sup>Kudashova, Gashkov, and Kutafjeva, 2013; <sup>1</sup>Vaishlya et al., 2017); **Tyumen Oblast** (<sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdjominogo, 1990); **Tyva Republic** (<sup>1</sup>Gorbunova, 2015); **Yamalo-Nenets Autonomous Okrug** (<sup>1</sup>Tarchevskaya, 1990); **Zabaykalsky Krai** (<sup>1</sup>Karsten, 1906; <sup>1</sup>Karsten, 1911).

FAR EAST: **Amur Oblast** (<sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdjominogo, 1990; <sup>1</sup>Azbukina et al., 1998); **Khabarovsk Krai** (<sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdjominogo, 1990); **Primorsky Krai** (<sup>1</sup>Bulakh, 1977; <sup>1</sup>Azbukina et al., 1990; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdjominogo, 1990; <sup>1</sup>Bardunov et al., 2002; <sup>1</sup>Bau, Bulakh, and Govorova, 2011).

### *Russula integriformis* Sarnari

FAR EAST: **Primorsky Krai** (Malysheva et al., 2016).

### *Russula intermedia* P. Karst.<sup>1</sup>

= *Russula lundellii* Singer<sup>2</sup> = *Russula mesospora* Singer<sup>3</sup> = *Russula pulcherrima* S. Lundell & Jul. Schäff.<sup>4</sup>

EASTERN EUROPE: **Chelyabinsk Oblast** (<sup>2</sup>Stepanova and Sirko, 1977); **Karelia** (<sup>2</sup>Kovalenko, Morozova, Fomina, and Särkisilta, 1998; <sup>1</sup>Krutov et al., 2014); **Leningrad Oblast** (<sup>2</sup>Kovalenko and Morozova, 1999a; <sup>2</sup>Popov et al., 2007); **Moscow Oblast** (<sup>2</sup>Levitskaya, 2006; <sup>2</sup>Levitskaya, 2013; <sup>1</sup>Malysheva, Malysheva, Voronina, and Kovalenko, 2018); **Perm Krai** (<sup>1</sup>Perevedentseva, 2008; <sup>1</sup>Perevedentseva and Shilkova, 2010); **Sverdlovsk Oblast** (<sup>2</sup>Marina, 2006).

SIBERIA: **Altai Republic** (<sup>3</sup>Singer, 1938a; <sup>3</sup>Singer, 1942); **Irkutsk Oblast** (<sup>2</sup>Petrov, Nezdjominogo, and Bulakh, 1987; <sup>2</sup>Petrov, 1989; <sup>2</sup>Astapenko and Kutafjeva, 1990; <sup>2</sup>Astapenko, 1990a; <sup>2</sup>Astapenko, 1990b; <sup>2</sup>Petrov, 1991; <sup>2</sup>Petrov, 2008).

FAR EAST: **Primorsky Krai** (<sup>2</sup>Shalapugina, 1976; <sup>2</sup>Bulakh, 1977; <sup>4</sup>Azbukina et al., 1984; <sup>2</sup>Azbukina et al., 1990; <sup>2</sup>Bardunov et al., 2002).

### *Russula ionochlora* Romagn.

EASTERN EUROPE: **Adygea** (Sopina, 2004a); **Kaliningrad Oblast** (Atayev and Volodina, 2020); **Tula Oblast** (Svetasheva, 2004).

FAR EAST: **Khabarovsk Krai** (Azbukina et al., 1986; Bau, Bulakh, and Govorova, 2011; Bogacheva et al., 2018); **Primorsky Krai** (Azbukina et al., 1990; Bulakh, Wasser, Nazarova, and Nezdjominogo, 1990; Bardunov et al., 2002; Bogacheva et al., 2018).

### *Russula laccata* Huijsman<sup>1</sup>

= *Russula norvegica* D.A. Reid<sup>2</sup>

EASTERN EUROPE: **Komi Republic** (<sup>2</sup>Karatygin, Nezdjominogo, Novozhilov, and Zhurbenko, 1999; <sup>1</sup>Palamarchuk, 2016a; <sup>1</sup>Palamarchuk, 2016b); **Murmansk Oblast** (<sup>1</sup>Kalamees and Raitviir, 2006); **Yamalo-Nenets**

**Autonomous Okrug** (<sup>2</sup>Knudsen and Mukhin, 1998; <sup>2</sup>Karatygin, Nezdoyminogo, Novozhilov, and Zhurbenko, 1999; <sup>2</sup>Nezdoyminogo, 2001).

SIBERIA: **Krasnoyarsk Krai** (<sup>2</sup>Nezdoyminogo and Zhurbenko, 1996; <sup>2</sup>Nezdoyminogo, 1997a; <sup>2</sup>Karatygin, Nezdoyminogo, Novozhilov, and Zhurbenko, 1999); **Sakha Republic** (<sup>2</sup>Karatygin, Nezdoyminogo, Novozhilov, and Zhurbenko, 1999).

FAR EAST: **Chukotka Autonomous Okrug** (<sup>2</sup>Karatygin, Nezdoyminogo, Novozhilov, and Zhurbenko, 1999).

#### ***Russula laeta* Jul. Schäff.**

EASTERN EUROPE: **Adygea** (Sopina, 2004a); **Crimea** (Dudka et al., 2004; Sarkina, 2010a; Sarkina, 2011); **Pskov Oblast** (Kolmakov, 2015); **Tula Oblast** (Svetasheva et al., 2017).

#### ***Russula laricina* Velen.**

EASTERN EUROPE: **Samara Oblast** (Malysheva, Malysheva, Voronina, et al., 2017; Malysheva, Malysheva, Voronina, and Kovalenko, 2018).

FAR EAST: **Jewish Autonomous Oblast** (Bulakh, Govorova, Nazarova, and Vassiljeva, 2007; Bau, Bulakh, and Govorova, 2011); **Khabarovsk Krai** (Azbukina et al., 1989; Bulakh, 1989; Bulakh, Wasser, Nazarova, and Nezdoyminogo, 1990); **Magadan Oblast** (Rebriev, Bulakh, Sazanova, and Shiryaev, 2020); **Primorsky Krai** (Malysheva et al., 2016).

#### ***Russula lateritia* Quéf.**

EASTERN EUROPE: **Mordovia** (Chastukhin, 1948a; Chastukhin and Nikolaevskaya, 1969; Chastukhin, 2011; Ivoilov and Bolshakov, 2011b).

#### ***Russula lilacea* Quéf.**

EASTERN EUROPE: **Adygea** (Sopina, 2004a); **Belgorod Oblast** (Bedenko, 1979a; Bulakh, Wasser, Nazarova, and Nezdoyminogo, 1990); **Crimea** (Sarkina, 2001; Dudka et al., 2004; Sarkina, 2010b); **Kaliningrad Oblast** (Dedkov, Volodina, and Gubareva, 2007; Atayev and Volodina, 2020); **Karelia** (Freindling, 1949; Bulakh, Wasser, Nazarova, and Nezdoyminogo, 1990; Bondartseva et al., 2001; Krutov et al., 2014); **Lipetsk Oblast** (Afanasyev, Rtishcheva, and Starodubtseva, 2007; Sarycheva et al., 2009; Sarycheva, 2011; Sarycheva, Starodubtseva, and Sapelnikova, 2017); **Murmansk Oblast** (Bulakh, Wasser, Nazarova, and Nezdoyminogo, 1990); **Orenburg Oblast** (Korshikova, 2005; Desyatova, 2008); **Saint Petersburg** (Morozova, Kovalenko, Rebriev, and Malysheva, 2014); **Voronezh Oblast** (Afanasyev, Rtishcheva, and Starodubtseva, 2007; Sarycheva, Starodubtseva, and Sapelnikova, 2017).

SIBERIA: **Sakha Republic** (Bulakh, Wasser, Nazarova, and Nezdoyminogo, 1990); **Tomsk Oblast** (Milovidova, 1980; Kudashova, Gashkov, and Kutafjeva, 2013; Kudashova, Gashkov, and Vaishlya, 2016b; Vaishlya et al., 2017).

FAR EAST: **Amur Oblast** (Bulakh, Wasser, Nazarova, and Nezdoyminogo, 1990; Azbukina et al., 1998); **Jewish Autonomous Oblast** (Bulakh, Govorova, Nazarova, and Vassiljeva, 2007; Bau, Bulakh, and Govorova, 2011); **Khabarovsk Krai** (Azbukina et al., 1986; Bulakh, Wasser, Nazarova, and Nezdoyminogo, 1990; Bau, Bulakh, and Govorova, 2011); **Primorsky Krai** (Bulakh, 1977; Azbukina et al., 1984; Azbukina et al., 1990; Bulakh, Wasser, Nazarova, and Nezdoyminogo, 1990; Bardunov et al., 2002; Azbukina et al., 2006; Bau, Bulakh, Zhuang, and Li, 2007; Bau, Bulakh, and Govorova, 2011; Bulakh et al., 2016; Bogacheva, Bulakh, Bukharova, and Egorova, 2020); **Sakhalin Oblast** (Bulakh, Govorova, and Bogatov, 1999).

#### ***Russula livescens* (Batsch) Bataille**

EASTERN EUROPE: **Kaliningrad Oblast** (Dedkov, Volodina, and Gubareva, 2007); **Rostov Oblast** (Rusanov, Rebriev, and Bulgakov, 2018); **Arid territories** (Rebriev, Rusanov, et al., 2012).

#### ***Russula longipes* (Singer) Moënné-Locc. & Reumaux**

≡ *Russula emetica* f. *longipes* Singer<sup>1</sup>

EASTERN EUROPE: **Karelia** (<sup>1</sup>Freindling, 1949; <sup>1</sup>Bondartseva et al., 2001; <sup>1</sup>Krutov et al., 2014).

#### ***Russula luteotacta* Rea**

EASTERN EUROPE: **Crimea** (Sarkina, 2001; Sarkina, 2010a; Sarkina, 2011; Sarkina and Prydiuk, 2012); **Karelia** (Kovalenko, Morozova, Fomina, and Särkisilta, 1998; Krutov et al., 2014); **Krasnodar Krai** (Vassiljeva, 1939); **Samara Oblast** (Malysheva and Malysheva, 2008); **Tula Oblast** (Svetasheva, 2001; Svetasheva, 2004; Shcherbakov, 2010; Svetasheva, Sheremetyeva, and Lakomov, 2019); **Arid territories** (Rebriev, Rusanov, et al., 2012); **Northern Caucasus** (Singer, 1938a).

***Russula luteoviridans* C. Martín**

EASTERN EUROPE: **Perm Krai** (Perevedentseva, 2008; Perevedentseva and Shilkova, 2010; Belkovskaya et al., 2014).

SIBERIA: **Buryatia** (Nezdojminogo, 1970a; Petrov, 1991); **Irkutsk Oblast** (Bulakh, 1989; Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; Petrov, 1991; Petrov, 2008); **Krasnoyarsk Krai** (Beglyanova, 1972a; Bulakh, 1989; Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990).

FAR EAST: **Khabarovsk Krai** (Bulakh, 1989; Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; Bau, Bulakh, and Govorova, 2011); **Primorsky Krai** (Bulakh, 1989; Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; Bau, Bulakh, and Govorova, 2011).

***Russula maculata* Quél.<sup>1</sup>**

≡ *Russula maculata* var. *maculata* Quél.<sup>2</sup> = *Russula maculata* subsp. *alpina* (Singer) Knudsen & T. Borgen<sup>3</sup>

EASTERN EUROPE: **Belgorod Oblast** (<sup>1</sup>Bedenko, 1980; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990); **Crimea** (<sup>1</sup>Sarkina, 2010a); **Karelia** (<sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990); **Moscow Oblast** (<sup>1</sup>Levitskaya, 1995a; <sup>2</sup>Levitskaya, 2013); **Murmansk Oblast** (<sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990); **Penza Oblast** (<sup>1</sup>Ivanov, 1983; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990); **Perm Krai** (<sup>1</sup>Perevedentseva, 2008; <sup>1</sup>Perevedentseva and Shilkova, 2010; <sup>1</sup>Belkovskaya et al., 2014); **Tula Oblast** (<sup>1</sup>Svetasheva, 2004); **Yamalo-Nenets Autonomous Okrug** (<sup>3</sup>Knudsen and Mukhin, 1998; <sup>3</sup>Karatygin, Nezdojminogo, Novozhilov, and Zhurbenko, 1999; <sup>3</sup>Nezdojminogo, 2001).

SIBERIA: **Altai Krai** (<sup>1</sup>Gorbunova, Vlasenko, and Tzhubarova, 2011); **Khakassia** (<sup>1</sup>Zauzolkova and Gorbunova, 2013; <sup>1</sup>Zauzolkova, 2015); **Tomsk Oblast** (<sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1</sup>Perova and Gorbunova, 2001; <sup>1</sup>Kudashova, Gashkov, and Kutafjeva, 2013).

FAR EAST: **Jewish Autonomous Oblast** (<sup>1</sup>Bulakh, Govorova, Nazarova, and Vassiljeva, 2007; <sup>1</sup>Bau, Bulakh, and Govorova, 2011); **Khabarovsk Krai** (<sup>1</sup>Bau, Bulakh, and Govorova, 2011); **Primorsky Krai** (<sup>1</sup>Vassiljeva, 1973; <sup>1</sup>Bunkina and Nazarova, 1978; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1</sup>Azbukina et al., 2006; <sup>1</sup>Bau, Bulakh, Zhuang, and Li, 2007; <sup>1</sup>Bau, Bulakh, and Govorova, 2011).

***Russula mariae* Peck**

FAR EAST: **Primorsky Krai** (Bardunov et al., 2002; Bulakh et al., 2016; Bogacheva et al., 2018; Bogacheva, Bulakh, Bukharova, and Egorova, 2020).

***Russula medullata* Romagn.**

EASTERN EUROPE: **Arkhangelsk Oblast** (Karatygin, Nezdojminogo, Novozhilov, and Zhurbenko, 1999); **Crimea** (Moser, 1993; Sarkina, 2001; Dudka et al., 2004; Sarkina, 2010a; Sarkina and Prydiuk, 2012; Sarkina and Stavishenko, 2019); **Komi Republic** (Karatygin, Nezdojminogo, Novozhilov, and Zhurbenko, 1999; Palamarchuk, 2016a; Palamarchuk, 2016b; Palamarchuk, 2020a); **Murmansk Oblast** (Nezdojminogo, 1997b; Karatygin, Nezdojminogo, Novozhilov, and Zhurbenko, 1999); **Perm Krai** (Perevedentseva, 2008; Perevedentseva and Shilkova, 2010; Belkovskaya et al., 2014); **Yamalo-Nenets Autonomous Okrug** (Karatygin, Nezdojminogo, Novozhilov, and Zhurbenko, 1999); **Arid territories** (Rebriev, Rusanov, et al., 2012).

SIBERIA: **Khanty-Mansi Autonomous Okrug** (Filippova and Bulyonkova, 2017a; Filippova and Bulyonkova, 2017b); **Krasnoyarsk Krai** (Krom and Kapitonov, 2019).

***Russula melliolens* Quél.**

EASTERN EUROPE: **Adygea** (Sopina, 2004a); **Belgorod Oblast** (Bedenko, 1980); **Crimea** (Sarkina, 2001; Dudka et al., 2004; Sarkina, 2010b; Sarkina, 2013); **Arid territories** (Rebriev, Rusanov, et al., 2012).

***Russula melzeriana* (Singer) Reumaux & Frund**

≡ *Russula lilacea* var. *melzeriana* Singer<sup>1</sup>

SIBERIA: **Altai Republic** (<sup>1</sup>Singer, 1938a); **Siberia** (<sup>1</sup>Singer, 1942).

***Russula minutula* Velen.**

EASTERN EUROPE: **Adygea** (Kovalenko, 1979a; Kovalenko, 1980b); **Kaluga Oblast** (Sionova, 2003); **Karelia** (Krutov et al., 2014); **Krasnodar Krai** (Kovalenko, 1980a); **Orenburg Oblast** (Korshikova, 2005; Desyatova, 2008).

FAR EAST: **Khabarovsk Krai** (Azbukina et al., 1986).

***Russula mustelina* Fr.**

EASTERN EUROPE: **Adygea** (Sopina, 2004a); **Crimea** (Sarkina, 2001; Dudka et al., 2004; Sarkina, 2010b; Sarkina, 2011); **Leningrad Oblast** (Kovalenko and Morozova, 1999a; Fomina, 2000; Tzvelev, 2000; Popov et al., 2007; Geltman et al., 2018; Geltman, 2018b); **Penza Oblast** (Ivanov, 1983; Bulakh, Wasser, Nazarova, and Nezdjominogo, 1990); **Perm Krai** (Perevedentseva, 2008; Perevedentseva and Shilkova, 2010; Belkovskaya et al., 2014; Perevedentseva and Shishigin, 2015; Botalov, 2017); **Pskov Oblast** (Kolmakov, 2015); **Ryazan Oblast** (Volosnova, 1997; Volosnova, 2014); **Sverdlovsk Oblast** (Marina, 2006).

SIBERIA: **Khakassia** (Zauzolkova and Gorbunova, 2013; Zauzolkova, 2015); **Khanty-Mansi Autonomous Okrug** (Zvyagina and Baykalova, 2017); **Tomsk Oblast** (Kudashova, Gashkov, and Kutafjeva, 2013; Kudashova, Gashkov, and Vaishlya, 2016b; Vaishlya et al., 2017).

FAR EAST: **Khabarovsk Krai** (Azbukina et al., 1989; Bulakh, Wasser, Nazarova, and Nezdjominogo, 1990); **Primorsky Krai** (Shalapugina, 1976; Bulakh, 1977; Azbukina et al., 1984; Bulakh, Wasser, Nazarova, and Nezdjominogo, 1990; Bau, Bulakh, and Govorova, 2011; Bulakh et al., 2016).

***Russula nana* Killerm.**

EASTERN EUROPE: **Arkhangelsk Oblast** (Karatygin, Nezdjominogo, Novozhilov, and Zhurbenko, 1999); **Karachay-Cherkess Republic** (Kalamees and Botashev, 2000); **Komi Republic** (Karatygin, Nezdjominogo, Novozhilov, and Zhurbenko, 1999; Palamarchuk, 2011b; Palamarchuk, 2016a; Palamarchuk, 2016b); **Murmansk Oblast** (Nezdjominogo, 1997b; Karatygin, Nezdjominogo, Novozhilov, and Zhurbenko, 1999); **Nenets Autonomous Okrug** (Karatygin, Nezdjominogo, Novozhilov, and Zhurbenko, 1999); **Yamalo-Nenets Autonomous Okrug** (Knudsen and Mukhin, 1998; Karatygin, Nezdjominogo, Novozhilov, and Zhurbenko, 1999; Nezdjominogo, 2001).

SIBERIA: **Altai Republic** (Gorbunova, 2003; Gorbunova, 2008; Gorbunova, 2010); **Krasnoyarsk Krai** (Nezdjominogo and Zhurbenko, 1996; Nezdjominogo, 1997a; Karatygin, Nezdjominogo, Novozhilov, and Zhurbenko, 1999; Gorbunova, 2016); **Sakha Republic** (Nezdjominogo, 1997a; Karatygin, Nezdjominogo, Novozhilov, and Zhurbenko, 1999; Nezdjominogo, 2003).

FAR EAST: **Chukotka Autonomous Okrug** (Nezdjominogo, 1997a; Karatygin, Nezdjominogo, Novozhilov, and Zhurbenko, 1999).

***Russula nauseosa* (Pers.) Fr.**

EASTERN EUROPE: **Adygea** (Sopina, 2004a); **Crimea** (Zerova, 1962; Sarkina, 2001; Dudka et al., 2004; Sarkina, 2010b; Sarkina and Prydiuk, 2012; Sarkina, 2013; Sarkina and Mironova, 2015); **Kaliningrad Oblast** (Dedkov, Volodina, and Gubareva, 2007; Volodina, 2007; Atayev and Volodina, 2020); **Karelia** (Bulakh, Wasser, Nazarova, and Nezdjominogo, 1990; Kovalenko, Morozova, Fomina, and Särkisilta, 1998; Bondartseva et al., 2001; Krutov et al., 2014); **Komi Republic** (Palamarchuk and Kirillov, 2017); **Krasnodar Krai** (Kovalenko, 1980a; Kovalenko, 1980b); **Leningrad Oblast** (Nezdjominogo, 1967; Bulakh, Wasser, Nazarova, and Nezdjominogo, 1990; Kovalenko and Morozova, 1999a; Fomina, 2000; Morozova and Kovalenko, 2000; Fomina, 2001; Morozova, 2007; Popov et al., 2007); **Moscow Oblast** (Bulakh, Wasser, Nazarova, and Nezdjominogo, 1990); **Murmansk Oblast** (Pystina, Pavlova, and Shestakova, 1969); **Penza Oblast** (Ivanov, 1983); **Perm Krai** (Perevedentseva, 2008; Perevedentseva and Shilkova, 2010; Belkovskaya et al., 2014; Perevedentseva and Shishigin, 2015); **Pskov Oblast** (Popov et al., 2013; Kolmakov, 2015); **Saint Petersburg** (Kovalenko and Morozova, 1999a; Morozova, Kovalenko, Rebriev, and Malysheva, 2014); **Sverdlovsk Oblast** (Marina, 2006); **Tatarstan** (Vassiljeva, 1977; Bulakh, Wasser, Nazarova, and Nezdjominogo, 1990); **Tver Oblast** (Mukhina, 2011a; Kotkova, 2014); **Ulyanovsk Oblast** (Ilyukhin, 2009; Ilyukhin, 2010a); **Vologda Oblast** (Kirillova and Podolskaya, 2012); **Yaroslavl Oblast** (Lazareva, 1998a).

SIBERIA: **Altai Republic** (Singer, 1938a); **Buryatia** (Nezdjominogo, 1973; Petrov, 1991); **Irkutsk Oblast** (Bulakh, Wasser, Nazarova, and Nezdjominogo, 1990); **Khakassia** (Zauzolkova, 2015); **Krasnoyarsk Krai** (Nezdjominogo, 1982a; Bulakh, Wasser, Nazarova, and Nezdjominogo, 1990); **Novosibirsk Oblast** (Perova, 1977; Perova and Gorbunova, 2001; Perova and Gorbunova, 2007); **Tomsk Oblast** (Bulakh, Wasser, Nazarova, and Nezdjominogo, 1990; Kudashova, Gashkov, and Kutafjeva, 2013).

FAR EAST: **Khabarovsk Krai** (Azbukina et al., 1989; Bulakh, Wasser, Nazarova, and Nezdjominogo, 1990); **Magadan Oblast** (Sazanova and Golodnova, 2015); **Primorsky Krai** (Vassiljeva, 1973; Shalapugina, 1976; Azbukina et al., 1984; Bulakh, Wasser, Nazarova, and Nezdjominogo, 1990; Azbukina et al., 2006; Bau, Bulakh, and Govorova, 2011; Malysheva et al., 2014; Malysheva et al., 2016).

***Russula nitida* (Pers.) Fr.<sup>1</sup>**

= *Russula nitida* var. *oirotica* Singer<sup>2</sup> = *Russula sphagnophila* var. *heterosperma* Singer<sup>3</sup>

EASTERN EUROPE: **Kaliningrad Oblast** (<sup>1</sup>Dedkov, Volodina, and Gubareva, 2007; <sup>1</sup>Volodina, 2007); **Karelia** (<sup>1</sup>Freindling, 1949; <sup>1</sup>Bondartseva et al., 2001; <sup>1</sup>Krutov et al., 2014); **Komi Republic** (<sup>1</sup>Karatygin, Nezdoininogo, Novozhilov, and Zhurbenko, 1999; <sup>1</sup>Palamarchuk, 2011b; <sup>1</sup>Palamarchuk, 2016a; <sup>1</sup>Palamarchuk, 2016b); **Krasnodar Krai** (<sup>1</sup>Vassiljeva, 1939); **Leningrad Oblast** (<sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Fomina, 2000; <sup>1</sup>Morozova and Kovalenko, 2000; <sup>1</sup>Fomina, 2001; <sup>1</sup>Morozova, 2007; <sup>1</sup>Popov et al., 2007); **Mordovia** (<sup>1</sup>Chastukhin and Nikolaevskaya, 1969); **Moscow Oblast** (<sup>1</sup>Levitskaya, 1995a; <sup>1</sup>Levitskaya, 2013); **Murmansk Oblast** (<sup>1</sup>Mikhailovskii, 1975b; <sup>1</sup>Karatygin, Nezdoininogo, Novozhilov, and Zhurbenko, 1999); **Perm Krai** (<sup>1</sup>Perevedentseva, 2008; <sup>1</sup>Perevedentseva and Shilkova, 2010; <sup>1</sup>Belkovskaya et al., 2014); **Pskov Oblast** (<sup>1</sup>Kolmakov, 2015); **Saint Petersburg** (<sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Kotkova, Morozova, and Popov, 2005); **Samara Oblast** (<sup>1</sup>Malysheva and Malysheva, 2005b; <sup>1</sup>Malysheva and Malysheva, 2008); **Sverdlovsk Oblast** (<sup>1</sup>Marina, 2006); **Tatarstan** (<sup>1</sup>Vassiljeva, 1977); **Tula Oblast** (<sup>1</sup>Svetasheva et al., 2017); **Udmurt Republic** (<sup>1</sup>Tychinin and Kuzmina, 2003); **Ulyanovsk Oblast** (<sup>1</sup>Ilyukhin, 2009; <sup>1</sup>Ilyukhin, 2010a); **Vologda Oblast** (<sup>1</sup>Kirillova, 2005; <sup>1</sup>Kirillova, 2007; <sup>1</sup>Kirillova and Podolskaya, 2012); **Yamalo-Nenets Autonomous Okrug** (<sup>1</sup>Karatygin, Nezdoininogo, Novozhilov, and Zhurbenko, 1999; <sup>1</sup>Nezdoininogo, 2001); **Yaroslavl Oblast** (<sup>1</sup>Lazareva, 1998a); **Northern Caucasus** (<sup>1</sup>Singer, 1938a).

SIBERIA: **Altai Republic** (<sup>2,3</sup>Singer, 1938a; <sup>2</sup>Singer, 1942); **Buryatia** (<sup>1</sup>Nezdoininogo, 1973; <sup>1</sup>Petrov, 1991); **Khanty-Mansi Autonomous Okrug** (<sup>1</sup>Zvyagina and Baykalova, 2012; <sup>1</sup>Zvyagina and Baykalova, 2017); **Krasnoyarsk Krai** (<sup>1</sup>Vassilkov, 1971b; <sup>1</sup>Nezdoininogo, 1982a; <sup>1</sup>Nezdoininogo, 1997a; <sup>1</sup>Karatygin, Nezdoininogo, Novozhilov, and Zhurbenko, 1999); **Novosibirsk Oblast** (<sup>1</sup>Perova and Gorbunova, 2001); **Sakha Republic** (<sup>1</sup>Karatygin, Nezdoininogo, Novozhilov, and Zhurbenko, 1999); **Tomsk Oblast** (<sup>1</sup>Perova and Gorbunova, 2001; <sup>1</sup>Kudashova, Gashkov, and Kutafjeva, 2013; <sup>1</sup>Vaishlya et al., 2017).

FAR EAST: **Chukotka Autonomous Okrug** (<sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdoininogo, 1990; <sup>1</sup>Karatygin, Nezdoininogo, Novozhilov, and Zhurbenko, 1999); **Jewish Autonomous Oblast** (<sup>1</sup>Erofeeva, Bukharova, and Bulakh, 2019); **Khabarovsk Krai** (<sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdoininogo, 1990; <sup>1</sup>Bau, Bulakh, and Govorova, 2011); **Magadan Oblast** (<sup>1</sup>Sazanova, 2005; <sup>1</sup>Sazanova, 2009a; <sup>1</sup>Sazanova and Golodnova, 2015); **Primorsky Krai** (<sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdoininogo, 1990; <sup>1</sup>Azbukina et al., 2006; <sup>1</sup>Bau, Bulakh, and Govorova, 2011); **Sakhalin Oblast** (<sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdoininogo, 1990).

***Russula nobilis* Velen.<sup>1</sup>**

= *Russula mairei* Singer<sup>2</sup>

EASTERN EUROPE: **Kaliningrad Oblast** (<sup>2</sup>Dedkov, Volodina, and Gubareva, 2007; <sup>1</sup>Atayev and Volodina, 2020); **Krasnodar Krai** (<sup>2</sup>Sopina, 2004a); **Murmansk Oblast** (<sup>2</sup>Mikhailovskii, 1975a); **Penza Oblast** (<sup>2</sup>Ivanov, 1999); **Perm Krai** (<sup>1</sup>Perevedentseva, 2008; <sup>1</sup>Perevedentseva and Shilkova, 2010; <sup>1</sup>Belkovskaya et al., 2014); **Tula Oblast** (<sup>2</sup>Svetasheva, 2004; <sup>2</sup>Svetasheva, 2005b; <sup>2</sup>Shcherbakov, 2010).

***Russula ochracea* Fr.**

EASTERN EUROPE: **Leningrad Oblast** (Morozova and Kovalenko, 2000; Popov et al., 2007; Kalinina, 2018).

***Russula ochroleuca* Fr.<sup>1</sup>**

≡ *Agaricus ochroleucus* Pers.<sup>2</sup> = *Russula citrina* Gillet<sup>3</sup>

EASTERN EUROPE: **Adygea** (<sup>1</sup>Sopina, 2004a); **Arkhangelsk Oblast** (<sup>1</sup>Lebedeva, 1933; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdoininogo, 1990); **Bashkortostan** (<sup>1</sup>Stepanova and Sirko, 1977); **Chelyabinsk Oblast** (<sup>1</sup>Stepanova and Sirko, 1977); **Crimea** (<sup>1</sup>Sarkina and Mironova, 2015; <sup>1</sup>Sarkina and Stavishenko, 2019); **Ivanovo Oblast** (<sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdoininogo, 1990); **Kabardino-Balkarian Republic** (<sup>1</sup>Krapivina et al., 2020); **Kaliningrad Oblast** (<sup>1</sup>Dedkov, Volodina, and Gubareva, 2007; <sup>1</sup>Volodina, 2007); **Kaluga Oblast** (<sup>1</sup>Sionova, 2003); **Karachay-Cherkess Republic** (<sup>1</sup>Vassiljeva, 1939; <sup>1</sup>Kalamees and Botashev, 2000); **Karelia** (<sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdoininogo, 1990; <sup>1</sup>Krutov et al., 2014; <sup>1</sup>Savelev and Kikeeva, 2020); **Komi Republic** (<sup>1</sup>Bobretsova, 2004; <sup>1</sup>Palamarchuk, 2012); **Kostroma Oblast** (<sup>1</sup>Burova, 1982; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdoininogo, 1990); **Krasnodar Krai** (<sup>1</sup>Kovalenko, 1980a; <sup>1</sup>Kovalenko, 1980b); **Leningrad Oblast** (<sup>1</sup>Kalamees and Kovalenko, 1984; <sup>3</sup>Bulakh, Wasser, Nazarova, and Nezdoininogo, 1990; <sup>1,3</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Fomina, 2000; <sup>1,3</sup>Popov et al., 2007); **Lipetsk Oblast** (<sup>1</sup>Sarycheva, 1999; <sup>1</sup>Sarycheva et al., 2009; <sup>1</sup>Sarycheva, 2011; <sup>1</sup>Sarycheva, 2014a; <sup>1</sup>Sarycheva, 2016); **Mordovia** (<sup>1</sup>Chastukhin, 1948a; <sup>1</sup>Chastukhin, 2011; <sup>1</sup>Ivoilov and Bolshakov, 2011b); **Moscow** (<sup>1</sup>Bucholtz, 1897a); **Moscow Oblast** (<sup>1</sup>Gorlenko, Sidorova, and Sidorova, 1989; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdoininogo, 1990; <sup>1</sup>Vishnevsky and Sidorova, 1997); **Murmansk Oblast** (<sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdoininogo,



1990); **Orenburg Oblast** (<sup>1</sup>Desyatova, 2008); **Oryol Oblast** (<sup>1</sup>Radygina, Derzhavina, and Tsutsupa, 2014); **Penza Oblast** (<sup>1</sup>Ivanov, 1981a; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990); **Perm Krai** (<sup>1</sup>Perevedentseva, 2008; <sup>1</sup>Perevedentseva and Shilkova, 2010; <sup>1</sup>Belkovskaya et al., 2014; <sup>1</sup>Botalov, Perevedentseva, and Shishigin, 2020); **Pskov Oblast** (<sup>1</sup>Popov et al., 2013); **Saint Petersburg** (<sup>2</sup>Weinmann, 1828; <sup>2</sup>Weinmann, 1836; <sup>2</sup>Weinmann, 1837; <sup>1</sup>Morozova et al., 2020); **Samara Oblast** (<sup>1</sup>Malysheva and Malysheva, 2005b; <sup>1</sup>Malysheva and Malysheva, 2008); **Sverdlovsk Oblast** (<sup>1</sup>Stepanova and Sirko, 1977; <sup>1</sup>Marina, 2006); **Tula Oblast** (<sup>1</sup>Svetasheva, 2004; <sup>1</sup>Svetasheva, 2013); **Tver Oblast** (<sup>3</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1</sup>Kurochkin, 1993); **Udmurt Republic** (<sup>1</sup>Tychinin and Kuzmina, 2003); **Ulyanovsk Oblast** (<sup>1</sup>Ilyukhin, 2009; <sup>1</sup>Ilyukhin, 2010a); **Voronezh Oblast** (<sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990); **Yaroslavl Oblast** (<sup>1</sup>Lazareva, 1997; <sup>1</sup>Lazareva, 1998a); **Northern Caucasus** (<sup>1</sup>Singer, 1938a).

SIBERIA: **Irkutsk Oblast** (<sup>1</sup>Kutafjeva, 1984; <sup>1</sup>Petrov, Nezdojminogo, and Bulakh, 1987; <sup>1</sup>Petrov, 1989; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1</sup>Petrov, 1991); **Krasnoyarsk Krai** (<sup>1</sup>Beglyanova, 1972a; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1</sup>Lapitskaya, 1993; <sup>1</sup>Kryuchkova, 2009); **Kurgan Oblast** (<sup>1</sup>Bystrushkin, 2016); **Novosibirsk Oblast** (<sup>1</sup>Perova, 1977; <sup>1</sup>Perova and Gorbunova, 2001; <sup>1</sup>Perova and Gorbunova, 2007; <sup>1</sup>Koropachinskiy and Banaev, 2014); **Sverdlovsk Oblast** (<sup>1</sup>Stepanova and Sirko, 1977); **Tomsk Oblast** (<sup>1</sup>Milovidova, 1980; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1</sup>Kudashova, Gashkov, and Kutafjeva, 2013; <sup>1</sup>Vaishlya et al., 2017).

FAR EAST: **Amur Oblast** (<sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1</sup>Azbukina et al., 1998); **Khabarovsk Krai** (<sup>3</sup>Azbukina et al., 1986; <sup>1</sup>Azbukina et al., 1989; <sup>1,3</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Bulakh, 2013; <sup>1</sup>Bogacheva, Bulakh, Bukharova, and Egorova, 2015); **Primorsky Krai** (<sup>1</sup>Vassiljeva, 1973; <sup>1</sup>Shalapugina, 1976; <sup>1</sup>Bunkina and Nazarova, 1978; <sup>1</sup>Azbukina et al., 1984; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1</sup>Azbukina et al., 2006; <sup>1</sup>Bau, Bulakh, and Govorova, 2011).

### ***Russula odorata* Romagn.**

EASTERN EUROPE: **Adygea** (Sopina, 2004a); **Tula Oblast** (Svetasheva, 2004; Svetasheva, 2005b; Shcherbakov, 2010).

### ***Russula olivacea* (Schaeff.) Fr.**

EASTERN EUROPE: **Adygea** (Sopina, 2004a); **Crimea** (Sarkina, 2010b; Sarkina and Mironova, 2015; Sarkina and Stavishenko, 2019; Sarkina, 2020a); **Kaliningrad Oblast** (Dedkov, Volodina, and Gubareva, 2007; Volodina, 2007); **Krasnodar Krai** (Vassiljeva, 1939; Sopina, 2004a); **Leningrad Oblast** (Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; Kovalenko and Morozova, 1999a; Popov et al., 2007); **Moscow Oblast** (Levitskaya, 1995a; Vishnevsky and Sidorova, 1997; Levitskaya, 2013); **Rostov Oblast** (Rusanov et al., 2004; Zmitrovich et al., 2008); **Tver Oblast** (Kurochkin, 1993); **Arid territories** (Rebriev, Rusanov, et al., 2012); **Northern Caucasus** (Singer, 1938a).

SIBERIA: **Altai Krai** (Gorbunova and Taylakov, 2011); **Khakassia** (Zauzolkova, 2015; Zauzolkova and Gorbunova, 2016); **Novosibirsk Oblast** (Koropachinskiy and Banaev, 2014); **Tomsk Oblast** (Kudashova, Gashkov, and Kutafjeva, 2013; Kudashova, Gashkov, and Vaishlya, 2016b; Vaishlya et al., 2017); **Tyumen Oblast** (Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990); **Yamalo-Nenets Autonomous Okrug** (Tarchevskaya, 1990; Karatygin, Nezdojminogo, Novozhilov, and Zhurbenko, 1999).

FAR EAST: **Amur Oblast** (Kochunova, 2019); **Chukotka Autonomous Okrug** (Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; Karatygin, Nezdojminogo, Novozhilov, and Zhurbenko, 1999); **Jewish Autonomous Oblast** (Bulakh, Govorova, Nazarova, and Vassiljeva, 2007); **Kamchatka Krai** (Karatygin, Nezdojminogo, Novozhilov, and Zhurbenko, 1999); **Khabarovsk Krai** (Azbukina et al., 1989; Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990); **Magadan Oblast** (Rebriev, Bulakh, Sazanova, and Shiryaev, 2020); **Primorsky Krai** (Shalapugina, 1976; Azbukina et al., 1984; Azbukina et al., 1990; Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; Bardunov et al., 2002).

### ***Russula olivina* Ruots. & Vauras**

FAR EAST: **Khabarovsk Krai** (Bulakh, 2013; Bogacheva, Bulakh, Bukharova, and Egorova, 2015); **Primorsky Krai** (Bau, Bulakh, and Govorova, 2011; Bulakh et al., 2016).

### ***Russula oreina* Singer**

EASTERN EUROPE: **Yamalo-Nenets Autonomous Okrug** (Karatygin, Nezdojminogo, Novozhilov, and Zhurbenko, 1999).

SIBERIA: **Altai Republic** (Singer, 1938a; Gorbunova, 2008; Gorbunova, 2010; Gorbunova, 2017b); **Sakha Republic** (Nezdojminogo, 1997a; Karatygin, Nezdojminogo, Novozhilov, and Zhurbenko, 1999).

FAR EAST: **Chukotka Autonomous Okrug** (Karatygin, Nezdojminogo, Novozhilov, and Zhurbenko, 1999).

***Russula pallidospora* J. Blum ex Romagn.**

EASTERN EUROPE: **Perm Krai** (Perevedentseva, 2008; Perevedentseva and Shilkova, 2010; Belkovskaya et al., 2014).

SIBERIA: **Krasnoyarsk Krai** (Gorbunova, 2016).

***Russula paludosa* Britzelm.**

EASTERN EUROPE: **Arkhangelsk Oblast** (Ezhov, Ershov, Ruokolainen, and Zmitrovich, 2011; Ezhov, 2014; Ezhov, Zmitrovich, and Ruokolainen, 2019); **Kabardino-Balkarian Republic** (Shkhagapsoev and Krapivina, 2004); **Kaliningrad Oblast** (Dedkov, Volodina, and Gubareva, 2007; Volodina, 2007); **Kaluga Oblast** (Sionova, 2003; Sionova, 2006); **Karelia** (Freindling, 1949; Kovalenko, Morozova, Fomina, and Särkisilta, 1998; Bondartseva et al., 2001; Predtechenskaya and Ruokolainen, 2013; Predtechenskaya, 2013; Krutov et al., 2014; Predtechenskaya and Ruokolainen, 2014; Savelev and Kikeeva, 2020); **Kirov Oblast** (Kirillov, 2011; Kirillov, Perevedentseva, and Egoshina, 2011; Stavishenko, Luginina, Kirillov, and Egoshina, 2019); **Komi Republic** (Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; Karatygin, Nezdojminogo, Novozhilov, and Zhurbenko, 1999; Bobretsova, 2004; Palamarchuk, 2012; Palamarchuk and Kirillov, 2018a); **Kostroma Oblast** (Burova, 1982; Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990); **Leningrad Oblast** (Nezdojminogo, 1967; Kalamees and Kovalenko, 1984; Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; Stolyarskaya, 1993; Kovalenko and Morozova, 1999a; Fomina, 2000; Fomina, 2001; Morozova, 2007; Popov et al., 2007; Zmitrovich et al., 2015; Malysheva, Malysheva, Shchepin, and Novozhilov, 2018); **Lipetsk Oblast** (Rtishcheva, 1999; Afanasyev, Rtishcheva, and Starodubtseva, 2007; Sarycheva et al., 2009; Sarycheva, Starodubtseva, and Sapelnikova, 2017); **Moscow Oblast** (Gorlenko, Sidorova, and Sidorova, 1989; Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; Levitskaya, 1995a; Levitskaya, 2013; Voronina et al., 2014; Voronina et al., 2018); **Murmansk Oblast** (Pystina, Pavlova, and Shestakova, 1969; Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990); **Novgorod Oblast** (Kovalenko, Morozova, Nezdojminogo, and Popov, 2005; Popov et al., 2013); **Penza Oblast** (Ivanov, 1981a; Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990); **Perm Krai** (Shkaraba, Perevedentseva, and Moshkina, 1990; Perevedentseva, 2008; Perevedentseva and Shilkova, 2010; Belkovskaya et al., 2014; Botalov, 2017; Botalov and Perevedentseva, 2018); **Pskov Oblast** (Kovalenko, Kolmakov, Morozova, and Popov, 2003; Popov et al., 2013; Kolmakov, 2015); **Rostov Oblast** (Rusanov et al., 2004; Zmitrovich et al., 2008); **Ryazan Oblast** (Volosnova, 2014); **Saint Petersburg** (Morozova and Smirnov, 2011; Morozova et al., 2020); **Sverdlovsk Oblast** (Tomilin, 1965; Stepanova and Sirko, 1977; Marina, 2006); **Tatarstan** (Vassiljeva, 1977; Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990); **Tula Oblast** (Svetasheva, 2004); **Tver Oblast** (Kurochkin, 1993; Mukhina, 2011a; Mukhina, 2011b; Kotkova, 2014); **Udmurt Republic** (Tychinin and Kuzmina, 2003); **Ulyanovsk Oblast** (Ilyukhin, 2009; Ilyukhin, 2010a); **Vladimir Oblast** (Vishnevsky and Sidorova, 1997); **Vologda Oblast** (Kirillova, 2005; Kirillova, 2007; Kirillova and Podolskaya, 2012); **Voronezh Oblast** (Rtishcheva, 1999; Afanasyev, Rtishcheva, and Starodubtseva, 2007; Sarycheva, Starodubtseva, and Sapelnikova, 2017); **Yamalo-Nenets Autonomous Okrug** (Karatygin, Nezdojminogo, Novozhilov, and Zhurbenko, 1999); **Yaroslavl Oblast** (Lazareva, 1998a); **Arid territories** (Rebriev, Rusanov, et al., 2012).

SIBERIA: **Altai Krai** (Gorbunova and Perova, 2006); **Altai Republic** (Gorbunova, 2019); **Buryatia** (Nezdojminogo, 1970a; Petrov, 1991); **Irkutsk Oblast** (Petrov, 1989; Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; Petrov, 1991; Muzyka, 2002; Petrov, 2008; Muzyka, 2009; Heklau and Dörfelt, 2017; Muzyka and Penzina, 2017); **Khakassia** (Zauzolkova, 2015); **Khanty-Mansi Autonomous Okrug** (Filippova and Thormann, 2014; Filippova, 2014; Filippova, Mourgues, and Philippe, 2014; Zvyagina and Baykalova, 2017); **Krasnoyarsk Krai** (Lapitskaya, 1993; Kryuchkova, 2014a); **Novosibirsk Oblast** (Zaytseva, 1971; Gorbunova, 2007); **Tomsk Oblast** (Milovidova, 1980; Kosheleva and Kutafjeva, 2004; Kudashova, Gashkov, and Kutafjeva, 2013; Vaishlya et al., 2017).

FAR EAST: **Chukotka Autonomous Okrug** (Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; Sazanova, 1993; Karatygin, Nezdojminogo, Novozhilov, and Zhurbenko, 1999); **Jewish Autonomous Oblast** (Bulakh, Govorova, Nazarova, and Vassiljeva, 2007; Bau, Bulakh, and Govorova, 2011); **Kamchatka Krai** (Kalamees and Vaasma, 1981; Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; Karatygin, Nezdojminogo, Novozhilov, and Zhurbenko, 1999); **Khabarovsk Krai** (Azbukina et al., 1989; Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; Bulakh, Vassiljeva, and Erofeeva, 2010; Bulakh, 2013; Bogacheva, Bulakh, Bukharova, and Egorova, 2015; Erofeeva and Bulakh, 2015a); **Magadan Oblast** (Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; Sazanova, 1996; Sazanova, 2005; Sazanova, 2009a; Sazanova, 2009b; Sazanova, 2011; Sazanova and Golodnova, 2015); **Primorsky Krai** (Azbukina et al., 1990; Bardunov et al., 2002); **Sakhalin Oblast** (Vassiljeva and Nazarova, 1972; Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990).

***Russula parazurea* Jul. Schäff.**

EASTERN EUROPE: **Adygea** (Sopina, 2004a); **Crimea** (Sarkina and Stavishenko, 2019); **Kaliningrad Oblast** (Atayev and Volodina, 2020); **Krasnodar Krai** (Vassiljeva, 1939; Sopina, 2004a); **Orenburg Oblast** (Desyatova, 2008); **Penza Oblast** (Ivanov, 1981a); **Perm Krai** (Perevedentseva, 2008; Perevedentseva and Shilkova, 2010); **Saint Petersburg** (Morozova and Smirnov, 2011; Morozova et al., 2020); **Arid territories** (Rebriev, Rusanov, et al., 2012); **Northern Caucasus** (Singer, 1938a).

***Russula pascua* (F.H. Møller & Jul. Schäff.) Kühner**

EASTERN EUROPE: **Komi Republic** (Palamarchuk, 2016a; Palamarchuk, 2016b).

***Russula pectinata* Fr.<sup>1</sup>**

≡ *Russula consobrina* var. *pectinata* (Fr.) Singer<sup>2</sup>

EASTERN EUROPE: **Belgorod Oblast** (<sup>1</sup>Bedenko, 1979a; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990); **Crimea** (<sup>1</sup>Sarkina and Stavishenko, 2019); **Kaliningrad Oblast** (<sup>1</sup>Hennings, 1895; <sup>1</sup>Dedkov, Volodina, and Gubareva, 2007); **Karelia** (<sup>1</sup>Kovalenko, Morozova, Fomina, and Särkisilta, 1998; <sup>1</sup>Krutov et al., 2014); **Krasnodar Krai** (<sup>2</sup>Vassiljeva, 1939); **Kursk Oblast** (<sup>1</sup>Baranov, 2002); **Lipetsk Oblast** (<sup>1</sup>Alferova, 1977); **Murmansk Oblast** (<sup>1</sup>Mikhailovskii, 1975b; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990); **Orenburg Oblast** (<sup>1</sup>Desyatova, 2008); **Penza Oblast** (<sup>1</sup>Ivanov, 1981a; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990); **Rostov Oblast** (<sup>1</sup>Rusanov, Rebriev, and Bulgakov, 2018); **Sverdlovsk Oblast** (<sup>1</sup>Marina, 2006); **Ulyanovsk Oblast** (<sup>1</sup>Ilyukhin, 2010b); **Voronezh Oblast** (<sup>1</sup>Kochergina and Furmenkova, 2019); **Arid territories** (<sup>1</sup>Rebriev, Rusanov, et al., 2012).

SIBERIA: **Irkutsk Oblast** (<sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990); **Khanty-Mansi Autonomous Okrug** (<sup>1</sup>Zvyagina and Baykalova, 2017).

FAR EAST: **Amur Oblast** (<sup>1</sup>Taranina, 2005); **Jewish Autonomous Oblast** (<sup>1</sup>Bulakh, Govorova, Nazarova, and Vassiljeva, 2007; <sup>1</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Bogacheva et al., 2018); **Khabarovsk Krai** (<sup>1</sup>Azbukina et al., 1986; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Erofeeva and Bulakh, 2015a); **Primorsky Krai** (<sup>1</sup>Vassiljeva, 1972; <sup>1</sup>Vassiljeva, 1973; <sup>1</sup>Bunkina and Nazarova, 1978; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1</sup>Azbukina et al., 2006; <sup>1</sup>Bau, Bulakh, Zhuang, and Li, 2007; <sup>1</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Bogacheva et al., 2018).

***Russula pectinatoides* Peck<sup>1</sup>**

≡ *Russula consobrina* var. *pectinatoides* (Peck) Singer<sup>2</sup>

EASTERN EUROPE: **Adygea** (<sup>1</sup>Sopina, 2004a); **Crimea** (<sup>1</sup>Dudka et al., 2004; <sup>1</sup>Sarkina, 2010a; <sup>1</sup>Sarkina, 2011); **Kaliningrad Oblast** (<sup>1</sup>Atayev and Volodina, 2020); **Karelia** (<sup>2</sup>Freindling, 1949; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1</sup>Bondartseva et al., 2001; <sup>1</sup>Krutov et al., 2014); **Leningrad Oblast** (<sup>1</sup>Nezdojminogo, 1967; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Fomina, 2000; <sup>1</sup>Tzvelev, 2000; <sup>1</sup>Popov et al., 2007; <sup>1</sup>Geltman et al., 2018); **Lipetsk Oblast** (<sup>1</sup>Sarycheva, 1999; <sup>1</sup>Sarycheva et al., 2009; <sup>1</sup>Sarycheva, 2011; <sup>1</sup>Sarycheva, 2014a; <sup>1</sup>Sarycheva, 2016); **Moscow Oblast** (<sup>1</sup>Levitskaya, 1995a; <sup>1</sup>Levitskaya, 2013); **Orenburg Oblast** (<sup>1</sup>Desyatova, 2008); **Pskov Oblast** (<sup>1</sup>Kolmakov, 2015); **Rostov Oblast** (<sup>1</sup>Rusanov, Rebriev, and Bulgakov, 2018); **Ryazan Oblast** (<sup>1</sup>Volosnova, 2014); **Saint Petersburg** (<sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Noskov, 2004; <sup>1</sup>Morozova, Kovalenko, Rebriev, and Malysheva, 2014; <sup>1</sup>Zhukova, Morozova, Volobuev, and Bryantseva, 2017; <sup>1</sup>Morozova et al., 2020); **Tula Oblast** (<sup>1</sup>Svetasheva, 2004; <sup>1</sup>Svetasheva, 2013); **Ulyanovsk Oblast** (<sup>1</sup>Ilyukhin, 2009; <sup>1</sup>Ilyukhin, 2010a); **Northern Caucasus** (<sup>2</sup>Singer, 1938a).

FAR EAST: **Jewish Autonomous Oblast** (<sup>1</sup>Bulakh, Govorova, Nazarova, and Vassiljeva, 2007; <sup>1</sup>Bau, Bulakh, and Govorova, 2011); **Khabarovsk Krai** (<sup>1</sup>Azbukina et al., 1986; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1</sup>Bau, Bulakh, Zhuang, and Li, 2007; <sup>1</sup>Bau, Bulakh, and Govorova, 2011); **Magadan Oblast** (<sup>1</sup>Rebriev, Bulakh, Sazanova, and Shiryaev, 2020); **Primorsky Krai** (<sup>1</sup>Vassiljeva, 1972; <sup>1</sup>Vassiljeva, 1973; <sup>1</sup>Bulakh, 1977; <sup>1</sup>Bunkina and Nazarova, 1978; <sup>1</sup>Azbukina et al., 1990; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1</sup>Bardunov et al., 2002; <sup>1</sup>Azbukina et al., 2006; <sup>1</sup>Bau, Bulakh, Zhuang, and Li, 2007; <sup>1</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Bulakh et al., 2016; <sup>1</sup>Bogacheva, Bulakh, Bukharova, and Egorova, 2020).

***Russula pelargonica* Niolle**

EASTERN EUROPE: **Belgorod Oblast** (Bedenko, 1980); **Karelia** (Krutov et al., 2014); **Moscow Oblast** (Vishnevsky and Sidorova, 1997).

SIBERIA: **Altai Krai** (Gorbunova, Vlasenko, and Tzhubarova, 2011); **Altai Republic** (Gorbunova, 1997; Perova and Gorbunova, 2001); **Tomsk Oblast** (Kudashova, Gashkov, and Vaishlya, 2016a).

FAR EAST: **Chukotka Autonomous Okrug** (Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; Karatygin, Nezdojminogo, Novozhilov, and Zhurbenko, 1999); **Jewish Autonomous Oblast** (Bulakh, Govorova, Nazarova, and Vassiljeva, 2007; Bau, Bulakh, and Govorova, 2011); **Khabarovsk Krai** (Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; Bau, Bulakh, and Govorova, 2011); **Primorsky Krai** (Azbukina et al., 1990; Bardunov et al., 2002; Bau, Bulakh, and Govorova, 2011).

***Russula persicina* Krombh.<sup>1</sup>**

= *Russula rubicunda* Quél.<sup>2</sup>

EASTERN EUROPE: **Adygea** (<sup>1</sup>Sopina, 2004a); **Crimea** (<sup>1</sup>Dudka et al., 2004); **Kaliningrad Oblast** (<sup>1</sup>Volodina, 2007); **Krasnodar Krai** (<sup>2</sup>Vassiljeva, 1939); **Leningrad Oblast** (<sup>1</sup>Morozova and Kovalenko, 2000; <sup>1</sup>Popov et al., 2007; <sup>1</sup>Kalinina, 2018); **Orenburg Oblast** (<sup>1</sup>Desyatova, 2008); **Penza Oblast** (<sup>1</sup>Ivanov, 1983); **Sverdlovsk Oblast** (<sup>1</sup>Shiryayeva and Palamarchuk, 2019); **Tula Oblast** (<sup>1</sup>Svetasheva, 2004; <sup>1</sup>Shcherbakov, 2010); **Yamalo-Nenets Autonomous Okrug** (<sup>1</sup>Karatygin, Nezdojminogo, Novozhilov, and Zhurbenko, 1999; <sup>1</sup>Nezdojminogo, 2001); **Yaroslavl Oblast** (<sup>1</sup>Lazareva, 1998a); **Arid territories** (<sup>1</sup>Rebriev, Rusanov, et al., 2012); **Northern Caucasus** (<sup>2</sup>Singer, 1938a).

FAR EAST: **Chukotka Autonomous Okrug** (<sup>1</sup>Karatygin, Nezdojminogo, Novozhilov, and Zhurbenko, 1999); **Khabarovsk Krai** (<sup>1</sup>Bau, Bulakh, and Govorova, 2011); **Primorsky Krai** (<sup>1</sup>Bau, Bulakh, and Govorova, 2011).

***Russula polychroma* Singer ex Hora**

FAR EAST: **Primorsky Krai** (Azbukina et al., 1984).

***Russula postiana* Romell**

EASTERN EUROPE: **Kaliningrad Oblast** (Dedkov, Volodina, and Gubareva, 2007); **Karelia** (Krutov et al., 2014); **Leningrad Oblast** (Kovalenko and Morozova, 1999a; Fomina, 2000; Tzvelev, 2000; Fomina, 2001; Popov et al., 2007; Geltman et al., 2018); **Saint Petersburg** (Noskov, 2004); **Sverdlovsk Oblast** (Marina, 2006); **Vologda Oblast** (Kirillova, 2007; Kirillova and Podolskaya, 2012; Suslova et al., 2013).

SIBERIA: **Khanty-Mansi Autonomous Okrug** (Zvyagina and Baykalova, 2017); **Tomsk Oblast** (Kudashova, Gashkov, and Vaishlya, 2016a; Vaishlya et al., 2017).

***Russula pseudoaeruginea* (Romagn.) Kuyper & Vuure**

EASTERN EUROPE: **Adygea** (Sopina, 2004a); **Perm Krai** (Perevedentseva, 2008; Perevedentseva and Shilkova, 2010; Belkovskaya et al., 2014).

SIBERIA: **Kurgan Oblast** (Bystrushkin, 2016).

***Russula pseudodelica* J.E. Lange**

EASTERN EUROPE: **Moscow Oblast** (Vishnevsky and Sidorova, 1997); **Orenburg Oblast** (Desyatova, 2008); **Perm Krai** (Perevedentseva, 2008; Perevedentseva and Shilkova, 2010; Belkovskaya et al., 2014); **Pskov Oblast** (Kolmakov, 2015); **Rostov Oblast** (Rusanov et al., 2004; Zmitrovich et al., 2008); **Yaroslavl Oblast** (Lazareva, 1998a); **Arid territories** (Rebriev, Rusanov, et al., 2012).

FAR EAST: **Amur Oblast** (Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; Azbukina et al., 1998; Taranina, 2005; Bogacheva et al., 2018); **Jewish Autonomous Oblast** (Bulakh, Govorova, Nazarova, and Vassiljeva, 2007; Bau, Bulakh, and Govorova, 2011; Bogacheva et al., 2018); **Khabarovsk Krai** (Azbukina et al., 1986; Azbukina et al., 1989; Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; Bau, Bulakh, and Govorova, 2011; Erofeeva and Bulakh, 2015a; Bogacheva et al., 2018); **Primorsky Krai** (Bulakh, 1977; Azbukina et al., 1984; Azbukina et al., 1990; Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; Bardunov et al., 2002; Azbukina et al., 2006; Bau, Bulakh, and Govorova, 2011; Bulakh et al., 2016; Bogacheva et al., 2018; Bogacheva, Bulakh, Bukharova, and Egorova, 2020).

***Russula pseudointegra* Arnould & Goris**

EASTERN EUROPE: **Adygea** (Singer, 1938a; Vassiljeva, 1939); **Crimea** (Sarkina, 2001; Dudka et al., 2004; Sarkina, 2010a; Sarkina, 2010b; Sarkina, 2011; Sarkina and Prydiuk, 2012; Sarkina and Mironova, 2015; Sarkina and Stavishenko, 2019); **Krasnodar Krai** (Kovalenko, 1980a; Kovalenko, 1980b); **Moscow Oblast** (Levitskaya, 1995a; Vishnevsky and Sidorova, 1997; Levitskaya, 2013); **Penza Oblast** (Ivanov, 1981a; Bulakh, 1989; Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990); **Pskov Oblast** (Kolmakov, 2015); **Sevastopol** (Sarkina, 2016b; Sarkina, 2020c); **Tula Oblast** (Svetasheva, 2004).

SIBERIA: **Irkutsk Oblast** (Petrov, 1991; Petrov, 2008).

FAR EAST: **Khabarovsk Krai** (Bulakh, 1989; Bulakh, Wasser, Nazarova, and Nezdoininogo, 1990; Bau, Bulakh, Zhuang, and Li, 2007; Bau, Bulakh, and Govorova, 2011); **Primorsky Krai** (Bulakh, 1989; Azbukina et al., 1990; Bulakh, Wasser, Nazarova, and Nezdoininogo, 1990; Bardunov et al., 2002).

***Russula pseudo-olivascens* Kärcher<sup>1</sup>**

= *Russula elaeodes* (Bres.) Romagn. ex Bon<sup>2</sup> = *Russula xerampelina* var. *elaodes* Bres.<sup>3</sup>

EASTERN EUROPE: **Adygea** (<sup>2</sup>Sopina, 2004a); **Kaliningrad Oblast** (<sup>2</sup>Dedkov, Volodina, and Gubareva, 2007; Volodina, 2007; <sup>2</sup>Atayev and Volodina, 2020); **Karachay-Cherkess Republic** (<sup>2</sup>Kalamees and Botashev, 2000); **Karelia** (<sup>2</sup>Kovalenko, Morozova, Fomina, and Särkisilta, 1998; <sup>1</sup>Krutov et al., 2014); **Kirov Oblast** (<sup>1</sup>Kirillov, 2011; <sup>1</sup>Kirillov, Perevedentseva, and Egoshina, 2011); **Leningrad Oblast** (<sup>2</sup>Kovalenko and Morozova, 1999a; <sup>2</sup>Fomina, 2000; <sup>2</sup>Fomina, 2001; <sup>2</sup>Morozova, 2007; <sup>2</sup>Popov et al., 2007; <sup>1</sup>Zmitrovich et al., 2015); **Moscow Oblast** (<sup>2</sup>Levitskaya, 1995a; <sup>2</sup>Levitskaya, 2013); **Perm Krai** (<sup>1</sup>Perevedentseva, 2008; <sup>1</sup>Perevedentseva and Shilkova, 2010; <sup>1</sup>Belkovskaya et al., 2014; <sup>2</sup>Perevedentseva and Shishigin, 2014; <sup>2</sup>Perevedentseva and Shishigin, 2015; <sup>2</sup>Botalov, 2017); **Pskov Oblast** (<sup>2</sup>Popov et al., 2013; <sup>1</sup>Kolmakov, 2015); **Rostov Oblast** (<sup>2</sup>Rusanov et al., 2004; <sup>2</sup>Zmitrovich et al., 2008); **Samara Oblast** (<sup>2</sup>Malysheva and Malysheva, 2008); **Vologda Oblast** (<sup>2</sup>Kirillova, 2005; <sup>1</sup>Kirillova, 2007; <sup>1</sup>Kirillova and Podolskaya, 2012); **Yaroslavl Oblast** (<sup>2</sup>Lazareva, 1998a); **Arid territories** (<sup>1</sup>Rebriev, Rusanov, et al., 2012).

SIBERIA: **Tomsk Oblast** (<sup>1</sup>Kudashova, Gashkov, and Kutafjeva, 2013; <sup>1</sup>Vaishlya et al., 2017).

FAR EAST: **Magadan Oblast** (<sup>3</sup>Sazanova, 2005; <sup>1</sup>Sazanova, 2009a).

***Russula puellaris* Fr.**

EASTERN EUROPE: **Belgorod Oblast** (Bedenko, 1980; Bulakh, Wasser, Nazarova, and Nezdoininogo, 1990); **Crimea** (Sarkina and Prydiuk, 2012; Sarkina and Mironova, 2015); **Kabardino-Balkarian Republic** (Singer, 1931; Singer, 1938a; Shkhagapsoev and Krapivina, 2004); **Kaliningrad Oblast** (Dedkov, Volodina, and Gubareva, 2007; Volodina, 2007); **Karachay-Cherkess Republic** (Vassiljeva, 1939); **Karelia** (Predtechenskaya and Ruokolainen, 2013; Predtechenskaya, 2013; Krutov et al., 2014; Predtechenskaya and Ruokolainen, 2014; Predtechenskaya, 2015; Savelev and Kikeeva, 2018); **Kirov Oblast** (Kirillov, 2011; Kirillov, Perevedentseva, and Egoshina, 2011); **Komi Republic** (Palamarchuk, 2011a; Palamarchuk, 2012; Palamarchuk, 2016a; Palamarchuk, 2016b; Palamarchuk and Kirillov, 2017); **Krasnodar Krai** (Vassiljeva, 1939; Kovalenko, 1980a; Kovalenko, 1980b); **Leningrad Oblast** (Thesleff, 1920; Nezdoininogo, 1967; Bulakh, Wasser, Nazarova, and Nezdoininogo, 1990; Kovalenko and Morozova, 1999a; Fomina, 2000; Fomina, 2001; Popov et al., 2007); **Lipetsk Oblast** (Sarycheva et al., 2009; Sarycheva, 2014a; Sarycheva, 2016); **Moscow Oblast** (Levitskaya, 1995a; Levitskaya, 2013; Voronina et al., 2018); **Oryol Oblast** (Radygina, Derzhavina, and Tsutsupa, 2014); **Perm Krai** (Perevedentseva, 2008; Perevedentseva and Shilkova, 2010; Belkovskaya et al., 2014; Perevedentseva and Shishigin, 2014; Perevedentseva and Shishigin, 2015; Botalov, 2017); **Pskov Oblast** (Kolmakov, 2015); **Ryazan Oblast** (Volosnova, 2014); **Sverdlovsk Oblast** (Marina, 2006); **Tatarstan** (Vassiljeva, 1977; Bulakh, Wasser, Nazarova, and Nezdoininogo, 1990); **Tula Oblast** (Svetasheva, 2004); **Tver Oblast** (Kurochkin, 1993); **Udmurt Republic** (Tychinin and Kuzmina, 2003); **Northern Caucasus** (Singer, 1938a).

SIBERIA: **Altai Republic** (Singer, 1938a; Gorbunova, 1997; Perova and Gorbunova, 2001; Gorbunova, 2010); **Irkutsk Oblast** (Petrov, 1991; Petrov, 2008); **Khanty-Mansi Autonomous Okrug** (Filippova and Bulyonkova, 2017a; Filippova and Bulyonkova, 2017b); **Krasnoyarsk Krai** (Thümen, 1878; Beglyanova, 1972a; Bulakh, Wasser, Nazarova, and Nezdoininogo, 1990; Zauzolkova, 2015); **Kurgan Oblast** (Bystrushkin, 2016); **Novosibirsk Oblast** (Perova and Gorbunova, 2001; Perova and Gorbunova, 2007; Koropachinskiy and Banaev, 2014); **Tomsk Oblast** (Perova, 1972; Bulakh, Wasser, Nazarova, and Nezdoininogo, 1990; Perova and Gorbunova, 2001; Kudashova, Gashkov, and Kutafjeva, 2013; Vaishlya et al., 2017); **Yamalo-Nenets Autonomous Okrug** (Tarchevskaya, 1990).

FAR EAST: **Jewish Autonomous Oblast** (Bulakh, Govorova, Nazarova, and Vassiljeva, 2007; Bau, Bulakh, and Govorova, 2011); **Khabarovsk Krai** (Azbukina et al., 1986; Bulakh, Wasser, Nazarova, and Nezdoininogo, 1990; Bau, Bulakh, and Govorova, 2011; Bulakh, 2013; Bogacheva, Bulakh, Bukharova, and Egorova, 2015); **Magadan Oblast** (Bulakh, Wasser, Nazarova, and Nezdoininogo, 1990; Sazanova, 1996; Sazanova, 2005; Sazanova, 2009a; Sazanova, 2011); **Primorsky Krai** (Vassiljeva, 1972; Vassiljeva, 1973; Azbukina et al., 1984; Bulakh, Wasser, Nazarova, and Nezdoininogo, 1990; Malysheva et al., 2016); **Sakhalin Oblast** (Vassiljeva and Nazarova, 1972; Bulakh, Wasser, Nazarova, and Nezdoininogo, 1990).

***Russula puellula* Ebbesen, F.H. Møller & Jul. Schöff.**

EASTERN EUROPE: **Adygea** (Sopina, 2004a).

***Russula pulverulenta* Peck**

FAR EAST: **Primorsky Krai** (Bulakh, 1987; Bulakh, Wasser, Nazarova, and Nezdoyminogo, 1990; Kozhevnikov, 2008).

***Russula punctipes* Singer**

FAR EAST: **Primorsky Krai** (Vassiljeva, 1973; Bunkina and Nazarova, 1978; Azbukina et al., 1990; Bulakh, Wasser, Nazarova, and Nezdoyminogo, 1990; Bardunov et al., 2002; Azbukina et al., 2006; Bau, Bulakh, and Govorova, 2011).

***Russula pungens* Beardslee**

EASTERN EUROPE: **Tula Oblast** (Svetasheva, 2004; Shcherbakov, 2010).

SIBERIA: **Tomsk Oblast** (Kudashova, Gashkov, and Kutafjeva, 2013).

***Russula purpurascens* Bres.**

EASTERN EUROPE: **Belgorod Oblast** (Bedenko, 1980).

***Russula pyrenaica* J. Blum ex Singer**

= *Russula gracilis* f. *emeticicola* Singer<sup>1</sup>

SIBERIA: **Altai Republic** (<sup>1</sup>Singer, 1938a).

***Russula queletii* Fr.**

EASTERN EUROPE: **Crimea** (Dudka et al., 2004); **Karelia** (Bondartseva et al., 2001; Krutov et al., 2014); **Leningrad Oblast** (Bulakh, Wasser, Nazarova, and Nezdoyminogo, 1990; Kovalenko and Morozova, 1999a; Popov et al., 2007); **Lipetsk Oblast** (Sarycheva et al., 2009; Sarycheva, 2011; Sarycheva, 2014a); **Moscow Oblast** (Gorlenko, Sidorova, and Sidorova, 1989; Levitskaya, 1995a; Levitskaya, 2013); **Murmansk Oblast** (Pystina, Pavlova, and Shestakova, 1969; Bulakh, Wasser, Nazarova, and Nezdoyminogo, 1990); **Penza Oblast** (Kazakevich and Prisyazhnyuk, 1932; Ivanov, 1981a; Bulakh, Wasser, Nazarova, and Nezdoyminogo, 1990; Ivanov, 2019); **Perm Krai** (Perevedentseva, 2008; Perevedentseva and Shilkova, 2010; Belkovskaya et al., 2014; Perevedentseva and Shishigin, 2015; Botalov, 2017); **Pskov Oblast** (Popov et al., 2013; Kolmakov, 2015); **Ryazan Oblast** (Volosnova, 2005; Volosnova, 2014); **Smolensk Oblast** (Jaczewski, 1896; Bulakh, Wasser, Nazarova, and Nezdoyminogo, 1990); **Sverdlovsk Oblast** (Marina, 2006); **Tula Oblast** (Svetasheva, 2004; Shcherbakov, 2010); **Vologda Oblast** (Kirillova, 2007; Kirillova and Podolskaya, 2012).

SIBERIA: **Altai Republic** (Singer, 1938a; Gorbunova, 2001a; Gorbunova, 2001b; Perova and Gorbunova, 2001); **Irkutsk Oblast** (Kutafjeva, 1984; Petrov, Nezdoyminogo, and Bulakh, 1987; Bulakh, Wasser, Nazarova, and Nezdoyminogo, 1990; Petrov, 1991; Petrov, 2008); **Krasnoyarsk Krai** (Perova, 1970; Beglyanova, 1972a; Bulakh, Wasser, Nazarova, and Nezdoyminogo, 1990); **Novosibirsk Oblast** (Perova and Gorbunova, 2001); **Tomsk Oblast** (Kudashova, Gashkov, and Kutafjeva, 2013; Vaishlya et al., 2017).

FAR EAST: **Amur Oblast** (Bulakh, Wasser, Nazarova, and Nezdoyminogo, 1990); **Jewish Autonomous Oblast** (Bulakh, Govorova, Nazarova, and Vassiljeva, 2007; Bau, Bulakh, and Govorova, 2011); **Khabarovsk Krai** (Azbukina et al., 1986; Azbukina et al., 1989; Bulakh, Wasser, Nazarova, and Nezdoyminogo, 1990; Bau, Bulakh, and Govorova, 2011; Bulakh, 2013; Bogacheva, Bulakh, Bukharova, and Egorova, 2015); **Magadan Oblast** (Bulakh, Wasser, Nazarova, and Nezdoyminogo, 1990; Sazanova, 1996; Sazanova, 2005; Sazanova, 2009a; Sazanova, 2011); **Primorsky Krai** (Vassiljeva, 1973; Shalapugina, 1976; Bunkina and Nazarova, 1978; Azbukina et al., 1984; Azbukina et al., 1990; Bulakh, Wasser, Nazarova, and Nezdoyminogo, 1990; Bardunov et al., 2002; Azbukina et al., 2006; Bau, Bulakh, and Govorova, 2011; Bulakh et al., 2016; Bogacheva, Bulakh, Bukharova, and Egorova, 2020); **Sakhalin Oblast** (Vassiljeva and Nazarova, 1972; Bulakh, Wasser, Nazarova, and Nezdoyminogo, 1990).

***Russula raoultii* Quél.**

SIBERIA: **Khanty-Mansi Autonomous Okrug** (Filippova, Bulyonkova, and Lapshina, 2015).

***Russula renidens* Ruots., Sarnari & Vauras**

EASTERN EUROPE: **Vologda Oblast** (Kirillova and Podolskaya, 2012).

SIBERIA: **Khanty-Mansi Autonomous Okrug** (Filippova and Bulyonkova, 2017a; Filippova and Bulyonkova, 2017b).

***Russula rhodopus* Zvára**

EASTERN EUROPE: **Kaliningrad Oblast** (Volodina, 2007); **Karelia** (Freindling, 1949; Kovalenko, Morozova, Fomina, and Särkisilta, 1998; Bondartseva et al., 2001; Krutov et al., 2014); **Komi Republic** (Palamarchuk, 2012); **Leningrad Oblast** (Kovalenko and Morozova, 1999a; Fomina, 2000; Fomina, 2001; Popov et al., 2007; Zmitrovich et al., 2015); **Moscow Oblast** (Levitskaya, 1995a; Levitskaya, 2013); **Orenburg Oblast** (Korshikova, 2006; Desyatova, 2008); **Perm Krai** (Perevedentseva, 2008; Perevedentseva and Shilkova, 2010); **Pskov Oblast** (Kolmakov, 2015); **Tver Oblast** (Kurochkin, 1993); **Vologda Oblast** (Kirillova, 2005; Kirillova, 2007; Kirillova and Podolskaya, 2012).

SIBERIA: **Altai Republic** (Gorbunova, 1996; Gorbunova, 1997; Perova and Gorbunova, 2001); **Irkutsk Oblast** (Astapenko, 1990b); **Khanty-Mansi Autonomous Okrug** (Filippova and Bulyonkova, 2017a; Filippova and Bulyonkova, 2017b; Zvyagina and Baykalova, 2017); **Tomsk Oblast** (Kosheleva and Kutafjeva, 2004; Kudashova, Gashkov, and Kutafjeva, 2013; Kudashova, Gashkov, and Vaishlya, 2016b).

***Russula risigallina* (Batsch) Sacc.<sup>1</sup>**

= *Russula acetolens* Rauschert<sup>2</sup> = *Russula chamaeleontina* (Lasch) Fr.<sup>3</sup> = *Russula chamaeleontina* var. *ochracea* Fr.<sup>4</sup> = *Russula lutea* (Huds.) Gray<sup>5</sup> = *Russula lutea* var. *subcristulata* Singer<sup>6</sup>

EASTERN EUROPE: **Adygea** (<sup>5</sup>Kovalenko, 1979a; <sup>5</sup>Kovalenko, 1980b; <sup>1</sup>Sopina, 2004a); **Bashkortostan** (<sup>5</sup>Stepanova and Sirko, 1977); **Belgorod Oblast** (<sup>5</sup>Bedenko, 1979a; <sup>5</sup>Ryabova and Ignatenko, 1981); **Chechen Republic** (<sup>5</sup>Taysumov, Krapivina, Umarov, and Astamirova, 2012); **Chelyabinsk Oblast** (<sup>5</sup>Aleksandrovskaya and Lobanova, 1968; <sup>5</sup>Sirko and Stepanova, 1977; <sup>5</sup>Stepanova and Sirko, 1977); **Crimea** (<sup>5</sup>Sarkina, 2001; <sup>3,5</sup>Dudka et al., 2004; <sup>5</sup>Sarkina, 2010a; <sup>5</sup>Sarkina, 2010b; <sup>5</sup>Sarkina, 2011; <sup>5</sup>Sarkina and Prydiuk, 2012; <sup>5</sup>Sarkina and Mironova, 2015; <sup>1</sup>Sarkina and Stavishenko, 2019); **Kabardino-Balkarian Republic** (<sup>5</sup>Singer, 1931; <sup>5</sup>Shkhagapsoev and Krapivina, 2003; <sup>5</sup>Shkhagapsoev and Krapivina, 2004); **Kaliningrad Oblast** (<sup>3</sup>Hennings, 1895; <sup>3</sup>Dedkov, Volodina, and Gubareva, 2007); **Kaluga Oblast** (<sup>5</sup>Sionova, 2003; <sup>5</sup>Sionova, 2006); **Karachay-Cherkess Republic** (<sup>1</sup>Kalamees and Botashev, 2000); **Karelia** (<sup>5</sup>Freindling, 1949; <sup>2</sup>Kovalenko, Morozova, Fomina, and Särkisilta, 1998; <sup>5</sup>Bondartseva et al., 2001; <sup>2</sup>Krutov et al., 2014; <sup>5</sup>Krutov et al., 2014); **Kirov Oblast** (<sup>1</sup>Kirillov, 2011; <sup>1</sup>Kirillov, Perevedentseva, and Egoshina, 2011); **Krasnodar Krai** (<sup>5,6</sup>Vassiljeva, 1939; <sup>3,5</sup>Kovalenko, 1980a; <sup>3,5</sup>Kovalenko, 1980b); **Leningrad Oblast** (<sup>5</sup>Kalamees and Kovalenko, 1984; <sup>2,5</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Morozova and Kovalenko, 2000; <sup>2</sup>Fomina, 2000; <sup>2</sup>Fomina, 2001; <sup>2</sup>Morozova, 2007; <sup>1,2,5</sup>Popov et al., 2007; <sup>1</sup>Kalinina, 2018); **Lipetsk Oblast** (<sup>5</sup>Alferova, 1977; <sup>5</sup>Rtishcheva, 1999; <sup>5</sup>Sarycheva, 1999; <sup>5</sup>Afanasyev, Rtishcheva, and Starodubtseva, 2007; <sup>1</sup>Sarycheva et al., 2009; <sup>1</sup>Sarycheva, 2011; <sup>1</sup>Sarycheva, 2014a; <sup>1</sup>Sarycheva, 2016; <sup>1</sup>Sarycheva, Starodubtseva, and Sapelnikova, 2017); **Moscow** (<sup>5</sup>Bucholtz, 1897b); **Moscow Oblast** (<sup>5</sup>Gorlenko, Sidorova, and Sidorova, 1989; <sup>1,5</sup>Levitskaya, 1995a; <sup>5</sup>Vishnevsky and Sidorova, 1997; <sup>1,5</sup>Levitskaya, 2013); **Murmansk Oblast** (<sup>4</sup>Mikhailovskii, 1975a); **North Ossetia** (<sup>5</sup>Nikolayev, 2001); **Orenburg Oblast** (<sup>5</sup>Desyatova, 2008); **Penza Oblast** (<sup>3,5</sup>Ivanov, 1981a; <sup>3</sup>Bulakh, Wasser, Nazarova, and Nezdjominogo, 1990); **Perm Krai** (<sup>1,5</sup>Perevedentseva, 2008; <sup>1,5</sup>Perevedentseva and Shilkova, 2010; <sup>1</sup>Belkovskaya et al., 2014; <sup>3,5</sup>Perevedentseva and Shishigin, 2015; <sup>3</sup>Botalov, 2017); **Pskov Oblast** (<sup>1,2</sup>Kolmakov, 2015); **Rostov Oblast** (<sup>3</sup>Rusanov et al., 2004; <sup>3,5</sup>Zmitrovich et al., 2008); **Ryazan Oblast** (<sup>5</sup>Volosnova, 1997; <sup>2</sup>Volosnova, 2014); **Saint Petersburg** (<sup>2</sup>Kotkova, Morozova, and Popov, 2007; <sup>5</sup>Morozova, Kovalenko, Rebriev, and Malysheva, 2014; <sup>1</sup>Morozova et al., 2020); **Samara Oblast** (<sup>2</sup>Malysheva and Malysheva, 2005b; <sup>2</sup>Malysheva and Malysheva, 2008); **Saratov Oblast** (<sup>5</sup>Komirnaya, 1970); **Sverdlovsk Oblast** (<sup>5</sup>Stepanova and Sirko, 1977; <sup>1</sup>Marina, 2006); **Tatarstan** (<sup>5</sup>Vassiljeva, 1977); **Tula Oblast** (<sup>5</sup>Svetasheva, 2001; <sup>1</sup>Svetasheva, 2004); **Tver Oblast** (<sup>5</sup>Kurochkin, 1993; <sup>1</sup>Kurochkin, 2016); **Udmurt Republic** (<sup>5</sup>Tychinin and Kuzmina, 2003); **Vologda Oblast** (<sup>2</sup>Kirillova, 2005; <sup>2</sup>Kirillova, 2007; <sup>2</sup>Kirillova and Podolskaya, 2012); **Voronezh Oblast** (<sup>5</sup>Rtishcheva, 1999; <sup>5</sup>Afanasyev, Rtishcheva, and Starodubtseva, 2007; <sup>5</sup>Selochnik, 2015; <sup>1</sup>Sarycheva, Starodubtseva, and Sapelnikova, 2017); **Yaroslavl Oblast** (<sup>2</sup>Lazareva, 1997; <sup>2</sup>Lazareva, 1998a); **Arid territories** (<sup>1,5</sup>Rebriev, Rusanov, et al., 2012); **Northern Caucasus** (<sup>6</sup>Singer, 1938a).

SIBERIA: **Altai Krai** (<sup>5</sup>Gorbunova, Vlasenko, and Tzhubarova, 2011); **Altai Republic** (<sup>5</sup>Singer, 1938a); **Buryatia** (<sup>5</sup>Nezdjominogo, 1970a; <sup>5</sup>Petrov, 1991); **Irkutsk Oblast** (<sup>5</sup>Kutafjeva, 1984; <sup>5</sup>Petrov, Nezdjominogo, and Bulakh, 1987; <sup>5</sup>Petrov, 1989; <sup>3,5</sup>Astapenko, 1990b; <sup>5</sup>Petrov, 1991; <sup>5</sup>Muzyka, 2002; <sup>5</sup>Petrov, 2008; <sup>5</sup>Muzyka, 2009); **Krasnoyarsk Krai** (<sup>5</sup>Beglyanova, 1972a; <sup>5</sup>Lapitskaya, 1993; <sup>5</sup>Pavlov et al., 2007; <sup>5</sup>Kosheleva and Kutafjeva, 2008a; <sup>5</sup>Kosheleva and Kutafjeva, 2008b; <sup>5</sup>Kosheleva, 2010; <sup>1</sup>Krom and Kapitonov, 2019); **Kurgan Oblast** (<sup>1</sup>Bystrushkin, 2016); **Novosibirsk Oblast** (<sup>5</sup>Zaytseva, 1971; <sup>5</sup>Perova, 1977; <sup>3,5</sup>Perova and Gorbunova, 2001; <sup>5</sup>Perova and Gorbunova, 2007; <sup>1</sup>Koropachinskiy and Banaev, 2014); **Tomsk Oblast** (<sup>5</sup>Milovidova, 1980; <sup>5</sup>Kosheleva and Kutafjeva, 2004; <sup>1,5</sup>Kudashova, Gashkov, and Kutafjeva, 2013; <sup>1,5</sup>Vaishlya et al., 2017); **Yamalo-Nenets Autonomous Okrug** (<sup>5</sup>Tarchevskaya, 1990).

FAR EAST: **Amur Oblast** (<sup>3,5</sup>Bulakh, Wasser, Nazarova, and Nezdjominogo, 1990; <sup>3</sup>Azbukina et al., 1998; <sup>5</sup>Taranina, 2005; <sup>1</sup>Kochunova, 2019); **Jewish Autonomous Oblast** (<sup>5</sup>Bulakh, Govorova, Nazarova, and Vassiljeva, 2007; <sup>5</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Bogacheva et al., 2018); **Kamchatka Krai** (<sup>5</sup>Kalamees and Vaasma, 1981);

<sup>5</sup>Bulakh, Wasser, Nazarova, and Nezdoinog, 1990); **Khabarovsk Krai** (<sup>5</sup>Azbukina et al., 1986; <sup>3,5</sup>Azbukina et al., 1989; <sup>3,5</sup>Bulakh, Wasser, Nazarova, and Nezdoinog, 1990; <sup>1,5</sup>Bau, Bulakh, and Govorova, 2011; <sup>2</sup>Bulakh, 2013; <sup>2</sup>Bogacheva, Bulakh, Bukharova, and Egorova, 2015; <sup>1</sup>Bogacheva et al., 2018); **Magadan Oblast** (<sup>5</sup>Sazanova, 2005; <sup>5</sup>Sazanova, 2009a); **Primorsky Krai** (<sup>5</sup>Vassiljeva, 1973; <sup>5</sup>Shalapugina, 1976; <sup>5</sup>Bunkina and Nazarova, 1978; <sup>5</sup>Azbukina et al., 1984; <sup>3,5</sup>Azbukina et al., 1990; <sup>3,5</sup>Bulakh, Wasser, Nazarova, and Nezdoinog, 1990; <sup>3,5</sup>Bardunov et al., 2002; <sup>5</sup>Azbukina et al., 2006; <sup>5</sup>Bau, Bulakh, Zhuang, and Li, 2007; <sup>5</sup>Bau, Bulakh, and Govorova, 2011; <sup>5</sup>Malysheva et al., 2014; <sup>1,2</sup>Bulakh et al., 2016; <sup>5</sup>Malysheva et al., 2016; <sup>1</sup>Bogacheva et al., 2018); **Sakhalin Oblast** (<sup>5</sup>Vassiljeva and Nazarova, 1972; <sup>5</sup>Bulakh, Wasser, Nazarova, and Nezdoinog, 1990; <sup>1</sup>Bogacheva et al., 2018).

#### ***Russula rivulicola* Ruots. & Vauras**

SIBERIA: **Khanty-Mansi Autonomous Okrug** (Filippova and Bulyonkova, 2017a; Filippova and Bulyonkova, 2017b).

#### ***Russula robertii* J. Blum**

EASTERN EUROPE: **Karelia** (Bondartseva et al., 2001; Krutov et al., 2014).

#### ***Russula romellii* Maire**

EASTERN EUROPE: **Adygea** (Sopina, 2004a); **Belgorod Oblast** (Bedenko, 1980); **Penza Oblast** (Ivanov, 1983).

SIBERIA: **Khakassia** (Zauzolkova and Gorbunova, 2013; Zauzolkova, 2015).

FAR EAST: **Magadan Oblast** (Sazanova, 2005; Sazanova, 2009a; Sazanova, 2011).

#### ***Russula rosea* Pers.<sup>1</sup>**

= *Russula incarnata* Quél.<sup>2</sup> = *Russula lactea* Fr.<sup>3</sup> = *Russula lactea* var. *lactea* Fr.<sup>4</sup> = *Russula lepida* Fr.<sup>5</sup> = *Russula lepida* var. *lactea* (Fr.) F.H. Møller & Jul. Schäff.<sup>6</sup>

EASTERN EUROPE: **Adygea** (<sup>5</sup>Vassiljeva, 1939; <sup>5</sup>Kovalenko, 1979a); **Belgorod Oblast** (<sup>5</sup>Bedenko, 1980); **Crimea** (<sup>6</sup>Zerova, 1962; <sup>5</sup>Sarkina, 2001; <sup>5</sup>Sarkina, 2010b; <sup>1,5</sup>Sarkina and Prydiuk, 2012; <sup>1</sup>Sarkina, 2013; <sup>1</sup>Sarkina and Mironova, 2015; <sup>1</sup>Sarkina and Stavishenko, 2019); **Karelia** (<sup>1</sup>Savelev and Kikeeva, 2018); **Krasnodar Krai** (<sup>5</sup>Vassiljeva, 1939; <sup>5</sup>Kovalenko, 1980a; <sup>1</sup>Shumkova, Krivorotov, and Gayday, 2018); **Leningrad Oblast** (<sup>3</sup>Bulakh, 1989; <sup>3</sup>Bulakh, Wasser, Nazarova, and Nezdoinog, 1990; <sup>3</sup>Kovalenko and Morozova, 1999a; <sup>3,5</sup>Popov et al., 2007); **Mordovia** (<sup>2</sup>Chastukhin, 1948a); **Moscow** (<sup>5</sup>Bucholtz, 1897b; <sup>5</sup>Bucholtz, 1897c; <sup>5</sup>Mosolov, 1906); **Murmansk Oblast** (<sup>3</sup>Bulakh, 1989; <sup>3</sup>Bulakh, Wasser, Nazarova, and Nezdoinog, 1990); **Orenburg Oblast** (<sup>1</sup>Desyatova, 2008); **Perm Krai** (<sup>1</sup>Perevedentseva and Shilkova, 2010; <sup>1</sup>Botalov, 2017); **Pskov Oblast** (<sup>1</sup>Kolmakov, 2015); **Saint Petersburg** (<sup>5</sup>Kovalenko and Morozova, 1999a; <sup>5</sup>Morozova, Kovalenko, Rebriev, and Malysheva, 2014); **Saratov Oblast** (<sup>1</sup>Komirnaya, 1970); **Sevastopol** (<sup>1</sup>Sarkina, 2016b; <sup>1</sup>Sarkina, 2020c); **Sverdlovsk Oblast** (<sup>5</sup>Marina, 2006); **Tula Oblast** (<sup>5</sup>Svetasheva, 2004); **Tver Oblast** (<sup>3</sup>Bulakh, 1989; <sup>3</sup>Bulakh, Wasser, Nazarova, and Nezdoinog, 1990); **Voronezh Oblast** (<sup>1</sup>Kochergina and Furmenkova, 2019); **Northern Caucasus** (<sup>5</sup>Singer, 1938a; <sup>5</sup>Kovalenko, 1980b).

SIBERIA: **Altai Krai** (<sup>1</sup>Gorbunova and Perova, 2006); **Irkutsk Oblast** (<sup>5</sup>Kutafjeva, 1984); **Krasnoyarsk Krai** (<sup>5</sup>Beglyanova, 1972a); **Kurgan Oblast** (<sup>1</sup>Bystrushkin, 2016); **Tomsk Oblast** (<sup>5</sup>Milovidova, 1980; <sup>1</sup>Vaishlya et al., 2017).

FAR EAST: **Jewish Autonomous Oblast** (<sup>3</sup>Bulakh, Govorova, Nazarova, and Vassiljeva, 2007; <sup>4</sup>Bau, Bulakh, and Govorova, 2011; <sup>3</sup>Bogacheva et al., 2018); **Primorsky Krai** (<sup>3</sup>Bulakh, 1989; <sup>3</sup>Azbukina et al., 1990; <sup>3</sup>Bulakh, Wasser, Nazarova, and Nezdoinog, 1990; <sup>3</sup>Bardunov et al., 2002; <sup>3</sup>Bau, Bulakh, Zhuang, and Li, 2007; <sup>4</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Bulakh et al., 2016; <sup>3</sup>Bogacheva et al., 2018; <sup>3</sup>Bogacheva, Bulakh, Bukharova, and Egorova, 2020).

#### ***Russula roseipes* Secr. ex Bres.**

EASTERN EUROPE: **Adygea** (Kiyashko, 2009); **Belgorod Oblast** (Bedenko, 1989); **Crimea** (Sarkina, 2001; Dudka et al., 2004; Sarkina, 2010b; Sarkina, 2013); **Kaliningrad Oblast** (Volodina, 2007); **Karelia** (Singer, 1936a; Freindling, 1949; Kovalenko, Morozova, Fomina, and Särkisilta, 1998; Bondartseva et al., 2001; Predtechenskaya, 2013; Krutov et al., 2014); **Kostroma Oblast** (Burova, 1982); **Leningrad Oblast** (Morozova, 2002; Popov et al., 2007); **Mordovia** (Chastukhin, 1948a; Chastukhin, 2011; Ivoilov and Bolshakov, 2011b); **Moscow Oblast** (Gorlenko, Sidorova, and Sidorova, 1989; Vishnevsky and Sidorova, 1997); **Sverdlovsk Oblast** (Marina, 2006); **Tver Oblast** (Mukhina, 2011a; Mukhina, 2011b); **Vologda Oblast** (Kirillova, 2005; Kirillova, 2007; Kirillova and Podolskaya, 2012).

SIBERIA: **Altai Republic** (Singer, 1942); **Irkutsk Oblast** (Petrov, Nezdoinog, and Bulakh, 1987; Petrov, 1991; Petrov, 2008); **Novosibirsk Oblast** (Singer, 1942); SIBERIA (Singer, 1942).



***Russula rubescens* Beardslee**EASTERN EUROPE: **Crimea** (Sarkina and Prydiuk, 2012).SIBERIA: **Tomsk Oblast** (Gorbunova and Taylakov, 2011; Kudashova, Gashkov, and Kutafjeva, 2013; Kudashova, Gashkov, and Vaishlya, 2016b; Vaishlya et al., 2017).FAR EAST: **Primorsky Krai** (Bulakh, 1989; Azbukina et al., 1990; Bulakh, Wasser, Nazarova, and Nezdjominogo, 1990; Bardunov et al., 2002; Kozhevnikov, 2008; Bulakh et al., 2016; Bogacheva et al., 2018).***Russula rubra* (Lam.) Fr.<sup>1</sup>**≡ *Agaricus ruber* (Lam.) Fr.<sup>2</sup>EASTERN EUROPE: **Belgorod Oblast** (<sup>1</sup>Bedenko, 1980); **Bryansk Oblast** (<sup>1</sup>Kruglikov, 2007); **Leningrad Oblast** (<sup>1</sup>Thesleff, 1920); **Lipetsk Oblast** (<sup>1</sup>Sarycheva, Starodubtseva, and Sapelnikova, 2017); **Orenburg Oblast** (<sup>1</sup>Vorontsovsky, 1921); **Saint Petersburg** (<sup>2</sup>Weinmann, 1836; <sup>2</sup>Weinmann, 1837); **Smolensk Oblast** (<sup>1</sup>Jaczevski, 1893; <sup>1</sup>Jaczevski, 1895); **Voronezh Oblast** (<sup>1</sup>Sarycheva, Starodubtseva, and Sapelnikova, 2017).SIBERIA: **Irkutsk Oblast** (<sup>1</sup>Kutafjeva, 1984); **Krasnoyarsk Krai** (<sup>1</sup>Saccardo, 1889); **Tomsk Oblast** (<sup>1</sup>Perova, 1972; <sup>1</sup>Perova and Gorbunova, 2001).FAR EAST: **Chukotka Autonomous Okrug** (<sup>1</sup>Berkeley and Curtis, 1978); **Khabarovsk Krai** (<sup>1</sup>Berkeley and Curtis, 1978).***Russula rubroalba* (Singer) Romagn.**= *Russula rubroalba* var. *albrocretacea* Sarnari<sup>1</sup>EASTERN EUROPE: **Crimea** (<sup>1</sup>Sarkina, 2020a).***Russula rutila* Romagn.**EASTERN EUROPE: **Adygea** (Sopina, 2004a).***Russula saliceticola* (Singer) Kühner ex Knudsen & T. Borgen**EASTERN EUROPE: **Komi Republic** (Shiryaeva and Palamarchuk, 2019).SIBERIA: **Sakha Republic** (Karatygin, Nezdjominogo, Novozhilov, and Zhurbenko, 1999).***Russula sanguinaria* (Schumach.) Rauschert<sup>1</sup>**= *Russula rosacea* (Pers.) Gray<sup>2</sup>EASTERN EUROPE: **Belgorod Oblast** (<sup>2</sup>Bulakh, Wasser, Nazarova, and Nezdjominogo, 1990); **Chelyabinsk Oblast** (<sup>2</sup>Aleksandrovskaya and Lobanova, 1968); **Crimea** (<sup>2</sup>Sarkina, 2001; <sup>2</sup>Dudka et al., 2004; <sup>2</sup>Sarkina, 2010b; <sup>2</sup>Sarkina and Prydiuk, 2012; <sup>2</sup>Sarkina, 2013; <sup>2</sup>Sarkina and Mironova, 2015); **Kabardino-Balkarian Republic** (<sup>2</sup>Singer, 1931; <sup>2</sup>Shkhagapsoev and Krapivina, 2004); **Kaliningrad Oblast** (<sup>2</sup>Dedkov, Volodina, and Gubareva, 2007); **Karelia** (<sup>2</sup>Krutov et al., 2014); **Krasnodar Krai** (<sup>2</sup>Vassiljeva, 1939); **Leningrad Oblast** (<sup>2</sup>Thesleff, 1920; <sup>2</sup>Bulakh, Wasser, Nazarova, and Nezdjominogo, 1990; <sup>1,2</sup>Kovalenko and Morozova, 1999a; <sup>1,2</sup>Popov et al., 2007); **Lipetsk Oblast** (<sup>2</sup>Afanasyev, Rtishcheva, and Starodubtseva, 2007; <sup>1</sup>Sarycheva, Starodubtseva, and Sapelnikova, 2017); **Moscow** (<sup>2</sup>Bucholtz, 1897b; <sup>2</sup>Bucholtz, 1897c; <sup>2</sup>Mosolov, 1906); **Moscow Oblast** (<sup>2</sup>Bulakh, Wasser, Nazarova, and Nezdjominogo, 1990); **Murmansk Oblast** (<sup>2</sup>Bulakh, Wasser, Nazarova, and Nezdjominogo, 1990); **Perm Krai** (<sup>1</sup>Perevedentseva, 2008; <sup>1</sup>Perevedentseva and Shilkova, 2010; <sup>1</sup>Belkovskaya et al., 2014); **Ryazan Oblast** (<sup>1</sup>Volosnova, 2014); **Tatarstan** (<sup>2</sup>Vassiljeva, 1977; <sup>2</sup>Bulakh, Wasser, Nazarova, and Nezdjominogo, 1990); **Tula Oblast** (<sup>1</sup>Svetasheva, 2004); **Vologda Oblast** (<sup>2</sup>Kutova, 1957); **Voronezh Oblast** (<sup>2</sup>Afanasyev, Rtishcheva, and Starodubtseva, 2007; <sup>1</sup>Sarycheva, Starodubtseva, and Sapelnikova, 2017); **Yaroslavl Oblast** (<sup>2</sup>Lazareva, 1998a).SIBERIA: **Altai Republic** (<sup>2</sup>Gorbunova, 2001b; <sup>2</sup>Perova and Gorbunova, 2001); **Irkutsk Oblast** (<sup>2</sup>Petrov, Nezdjominogo, and Bulakh, 1987; <sup>2</sup>Petrov, 1989; <sup>2</sup>Bulakh, Wasser, Nazarova, and Nezdjominogo, 1990; <sup>2</sup>Petrov, 1991); **Krasnoyarsk Krai** (<sup>1</sup>Kosheleva and Kutafjeva, 2008a); **Novosibirsk Oblast** (<sup>2</sup>Perova and Gorbunova, 2001; <sup>2</sup>Perova and Gorbunova, 2007; <sup>1</sup>Koropachinskiy and Banaev, 2014); **Sakha Republic** (<sup>2</sup>Bulakh, Wasser, Nazarova, and Nezdjominogo, 1990).FAR EAST: **Primorsky Krai** (<sup>2</sup>Bunkina and Nazarova, 1978; <sup>2</sup>Bulakh, Wasser, Nazarova, and Nezdjominogo, 1990; <sup>2</sup>Azbukina et al., 2006; <sup>1</sup>Bau, Bulakh, Zhuang, and Li, 2007; <sup>1</sup>Bau, Bulakh, and Govorova, 2011).***Russula sanguinea* Fr.**EASTERN EUROPE: **Belgorod Oblast** (Bedenko, 1980; Bulakh, Wasser, Nazarova, and Nezdjominogo, 1990); **Chelyabinsk Oblast** (Aleksandrovskaya and Lobanova, 1968; Stepanova and Sirko, 1977); **Crimea** (Dudka et al., 2004; Sarkina, 2010b; Sarkina, 2011; Sarkina and Prydiuk, 2012; Sarkina, 2013; Sarkina, 2014b; Sarkina and Mironova,

2015; Sarkina, 2016a); **Kabardino-Balkarian Republic** (Shkhagapsoev and Krapivina, 2004; Krapivina et al., 2020); **Kaliningrad Oblast** (Dedkov, Volodina, and Gubareva, 2007; Volodina, 2007); **Kirov Oblast** (Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990); **Kursk Oblast** (Ryabova and Ignatenko, 1981; Soshnina, 2005); **Leningrad Oblast** (Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990); **Moscow Oblast** (Levitskaya, 1995a; Vishnevsky and Sidorova, 1997; Levitskaya, 2013); **Penza Oblast** (Ivanov, 1983; Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990); **Perm Krai** (Perevedentseva, 2008; Perevedentseva and Shilkova, 2010); **Pskov Oblast** (Kolmakov, 2015); **Tver Oblast** (Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; Kurochkin, 1993); **Vologda Oblast** (Kirillova and Podolskaya, 2012); **Voronezh Oblast** (Kochergina and Furmenkova, 2019); **Yaroslavl Oblast** (Lazareva, 1998a).

SIBERIA: **Irkutsk Oblast** (Kutafjeva and Astapenko, 1987; Astapenko, 1990b); **Krasnoyarsk Krai** (Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; Kosheleva and Kutafjeva, 2008b; Kosheleva, 2010; Krom and Kapitonov, 2019); **Tomsk Oblast** (Kudashova, Gashkov, and Kutafjeva, 2013; Vaishlya et al., 2017).

FAR EAST: **Amur Oblast** (Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; Azbukina et al., 1998; Bogacheva et al., 2018); **Jewish Autonomous Oblast** (Bulakh, Govorova, Nazarova, and Vassiljeva, 2007; Bau, Bulakh, and Govorova, 2011; Bogacheva et al., 2018); **Khabarovsk Krai** (Azbukina et al., 1989; Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; Bau, Bulakh, and Govorova, 2011; Bogacheva et al., 2018); **Magadan Oblast** (Rebriev, Bulakh, Sazanova, and Shiryaev, 2020); **Primorsky Krai** (Azbukina et al., 1984; Azbukina et al., 1990; Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; Bardunov et al., 2002; Azbukina et al., 2006; Bau, Bulakh, Zhuang, and Li, 2007; Bau, Bulakh, and Govorova, 2011; Malysheva et al., 2016; Bogacheva et al., 2018); **Sakhalin Oblast** (Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; Bogacheva et al., 2018).

### ***Russula sapinea* Sarnari**

SIBERIA: **Khanty-Mansi Autonomous Okrug** (Filippova and Bulyonkova, 2017a; Filippova and Bulyonkova, 2017b).

### ***Russula sardonica* Fr.<sup>1</sup>**

= *Russula drimeia* Cooke<sup>2</sup>

EASTERN EUROPE: **Kaliningrad Oblast** (<sup>1</sup>Dedkov, Volodina, and Gubareva, 2007; <sup>1</sup>Volodina, 2007); **Leningrad Oblast** (<sup>2</sup>Kovalenko and Morozova, 1999a; <sup>2</sup>Fomina, 2000; <sup>2</sup>Tzvelev, 2000; <sup>2</sup>Popov et al., 2007; <sup>2</sup>Geltman et al., 2018; <sup>2</sup>Geltman, 2018b); **Moscow Oblast** (<sup>1</sup>Vishnevsky and Sidorova, 1997); **Saint Petersburg** (<sup>1</sup>Noskov, 2004; <sup>2</sup>Geltman, 2018a); **Sverdlovsk Oblast** (<sup>1</sup>Stepanova and Sirko, 1977).

SIBERIA: **Altai Krai** (<sup>1</sup>Gorbunova and Perova, 2006); **Altai Republic** (<sup>1</sup>Gorbunova, 2001a; <sup>1</sup>Perova and Gorbunova, 2001).

### ***Russula senecis* S. Imai**

FAR EAST: **Jewish Autonomous Oblast** (Bogacheva et al., 2018); **Primorsky Krai** (Bogacheva et al., 2018).

### ***Russula sepeirina* Dupain**

EASTERN EUROPE: **Krasnodar Krai** (Kovalenko, 1980a; Kovalenko, 1980b); **Pskov Oblast** (Kolmakov, 2015).

SIBERIA: **Irkutsk Oblast** (Petrov, Nezdojminogo, and Bulakh, 1987; Bulakh, 1989; Petrov, 1989; Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; Petrov, 1991; Petrov, 2008).

FAR EAST: **Chukotka Autonomous Okrug** (Bulakh, 1989; Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990).

### ***Russula septentrionalis* Singer**

EASTERN EUROPE: **Komi Republic** (Singer, 1936c).

### ***Russula silvestris* (Singer) Reumaux<sup>1</sup>**

≡ *Russula emetica* var. *silvestris* Singer<sup>2</sup> = *Russula emetica* f. *emeticella* Singer<sup>3</sup> = *Russula emeticella* (Singer) Romagn.<sup>4</sup>

EASTERN EUROPE: **Adygea** (<sup>3</sup>Singer, 1938a; <sup>2</sup>Sopina, 2004a); **Crimea** (<sup>4</sup>Sarkina and Prydiuk, 2012); **Karelia** (<sup>2</sup>Kovalenko, Morozova, Fomina, and Särkisilta, 1998; <sup>1</sup>Krutov et al., 2014); **Komi Republic** (<sup>1</sup>Palamarchuk, 2012); **Krasnodar Krai** (<sup>3</sup>Vassiljeva, 1939; <sup>2</sup>Sopina, 2004a); **Leningrad Oblast** (<sup>2</sup>Stolyarskaya, 1993); **Lipetsk Oblast** (<sup>2</sup>Afanasyev, Rtishcheva, and Starodubtseva, 2007; <sup>1</sup>Sarycheva, Starodubtseva, and Sapelnikova, 2017); **Perm Krai** (<sup>1,4</sup>Perevedentseva, 2008; <sup>1,4</sup>Perevedentseva and Shilkova, 2010; <sup>1</sup>Belkovskaya et al., 2014); **Sverdlovsk Oblast** (<sup>2</sup>Marina, 2006); **Vologda Oblast** (<sup>2</sup>Kirillova, 2005; <sup>1</sup>Kirillova, 2007; <sup>1</sup>Kirillova and Podolskaya, 2012); **Voronezh Oblast** (<sup>2</sup>Afanasyev, Rtishcheva, and Starodubtseva, 2007; <sup>1</sup>Sarycheva, Starodubtseva, and Sapelnikova, 2017).

SIBERIA: **Altai Republic** (<sup>3</sup>Singer, 1938a).

FAR EAST: **Magadan Oblast** (<sup>2</sup>Sazanova, 1996; <sup>2</sup>Sazanova, 2005; <sup>1</sup>Sazanova, 2009a; <sup>1</sup>Sazanova, 2011; <sup>1</sup>Sazanova and Golodnova, 2015).

***Russula solaris* Ferd. & Winge**

EASTERN EUROPE: **Adygea** (Kovalenko, 1979a; Kovalenko, 1980b; Sopina, 2004a); **Kaliningrad Oblast** (Atayev and Volodina, 2020); **Krasnodar Krai** (Vassiljeva, 1939; Kovalenko, 1980a; Sopina, 2004a); **Northern Caucasus** (Singer, 1938a).

***Russula sororia* (Fr.) Romell**

EASTERN EUROPE: **Belgorod Oblast** (Bedenko, 1979a); **Moscow Oblast** (Vishnevsky and Sidorova, 1997; Voronina et al., 2014); **Orenburg Oblast** (Desyatova, 2008); **Arid territories** (Rebriev, Rusanov, et al., 2012).

SIBERIA: **Buryatia** (Nezdojminogo, 1970a; Petrov, 1991).

***Russula sphagnophila* Kauffman<sup>1</sup>**

= *Russula sphagnophila* var. *europaea* Singer<sup>2</sup> = *Russula sphagnophila* var. *subheterosperma* Singer<sup>3</sup>

EASTERN EUROPE: **Kaluga Oblast** (<sup>1</sup>Antokhina et al., 2015); **Karelia** (<sup>1</sup>Freindling, 1949); **Komi Republic** (<sup>1</sup>Palamarchuk, 2011b); **Leningrad Oblast** (<sup>1</sup>Morozova and Kovalenko, 2000; <sup>1</sup>Popov et al., 2007); **Moscow Oblast** (<sup>1</sup>Levitskaya, 1995a; <sup>1</sup>Vishnevsky and Sidorova, 1997; <sup>1</sup>Levitskaya, 2013); **Saint Petersburg** (<sup>1</sup>Kotkova, Morozova, and Popov, 2005); **Tatarstan** (<sup>1</sup>Vassiljeva, 1977); **Tula Oblast** (<sup>1</sup>Svetasheva, 2004; <sup>1</sup>Svetasheva, 2005b; <sup>1</sup>Shcherbakov, 2010); **Vologda Oblast** (<sup>1</sup>Kirillova and Podolskaya, 2012).

SIBERIA: **Altai Republic** (<sup>2,3</sup>Singer, 1938a); **Khanty-Mansi Autonomous Okrug** (<sup>1</sup>Filippova and Bulyonkova, 2017a; <sup>1</sup>Filippova and Bulyonkova, 2017b); **Tomsk Oblast** (<sup>1</sup>Kudashova, Gashkov, and Vaishlya, 2016a).

***Russula subfoetens* W.G. Sm.<sup>1</sup>**

≡ *Russula subfoetens* var. *subfoetens* W.G. Sm.<sup>2</sup>

EASTERN EUROPE: **Krasnodar Krai** (<sup>2</sup>Sopina, 2004a); **Moscow Oblast** (<sup>1</sup>Levitskaya, 2006; <sup>1</sup>Levitskaya, 2013; <sup>1</sup>Malysheva, Malysheva, Voronina, and Kovalenko, 2018); **Orenburg Oblast** (<sup>1</sup>Korshikova, 2006; <sup>1</sup>Desyatova, 2008); **Yaroslavl Oblast** (<sup>1</sup>Lazareva, 1998a).

SIBERIA: **Tomsk Oblast** (<sup>1</sup>Kudashova, Gashkov, and Kutafjeva, 2013; <sup>1</sup>Vaishlya et al., 2017).

***Russula subrubens* (J.E. Lange) Bon<sup>1</sup>**

= *Russula chamiteae* Kühner<sup>2</sup>

EASTERN EUROPE: **Murmansk Oblast** (<sup>1</sup>Kalamees and Raitviir, 2006).

SIBERIA: **Altai Republic** (<sup>2</sup>Gorbunova, 2019); **Krasnoyarsk Krai** (<sup>2</sup>Zmitrovich and Ezhov, 2015; <sup>1</sup>Gorbunova, 2016; <sup>2</sup>Shiryaev, Zmitrovich, and Ezhov, 2018).

FAR EAST: **Chukotka Autonomous Okrug** (<sup>1</sup>Karatygin, Nezdojminogo, Novozhilov, and Zhurbenko, 1999).

***Russula torulosa* Bres.<sup>1</sup>**

≡ *Russula torulosa* f. *torulosa* Bres.<sup>2</sup> ≡ *Russula torulosa* var. *torulosa* Bres.<sup>3</sup>

EASTERN EUROPE: **Belgorod Oblast** (<sup>1</sup>Bedenko, 1979b; <sup>1</sup>Bedenko, 1980); **Crimea** (<sup>1</sup>Dudka et al., 2004; <sup>1</sup>Sarkina, 2014a; <sup>1</sup>Sarkina, 2014b; <sup>1</sup>Sarkina and Mironova, 2015; <sup>1</sup>Sarkina, 2016a); **Kaliningrad Oblast** (<sup>1</sup>Volodina, 2007); **Leningrad Oblast** (<sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Tzvelev, 2000; <sup>3</sup>Fomina, 2000; <sup>1</sup>Popov et al., 2007; <sup>1</sup>Geltman et al., 2018); **Moscow Oblast** (<sup>1</sup>Levitskaya, 1995a; <sup>2</sup>Levitskaya, 2013); **Sevastopol** (<sup>1</sup>Sarkina, 2020b).

SIBERIA: **Khanty-Mansi Autonomous Okrug** (<sup>1</sup>Filippova and Bulyonkova, 2017a; <sup>1</sup>Filippova and Bulyonkova, 2017b).

***Russula transiens* (Singer) Romagn.**

EASTERN EUROPE: **Tula Oblast** (Svetasheva, 2004).

***Russula turci* Bres.<sup>1</sup>**

≡ *Russula turci* var. *turci* Bres.<sup>2</sup>

EASTERN EUROPE: **Adygea** (<sup>1</sup>Sopina, 2004a); **Belgorod Oblast** (<sup>1</sup>Bedenko, 1979a); **Kaliningrad Oblast** (<sup>1</sup>Dedkov, Volodina, and Gubareva, 2007; <sup>1</sup>Volodina, 2007); **Krasnodar Krai** (<sup>1</sup>Sopina, 2004a); **Moscow Oblast** (<sup>1</sup>Vishnevsky and Sidorova, 1997); **Perm Krai** (<sup>1</sup>Perevedentseva, 2008; <sup>1</sup>Perevedentseva and Shilkova, 2010); **Pskov**

**Oblast** (<sup>1</sup>Kovalenko, Kolmakov, Morozova, and Popov, 2003; <sup>2</sup>Popov et al., 2013); **Sevastopol** (<sup>1</sup>Sarkina, 2016b; <sup>1</sup>Sarkina, 2020b); **Vologda Oblast** (<sup>1</sup>Kirillova, 2007; <sup>1</sup>Kirillova and Podolskaya, 2012).

SIBERIA: **Altai Republic** (<sup>1</sup>Gorbunova, 1997; <sup>1</sup>Gorbunova, 2001a; <sup>1</sup>Perova and Gorbunova, 2001); **Irkutsk Oblast** (<sup>1</sup>Petrov, Nezdojminogo, and Bulakh, 1987; <sup>1</sup>Petrov, 1989; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1</sup>Petrov, 1991); **Novosibirsk Oblast** (<sup>1</sup>Koropachinskiy and Banaev, 2014); **Tomsk Oblast** (<sup>1</sup>Kudashova, Gashkov, and Kutafjeva, 2013; <sup>1</sup>Vaishlya et al., 2017).

FAR EAST: **Amur Oblast** (<sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990); **Khabarovsk Krai** (<sup>1</sup>Azbukina et al., 1986; <sup>1</sup>Azbukina et al., 1989; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Bulakh, 2013; <sup>1</sup>Bogacheva, Bulakh, Bukharova, and Egorova, 2015); **Primorsky Krai** (<sup>1</sup>Bulakh, 1977; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1</sup>Azbukina et al., 2006; <sup>1</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Bulakh et al., 2016; <sup>1</sup>Malysheva et al., 2016); **Sakhalin Oblast** (<sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990).

### ***Russula unicolor* Romagn.**

EASTERN EUROPE: **Tver Oblast** (Mukhina, 2011a; Mukhina, 2011b; Kotkova, 2014); **Yaroslavl Oblast** (Lazareva, 1998a).

### ***Russula vassilievae* Bulach**

FAR EAST: **Primorsky Krai** (Bulakh, 1987; Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990).

### ***Russula velenovskiyi* Melzer & Zvára**

EASTERN EUROPE: **Kaliningrad Oblast** (Dedkov, Volodina, and Gubareva, 2007; Volodina, 2007); **Karelia** (Krutov et al., 2014); **Leningrad Oblast** (Kovalenko and Morozova, 1999a; Fomina, 2000; Fomina, 2001; Popov et al., 2007); **Moscow Oblast** (Levitskaya, 1995a; Levitskaya, 2013); **Murmansk Oblast** (Nezdojminogo, 1997b; Karatygin, Nezdojminogo, Novozhilov, and Zhurbenko, 1999); **Novgorod Oblast** (Kovalenko, Morozova, Nezdojminogo, and Popov, 2005; Popov et al., 2013); **Pskov Oblast** (Kovalenko, Kolmakov, Morozova, and Popov, 2003; Popov et al., 2013; Kolmakov, 2015); **Samara Oblast** (Malysheva and Malysheva, 2008; Malysheva, Malysheva, Voronina, et al., 2017; Malysheva, Malysheva, Voronina, and Kovalenko, 2018); **Sverdlovsk Oblast** (Marina, 2006); **Tula Oblast** (Svetasheva, 2004; Svetasheva, 2005b).

FAR EAST: **Primorsky Krai** (Bulakh, 1977; Azbukina et al., 1984; Malysheva et al., 2014; Malysheva et al., 2016).

### ***Russula ventricosipes* Peck**

FAR EAST: **Primorsky Krai** (Bulakh, 1989; Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; Bulakh et al., 2016).

### ***Russula versicolor* Jul. Schäff.**

EASTERN EUROPE: **Karelia** (Bondartseva et al., 2001; Krutov et al., 2014); **Kirov Oblast** (Stavishenko, Luginina, Kirillov, and Egoshina, 2019); **Leningrad Oblast** (Popov et al., 2007); **Moscow** (Burova, 1968); **Perm Krai** (Perevedentseva, 2008; Perevedentseva and Shilkova, 2010); **Pskov Oblast** (Kolmakov, 2015); **Rostov Oblast** (Rusanov et al., 2004; Zmitrovich et al., 2008); **Saint Petersburg** (Kovalenko and Morozova, 1999a); **Samara Oblast** (Malysheva, Malysheva, Voronina, et al., 2017; Malysheva, Malysheva, Voronina, and Kovalenko, 2018); **Tula Oblast** (Svetasheva, 2004); **Vologda Oblast** (Kirillova, 2005; Kirillova, 2007; Kirillova and Podolskaya, 2012); **Yamalo-Nenets Autonomous Okrug** (Karatygin, Nezdojminogo, Novozhilov, and Zhurbenko, 1999); **Arid territories** (Rebriev, Rusanov, et al., 2012).

SIBERIA: **Irkutsk Oblast** (Petrov, Nezdojminogo, and Bulakh, 1987; Petrov, 1991; Petrov, 2008); **Khakassia** (Zauzolkova, 2015; Zauzolkova and Gorbunova, 2016); **Khanty-Mansi Autonomous Okrug** (Filippova and Bulyonkova, 2017a; Filippova and Bulyonkova, 2017b); **Krasnoyarsk Krai** (Nezdojminogo, 1982a).

FAR EAST: **Chukotka Autonomous Okrug** (Karatygin, Nezdojminogo, Novozhilov, and Zhurbenko, 1999); **Jewish Autonomous Oblast** (Bau, Bulakh, and Govorova, 2011); **Khabarovsk Krai** (Azbukina et al., 1986; Bau, Bulakh, and Govorova, 2011; Bulakh, 2013; Bogacheva, Bulakh, Bukharova, and Egorova, 2015); **Primorsky Krai** (Bau, Bulakh, Zhuang, and Li, 2007; Bau, Bulakh, and Govorova, 2011; Bulakh et al., 2016; Bogacheva, Bulakh, Bukharova, and Egorova, 2020).

### ***Russula vesca* Fr.**

EASTERN EUROPE: **Adygea** (Kovalenko, 1979a; Vaasma, Kalamees, and Raitviir, 1986; Sopina, 2004a); **Arkhangelsk Oblast** (Ezhov, Ershov, Ruokolainen, and Zmitrovich, 2011; Ezhov, 2014; Ezhov, Zmitrovich, and Ruokolainen, 2019); **Belgorod Oblast** (Bedenko, 1980; Ryabova and Ignatenko, 1981; Bulakh, Wasser, Nazarova, and

Nezdojminogo, 1990; Soshnina, 1995); **Bryansk Oblast** (Kruglikov, 2007); **Chelyabinsk Oblast** (Aleksandrovskaya and Lobanova, 1968); **Crimea** (Sarkina, 2001; Dudka et al., 2004; Sarkina, 2010a; Sarkina, 2010b; Sarkina, 2011; Sarkina and Prydiuk, 2012; Sarkina, 2013; Sarkina, 2020a); **Kabardino-Balkarian Republic** (Shkhagapsoev and Krapivina, 2004); **Kaliningrad Oblast** (Dedkov, Volodina, and Gubareva, 2007; Volodina, 2007); **Kaluga Oblast** (Sionova, 2003); **Karachay-Cherkess Republic** (Vassiljeva, 1939); **Karelia** (Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; Bondartseva et al., 2001; Predtechenskaya and Ruokolainen, 2013; Predtechenskaya, 2013; Krutov et al., 2014; Predtechenskaya and Ruokolainen, 2014; Predtechenskaya, 2015); **Kirov Oblast** (Kirillov, 2011; Kirillov, Perevedentseva, and Egoshina, 2011; Stavishenko, Luginina, Kirillov, and Egoshina, 2019); **Komi Republic** (Palamarchuk (Bobretsova), 2009; Palamarchuk, 2012); **Kostroma Oblast** (Burova, 1982; Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990); **Krasnodar Krai** (Vassiljeva, 1939; Kovalenko, 1980a; Vaasma, Kalamees, and Raitviir, 1986; Sopina, 2004a; Shumkova, Krivorotov, and Gayday, 2018); **Kursk Oblast** (Ryabova and Ignatenko, 1981); **Leningrad Oblast** (Kalamees and Kovalenko, 1984; Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; Stolyarskaya, 1993; Kovalenko and Morozova, 1999a; Fomina, 2000; Morozova and Kovalenko, 2000; Morozova, 2007; Popov et al., 2007; Zmitrovich et al., 2015); **Lipetsk Oblast** (Afanasyev, Rtishcheva, and Starodubtseva, 2007; Sarycheva et al., 2009; Sarycheva, 2011; Sarycheva, 2014a; Sarycheva, 2016; Sarycheva, Starodubtseva, and Sapelnikova, 2017); **Mordovia** (Kuznetsov, 1960; Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; Ivoilov and Bolshakov, 2011b); **Moscow Oblast** (Gorlenko, Sidorova, and Sidorova, 1989; Levitskaya, 1995a; Vishnevsky and Sidorova, 1997; Voronina et al., 2012; Levitskaya, 2013; Voronina et al., 2014; Sidorova, Alexandrova, and Voronina, 2017); **Murmansk Oblast** (Pystina, Pavlova, and Shestakova, 1969; Mikhailovskii, 1975b; Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; Karatygin, Nezdojminogo, Novozhilov, and Zhurbenko, 1999); **North Ossetia** (Nikolayev, 2001); **Novgorod Oblast** (Kovalenko, Morozova, Nezdojminogo, and Popov, 2005; Popov et al., 2013); **Orenburg Oblast** (Desyatova, 2008); **Penza Oblast** (Ivanov, 1981a); **Perm Krai** (Perevedentseva, 2008; Perevedentseva and Shilkova, 2010; Belkovskaya et al., 2014; Botalov, 2015; Perevedentseva and Shishigin, 2015; Botalov, 2017); **Pskov Oblast** (Kovalenko, Kolmakov, Morozova, and Popov, 2003; Popov et al., 2013; Kolmakov, 2015); **Rostov Oblast** (Rusanov et al., 2004; Zmitrovich et al., 2008); **Ryazan Oblast** (Volosnova, 1997; Volosnova, 2014); **Saint Petersburg** (Kovalenko and Morozova, 1999a; Morozova and Smirnov, 2011; Morozova et al., 2020); **Sverdlovsk Oblast** (Stepanova and Sirko, 1977; Marina, 2006); **Tatarstan** (Vassiljeva, 1977; Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990); **Tula Oblast** (Svetasheva, 2004; Svetasheva, 2013); **Tver Oblast** (Kurochkin, 1993; Mukhina, 2011a; Mukhina, 2011b; Kotkova, 2014; Kurochkin, 2016); **Udmurt Republic** (Tychinin and Kuzmina, 2003); **Vladimir Oblast** (Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990); **Vologda Oblast** (Kirillova, 2005; Kirillova, 2007; Kirillova and Podolskaya, 2012); **Voronezh Oblast** (Rtishcheva, 1999; Afanasyev, Rtishcheva, and Starodubtseva, 2007; Selochnik, 2015; Sarycheva, Starodubtseva, and Sapelnikova, 2017; Kochergina and Furmenkova, 2019); **Yaroslavl Oblast** (Lazareva, 1997; Lazareva, 1998a); **Arid territories** (Rebriev, Rusanov, et al., 2012); **Northern Caucasus** (Singer, 1938a; Kovalenko, 1980b).

**SIBERIA:** **Altai Krai** (Gorbunova, Vlasenko, and Tzhubarova, 2011); **Buryatia** (Nezdojminogo, 1973; Petrov, 1991); **Irkutsk Oblast** (Kutafjeva and Astapenko, 1987; Astapenko, 1990b; Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; Muzyka, 2002; Muzyka, 2009; Heklau and Dörfelt, 2017); **Khanty-Mansi Autonomous Okrug** (Makarova, Makarov, Zvyagina, and Bobrikov, 2015; Zvyagina and Baykalova, 2017); **Krasnoyarsk Krai** (Lapitskaya, 1993; Pavlov et al., 2007; Kryuchkova, 2009; Kryuchkova, 2014a; Krom and Kapitonov, 2019); **Novosibirsk Oblast** (Perova and Gorbunova, 2001; Gorbunova, 2007; Perova and Gorbunova, 2007); **Sverdlovsk Oblast** (Stepanova and Sirko, 1977); **Tomsk Oblast** (Milovidova, 1980; Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; Kosheleva and Kutafjeva, 2004; Kudashova, Gashkov, and Kutafjeva, 2013; Vaishlya et al., 2017); **Yamalo-Nenets Autonomous Okrug** (Tarchevskaya, 1990; Karatygin, Nezdojminogo, Novozhilov, and Zhurbenko, 1999).

**FAR EAST:** **Amur Oblast** (Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990); **Khabarovsk Krai** (Azbukina et al., 1989; Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; Bogacheva et al., 2018); **Primorsky Krai** (Vassiljeva, 1972; Vassiljeva, 1973; Azbukina et al., 1990; Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; Bardunov et al., 2002; Azbukina et al., 2006; Bau, Bulakh, and Govorova, 2011; Malysheva et al., 2014; Bulakh et al., 2016; Malysheva et al., 2016; Bogacheva et al., 2018; Bogacheva, Bulakh, Bukharova, and Egorova, 2020); **Sakhalin Oblast** (Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; Bogacheva et al., 2018).

### *Russula veteriosa* Fr.<sup>1</sup>

= *Russula schiffneri* Singer<sup>2</sup>

**EASTERN EUROPE:** **Adygea** (<sup>2</sup>Kovalenko, 1979a; <sup>2</sup>Kovalenko, 1980b); **Belgorod Oblast** (<sup>2</sup>Bedenko, 1980); **Crimea** (<sup>1</sup>Dudka et al., 2004); **Kabardino-Balkarian Republic** (<sup>1</sup>Singer, 1931; <sup>1</sup>Shkhagapsoev and Krapivina, 2004); **Krasnodar Krai** (<sup>2</sup>Kovalenko, 1980a); **Orenburg Oblast** (<sup>1</sup>Desyatova, 2008).

***Russula vinosa* Lindblad<sup>1</sup>**= *Russula obscura* (Romell) Peck<sup>2</sup>

EASTERN EUROPE: **Kaliningrad Oblast** (<sup>1</sup>Volodina, 2007); **Kaluga Oblast** (<sup>2</sup>Sionova, 2003; <sup>2</sup>Sionova, 2006); **Karelia** (<sup>1</sup>Freindling, 1949; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdoininogo, 1990; <sup>1</sup>Kovalenko, Morozova, Fomina, and Särkisilta, 1998; <sup>1</sup>Bondartseva et al., 2001; <sup>1</sup>Krutov et al., 2014; <sup>1</sup>Predtechenskaya and Ruokolainen, 2014; <sup>1</sup>Predtechenskaya, 2015); **Komi Republic** (<sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdoininogo, 1990; <sup>1</sup>Karatygin, Nezdoininogo, Novozhilov, and Zhurbenko, 1999; <sup>1</sup>Palamarchuk, 2012; <sup>1</sup>Palamarchuk, 2016a; <sup>1</sup>Palamarchuk, 2016b); **Leningrad Oblast** (<sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdoininogo, 1990; <sup>1</sup>Stolyarskaya, 1993; <sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Fomina, 2000; <sup>1</sup>Morozova and Kovalenko, 2000; <sup>1</sup>Fomina, 2001; <sup>1</sup>Morozova, 2007; <sup>1</sup>Popov et al., 2007; <sup>1</sup>Zmitrovich et al., 2015; <sup>1</sup>Kalinina, 2018); **Mari El Republic** (<sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdoininogo, 1990); **Mordovia** (<sup>1</sup>Kuznetsov, 1960; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdoininogo, 1990; <sup>1</sup>Ivoilov and Bolshakov, 2011b); **Moscow Oblast** (<sup>1</sup>Levitskaya, 1995a; <sup>1</sup>Vishnevsky and Sidorova, 1997; <sup>1</sup>Levitskaya, 2013; <sup>1</sup>Voronina et al., 2018); **Murmansk Oblast** (<sup>2</sup>Mikhailovskii, 1975b; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdoininogo, 1990; <sup>1</sup>Karatygin, Nezdoininogo, Novozhilov, and Zhurbenko, 1999); **Novgorod Oblast** (<sup>1</sup>Kovalenko, Morozova, Nezdoininogo, and Popov, 2005; <sup>1</sup>Popov et al., 2013); **Perm Krai** (<sup>1</sup>Perevedentseva, 2008; <sup>1</sup>Perevedentseva and Shilkova, 2010; <sup>1</sup>Belkovskaya et al., 2014; <sup>1</sup>Perevedentseva and Shishigin, 2015; <sup>1</sup>Botalov, 2017); **Pskov Oblast** (<sup>1</sup>Kovalenko, Kolmakov, Morozova, and Popov, 2003; <sup>1</sup>Popov et al., 2013; <sup>1</sup>Kolmakov, 2015); **Saint Petersburg** (<sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Morozova and Smirnov, 2011; <sup>1</sup>Morozova et al., 2020); **Sverdlovsk Oblast** (<sup>1</sup>Marina, 2006); **Tatarstan** (<sup>2</sup>Vassiljeva, 1977; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdoininogo, 1990); **Tver Oblast** (<sup>1</sup>Kurochkin, 1993); **Vologda Oblast** (<sup>1</sup>Kirillova, 2005; <sup>1</sup>Kirillova, 2007; <sup>1</sup>Kirillova and Podolskaya, 2012); **Yamalo-Nenets Autonomous Okrug** (<sup>2</sup>Stepanova and Sirko, 1977); **Yaroslavl Oblast** (<sup>1</sup>Lazareva, 1997; <sup>1</sup>Lazareva, 1998a).

SIBERIA: **Altai Republic** (<sup>1</sup>Gorbunova, 2019); **Buryatia** (<sup>2</sup>Nezdoininogo, 1970a; <sup>1</sup>Nezdoininogo, 1973; <sup>1,2</sup>Petrov, 1991); **Irkutsk Oblast** (<sup>1</sup>Kutafjeva and Astapenko, 1987; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdoininogo, 1990); **Khanty-Mansi Autonomous Okrug** (<sup>1</sup>Zvyagina and Baykalova, 2017); **Krasnoyarsk Krai** (<sup>2</sup>Stepanova and Tomilin, 1973; <sup>1</sup>Nezdoininogo, 1976a); **Tomsk Oblast** (<sup>1</sup>Kudashova, Gashkov, and Kutafjeva, 2013; <sup>1</sup>Vaishlya et al., 2017); **Yamalo-Nenets Autonomous Okrug** (<sup>1</sup>Tarchevskaya, 1990; <sup>1</sup>Karatygin, Nezdoininogo, Novozhilov, and Zhurbenko, 1999).

FAR EAST: **Chukotka Autonomous Okrug** (<sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdoininogo, 1990); **Jewish Autonomous Oblast** (<sup>1</sup>Bulakh, Govorova, Nazarova, and Vassiljeva, 2007; <sup>1</sup>Bau, Bulakh, and Govorova, 2011); **Kamchatka Krai** (<sup>1</sup>Karatygin, Nezdoininogo, Novozhilov, and Zhurbenko, 1999); **Khabarovsk Krai** (<sup>1</sup>Azbukina et al., 1986; <sup>1</sup>Azbukina et al., 1989; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdoininogo, 1990; <sup>1</sup>Bulakh, 2013; <sup>1</sup>Bogacheva, Bulakh, Bukharova, and Egorova, 2015); **Magadan Oblast** (<sup>1</sup>Sazanova, 1996; <sup>1</sup>Sazanova, 2005; <sup>1</sup>Sazanova, 2009a; <sup>1</sup>Sazanova, 2011).

***Russula vinosobrunnea* (Bres.) Romagn.**FAR EAST: **Primorsky Krai** (Azbukina et al., 2006; Bau, Bulakh, and Govorova, 2011).***Russula vinosopurpurea* Jul. Schäff.**EASTERN EUROPE: **Belgorod Oblast** (Bedenko, 1980); **Crimea** (Dudka et al., 2004; Sarkina, 2010a; Sarkina and Prydiuk, 2012); **Penza Oblast** (Ivanov, 1983); **Tula Oblast** (Svetasheva, 2004).***Russula violacea* Quél.<sup>1</sup>**≡ *Russula violacea* var. *violacea* Quél.<sup>2</sup>

EASTERN EUROPE: **Kaliningrad Oblast** (<sup>1</sup>Dedkov, Volodina, and Gubareva, 2007; <sup>1</sup>Volodina, 2007); **Kaluga Oblast** (<sup>1</sup>Antokhina et al., 2015); **Karelia** (<sup>1</sup>Kovalenko, Morozova, Fomina, and Särkisilta, 1998; <sup>1</sup>Krutov et al., 2014); **Kirov Oblast** (<sup>1</sup>Kirillov, 2011; <sup>1</sup>Kirillov, Perevedentseva, and Egoshina, 2011); **Komi Republic** (<sup>1</sup>Palamarchuk (Bobretsova), 2009; <sup>1</sup>Palamarchuk, 2012); **Leningrad Oblast** (<sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdoininogo, 1990; <sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Popov et al., 2007); **Lipetsk Oblast** (<sup>1</sup>Sarycheva et al., 2009; <sup>1</sup>Shcherbakov, 2014); **Moscow Oblast** (<sup>1</sup>Levitskaya, 1995a; <sup>1</sup>Vishnevsky and Sidorova, 1997; <sup>1</sup>Levitskaya, 2013; <sup>1</sup>Voronina et al., 2014); **Murmansk Oblast** (<sup>1</sup>Mikhailovskii, 1975b; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdoininogo, 1990; <sup>1</sup>Karatygin, Nezdoininogo, Novozhilov, and Zhurbenko, 1999); **Novgorod Oblast** (<sup>1</sup>Kovalenko, Morozova, Nezdoininogo, and Popov, 2005; <sup>1</sup>Popov et al., 2013); **Penza Oblast** (<sup>1</sup>Ivanov, 1983; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdoininogo, 1990); **Perm Krai** (<sup>1</sup>Perevedentseva, 2008; <sup>1</sup>Perevedentseva and Shilkova, 2010; <sup>1</sup>Botalov, 2017); **Pskov Oblast** (<sup>1</sup>Kolmakov, 2015); **Ryazan Oblast** (<sup>1</sup>Volosnova, 2005); **Sverdlovsk Oblast** (<sup>1</sup>Marina, 2006); **Tatarstan** (<sup>1</sup>Bulakh,

Wasser, Nazarova, and Nezdoininogo, 1990); **Tula Oblast** (<sup>1</sup>Svetasheva, 2004; <sup>1</sup>Svetasheva, 2005b; <sup>1</sup>Shcherbakov, 2010); **Yaroslavl Oblast** (<sup>1</sup>Lazareva, 1998a).

SIBERIA: **Krasnoyarsk Krai** (<sup>1</sup>Beglyanova, 1972a; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdoininogo, 1990); **Novosibirsk Oblast** (<sup>1</sup>Perova, 1977; <sup>1</sup>Perova and Gorbunova, 2001; <sup>2</sup>Perova and Gorbunova, 2007); **Tomsk Oblast** (<sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdoininogo, 1990; <sup>1</sup>Kudashova, Gashkov, and Kutafjeva, 2013; <sup>1</sup>Kudashova, Gashkov, and Vaishlya, 2016b).

FAR EAST: **Khbarovsk Krai** (<sup>1</sup>Azbukina et al., 1986; <sup>1</sup>Azbukina et al., 1989; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdoininogo, 1990; <sup>1</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Bulakh, 2013; <sup>1</sup>Bogacheva, Bulakh, Bukharova, and Egorova, 2015); **Primorsky Krai** (<sup>1</sup>Vassiljeva, 1973; <sup>1</sup>Bunkina and Nazarova, 1978; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdoininogo, 1990; <sup>1</sup>Azbukina et al., 2006; <sup>1</sup>Bau, Bulakh, and Govorova, 2011).

### ***Russula violeipes* Quél.<sup>1</sup>**

= *Russula heterophylla* var. *chlora* Gillet<sup>2</sup>

EASTERN EUROPE: **Crimea** (<sup>1</sup>Dudka et al., 2004; <sup>1</sup>Sarkina, 2010b; <sup>1</sup>Sarkina, 2013); **Moscow Oblast** (<sup>1</sup>Vishnevsky and Sidorova, 1997).

SIBERIA: **Altai Republic** (<sup>2</sup>Perova and Gorbunova, 2001); **Novosibirsk Oblast** (<sup>1</sup>Perova and Gorbunova, 2007); **Tomsk Oblast** (<sup>1</sup>Kudashova, Gashkov, and Kutafjeva, 2013; <sup>1</sup>Vaishlya et al., 2017).

### ***Russula virescens* (Schaeff.) Fr.**

EASTERN EUROPE: **Adygea** (Sopina, 2004a); **Bashkortostan** (Stepanova and Sirko, 1977); **Belgorod Oblast** (Bedenko, 1979a; Bulakh, Wasser, Nazarova, and Nezdoininogo, 1990); **Bryansk Oblast** (Kruglikov, 2007); **Chelyabinsk Oblast** (Stepanova and Sirko, 1977); **Crimea** (Sarkina, 2001; Dudka et al., 2004; Sarkina, 2010a; Sarkina, 2010b; Sarkina, 2011; Sarkina, 2013; Sarkina and Stavishenko, 2019); **Kabardino-Balkarian Republic** (Shkhagapsoev and Krapivina, 2003; Shkhagapsoev and Krapivina, 2004); **Kaliningrad Oblast** (Dedkov, Volodina, and Gubareva, 2007; Atayev and Volodina, 2020); **Karelia** (Bulakh, Wasser, Nazarova, and Nezdoininogo, 1990; Krutov et al., 2014); **Kirov Oblast** (Svetasheva et al., 2017); **Kostroma Oblast** (Burova, 1982); **Krasnodar Krai** (Vassiljeva, 1939; Kovalenko, 1980a; Kovalenko, 1980b); **Kursk Oblast** (Soshnina, 2005); **Lipetsk Oblast** (Rtishcheva, 1999; Afanasyev, Rtishcheva, and Starodubtseva, 2007; Sarycheva, Starodubtseva, and Sapelnikova, 2017); **Mari El Republic** (Bulakh, Wasser, Nazarova, and Nezdoininogo, 1990); **Mordovia** (Chastukhin, 1948a; Chastukhin and Nikolaevskaya, 1969; Bulakh, Wasser, Nazarova, and Nezdoininogo, 1990; Chastukhin, 2011; Ivoilov and Bolshakov, 2011b); **Moscow** (Bucholtz, 1897a; Bucholtz, 1897b; Bucholtz, 1897c; Mosolov, 1906); **Moscow Oblast** (Gorlenko, Sidorova, and Sidorova, 1989; Bulakh, Wasser, Nazarova, and Nezdoininogo, 1990; Vishnevsky and Sidorova, 1997; Varlygina, Zubakin, and Sobolev, 2008; Varlygina, Zubakin, Nikitsky, and Sviridov, 2018); **Murmansk Oblast** (Pystina, Pavlova, and Shestakova, 1969); **North Ossetia** (Nikolayev, 2001); **Penza Oblast** (Ivanov, 1981a); **Rostov Oblast** (Bulakh, Wasser, Nazarova, and Nezdoininogo, 1990; Rusanov et al., 2004; Zmitrovich et al., 2008; Rusanov, Rebriev, and Bulgakov, 2018); **Ryazan Oblast** (Volosnova, 1997; Ivanchev and Kazakova, 2011; Volosnova, 2014); **Smolensk Oblast** (Jaczewski, 1893; Jaczewski, 1895); **Sverdlovsk Oblast** (Stepanova and Sirko, 1977); **Tula Oblast** (Svetasheva, 2004; Svetasheva, 2005b); **Tver Oblast** (Bulakh, Wasser, Nazarova, and Nezdoininogo, 1990; Kurochkin, 1993; Kurochkin, 2016); **Udmurt Republic** (Tychinin and Kuzmina, 2003); **Voronezh Oblast** (Rtishcheva, 1999; Afanasyev, Rtishcheva, and Starodubtseva, 2007; Agafonov, 2011; Sarycheva, Starodubtseva, and Sapelnikova, 2017; Agafonov, 2018); **Arid territories** (Rebriev, Rusanov, et al., 2012); **Northern Caucasus** (Singer, 1938a).

SIBERIA: **Irkutsk Oblast** (Kutafjeva, 1984; Astapenko, 1990b; Bulakh, Wasser, Nazarova, and Nezdoininogo, 1990); **Krasnoyarsk Krai** (Beglyanova, 1972a; Bulakh, Wasser, Nazarova, and Nezdoininogo, 1990); **Kurgan Oblast** (Stepanova and Sirko, 1977); **Tomsk Oblast** (Milovidova, 1980; Bulakh, Wasser, Nazarova, and Nezdoininogo, 1990; Kudashova, Gashkov, and Kutafjeva, 2013; Vaishlya et al., 2017).

FAR EAST: **Jewish Autonomous Oblast** (Erofeeva and Bulakh, 2015b; Erofeeva, Bukharova, and Bulakh, 2019); **Magadan Oblast** (Rebriev, Bulakh, Sazanova, and Shiryaev, 2020); **Primorsky Krai** (Vassiljeva, 1972; Vassiljeva, 1973; Azbukina et al., 1990; Bulakh, Wasser, Nazarova, and Nezdoininogo, 1990; Bardunov et al., 2002; Bulakh et al., 2016; Bogacheva, Bulakh, Bukharova, and Egorova, 2020).

### ***Russula viscida* Kudřna<sup>1</sup>**

= *Russula melliolens* var. *chrismantiae* Maire<sup>2</sup>

EASTERN EUROPE: **Adygea** (<sup>1</sup>Sopina, 2004a); **Belgorod Oblast** (<sup>1</sup>Bedenko, 1979a); **Kaliningrad Oblast** (<sup>1</sup>Atayev and Volodina, 2020); **Karelia** (<sup>1</sup>Krutov et al., 2014); **Krasnodar Krai** (<sup>2</sup>Vassiljeva, 1939); **Leningrad Oblast** (<sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Fomina, 2000; <sup>1</sup>Tzvelev, 2000; <sup>1</sup>Fomina, 2001; <sup>1</sup>Popov et al., 2007; <sup>1</sup>Geltman et al.,

2018); **Samara Oblast** (<sup>1</sup>Malysheva and Malysheva, 2005b; <sup>1</sup>Malysheva and Malysheva, 2008); **Northern Caucasus** (<sup>2</sup>Singer, 1938a).

SIBERIA: **Altai Krai** (<sup>1</sup>Gorbunova, 2018b); **Novosibirsk Oblast** (<sup>1</sup>Perova and Gorbunova, 2001; <sup>1</sup>Perova and Gorbunova, 2007).

FAR EAST: **Primorsky Krai** (<sup>1</sup>Malysheva et al., 2016).

***Russula xerampelina* (Schaeff.) Fr.<sup>1</sup>**

≡ *Russula xerampelina* var. *xerampelina* (Schaeff.) Fr.<sup>2</sup> = *Russula erythropus* Fr. ex Pelt.<sup>3</sup> = *Russula xerampelina* var. *barlae* (Quél.) Melzer & Zvára<sup>4</sup> = *Russula xerampelina* var. *erythropus* (Fr. ex Pelt.) Konrad & J. Favre<sup>5</sup>

EASTERN EUROPE: **Adygea** (<sup>1</sup>Vassiljeva, 1939; <sup>1</sup>Kovalenko, 1979a; <sup>1</sup>Kovalenko, 1980b; <sup>1</sup>Vaasma, Kalamees, and Raitviir, 1986); **Arkhangelsk Oblast** (<sup>1</sup>Lebedeva, 1933); **Bashkortostan** (<sup>1</sup>Stepanova and Sirko, 1977); **Belgorod Oblast** (<sup>1</sup>Bedenko, 1980); **Chechen Republic** (<sup>3</sup>Taysumov, Krapivina, Umarov, and Astamirova, 2012); **Chelyabinsk Oblast** (<sup>1</sup>Aleksandrovskaya and Lobanova, 1968; <sup>1</sup>Sirko and Stepanova, 1977; <sup>1</sup>Stepanova and Sirko, 1977); **Crimea** (<sup>1</sup>Sarkina, 2001; <sup>1</sup>Dudka et al., 2004; <sup>1</sup>Sarkina, 2010a; <sup>1</sup>Sarkina, 2010b; <sup>1</sup>Sarkina, 2011; <sup>1</sup>Sarkina and Prydiuk, 2012; <sup>1</sup>Sarkina and Mironova, 2015; <sup>1</sup>Sarkina and Stavishenko, 2019); **Kabardino-Balkarian Republic** (<sup>3</sup>Shkhagapsoev and Krapivina, 2003; <sup>3</sup>Shkhagapsoev and Krapivina, 2004; <sup>1</sup>Krapivina et al., 2020); **Kaliningrad Oblast** (<sup>1</sup>Dedkov, Volodina, and Gubareva, 2007; <sup>1</sup>Volodina, 2007); **Karachay-Cherkess Republic** (<sup>1</sup>Vassiljeva, 1939; <sup>1</sup>Kalamees and Botashev, 2000); **Karelia** (<sup>1</sup>Freindling, 1949; <sup>1</sup>Kovalenko, Morozova, Fomina, and Särkisilta, 1998; <sup>1,3</sup>Bondartseva et al., 2001; <sup>1</sup>Predtechenskaya and Ruokolainen, 2013; <sup>1</sup>Predtechenskaya, 2013; <sup>1</sup>Krutov et al., 2014; <sup>1</sup>Predtechenskaya and Ruokolainen, 2014; <sup>1</sup>Savelev and Kikeeva, 2018); **Kirov Oblast** (<sup>1</sup>Kirillov, 2011; <sup>1</sup>Kirillov, Perevedentseva, and Egoshina, 2011); **Komi Republic** (<sup>1</sup>Palamarchuk, 2012; <sup>1</sup>Palamarchuk, 2016a; <sup>1</sup>Palamarchuk, 2016b; <sup>1</sup>Palamarchuk and Kirillov, 2017); **Kostroma Oblast** (<sup>5</sup>Burova, 1982); **Krasnodar Krai** (<sup>1</sup>Vassiljeva, 1939; <sup>1</sup>Kovalenko, 1980a; <sup>1</sup>Kovalenko, 1980b); **Leningrad Oblast** (<sup>5</sup>Kalamees and Kovalenko, 1984; <sup>1</sup>Stolyarskaya, 1993; <sup>5</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Morozova, 2007; <sup>5</sup>Popov et al., 2007; <sup>1</sup>Zmitrovich et al., 2015); **Lipetsk Oblast** (<sup>1</sup>Alferova, 1977; <sup>4</sup>Sarycheva, 1999; <sup>1</sup>Sarycheva et al., 2009; <sup>1</sup>Sarycheva, 2011; <sup>1</sup>Sarycheva, 2014a; <sup>1</sup>Sarycheva, 2016); **Mordovia** (<sup>1</sup>Chastukhin, 1948a; <sup>1</sup>Kuznetsov, 1960; <sup>1</sup>Ivoilov and Bolshakov, 2011b); **Moscow** (<sup>1</sup>Bucholtz, 1897b; <sup>1</sup>Burova, 1968); **Moscow Oblast** (<sup>1</sup>Gorlenko, Sidorova, and Sidorova, 1989; <sup>1</sup>Levitskaya, 1995a; <sup>1</sup>Vishnevsky and Sidorova, 1997; <sup>1</sup>Voronina et al., 2012; <sup>2,4,5</sup>Levitskaya, 2013; <sup>1</sup>Voronina et al., 2014; <sup>1</sup>Sidorova, Alexandrova, and Voronina, 2017); **Murmansk Oblast** (<sup>1</sup>Mikhailovskii, 1975b; <sup>1</sup>Karatygin, Nezdoininogo, Novozhilov, and Zhurbenko, 1999); **Novgorod Oblast** (<sup>1</sup>Kovalenko, Morozova, Nezdoininogo, and Popov, 2005; <sup>2</sup>Popov et al., 2013); **Orenburg Oblast** (<sup>1</sup>Desyatova, 2008); **Penza Oblast** (<sup>1</sup>Ivanov, 1981a); **Perm Krai** (<sup>1</sup>Perevedentseva, 2008; <sup>1</sup>Perevedentseva and Shilkova, 2010; <sup>1</sup>Belkovskaya et al., 2014; <sup>1</sup>Perevedentseva and Shishigin, 2015; <sup>1</sup>Botalov, 2017); **Pskov Oblast** (<sup>1</sup>Kovalenko, Kolmakov, Morozova, and Popov, 2003; <sup>2</sup>Popov et al., 2013; <sup>1</sup>Kolmakov, 2015); **Rostov Oblast** (<sup>1</sup>Zmitrovich et al., 2008); **Ryazan Oblast** (<sup>1</sup>Volosnova, 1997; <sup>1</sup>Volosnova, 2014); **Saint Petersburg** (<sup>5</sup>Kovalenko and Morozova, 1999a; <sup>2</sup>Morozova and Smirnov, 2011; <sup>2</sup>Morozova et al., 2020); **Samara Oblast** (<sup>1</sup>Malysheva and Malysheva, 2008); **Smolensk Oblast** (<sup>1</sup>Jaczewski, 1893; <sup>1</sup>Jaczewski, 1895); **Sverdlovsk Oblast** (<sup>1</sup>Marina, 2006); **Tatarstan** (<sup>1</sup>Vassiljeva, 1977); **Tula Oblast** (<sup>1</sup>Svetasheva, 2001; <sup>2,5</sup>Svetasheva, 2004; <sup>2</sup>Svetasheva, 2013); **Tver Oblast** (<sup>2</sup>Kurochkin, 1993; <sup>1</sup>Mukhina and Garibova, 2010; <sup>1</sup>Mukhina, 2011a; <sup>1</sup>Mukhina, 2011b; <sup>1</sup>Kotkova, 2014); **Udmurt Republic** (<sup>1</sup>Tychinin and Kuzmina, 2003); **Ulyanovsk Oblast** (<sup>1</sup>Ilyukhin, 2010a; <sup>1</sup>Ilyukhin, 2010b); **Volgograd Oblast** (<sup>1</sup>Dudka and Vedeneyev, 2014); **Vologda Oblast** (<sup>2</sup>Kirillova, 2005; <sup>2</sup>Kirillova, 2007; <sup>2</sup>Kirillova and Podolskaya, 2012); **Voronezh Oblast** (<sup>1</sup>Chastukhin, 1952; <sup>1</sup>Chastukhin and Nikolaevskaya, 1953; <sup>1</sup>Chastukhin and Nikolaevskaya, 1969; <sup>1</sup>Kochergina and Furmenkova, 2019); **Yamalo-Nenets Autonomous Okrug** (<sup>1</sup>Stepanova and Sirko, 1977; <sup>1</sup>Karatygin, Nezdoininogo, Novozhilov, and Zhurbenko, 1999); **Yaroslavl Oblast** (<sup>1</sup>Lazareva, 1997; <sup>2,5</sup>Lazareva, 1998a); **Arid territories** (<sup>1</sup>Rebriev, Rusanov, et al., 2012).

SIBERIA: **Altai Krai** (<sup>1</sup>Gorbunova and Perova, 2006); **Altai Republic** (<sup>1</sup>Gorbunova, 1997; <sup>1</sup>Gorbunova, 2001b; <sup>1</sup>Perova and Gorbunova, 2001; <sup>1</sup>Gorbunova, 2003; <sup>1</sup>Gorbunova, 2010); **Buryatia** (<sup>1</sup>Nezdoininogo, 1970a; <sup>1</sup>Petrov, 1991); **Irkutsk Oblast** (<sup>1</sup>Kutafjeva, 1984; <sup>1</sup>Astapenko, 1990a; <sup>1</sup>Astapenko, 1990b; <sup>1</sup>Petrov, 1991; <sup>1</sup>Muzyka, 2002; <sup>1</sup>Petrov, 2008; <sup>1</sup>Muzyka, 2009; <sup>1</sup>Muzyka and Penzina, 2017); **Khanty-Mansi Autonomous Okrug** (<sup>1</sup>Zvyagina and Vasina, 2015; <sup>1</sup>Filippova and Bulyonkova, 2017a; <sup>1</sup>Filippova and Bulyonkova, 2017b; <sup>1</sup>Zvyagina and Baykalova, 2017); **Krasnoyarsk Krai** (<sup>1</sup>Thümen, 1882; <sup>1</sup>Nezdoininogo, 1976a; <sup>1</sup>Lapitskaya, 1993; <sup>1</sup>Kutafjeva and Kosheleva, 2005; <sup>1</sup>Kosheleva and Kutafjeva, 2008a); **Novosibirsk Oblast** (<sup>1</sup>Zaytseva, 1971; <sup>1</sup>Perova, 1977; <sup>1</sup>Perova and Gorbunova, 2001; <sup>2</sup>Perova and Gorbunova, 2007); **Tomsk Oblast** (<sup>1</sup>Perova, 1972; <sup>1</sup>Milovidova, 1980; <sup>1</sup>Perova and Gorbunova, 2001; <sup>1</sup>Kudashova, Gashkov, and Vaishlya, 2016a; <sup>1</sup>Vaishlya et al., 2017); **Yamalo-Nenets Autonomous Okrug** (<sup>3</sup>Tarchevskaya, 1990).



FAR EAST: **Amur Oblast** (<sup>1</sup>Tomilin, 1962; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1</sup>Bulakh, Govorova, and Taranina, 2003; <sup>1</sup>Taranina, 2005; <sup>1</sup>Kochunova, 2019); **Chukotka Autonomous Okrug** (<sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1</sup>Sazanova, 1993; <sup>1</sup>Karatygin, Nezdojminogo, Novozhilov, and Zhurbenko, 1999); **Jewish Autonomous Oblast** (<sup>1</sup>Bulakh, Govorova, Nazarova, and Vassiljeva, 2007; <sup>1</sup>Bau, Bulakh, and Govorova, 2011); **Khabarovsk Krai** (<sup>1</sup>Azbukina et al., 1986; <sup>1</sup>Azbukina et al., 1989; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Bulakh, 2013; <sup>1</sup>Bogacheva, Bulakh, Bukharova, and Egorova, 2015; <sup>1</sup>Erofeeva and Bulakh, 2015a); **Magadan Oblast** (<sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>2</sup>Sazanova, 1996; <sup>2</sup>Sazanova, 2005; <sup>1</sup>Sazanova, 2009a; <sup>1</sup>Sazanova, 2011); **Primorsky Krai** (<sup>1</sup>Vassiljeva, 1972; <sup>1</sup>Vassiljeva, 1973; <sup>1</sup>Shalapugina, 1976; <sup>1</sup>Bunkina and Nazarova, 1978; <sup>1</sup>Azbukina et al., 1984; <sup>1</sup>Azbukina et al., 1990; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>1</sup>Bardunov et al., 2002; <sup>1</sup>Azbukina et al., 2006; <sup>1</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Bulakh et al., 2016; <sup>1</sup>Malysheva et al., 2016; <sup>1</sup>Bogacheva, Bulakh, Bukharova, and Egorova, 2020); **Sakhalin Oblast** (<sup>1</sup>Vassiljeva and Nazarova, 1972; <sup>1</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990).

***Sagaranella tesquorum* (Fr.) V. Hofst., Cléménçon, Moncalvo & Redhead**

≡ *Lyophyllum tesquorum* (Fr.) Singer<sup>1</sup> ≡ *Tephrocybe tesquorum* (Fr.) M.M. Moser<sup>2</sup>

EASTERN EUROPE: **Leningrad Oblast** (<sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Popov et al., 2007).

SIBERIA: **Krasnoyarsk Krai** (<sup>2</sup>Beglyanova, 1972a).

***Sagaranella tylicolor* (Fr.) V. Hofst., Cléménçon, Moncalvo & Redhead<sup>1</sup>**

≡ *Collybia tylicolor* (Fr.) Gillet<sup>2</sup> ≡ *Lyophyllum tylicolor* (Fr.) M. Lange & Sivertsen<sup>3</sup> ≡ *Tephrocybe tylicolor* (Fr.) M.M. Moser<sup>4</sup>

EASTERN EUROPE: **Belgorod Oblast** (<sup>2</sup>Nikolayev, 1986); **Novgorod Oblast** (<sup>1</sup>Kalinina, 2019); **Pskov Oblast** (<sup>3</sup>Kalinina, Bolshakov, and Bulyonkova, 2020); **Ryazan Oblast** (<sup>4</sup>Volosnova, 2014); **Yaroslavl Oblast** (<sup>4</sup>Lazareva, 1997; <sup>4</sup>Lazareva, 1998a).

FAR EAST: **Primorsky Krai** (<sup>2</sup>Vassiljeva, 1973; <sup>4</sup>Bulakh et al., 2016).

***Saproamanita codinae* (Maire) Redhead, Vizzini, Drehmel & Contu**

≡ *Amanita codinae* (Maire) Bertault<sup>1</sup>

EASTERN EUROPE: **Rostov Oblast** (<sup>1</sup>Fedyaeva, 2014); **Arid territories** (<sup>1</sup>Rebriev, Rusanov, et al., 2012).

***Saproamanita nana* (Singer) Redhead, Vizzini, Drehmel & Contu**

≡ *Amanita nana* Singer<sup>1</sup>

SIBERIA: **Krasnoyarsk Krai** (<sup>1</sup>Kutafjeva, Agafonova, and Kryuchkova, 2010).

***Saproamanita thiersii* (Bas) Redhead, Vizzini, Drehmel & Contu<sup>1</sup>**

≡ *Amanita thiersii* Bas<sup>2</sup> = *Amanita alba* Thiers<sup>3</sup>

EASTERN EUROPE: **Krasnodar Krai** (<sup>3</sup>Kovalenko, 1980b).

SIBERIA: **Krasnoyarsk Krai** (<sup>3</sup>Zauzolkova, 2012; <sup>2</sup>Zauzolkova, 2015); **Kurgan Oblast** (<sup>1</sup>Bystrushkin, 2016).

FAR EAST: **Kamchatka Krai** (<sup>3</sup>Kalamees and Vaasma, 1981).

***Saproamanita vittadinii* (Moretti) Redhead, Vizzini, Drehmel & Contu<sup>1</sup>**

≡ *Amanita vittadinii* (Moretti) Vittad.<sup>2</sup> ≡ *Lepidella vittadinii* (Moretti) E.-J. Gilbert<sup>3</sup>

EASTERN EUROPE: **Belgorod Oblast** (<sup>2</sup>Bedenko, 1980); **Crimea** (<sup>2</sup>Zerova, 1962; <sup>2</sup>Sarkina, 2001; <sup>2</sup>Dudka et al., 2004; <sup>2</sup>Sarkina, 2006; <sup>2</sup>Yena and Fateryga, 2015); **Kalmykia** (<sup>2</sup>Baktasheva, 2014); **Mordovia** (<sup>2</sup>Silaeva et al., 2010; <sup>2</sup>Ivoilov and Bolshakov, 2011a; <sup>2</sup>Bolshakov and Ivoilov, 2012b; <sup>2</sup>Silaeva et al., 2013; <sup>2</sup>Ivoilov and Bolshakov, 2014; <sup>1</sup>Silaeva et al., 2016; <sup>2</sup>Silaeva, 2017); **Penza Oblast** (<sup>2</sup>Ivanov, 2013a); **Rostov Oblast** (<sup>2</sup>Vyshchepan, 1992; <sup>2</sup>Fedyaeva, 2014; <sup>2</sup>Rebriev, 2018; <sup>2</sup>Rusanov, Rebriev, and Bulgakov, 2018); **Sevastopol** (<sup>2</sup>Sarkina, 2016b; <sup>2</sup>Dovgal and Korzhenevsky, 2018; <sup>1</sup>Sarkina, 2020b; <sup>1</sup>Sarkina, 2020c); **Stavropol Krai** (<sup>3</sup>Lebedeva, 1930); **Volgograd Oblast** (<sup>2</sup>Burova and Nezdojminogo, 1982; <sup>2</sup>Dudka and Vedeneyev, 2014; <sup>2</sup>Rebriev, Popov, Pridyuk, and Svetasheva, 2014; <sup>2</sup>Svetasheva, 2015; <sup>2</sup>Rebriev, 2016; <sup>2</sup>Baranova and Salagaev, 2017); **Voronezh Oblast** (<sup>1</sup>Sarycheva, Starodubtseva, and Sapelnikova, 2017); **Arid territories** (<sup>2</sup>Rebriev, Rusanov, et al., 2012).

FAR EAST: **Amur Oblast** (<sup>2</sup>Nazarova, 1986); **Primorsky Krai** (<sup>2</sup>Vassiljeva, 1972; <sup>2</sup>Vassiljeva, 1973).

***Sarcomyxa edulis* (Y.C. Dai, Niemelä & G.F. Qin) T. Saito, Tonouchi & T. Harada**

≡ *Panellus edulis* Y.C. Dai, Niemelä & G.F. Qin<sup>1</sup>

FAR EAST: **Khabarovsk Krai** (<sup>1</sup>Dai, Niemelä, and Qin, 2003); **Primorsky Krai** (<sup>1</sup>Dai, Niemelä, and Qin, 2003).

***Sarcomyxa serotina* (Pers.) V. Papp**

≡ *Acanthocystis serotinus* (Pers.) Konrad & Maubl.<sup>1</sup> ≡ *Agaricus serotinus* Pers.<sup>2</sup> ≡ *Agaricus serotinus* Schrad.<sup>3</sup> ≡ *Hohenbuehelia serotina* (Pers.) Singer<sup>4</sup> ≡ *Panellus serotinus* (Pers.) Kühner<sup>5</sup> ≡ *Pleurotus serotinus* (Pers.) P. Kumm.<sup>6</sup> ≡ *Sarcomyxa serotina* (Pers.) P. Karst.<sup>7</sup> = *Pleurotus almenii* (Fr.) P. Karst.<sup>8</sup>

EASTERN EUROPE: **Adygea** (<sup>5</sup>Vaasma, Kalamees, and Raitviir, 1986); **Belgorod Oblast** (<sup>6</sup>Brezhnev, 1950; <sup>6</sup>Nikolayev, 1986); **Chelyabinsk Oblast** (<sup>6</sup>Aleksandrovskaya and Lobanova, 1968); **Crimea** (<sup>5</sup>Moser, 1993; <sup>5</sup>Sarkina, 2001; <sup>5</sup>Dudka et al., 2004; <sup>5</sup>Sarkina and Prydiuk, 2012); **Kaliningrad Oblast** (<sup>5</sup>Dedkov, Volodina, and Gubareva, 2007; <sup>5</sup>Volodina, 2007); **Kaluga Oblast** (<sup>5</sup>Sionova, 2012); **Karelia** (<sup>5</sup>Bondartseva et al., 2001; <sup>5</sup>Krutov et al., 2014; <sup>5</sup>Predtechenskaya, 2015); **Kirov Oblast** (<sup>5</sup>Stavishenko, Luginina, Kirillov, and Egoshina, 2019); **Komi Republic** (<sup>5</sup>Palamarchuk and Kirillov, 2017); **Krasnodar Krai** (<sup>1</sup>Vassiljeva, 1939; <sup>5</sup>Kovalenko, 1980a; <sup>5</sup>Kovalenko, 1980b); **Leningrad Oblast** (<sup>6,8</sup>Thesleff, 1920; <sup>5</sup>Stolyarskaya, 1989; <sup>5</sup>Kovalenko and Morozova, 1999a; <sup>7</sup>Zmitrovich, 2003; <sup>7</sup>Zmitrovich, Malysheva, Malysheva, and Spirin, 2004; <sup>5</sup>Popov et al., 2007; <sup>5</sup>Psurtseva, Kiyashko, Gachkova, and Belova, 2007; <sup>7</sup>Morozova, 2007; <sup>5</sup>Zmitrovich et al., 2015; <sup>5</sup>Kalinina, 2018); **Mari El Republic** (<sup>4</sup>Prokhorov, 2007); **Mordovia** (<sup>5</sup>Bolshakov, 2015); **Moscow** (<sup>3</sup>Bucholtz, 1897b; <sup>3</sup>Bucholtz, 1897c; <sup>3</sup>Mosolov, 1906); **Moscow Oblast** (<sup>5</sup>Gorlenko, Sidorova, and Sidorova, 1989; <sup>5</sup>Levitskaya, 1995b; <sup>5</sup>Vishnevsky, 1998; <sup>5</sup>Levitskaya, 2013); **Novgorod Oblast** (<sup>7</sup>Malysheva, Malysheva, and Zmitrovich, 2007); **Orenburg Oblast** (<sup>5</sup>Safonov, Malenkova, Rusakov, and Leneva, 2013; <sup>5</sup>Safonov, 2015); **Perm Krai** (<sup>5</sup>Perevedentseva, 2008); **Pskov Oblast** (<sup>7</sup>Popov et al., 2013); **Ryazan Oblast** (<sup>5</sup>Volosnova, 1997); **Saint Petersburg** (<sup>2</sup>Weinmann, 1828; <sup>2</sup>Weinmann, 1836; <sup>2</sup>Weinmann, 1837; <sup>5</sup>Kovalenko and Morozova, 1999a; <sup>5</sup>Morozova and Kovalenko, 2000; <sup>7</sup>Zmitrovich, Malysheva, Malysheva, and Spirin, 2004; <sup>7</sup>Kotkova, Morozova, and Popov, 2006; <sup>5</sup>Psurtseva, Kiyashko, Gachkova, and Belova, 2007; <sup>7</sup>Kotkova, Morozova, and Popov, 2007; <sup>7</sup>Morozova and Smirnov, 2011; <sup>7</sup>Morozova, Kovalenko, Rebriev, and Malysheva, 2014; <sup>5</sup>Zhukova, Morozova, Volobuev, and Bryantseva, 2017; <sup>5</sup>Morozova et al., 2020); **Smolensk Oblast** (<sup>6</sup>Jaczewski, 1893; <sup>5</sup>Jaczewski, 1895); **Sverdlovsk Oblast** (<sup>5</sup>Stepanova and Sirko, 1977; <sup>5</sup>Marina, 2006); **Tatarstan** (<sup>6</sup>Alexeeff, 1927; <sup>5</sup>Vassiljeva, 1977); **Tula Oblast** (<sup>5</sup>Svetasheva, 2001; <sup>5</sup>Svetasheva, 2004); **Tver Oblast** (<sup>6</sup>Chastukhin, 1948b; <sup>5</sup>Chastukhin and Nikolaevskaya, 1969; <sup>5</sup>Kurochkin, 1993; <sup>7</sup>Mukhina, 2011a; <sup>7</sup>Kotkova, 2014; <sup>5</sup>Kurochkin and Medvedev, 2015); **Udmurt Republic** (<sup>5</sup>Tychinin, 1990; <sup>4</sup>Tychinin and Kuzmina, 2003); **Vologda Oblast** (<sup>7</sup>Kirillova, 2007; <sup>7</sup>Kirillova, 2009); **Voronezh Oblast** (<sup>5</sup>Sarycheva, Starodubtseva, and Sapelnikova, 2017); **Yaroslavl Oblast** (<sup>5</sup>Lazareva, 1998a).

SIBERIA: **Buryatia** (<sup>5</sup>Nezdojminogo, 1970a; <sup>5</sup>Petrov, 1991); **Khanty-Mansi Autonomous Okrug** (<sup>5</sup>Mukhin, 1993; <sup>7</sup>Filippova, Bulyonkova, and Lapshina, 2015; <sup>7</sup>Zvyagina and Vasina, 2015; <sup>5</sup>Zvyagina and Baykalova, 2017); **Krasnoyarsk Krai** (<sup>5</sup>Beglyanova, 1972a; <sup>4</sup>Krom and Kapitonov, 2019); **Omsk Oblast** (<sup>6</sup>Pilát, 1934); **Tomsk Oblast** (<sup>5</sup>Kudashova, Gashkov, and Vaishlya, 2016a); **Tyumen Oblast** (<sup>5</sup>Mukhin, 1993); **Yamalo-Nenets Autonomous Okrug** (<sup>5</sup>Mukhin, 1987; <sup>5</sup>Tarчевskaya, 1990; <sup>5</sup>Mukhin, 1993).

FAR EAST: **Amur Oblast** (<sup>5</sup>Taranina, 2005; <sup>5</sup>Streltsov, 2009; <sup>4</sup>Senchik and Malikova, 2019); **Chukotka Autonomous Okrug** (<sup>5</sup>Sazanova, 1993); **Jewish Autonomous Oblast** (<sup>5</sup>Bulakh, Govorova, Nazarova, and Vassiljeva, 2007; <sup>5</sup>Bau, Bulakh, and Govorova, 2011); **Khabarovsk Krai** (<sup>4</sup>Azbukina et al., 1986; <sup>4</sup>Azbukina et al., 1989; <sup>5</sup>Bau, Bulakh, and Govorova, 2011; <sup>7</sup>Erofeeva and Bulakh, 2015a); **Magadan Oblast** (<sup>5</sup>Sazanova, 2009a; <sup>5</sup>Sazanova, 2009b; <sup>5</sup>Sazanova, 2011); **Primorsky Krai** (<sup>4</sup>Vassiljeva, 1972; <sup>4</sup>Vassiljeva, 1973; <sup>4</sup>Shalapugina, 1976; <sup>4</sup>Bulakh, 1977; <sup>6</sup>Bunkina and Nazarova, 1978; <sup>4</sup>Azbukina et al., 1984; <sup>5</sup>Azbukina et al., 1990; <sup>5</sup>Bardunov et al., 2002; <sup>5</sup>Azbukina et al., 2006; <sup>5</sup>Psurtseva, Kiyashko, Gachkova, and Belova, 2007; <sup>5</sup>Bau, Bulakh, and Govorova, 2011; <sup>7</sup>Bulakh et al., 2016).

***Simocybe centunculus* (Fr.) P. Karst.<sup>1</sup>**

≡ *Naucoria centunculus* (Fr.) P. Kumm.<sup>2</sup> ≡ *Ramicola centunculus* (Fr.) Watling<sup>3</sup> ≡ *Simocybe centunculus* var. *centunculus* (Fr.) P. Karst.<sup>4</sup> = *Naucoria laevigata* (J. Favre) Kühner & Romagn.<sup>5</sup> = *Simocybe centunculus* var. *laevigata* (J. Favre) Senn-Irlet<sup>6</sup> = *Simocybe laevigata* (J. Favre) P.D. Orton<sup>7</sup>

EASTERN EUROPE: **Crimea** (<sup>1</sup>Sarkina, 2011; <sup>1</sup>Sarkina and Prydiuk, 2012); **Komi Republic** (<sup>1</sup>Palamarchuk, 2016a; <sup>4</sup>Palamarchuk, 2016b; <sup>1</sup>Palamarchuk, 2020a); **Leningrad Oblast** (<sup>1</sup>Morozova, 2007; <sup>1</sup>Popov et al., 2007; <sup>1</sup>Zmitrovich et al., 2015); **Lipetsk Oblast** (<sup>1</sup>Sarycheva et al., 2009; <sup>1</sup>Sarycheva, 2011; <sup>1</sup>Sarycheva, 2014a; <sup>1</sup>Sarycheva, 2016; <sup>1</sup>Sarycheva, Starodubtseva, and Sapelnikova, 2017); **Moscow Oblast** (<sup>1</sup>Voronina et al., 2014); **Novgorod Oblast** (<sup>1</sup>Kovalenko, Morozova, Nezdojminogo, and Popov, 2005; <sup>6</sup>Malysheva, Malysheva, and Zmitrovich, 2006; <sup>6</sup>Malysheva, Malysheva, and Zmitrovich, 2007; <sup>1</sup>Popov et al., 2013); **Orenburg Oblast** (<sup>7</sup>Korshikova, 2005; <sup>1,7</sup>Desyatova, 2008); **Penza Oblast** (<sup>1</sup>Ivanov, 1988a); **Perm Krai** (<sup>4</sup>Perevedentseva, 2008); **Pskov Oblast** (<sup>1,7</sup>Popov et al., 2013); **Rostov Oblast** (<sup>1</sup>Morozova et al., 2008); **Ryazan Oblast** (<sup>7</sup>Malysheva and Volosnova, 2008; <sup>1,7</sup>Volosnova, 2014); **Saint Petersburg** (<sup>1</sup>Morozova and Smirnov, 2011; <sup>1</sup>Morozova, Kovalenko, Rebriev, and Malysheva, 2014; <sup>1</sup>Morozova et al., 2020); **Samara Oblast** (<sup>3</sup>Malysheva and Malysheva, 2005b; <sup>1</sup>Malysheva and Malysheva, 2008); **Sverdlovsk Oblast** (<sup>1</sup>Marina, 2006); **Tatarstan** (<sup>2</sup>Singer, 1950a; <sup>1</sup>Vassiljeva, 1977); **Tula Oblast** (<sup>1</sup>Svetasheva, 2004; <sup>1</sup>Svetasheva, 2005a); **Tver**

**Oblast** (<sup>1</sup>Kurochkin, 1993); **Udmurt Republic** (<sup>2</sup>Tychinin and Kuzmina, 2003); **Ulyanovsk Oblast** (<sup>1</sup>Ilyukhin, 2009; <sup>1</sup>Ilyukhin, 2010a); **Yaroslavl Oblast** (<sup>3</sup>Lazareva, 1998a; <sup>3</sup>Lazareva, 1998b); **Arid territories** (<sup>4</sup>Rebriev, Rusanov, et al., 2012).

SIBERIA: **Altai Krai** (<sup>1</sup>Gorbunova, 2018a); **Altai Republic** (<sup>1</sup>Gorbunova, 1996; <sup>1</sup>Gorbunova, 1997; <sup>1</sup>Gorbunova, 2001b; <sup>2</sup>Perova and Gorbunova, 2001; <sup>1</sup>Gorbunova, 2017a); **Irkutsk Oblast** (<sup>1</sup>Petrov, 1986; <sup>1</sup>Petrov, 1991; <sup>1</sup>Petrov, 2008); **Khakassia** (<sup>1</sup>Zauzolkova and Gorbunova, 2013; <sup>1</sup>Zauzolkova, 2015); **Khanty-Mansi Autonomous Okrug** (<sup>4</sup>Zvyagina, 2008; <sup>1</sup>Zvyagina and Baykalova, 2012; <sup>4</sup>Shepeleva et al., 2014; <sup>1</sup>Filippova, Bulyonkova, and Lapshina, 2015); **Krasnoyarsk Krai** (<sup>1,5</sup>Beglyanova, 1972a; <sup>1</sup>Krom and Kapitonov, 2019); **Novosibirsk Oblast** (<sup>2</sup>Perova and Gorbunova, 2001; <sup>4</sup>Perova and Gorbunova, 2007; <sup>4</sup>Koropachinskiy and Banaev, 2014); **Tomsk Oblast** (<sup>2</sup>Perova and Gorbunova, 2001; <sup>4</sup>Kudashova, Gashkov, and Kutafjeva, 2013).

FAR EAST: **Jewish Autonomous Oblast** (<sup>1</sup>Bulakh, Govorova, Nazarova, and Vassiljeva, 2007; <sup>1</sup>Bau, Bulakh, and Govorova, 2011); **Khabarovsk Krai** (<sup>1</sup>Azbukina et al., 1986; <sup>1</sup>Bau, Bulakh, and Govorova, 2011); **Primorsky Krai** (<sup>1</sup>Vassiljeva, 1973; <sup>1</sup>Bunkina and Nazarova, 1978; <sup>1</sup>Azbukina et al., 1984; <sup>1</sup>Azbukina et al., 1990; <sup>1</sup>Bardunov et al., 2002; <sup>3</sup>Azbukina et al., 2006; <sup>1</sup>Bau, Bulakh, Zhuang, and Li, 2007; <sup>1</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Bulakh et al., 2016).

### ***Simocybe haustellaris* (Fr.) Watling<sup>1</sup>**

≡ *Agaricus haustellaris* Fr.<sup>2</sup> ≡ *Crepidotus haustellaris* (Fr.) P. Kumm.<sup>3</sup> ≡ *Ramicola haustellaris* (Fr.) Courtec.<sup>4</sup> = *Naucoria effugiens* Quél.<sup>5</sup> = *Ramicola rubi* (Berk.) Watling<sup>6</sup> = *Simocybe rubi* (Berk.) Singer<sup>7</sup>

EASTERN EUROPE: **Karelia** (<sup>7</sup>Czerepanova, Perfiljeva, and Tobias, 1982); **Lipetsk Oblast** (<sup>5</sup>Afanasyev, Rtishcheva, and Starodubtseva, 2007); **Novgorod Oblast** (<sup>1</sup>Bolshakov et al., 2020); **Orenburg Oblast** (<sup>1</sup>Desyatova, 2008); **Penza Oblast** (<sup>3</sup>Ivanov, 1983); **Perm Krai** (<sup>7</sup>Perevedentseva, Nezdojminogo, and Kovalenko, 1990; <sup>1</sup>Perevedentseva, 2008); **Pskov Oblast** (<sup>1</sup>Kalinina, Bolshakov, and Bulyonkova, 2020); **Saint Petersburg** (<sup>2</sup>Weinmann, 1836); **Tatarstan** (<sup>3,7</sup>Vassiljeva, 1977); **Vologda Oblast** (<sup>1</sup>Kirillova, 2007); **Voronezh Oblast** (<sup>5</sup>Afanasyev, Rtishcheva, and Starodubtseva, 2007; <sup>1</sup>Sarycheva, Starodubtseva, and Sapelnikova, 2017); **Yaroslavl Oblast** (<sup>6</sup>Lazareva, 1998a; <sup>6</sup>Lazareva, 1998b).

SIBERIA: **Krasnoyarsk Krai** (<sup>7</sup>Beglyanova, 1972a).

FAR EAST: **Primorsky Krai** (<sup>7</sup>Vassiljeva, 1973; <sup>1</sup>Bunkina and Nazarova, 1978; <sup>7</sup>Bunkina and Nazarova, 1978; <sup>7</sup>Bardunov et al., 2002; <sup>4,6</sup>Azbukina et al., 2006; <sup>1</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Bulakh et al., 2016).

### ***Simocybe reducta* (Fr.) P. Karst.<sup>1</sup>**

≡ *Agaricus reductus* Fr.<sup>2</sup>

EASTERN EUROPE: **Sverdlovsk Oblast** (<sup>1</sup>Stepanova and Sirko, 1977).

SIBERIA: **Krasnoyarsk Krai** (<sup>2</sup>Thümen, 1878; <sup>1</sup>Beglyanova, 1972a; <sup>1</sup>Zauzolkova, 2015).

### ***Simocybe subvelutina* (Singer) Singer**

≡ *Naucoria subvelutina* Singer<sup>1</sup>

EASTERN EUROPE: **Tatarstan** (<sup>1</sup>Vassiljeva, 1977).

SIBERIA: **Altai Republic** (<sup>1</sup>Singer, 1945; <sup>1</sup>Singer, 1950a; <sup>1</sup>Singer, 1950b).

### ***Simocybe sumptuosa* (P.D. Orton) Singer<sup>1</sup>**

≡ *Ramicola sumptuosa* (P.D. Orton) Watling<sup>2</sup>

EASTERN EUROPE: **Adygea** (<sup>1</sup>Sopina, 2000; <sup>1</sup>Sopina, 2001a); **Crimea** (<sup>1</sup>Prydiuk, 2002; <sup>1</sup>Dudka et al., 2004; <sup>1</sup>Sarkina, 2011; <sup>1</sup>Sarkina and Prydiuk, 2012); **Komi Republic** (<sup>1</sup>Palamarchuk, 2012); **Krasnodar Krai** (<sup>1</sup>Psurtseva, Kiyashko, Gachkova, and Belova, 2007); **Leningrad Oblast** (<sup>1</sup>Volobuev et al., 2019); **Moscow Oblast** (<sup>1</sup>Voronina et al., 2012; <sup>1</sup>Voronina et al., 2014); **Novgorod Oblast** (<sup>2</sup>Kovalenko and Morozova, 1999b; <sup>1</sup>Kovalenko, Morozova, Nezdojminogo, and Popov, 2005; <sup>1</sup>Popov et al., 2013); **Orenburg Oblast** (<sup>1</sup>Desyatova, 2008); **Pskov Oblast** (<sup>1</sup>Kovalenko, Kolmakov, Morozova, and Popov, 2003; <sup>1</sup>Popov et al., 2013); **Ryazan Oblast** (<sup>1</sup>Volosnova, 2014); **Samara Oblast** (<sup>1</sup>Malysheva and Malysheva, 2005b; <sup>1</sup>Malysheva and Malysheva, 2008); **Sverdlovsk Oblast** (<sup>1</sup>Marina, 2006); **Tula Oblast** (<sup>1</sup>Svetasheva, 2003; <sup>1</sup>Svetasheva, 2004; <sup>1</sup>Svetasheva, 2013); **Ulyanovsk Oblast** (<sup>1</sup>Ilyukhin, 2010a; <sup>1</sup>Ilyukhin, 2010b).

SIBERIA: **Altai Republic** (<sup>1</sup>Gorbunova, 2017a); **Irkutsk Oblast** (<sup>1</sup>Petrov, 1986; <sup>1</sup>Petrov, 1991; <sup>1</sup>Sopina, 2000; <sup>1</sup>Petrov, 2008); **Khanty-Mansi Autonomous Okrug** (<sup>1</sup>Zvyagina and Baykalova, 2012; <sup>1</sup>Filippova and Bulyonkova, 2017a; <sup>1</sup>Filippova and Bulyonkova, 2017b); **Krasnoyarsk Krai** (<sup>1</sup>Nezdojminogo, 1982a; <sup>1</sup>Sopina, 2000).

FAR EAST: **Primorsky Krai** (<sup>1</sup>Bulakh, 2008).

***Sphagnurus paluster* (Peck) Redhead & V. Hofst.<sup>1</sup>**

≡ *Collybia palustris* (Peck) A.H. Sm.<sup>2</sup> ≡ *Lyophyllum palustre* (Peck) Singer<sup>3</sup> ≡ *Tephrocycbe palustris* (Peck) Donk<sup>4</sup>

EASTERN EUROPE: **Kaliningrad Oblast** (<sup>4</sup>Dedkov, Volodina, and Gubareva, 2007; <sup>4</sup>Volodina, 2007); **Kaluga Oblast** (<sup>4</sup>Sionova, 2012); **Karelia** (<sup>4</sup>Krutov et al., 2014); **Komi Republic** (<sup>4</sup>Bobretsova, 2004; <sup>4</sup>Palamarchuk, 2011b; <sup>4</sup>Palamarchuk, 2012; <sup>4</sup>Palamarchuk, 2016a; <sup>4</sup>Palamarchuk, 2016b; <sup>4</sup>Palamarchuk, 2017); **Leningrad Oblast** (<sup>3</sup>Singer, 1939; <sup>3</sup>Singer, 1943; <sup>2</sup>Chastukhin and Nikolaevskaya, 1969; <sup>4</sup>Kovalenko and Morozova, 1999a; <sup>4</sup>Morozova, 2007; <sup>4</sup>Popov et al., 2007; <sup>1</sup>Zmitrovich et al., 2015); **Moscow Oblast** (<sup>4</sup>Gorlenko, Sidorova, and Sidorova, 1989; <sup>4</sup>Levitskaya, 1995b; <sup>3</sup>Vishnevsky, 1998; <sup>4</sup>Voronina et al., 2012; <sup>4</sup>Levitskaya, 2013; <sup>4</sup>Voronina et al., 2014); **Novgorod Oblast** (<sup>4</sup>Kovalenko, Morozova, Nezdoininogo, and Popov, 2005; <sup>4</sup>Popov et al., 2013); **Perm Krai** (<sup>4</sup>Perevedentseva, 2008; <sup>4</sup>Botalov, 2017); **Pskov Oblast** (<sup>3</sup>Popov, 2001a; <sup>4</sup>Popov et al., 2013); **Ryazan Oblast** (<sup>4</sup>Volosnova, 1997; <sup>4</sup>Volosnova, 2014); **Saint Petersburg** (<sup>3</sup>Singer, 1939; <sup>4</sup>Kovalenko and Morozova, 1999a; <sup>4</sup>Morozova and Smirnov, 2011; <sup>4</sup>Morozova et al., 2020); **Sverdlovsk Oblast** (<sup>4</sup>Marina, 2006); **Tatarstan** (<sup>3</sup>Vassiljeva, 1977); **Tula Oblast** (<sup>4</sup>Svetasheva, 2004; <sup>4</sup>Shcherbakov, 2010); **Vologda Oblast** (<sup>4</sup>Kirillova, 2007; <sup>4</sup>Kirillova, 2009); **Yaroslavl Oblast** (<sup>4</sup>Lazareva, 1998a).

SIBERIA: **Altai Krai** (<sup>4</sup>Gorbunova and Perova, 2006); **Khanty-Mansi Autonomous Okrug** (<sup>4</sup>Zvyagina, 2008; <sup>3</sup>Filippova, 2009; <sup>4</sup>Zvyagina and Baykalova, 2012; <sup>4</sup>Filippova and Thormann, 2014; <sup>4</sup>Filippova, 2014; <sup>4</sup>Filippova, Mourgues, and Philippe, 2014; <sup>4</sup>Shepeleva et al., 2014); **Krasnoyarsk Krai** (<sup>4</sup>Beglyanova, 1972a); **Tomsk Oblast** (<sup>2</sup>Perova and Gorbunova, 2001; <sup>4</sup>Kudashova, Gashkov, and Kutafjeva, 2013).

FAR EAST: **Khabarovsk Krai** (<sup>4</sup>Azbukina et al., 1989); **Magadan Oblast** (<sup>4</sup>Sazanova, 1996; <sup>4</sup>Sazanova, 2005; <sup>4</sup>Sazanova, 2009a; <sup>4</sup>Sazanova, 2011; <sup>1</sup>Sazanova and Golodnova, 2015); **Sakhalin Oblast** (<sup>3</sup>Vassiljeva and Nazarova, 1972).

***Squamanita paradoxa* (A.H. Sm. & Singer) Bas**

SIBERIA: **Altai Republic** (Bulakh, Wasser, Nazarova, and Nezdoininogo, 1990).

***Strobilomyces strobilaceus* (Scop.) Berk.<sup>1</sup>**

≡ *Strobilomyces strobiliformis* Beck<sup>2</sup> = *Strobilomyces floccopus* (Vahl) P. Karst.<sup>3</sup>

EASTERN EUROPE: **Adygea** (<sup>1</sup>Vassiljeva, 1939; <sup>3</sup>Vaasma, Kalamees, and Raitviir, 1986; <sup>1</sup>Zamotajlov, Sirotyuk (Kuvaeva), Akatova, and Lipka, 2012); **Chechen Republic** (<sup>2</sup>Taysumov, Zamotaylov, and Batkhiev, 2020); **Crimea** (<sup>1</sup>Akulov and Pryidiuk, 2007); **Kabardino-Balkarian Republic** (<sup>3</sup>Ivanov, 2000; <sup>3</sup>Shkhagapsoev and Krapivina, 2004); **Kaliningrad Oblast** (<sup>1</sup>Dedkov, Volodina, and Gubareva, 2007; <sup>1</sup>Dedkov and Grishanov, 2010); **Karachay-Cherkess Republic** (<sup>1</sup>Kalamees and Botashev, 2000; <sup>1</sup>Onipchenko et al., 2013); **Krasnodar Krai** (<sup>1</sup>Vassiljeva, 1939; <sup>3</sup>Litvinskaya, 2007; <sup>1</sup>Litvinskaya, 2017); **North Ossetia** (<sup>3</sup>Komzha, Lipkovich, and Popov, 1999; <sup>1</sup>Nikolayev, 2001); **Stavropol Krai** (<sup>3</sup>Ivanov, 2002; <sup>3</sup>Ivanov, 2013b); **Voronezh Oblast** (<sup>1</sup>Agafonov, 2018); **Arid territories** (<sup>1</sup>Rebriev, Rusanov, et al., 2012).

FAR EAST: **Jewish Autonomous Oblast** (<sup>3</sup>Shlotgauer and Rubtsova, 2006; <sup>3</sup>Bulakh, Govorova, Nazarova, and Vassiljeva, 2007; <sup>1</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Bogacheva et al., 2018; <sup>1</sup>Erofeeva and Bukharova, 2019; <sup>1</sup>Shlotgauer and Rubtsova, 2019); **Khabarovsk Krai** (<sup>3</sup>Voronov, 2008; <sup>1</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Erofeeva and Bulakh, 2015a; <sup>1</sup>Bogacheva et al., 2018; <sup>3</sup>Ermolin et al., 2018); **Primorsky Krai** (<sup>1</sup>Vassiljeva, 1956; <sup>3</sup>Vassiljeva, 1972; <sup>3</sup>Vassiljeva, 1973; <sup>3</sup>Bunkina and Nazarova, 1978; <sup>3</sup>Azbukina et al., 1990; <sup>3</sup>Bulakh, Wasser, Nazarova, and Nezdoininogo, 1990; <sup>3</sup>Bardunov et al., 2002; <sup>3</sup>Azbukina et al., 2006; <sup>1</sup>Psurtseva, Kiyashko, Gachkova, and Belova, 2007; <sup>1</sup>Kozhevnikov, 2008; <sup>1</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Bogacheva et al., 2018; <sup>1</sup>Bogacheva, Bulakh, Bukharova, and Egorova, 2020); **Sakhalin Oblast** (<sup>3</sup>Eremin, 2005; <sup>1</sup>Bogacheva et al., 2018; <sup>1</sup>Eremin, 2019).

***Strobilurus conigenus* (Pers.) Gulden**

≡ *Agaricus conigenus* Pers.<sup>1</sup> ≡ *Collybia conigena* (Pers.) P. Kumm.<sup>2</sup> ≡ *Pseudohiatula conigena* (Pers.) Métrod<sup>3</sup> = *Agaricus conigenus* var. *porcinus* Fr.<sup>4</sup>

EASTERN EUROPE: **Leningrad Oblast** (<sup>1</sup>Weinmann, 1836; <sup>2</sup>Thesleff, 1920); **Moscow** (<sup>1</sup>Bucholtz, 1897b; <sup>1</sup>Bucholtz, 1897c; <sup>1</sup>Mosolov, 1906); **Saint Petersburg** (<sup>1</sup>Weinmann, 1828; <sup>1,4</sup>Weinmann, 1836; <sup>1,4</sup>Weinmann, 1837).

SIBERIA: **Krasnoyarsk Krai** (<sup>3</sup>Perova, 1970).

***Strobilurus esculentus* (Wulfen) Singer<sup>1</sup>**

≡ *Collybia esculenta* (Wulfen) P. Kumm.<sup>2</sup> ≡ *Marasmius esculentus* (Wulfen) P. Karst.<sup>3</sup> ≡ *Pseudohiatula esculenta* (Wulfen) Singer<sup>4</sup> = *Strobilurus esculentus* var. *griseus* Métrod<sup>5</sup>

EASTERN EUROPE: **Kaliningrad Oblast** (<sup>2</sup>Neuhoff, 1922; <sup>1</sup>Dedkov, Volodina, and Gubareva, 2007; <sup>1</sup>Volodina, 2007); **Kaluga Oblast** (<sup>1</sup>Sionova, 2012); **Karelia** (<sup>3</sup>Freindling, 1949; <sup>1</sup>Kovalenko, Morozova, Fomina, and Särkisilta,

1998; <sup>1</sup>Bondartseva et al., 2001; <sup>1</sup>Krutov et al., 2014); **Kirov Oblast** (<sup>1</sup>Kirillov, 2011; <sup>1</sup>Kirillov, Perevedentseva, and Egoshina, 2011; <sup>1</sup>Stavishenko, Luginina, Kirillov, and Egoshina, 2019); **Komi Republic** (<sup>1</sup>Palamarchuk, 2011a; <sup>1</sup>Palamarchuk, 2012; <sup>1</sup>Palamarchuk and Kirillov, 2017); **Krasnodar Krai** (<sup>1</sup>Shumkova, Krivorotov, and Gayday, 2018); **Leningrad Oblast** (<sup>3</sup>Singer, 1943; <sup>1</sup>Stolyarskaya, 1989; <sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Morozova and Kovalenko, 2000; <sup>1</sup>Popov et al., 2007; <sup>1</sup>Zmitrovich et al., 2015; <sup>1</sup>Kalinina, 2018); **Lipetsk Oblast** (<sup>1</sup>Sarycheva et al., 2009; <sup>1</sup>Sarycheva, 2011; <sup>1</sup>Sarycheva, 2014a; <sup>1</sup>Sarycheva, 2016); **Mordovia** (<sup>3</sup>Kuznetsov, 1960; <sup>1</sup>Ivoilov and Bolshakov, 2011a); **Moscow Oblast** (<sup>1</sup>Gorlenko, Sidorova, and Sidorova, 1989; <sup>1</sup>Levitskaya, 1995b; <sup>1,5</sup>Vishnevsky, 1998; <sup>1</sup>Levitskaya, 2013); **Novgorod Oblast** (<sup>1</sup>Kovalenko, Morozova, Nezdojminogo, and Popov, 2005; <sup>1</sup>Psurtseva, Kiyashko, Gachkova, and Belova, 2007; <sup>1</sup>Popov et al., 2013); **Perm Krai** (<sup>1</sup>Perevedentseva, 2008; <sup>1</sup>Perevedentseva and Shishigin, 2014); **Pskov Oblast** (<sup>1</sup>Popov, 2001a; <sup>1</sup>Popov et al., 2013); **Ryazan Oblast** (<sup>1</sup>Volosnova, 2005; <sup>1</sup>Volosnova, 2014); **Saint Petersburg** (<sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Morozova and Kovalenko, 2000; <sup>1</sup>Kotkova, Morozova, and Popov, 2007; <sup>1</sup>Morozova and Smirnov, 2011; <sup>1</sup>Morozova et al., 2020); **Sverdlovsk Oblast** (<sup>1</sup>Marina, 2006); **Tatarstan** (<sup>4</sup>Vassiljeva, 1977); **Tula Oblast** (<sup>1</sup>Svetasheva, 2004); **Tver Oblast** (<sup>1</sup>Kurochkin, 1993); **Udmurt Republic** (<sup>1</sup>Tychinin, 1990; <sup>1</sup>Tychinin and Kuzmina, 2003); **Vologda Oblast** (<sup>1</sup>Kirillova, 2007; <sup>1</sup>Kirillova, 2009); **Yaroslavl Oblast** (<sup>1</sup>Lazareva, 1998a).

SIBERIA: **Khanty-Mansi Autonomous Okrug** (<sup>1</sup>Filippova, Bulyonkova, and Lapshina, 2015); **Krasnoyarsk Krai** (<sup>1</sup>Krom and Kapitonov, 2019); **Novosibirsk Oblast** (<sup>1</sup>Perova and Gorbunova, 2001; <sup>1</sup>Perova and Gorbunova, 2007).

### ***Strobilurus stephanocystis* (Kühner & Romagn. ex Hora) Singer**

EASTERN EUROPE: **Kaliningrad Oblast** (Dedkov, Volodina, and Gubareva, 2007; Volodina, 2007; Atayev and Volodina, 2020); **Kaluga Oblast** (Sionova, 2012); **Karachay-Cherkess Republic** (Kalamees and Botashev, 2000); **Karelia** (Krutov et al., 2014); **Kirov Oblast** (Kirillov, 2011; Kirillov, Perevedentseva, and Egoshina, 2011); **Komi Republic** (Bobretsova, 2004; Palamarchuk, 2012; Palamarchuk and Kirillov, 2017); **Krasnodar Krai** (Kovalenko, 1980a; Kovalenko, 1980b); **Kursk Oblast** (Baranov, 2002); **Leningrad Oblast** (Stolyarskaya, 1993; Kovalenko and Morozova, 1999a; Morozova, 2007; Popov et al., 2007; Zmitrovich et al., 2015); **Lipetsk Oblast** (Sarycheva, 1999; Afanasyev, Rtishcheva, and Starodubtseva, 2007; Sarycheva et al., 2009; Sarycheva, 2011; Sarycheva, 2014a; Sarycheva, 2016; Sarycheva, Starodubtseva, and Sapelnikova, 2017); **Moscow Oblast** (Gorlenko, Sidorova, and Sidorova, 1989; Levitskaya, 1995b; Vishnevsky, 1998; Levitskaya, 2013); **Novgorod Oblast** (Kovalenko, Morozova, Nezdojminogo, and Popov, 2005; Psurtseva, Kiyashko, Gachkova, and Belova, 2007; Popov et al., 2013); **Orenburg Oblast** (Desyatova, 2007; Desyatova, 2008); **Oryol Oblast** (Radygina, Derzhavina, and Tsutsupa, 2014); **Penza Oblast** (Ivanov, 1981a); **Perm Krai** (Perevedentseva, 2008; Botalov, 2017; Botalov and Perevedentseva, 2020); **Pskov Oblast** (Popov et al., 2013); **Rostov Oblast** (Rusanov et al., 2004; Zmitrovich et al., 2008; Rebriev and Svetasheva, 2010); **Ryazan Oblast** (Volosnova, 1997; Volosnova, 2014); **Saint Petersburg** (Kotkova, Morozova, and Popov, 2005; Morozova and Smirnov, 2011; Morozova et al., 2020); **Sverdlovsk Oblast** (Marina, 2006); **Tula Oblast** (Svetasheva, 2001; Svetasheva, 2004; Svetasheva, 2013); **Tver Oblast** (Kurochkin, 1993); **Udmurt Republic** (Tychinin and Kuzmina, 2003); **Volgograd Oblast** (Dudka and Vedeneyev, 2015); **Vologda Oblast** (Kirillova, 2007; Kirillova, 2009); **Voronezh Oblast** (Afanasyev, Rtishcheva, and Starodubtseva, 2007; Sarycheva, Starodubtseva, and Sapelnikova, 2017); **Yaroslavl Oblast** (Lazareva, 1998a); **Arid territories** (Rebriev, Rusanov, et al., 2012).

SIBERIA: **Irkutsk Oblast** (Petrov, 1984; Bardunov et al., 2005; Petrov, 2008); **Khakassia** (Beglyanova, 1972a; Zauzolkova and Gorbunova, 2013; Zauzolkova, 2015); **Khanty-Mansi Autonomous Okrug** (Filippova and Bulyonkova, 2017a; Filippova and Bulyonkova, 2017b; Zvyagina and Baykalova, 2017); **Krasnoyarsk Krai** (Beglyanova, 1972a; Krom and Kapitonov, 2019); **Novosibirsk Oblast** (Perova and Gorbunova, 2001; Perova and Gorbunova, 2007); **Tomsk Oblast** (Agaphonova, Kutafjeva, and Gashkov, 2007; Agaphonova, Kutafjeva, and Gashkov, 2009b; Kudashova, Gashkov, and Kutafjeva, 2013).

### ***Strobilurus tenacellus* (Pers.) Singer<sup>1</sup>**

≡ *Agaricus tenacellus* Pers.<sup>2</sup> ≡ *Collybia esculenta* var. *tenacella* (Pers.) P. Karst.<sup>3</sup> ≡ *Collybia tenacella* (Pers.) P. Kumm.<sup>4</sup> ≡ *Marasmius tenacellus* (Pers.) J. Favre<sup>5</sup> ≡ *Pseudohiatula tenacella* (Pers.) Métrod<sup>6</sup> = *Collybia esculenta* var. *stolonifera* (Jungh.) P. Karst.<sup>7</sup>

EASTERN EUROPE: **Crimea** (<sup>5</sup>Sarkina, 2001; <sup>1</sup>Dudka et al., 2004; <sup>1</sup>Sarkina, 2010b; <sup>1</sup>Sarkina, 2011; <sup>1</sup>Sarkina and Prydiuk, 2012; <sup>1</sup>Sarkina, 2013; <sup>1</sup>Sarkina and Mironova, 2015); **Kaliningrad Oblast** (<sup>1</sup>Dedkov, Volodina, and Gubareva, 2007; <sup>1</sup>Volodina, 2007); **Kaluga Oblast** (<sup>1</sup>Sionova, 2012); **Karachay-Cherkess Republic** (<sup>1</sup>Kalamees and Botashev, 2000); **Karelia** (<sup>4</sup>Freindling, 1949; <sup>1</sup>Bondartseva et al., 2001; <sup>1</sup>Krutov et al., 2014); **Komi Republic** (<sup>1</sup>Palamarchuk and Kirillov, 2017); **Leningrad Oblast** (<sup>3,7</sup>Thesleff, 1920; <sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Morozova, 2007; <sup>1</sup>Popov et al., 2007); **Lipetsk Oblast** (<sup>1</sup>Sarycheva et al., 2009; <sup>1</sup>Sarycheva, 2011; <sup>1</sup>Sarycheva, 2014a; <sup>1</sup>Sarycheva, 2016);

**Moscow** (<sup>6</sup>Burova, 1968); **Moscow Oblast** (<sup>1</sup>Levitskaya, 1995b; <sup>1</sup>Vishnevsky, 1998; <sup>1</sup>Levitskaya, 2013); **Novgorod Oblast** (<sup>1</sup>Kovalenko, Morozova, Nezdoininogo, and Popov, 2005; <sup>1</sup>Popov et al., 2013); **Penza Oblast** (<sup>1</sup>Ivanov, 1985); **Perm Krai** (<sup>1</sup>Perevedentseva, 2008); **Pskov Oblast** (<sup>1</sup>Popov, 2001a; <sup>1</sup>Popov et al., 2013); **Ryazan Oblast** (<sup>1</sup>Volosnova, 2014); **Saint Petersburg** (<sup>2</sup>Weinmann, 1828; <sup>2</sup>Weinmann, 1836; <sup>2</sup>Weinmann, 1837; <sup>1</sup>Morozova and Smirnov, 2011; <sup>1</sup>Morozova et al., 2020); **Samara Oblast** (<sup>1</sup>Malysheva and Malysheva, 2008); **Sverdlovsk Oblast** (<sup>1</sup>Marina, 2006); **Tula Oblast** (<sup>1</sup>Svetasheva, 2001; <sup>1</sup>Svetasheva, 2004); **Udmurt Republic** (<sup>1</sup>Kapitonov, 2008); **Ulyanovsk Oblast** (<sup>1</sup>Ilyukhin, 2010a; <sup>1</sup>Ilyukhin, 2010b); **Vologda Oblast** (<sup>1</sup>Kirillova, 2007; <sup>1</sup>Kirillova, 2009); **Yaroslavl Oblast** (<sup>1</sup>Lazareva, 1997; <sup>1</sup>Lazareva, 1998a); **Arid territories** (<sup>1</sup>Rebriev, Rusanov, et al., 2012).

**SIBERIA:** **Irkutsk Oblast** (<sup>1</sup>Kutafjeva, 1983; <sup>1</sup>Petrov, 1984; <sup>1</sup>Petrov, 1991; <sup>1</sup>Petrov, 2008); **Khanty-Mansi Autonomous Okrug** (<sup>1</sup>Filippova and Bulyonkova, 2017a; <sup>1</sup>Filippova and Bulyonkova, 2017b); **Krasnoyarsk Krai** (<sup>1</sup>Beglyanova, 1972a; <sup>1</sup>Krom and Kapitonov, 2019); **Novosibirsk Oblast** (<sup>1</sup>Perova and Gorbunova, 2001; <sup>1</sup>Gorbunova, 2007; <sup>1</sup>Perova and Gorbunova, 2007; <sup>1</sup>Koropachinskiy and Banaev, 2014); **Tomsk Oblast** (<sup>1</sup>Perova and Gorbunova, 2001; <sup>1</sup>Agaphonova, Kutafjeva, and Gashkov, 2007; <sup>1</sup>Kudashova, Gashkov, and Kutafjeva, 2013).

### ***Stropharia aeruginosa* (Curtis) Quél.<sup>1</sup>**

≡ *Agaricus aeruginosus* Curtis<sup>2</sup> = *Stropharia alpina* (M. Lange) M. Lange<sup>3</sup>

**EASTERN EUROPE:** **Adygea** (<sup>1</sup>Vaasma, Kalamees, and Raitviir, 1986; <sup>1</sup>Sopina, 2001a); **Arkhangelsk Oblast** (<sup>1</sup>Bolshakov et al., 2018; <sup>1</sup>Anufriev et al., 2020); **Belgorod Oblast** (<sup>1</sup>Bedenko, 1979a; <sup>1</sup>Ryabova and Ignatenko, 1981); **Bryansk Oblast** (<sup>1</sup>Kruglikov, 2007); **Chechen Republic** (<sup>1</sup>Taysumov, Krapivina, and Kushalieva, 2016); **Crimea** (<sup>1</sup>Zerova, 1962; <sup>1</sup>Moser, 1993; <sup>1</sup>Sarkina, 2001; <sup>1</sup>Dudka et al., 2004; <sup>1</sup>Sarkina, 2011; <sup>1</sup>Sarkina and Prydiuk, 2012); **Kabardino-Balkarian Republic** (<sup>1</sup>Shkhagapsoev and Krapivina, 2003; <sup>1</sup>Shkhagapsoev and Krapivina, 2004); **Kaliningrad Oblast** (<sup>1</sup>Dedkov, Volodina, and Gubareva, 2007; <sup>1</sup>Volodina, 2007; <sup>1</sup>Atayev and Volodina, 2020); **Kaluga Oblast** (<sup>1</sup>Sionova, 2003); **Karachay-Cherkess Republic** (<sup>1</sup>Kalamees and Botashev, 2000); **Karelia** (<sup>1</sup>Freindling, 1949; <sup>1</sup>Bondartseva et al., 2001; <sup>1</sup>Ivanter and Kuznetsov, 2007; <sup>1</sup>Krutov et al., 2014; <sup>1</sup>Savelev and Kikeeva, 2018; <sup>1</sup>Kuznetsov, 2020); **Kirov Oblast** (<sup>1</sup>Kirillov, 2011; <sup>1</sup>Kirillov, Perevedentseva, and Egoshina, 2011; <sup>1</sup>Stavishenko, Luginina, Kirillov, and Egoshina, 2019); **Komi Republic** (<sup>1</sup>Palamarchuk, 2012; <sup>1</sup>Palamarchuk, 2016a; <sup>1</sup>Palamarchuk, 2016b; <sup>1</sup>Palamarchuk and Kirillov, 2017); **Krasnodar Krai** (<sup>1</sup>Vassiljeva, 1939; <sup>1</sup>Kovalenko, 1980a; <sup>1</sup>Kovalenko, 1980b; <sup>1</sup>Sopina, 2001a; <sup>1</sup>Shumkova, Krivorotov, and Gayday, 2018); **Kursk Oblast** (<sup>1</sup>Ryabova and Ignatenko, 1981; <sup>1</sup>Soshnina, 2005); **Leningrad Oblast** (<sup>1</sup>Thesleff, 1920; <sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Morozova and Kovalenko, 2000; <sup>1</sup>Morozova, 2007; <sup>1</sup>Popov et al., 2007; <sup>1</sup>Zmitrovich et al., 2015; <sup>1</sup>Kalinina, 2018); **Lipetsk Oblast** (<sup>1</sup>Alferova, 1977; <sup>1</sup>Rtishcheva, 1999; <sup>1</sup>Sarycheva, 1999; <sup>1</sup>Afanasyev, Rtishcheva, and Starodubtseva, 2007; <sup>1</sup>Sarycheva et al., 2009; <sup>1</sup>Sarycheva, 2011; <sup>1</sup>Sarycheva, 2014a; <sup>1</sup>Sarycheva, 2016; <sup>1</sup>Sarycheva, Starodubtseva, and Sapelnikova, 2017); **Mordovia** (<sup>1</sup>Kuznetsov, 1960; <sup>1</sup>Chastukhin, 2011; <sup>1</sup>Ivoilov and Bolshakov, 2011a); **Moscow Oblast** (<sup>1</sup>Gorlenko, Sidorova, and Sidorova, 1989; <sup>1</sup>Levitskaya, 1995c; <sup>1</sup>Levitskaya, 2013; <sup>1</sup>Voronina et al., 2014); **Murmansk Oblast** (<sup>1</sup>Borovichev et al., 2020); **North Ossetia** (<sup>1</sup>Nikolayev, 2001); **Novgorod Oblast** (<sup>1</sup>Malysheva, Malysheva, and Zmitrovich, 2007); **Oryol Oblast** (<sup>1</sup>Radygina, Derzhavina, and Tsutsupa, 2014); **Penza Oblast** (<sup>1</sup>Ivanov, 1982); **Perm Krai** (<sup>1</sup>Perevedentseva, 2008; <sup>1</sup>Belkovskaya et al., 2014; <sup>1</sup>Perevedentseva and Shishigin, 2014); **Pskov Oblast** (<sup>1</sup>Kolmakov and Popov, 2005; <sup>1</sup>Popov et al., 2013); **Ryazan Oblast** (<sup>1</sup>Volosnova, 1997; <sup>1</sup>Volosnova, 2014); **Saint Petersburg** (<sup>2</sup>Weinmann, 1828; <sup>2</sup>Weinmann, 1836; <sup>2</sup>Weinmann, 1837; <sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Morozova and Smirnov, 2011; <sup>1</sup>Morozova, Kovalenko, Rebriev, and Malysheva, 2014; <sup>1</sup>Morozova et al., 2020); **Samara Oblast** (<sup>1</sup>Malysheva and Malysheva, 2004; <sup>1</sup>Malysheva and Malysheva, 2008); **Smolensk Oblast** (<sup>1</sup>Jaczewski, 1896); **Sverdlovsk Oblast** (<sup>1</sup>Stepanova and Sirko, 1977; <sup>1</sup>Marina, 2006); **Tatarstan** (<sup>1</sup>Vassiljeva, 1977; <sup>1</sup>Potapov, 2015b); **Tula Oblast** (<sup>1</sup>Svetasheva, 2004); **Tver Oblast** (<sup>1</sup>Kurochkin, 1993; <sup>1</sup>Mukhina, 2011a; <sup>1</sup>Mukhina, 2011b; <sup>1</sup>Kotkova, 2014; <sup>1</sup>Kurochkin, 2016); **Udmurt Republic** (<sup>1</sup>Tychinin, 1990; <sup>1</sup>Tychinin and Kuzmina, 2003); **Ulyanovsk Oblast** (<sup>1</sup>Ilyukhin, 2009; <sup>1</sup>Ilyukhin, 2010a); **Vologda Oblast** (<sup>1</sup>Kutova, 1957; <sup>1</sup>Kirillova, 2006; <sup>1</sup>Kirillova, 2007); **Voronezh Oblast** (<sup>1</sup>Rtishcheva, 1999; <sup>1</sup>Afanasyev, Rtishcheva, and Starodubtseva, 2007; <sup>1</sup>Sarycheva, Starodubtseva, and Sapelnikova, 2017); **Yamalo-Nenets Autonomous Okrug** (<sup>3</sup>Knudsen and Mukhin, 1998; <sup>3</sup>Karatygin, Nezdoininogo, Novozhilov, and Zhurbenko, 1999; <sup>3</sup>Nezdoininogo, 2001); **Yaroslavl Oblast** (<sup>1</sup>Lazareva, 1998a; <sup>1</sup>Lazareva, 2002); **Arid territories** (<sup>1</sup>Rebriev, Rusanov, et al., 2012).

**SIBERIA:** **Altai Krai** (<sup>1</sup>Gorbunova and Perova, 2006; <sup>1</sup>Gorbunova and Chubarova, 2008; <sup>1</sup>Gorbunova, Vlasenko, and Tzhubarova, 2011); **Altai Republic** (<sup>1</sup>Gorbunova, 2001b); **Buryatia** (<sup>1</sup>Nezdoininogo, 1973); **Irkutsk Oblast** (<sup>1</sup>Petrov, 1986; <sup>1</sup>Astapenko, 1990a; <sup>1</sup>Petrov, 2008); **Krasnoyarsk Krai** (<sup>1</sup>Beglyanova, 1972a; <sup>1</sup>Lapitskaya, 1993; <sup>3</sup>Nezdoininogo, 1994; <sup>3</sup>Nezdoininogo and Zhurbenko, 1996; <sup>3</sup>Nezdoininogo, 1997a; <sup>3</sup>Karatygin, Nezdoininogo, Novozhilov, and Zhurbenko, 1999; <sup>1</sup>Kosheleva and Kutafjeva, 2008b; <sup>1</sup>Kosheleva, 2010; <sup>1</sup>Zauzolkova, 2015; <sup>1</sup>Zauzolkova and Gorbunova, 2016; <sup>1</sup>Malysheva, Malysheva, Kiyashko, et al., 2017; <sup>1</sup>Krom and Kapitonov, 2019);

**Novosibirsk Oblast** (<sup>1</sup>Zaytseva, 1971; <sup>1</sup>Perova and Gorbunova, 2007; <sup>1</sup>Koropachinskiy and Banaev, 2014); **Sakha Republic** (<sup>3</sup>Nezdojminogo, 1994; <sup>3</sup>Karatygin, Nezdojminogo, Novozhilov, and Zhurbenko, 1999); **Tomsk Oblast** (<sup>1</sup>Perova, 1972; <sup>1</sup>Agaphonova, Kutafjeva, and Gashkov, 2007; <sup>1</sup>Kudashova, Gashkov, and Kutafjeva, 2013).

**FAR EAST: Amur Oblast** (<sup>1</sup>Bulakh, Govorova, and Taranina, 2003); **Khabarovsk Krai** (<sup>1</sup>Erofeeva and Bulakh, 2015a); **Magadan Oblast** (<sup>1</sup>Sazanova, 2009a); **Primorsky Krai** (<sup>1</sup>Vassiljeva, 1972; <sup>1</sup>Vassiljeva, 1973; <sup>1</sup>Bunkina and Nazarova, 1978; <sup>1</sup>Azbukina et al., 1984; <sup>1</sup>Azbukina et al., 1990; <sup>1</sup>Bardunov et al., 2002; <sup>1</sup>Azbukina et al., 2006; <sup>1</sup>Bau, Bulakh, Zhuang, and Li, 2007; <sup>1</sup>Psurtseva, Kiyashko, Gachkova, and Belova, 2007; <sup>1</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Bulakh et al., 2016).

### ***Stropharia albonitens* (Fr.) Quél.<sup>1</sup>**

≡ *Agaricus albonitens* Fr.<sup>2</sup>

**EASTERN EUROPE: Kaliningrad Oblast** (<sup>1</sup>Volodina, 2007); **Karelia** (<sup>1</sup>Bondartseva et al., 2001; <sup>1</sup>Krutov et al., 2014); **Leningrad Oblast** (<sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Morozova and Kovalenko, 2000; <sup>1</sup>Tzvelev, 2000; <sup>1</sup>Popov et al., 2007; <sup>1</sup>Geltman et al., 2018; <sup>1</sup>Geltman, 2018b); **Lipetsk Oblast** (<sup>1</sup>Alferova, 1977; <sup>1</sup>Sarycheva, 1999; <sup>1</sup>Sarycheva et al., 2009; <sup>1</sup>Sarycheva, 2016); **Novgorod Oblast** (<sup>1</sup>Malysheva, Malysheva, and Zmitrovich, 2006; <sup>1</sup>Malysheva, Malysheva, and Zmitrovich, 2007); **Perm Krai** (<sup>1</sup>Perevedentseva, 2008; <sup>1</sup>Perevedentseva and Shishigin, 2014); **Sverdlovsk Oblast** (<sup>1</sup>Marina, 2006); **Ulyanovsk Oblast** (<sup>1</sup>Ilyukhin, 2009; <sup>1</sup>Ilyukhin, 2010a); **Yaroslavl Oblast** (<sup>1</sup>Lazareva, 1998a; <sup>1</sup>Lazareva, 2002).

**SIBERIA: Altai Republic** (<sup>1</sup>Gorbunova, 2006; <sup>1</sup>Gorbunova, 2010); **Khanty-Mansi Autonomous Okrug** (<sup>1</sup>Filippova and Bulyonkova, 2017a; <sup>1</sup>Filippova and Bulyonkova, 2017b); **Krasnoyarsk Krai** (<sup>2</sup>Thümen, 1877; <sup>1</sup>Kalchbrenner, 1878; <sup>1</sup>Beglyanova, 1972a; <sup>1</sup>Zauzolkova, 2015); **Novosibirsk Oblast** (<sup>1</sup>Perova and Gorbunova, 2001; <sup>1</sup>Gorbunova, 2006; <sup>1</sup>Gorbunova, 2007); **Tomsk Oblast** (<sup>1</sup>Perova and Gorbunova, 2001; <sup>1</sup>Kudashova, Gashkov, and Kutafjeva, 2013; <sup>1</sup>Kudashova, Gashkov, and Vaishlya, 2016b).

### ***Stropharia caerulea* Kreisel**

**EASTERN EUROPE: Kursk Oblast** (Baranov, 2002); **Leningrad Oblast** (Morozova, 2002; Popov et al., 2007); **Pskov Oblast** (Popov et al., 2013); **Rostov Oblast** (Morozova et al., 2008); **Saint Petersburg** (Zhukova, Morozova, Volobuev, and Bryantseva, 2017); **Tula Oblast** (Svetasheva, 2004); **Udmurt Republic** (Kapitonov, 2008); **Ulyanovsk Oblast** (Ilyukhin, 2009; Ilyukhin, 2010a); **Vologda Oblast** (Kirillova, 2006; Kirillova, 2007); **Yaroslavl Oblast** (Lazareva, 1998a; Lazareva, 2002); **Arid territories** (Rebriev, Rusanov, et al., 2012).

**SIBERIA: Khanty-Mansi Autonomous Okrug** (Filippova, Bulyonkova, and Lapshina, 2015).

### ***Stropharia cyanea* (Bull.) Tuomik.**

**EASTERN EUROPE: Leningrad Oblast** (Morozova, 2007; Popov et al., 2007); **Novgorod Oblast** (Malysheva, Malysheva, and Zmitrovich, 2007); **Penza Oblast** (Ivanov, 1983); **Perm Krai** (Perevedentseva, 2008); **Sverdlovsk Oblast** (Marina, 2006); **Tatarstan** (Potapov, 2016b); **Tver Oblast** (Kurochkin, 1993).

**SIBERIA: Tomsk Oblast** (Kudashova, Gashkov, and Kutafjeva, 2013).

### ***Stropharia halophila* Pacioni**

**EASTERN EUROPE: Kursk Oblast** (Baranov, 2002); **Rostov Oblast** (Rebriev, 2018); **Arid territories** (Rebriev, Rusanov, et al., 2012).

### ***Stropharia hornemannii* (Fr.) S. Lundell & Nannf.<sup>1</sup>**

≡ *Agaricus hornemannii* Fr.<sup>2</sup> = *Agaricus depilatus* Pers.<sup>3</sup> = *Stropharia depilata* (Pers.) Sacc.<sup>4</sup>

**EASTERN EUROPE: Adygea** (<sup>1</sup>Vaasma, Kalamees, and Raitviir, 1986); **Bryansk Oblast** (<sup>1</sup>Kruglikov, 2007); **Kaliningrad Oblast** (<sup>1</sup>Dedkov, Volodina, and Gubareva, 2007; <sup>1</sup>Volodina, 2007); **Kaluga Oblast** (<sup>1</sup>Sionova, 2003); **Karelia** (<sup>2</sup>Karsten, 1866; <sup>3</sup>Karsten, 1876; <sup>1</sup>Bondartseva et al., 2001; <sup>1</sup>Predtechenskaya and Ruokolainen, 2013; <sup>1</sup>Predtechenskaya, 2013; <sup>1</sup>Krutov et al., 2014; <sup>1</sup>Predtechenskaya and Ruokolainen, 2014; <sup>1</sup>Predtechenskaya, 2015; <sup>1</sup>Savelev and Kikeeva, 2018); **Kirov Oblast** (<sup>1</sup>Kirillov and Luginina, 2011; <sup>1</sup>Kirillov, 2011; <sup>1</sup>Kirillov, Perevedentseva, and Egoshina, 2011; <sup>1</sup>Stavishenko, Luginina, Kirillov, and Egoshina, 2019); **Komi Republic** (<sup>1</sup>Palamarchuk and Kirillov, 2017; <sup>1</sup>Palamarchuk and Kirillov, 2018a); **Kursk Oblast** (<sup>1</sup>Ryabova and Ignatenko, 1981); **Leningrad Oblast** (<sup>4</sup>Thesleff, 1920; <sup>1</sup>Nezdojminogo, 1967; <sup>1</sup>Chastukhin and Nikolaevskaya, 1969; <sup>1</sup>Kalamees and Kovalenko, 1984; <sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Morozova, 2007; <sup>1</sup>Popov et al., 2007; <sup>1</sup>Psurtseva, Kiyashko, Gachkova, and Belova, 2007; <sup>1</sup>Zmitrovich et al., 2015); **Moscow Oblast** (<sup>1</sup>Gorlenko, Sidorova, and Sidorova, 1989; <sup>1</sup>Levitskaya, 1995c; <sup>1</sup>Levitskaya, 2013; <sup>1</sup>Voronina et al., 2014); **Murmansk Oblast** (<sup>1</sup>Pystina, Pavlova, and Shestakova, 1969);

**Perm Krai** (<sup>1</sup>Perevedentseva, 2008; <sup>1</sup>Belkovskaya et al., 2014; <sup>1</sup>Perevedentseva and Shishigin, 2014); **Pskov Oblast** (<sup>1</sup>Popov et al., 2013); **Ryazan Oblast** (<sup>1</sup>Volosnova, 1997; <sup>1</sup>Volosnova, 2014); **Saint Petersburg** (<sup>2</sup>Weinmann, 1828; <sup>2</sup>Weinmann, 1836; <sup>2</sup>Weinmann, 1837; <sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Morozova and Kovalenko, 2000; <sup>1</sup>Kotkova, Morozova, and Popov, 2006; <sup>1</sup>Morozova and Smirnov, 2011; <sup>1</sup>Morozova et al., 2020); **Sverdlovsk Oblast** (<sup>1</sup>Marina, 2006); **Tatarstan** (<sup>1</sup>Potapov, 2016b); **Tula Oblast** (<sup>1</sup>Svetasheva, 2005b); **Tver Oblast** (<sup>1</sup>Kurochkin, 1993; <sup>1</sup>Mukhina, 2011a; <sup>1</sup>Mukhina, 2011b; <sup>1</sup>Kotkova, 2014); **Udmurt Republic** (<sup>1</sup>Tychinin and Kuzmina, 2003); **Vologda Oblast** (<sup>1</sup>Kirillova, 2006; <sup>1</sup>Kirillova, 2007); **Yaroslavl Oblast** (<sup>1</sup>Lazareva, 1998a; <sup>1</sup>Lazareva, 2002).

SIBERIA: **Khanty-Mansi Autonomous Okrug** (<sup>1</sup>Filippova, Bulyonkova, and Lapshina, 2015; <sup>1</sup>Filippova and Bulyonkova, 2017a; <sup>1</sup>Filippova and Bulyonkova, 2017b); **Krasnoyarsk Krai** (<sup>1</sup>Lapitskaya, 1993; <sup>1</sup>Krom and Kapitonov, 2019); **Tomsk Oblast** (<sup>1</sup>Perova and Gorbunova, 2001; <sup>1</sup>Kudashova, Gashkov, and Kutafjeva, 2013; <sup>1</sup>Kudashova, Gashkov, and Vaishlya, 2016b; <sup>1</sup>Vaishlya et al., 2017).

FAR EAST: **Khabarovsk Krai** (<sup>1</sup>Erofeeva and Bulakh, 2015a); **Magadan Oblast** (<sup>1</sup>Sazanova, 2009a; <sup>1</sup>Sazanova, 2009b; <sup>1</sup>Sazanova, 2011); **Primorsky Krai** (<sup>1</sup>Vassiljeva, 1972; <sup>1</sup>Vassiljeva, 1973; <sup>1</sup>Azbukina et al., 1984; <sup>1</sup>Azbukina et al., 1990; <sup>1</sup>Bardunov et al., 2002; <sup>1</sup>Bau, Bulakh, and Govorova, 2011).

### ***Stropharia inuncta* (Fr.) Quél.**

EASTERN EUROPE: **Leningrad Oblast** (Thesleff, 1920; Kovalenko and Morozova, 1999a; Popov et al., 2007); **Moscow Oblast** (Voronina et al., 2014); **Pskov Oblast** (Popov et al., 2013); **Udmurt Republic** (Kapitonov, 2013); **Ulyanovsk Oblast** (Ilyukhin, 2009; Ilyukhin, 2010a).

SIBERIA: **Altai Republic** (Gorbunova, 2001a; Gorbunova, 2017b); **Khakassia** (Beglyanova, 1972a; Zauzolkova, 2015); **Novosibirsk Oblast** (Perova and Gorbunova, 2001); **Tomsk Oblast** (Kudashova, Gashkov, and Kutafjeva, 2013; Kudashova, Gashkov, and Vaishlya, 2016b).

FAR EAST: **Primorsky Krai** (Bau, Bulakh, and Govorova, 2011).

### ***Stropharia mammillata* Sacc.**

EASTERN EUROPE: **Voronezh Oblast** (Chastukhin and Nikolaevskaya, 1953).

### ***Stropharia melanosperma* (Bull.) Gillet<sup>1</sup>**

≡ *Agaricus melanospermus* Bull.<sup>2</sup>

EASTERN EUROPE: **Astrakhan Oblast** (<sup>1</sup>Rebriev, Aleksandrova, et al., 2012); **Belgorod Oblast** (<sup>1</sup>Bedenko, 1980); **Kaliningrad Oblast** (<sup>1</sup>Dedkov, Volodina, and Gubareva, 2007); **Leningrad Oblast** (<sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Popov et al., 2007); **Penza Oblast** (<sup>1</sup>Ivanov, 1982; <sup>1</sup>Ivanov, 1999); **Perm Krai** (<sup>1</sup>Perevedentseva, Shilkova, and Botalov, 2011); **Pskov Oblast** (<sup>1</sup>Popov et al., 2013); **Rostov Oblast** (<sup>1</sup>Rebriev, 2018); **Tula Oblast** (<sup>1</sup>Svetasheva, 2004); **Arid territories** (<sup>1</sup>Rebriev, Rusanov, et al., 2012).

SIBERIA: **Khakassia** (<sup>1</sup>Gorbunova and Majnagasheva, 2013); **Krasnoyarsk Krai** (<sup>2</sup>Thümen, 1878; <sup>1</sup>Beglyanova, 1972a; <sup>1</sup>Zauzolkova, 2015); **Sverdlovsk Oblast** (<sup>1</sup>Stepanova and Sirko, 1977).

### ***Stropharia pseudocyanea* (Desm.) Morgan<sup>1</sup>**

= *Stropharia albocyanea* (Fr.) Quél.<sup>2</sup>

EASTERN EUROPE: **Karelia** (<sup>1</sup>Savelev and Kikeeva, 2018); **Komi Republic** (<sup>1</sup>Palamarchuk (Bobretsova), 2009; <sup>1</sup>Palamarchuk, 2012; <sup>1</sup>Palamarchuk, 2016a; <sup>1</sup>Palamarchuk, 2016b); **Leningrad Oblast** (<sup>2</sup>Thesleff, 1920; <sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Popov et al., 2007); **Moscow Oblast** (<sup>2</sup>Levitskaya, 1995c; <sup>1</sup>Levitskaya, 2013); **Penza Oblast** (<sup>2</sup>Ivanov, 1988a); **Perm Krai** (<sup>1</sup>Perevedentseva, 2008; <sup>1</sup>Belkovskaya et al., 2014); **Pskov Oblast** (<sup>1</sup>Morozova et al., 2015); **Sverdlovsk Oblast** (<sup>1</sup>Marina, 2006); **Tula Oblast** (<sup>1</sup>Svetasheva, 2004); **Tver Oblast** (<sup>1</sup>Mukhina, 2011a; <sup>1</sup>Mukhina, 2011b; <sup>1</sup>Kotkova, 2014).

SIBERIA: **Irkutsk Oblast** (<sup>2</sup>Petrov, 1991; <sup>2</sup>Petrov, 2008); **Khanty-Mansi Autonomous Okrug** (<sup>1</sup>Filippova and Bulyonkova, 2017a; <sup>1</sup>Filippova and Bulyonkova, 2017b); **Tomsk Oblast** (<sup>1</sup>Agaphonova, Kutafjeva, and Gashkov, 2009b; <sup>1</sup>Kudashova, Gashkov, and Kutafjeva, 2013).

FAR EAST: **Chukotka Autonomous Okrug** (<sup>2</sup>Sazanova, 1993); **Magadan Oblast** (<sup>2</sup>Sazanova, 2005); **Primorsky Krai** (<sup>2</sup>Bunkina and Nazarova, 1978; <sup>2</sup>Azbukina et al., 2006; <sup>1</sup>Bau, Bulakh, and Govorova, 2011).

### ***Stropharia rugosoannulata* Farl. ex Murrill**

EASTERN EUROPE: **Kabardino-Balkarian Republic** (Shkhagapsoev and Krapivina, 2004); **Kaluga Oblast** (Sionova, 2012); **Udmurt Republic** (Tychinin and Kuzmina, 2003).

SIBERIA: **Khanty-Mansi Autonomous Okrug** (Baykalova and Zvyagina, 2008).



FAR EAST: **Amur Oblast** (Kochunova, 2019); **Khabarovsk Krai** (Azbukina et al., 1986; Azbukina et al., 1989; Bau, Bulakh, and Govorova, 2011); **Magadan Oblast** (Sazanova, 2005); **Primorsky Krai** (Vassiljeva, 1972; Vassiljeva, 1973; Psurtseva, Kiyashko, Gachkova, and Belova, 2007; Bau, Bulakh, and Govorova, 2011).

***Stropharia umbonatescens* (Peck) Sacc.**

EASTERN EUROPE: **Adygea** (Psurtseva, Kiyashko, Gachkova, and Belova, 2007).

SIBERIA: **Tomsk Oblast** (Kudashova, Gashkov, and Kutafjeva, 2013).

***Stropharia viridula* (Schaeff.) Morgan**

EASTERN EUROPE: **Moscow** (Hennings, 1905).

***Suillellus adonis* (Pöder & H. Ladurner) Vizzini, Simonini & Gelardi**

≡ *Boletus adonis* Pöder & H. Ladurner<sup>1</sup>

EASTERN EUROPE: **Volgograd Oblast** (<sup>1</sup>Svetasheva, 2015).

***Suillellus caucasicus* (Singer ex Alessio) Blanco-Dios**

≡ *Boletus caucasicus* Singer<sup>1</sup>

EASTERN EUROPE: **Krasnodar Krai** (<sup>1</sup>Vaasma, Kalamees, and Raitviir, 1986).

***Suillellus comptus* (Simonini) Vizzini, Simonini & Gelardi**

≡ *Boletus comptus* Simonini<sup>1</sup>

EASTERN EUROPE: **Volgograd Oblast** (<sup>1</sup>Svetasheva, 2015).

***Suillellus luridus* (Schaeff.) Murrill<sup>1</sup>**

≡ *Boletus luridus* Schaeff.<sup>2</sup> ≡ *Boletus luridus* var. *luridus* Schaeff.<sup>3</sup> = *Boletus luridus* var. *rubriceps* (Maire) Dermek<sup>4</sup>

EASTERN EUROPE: **Adygea** (<sup>2</sup>Sopina, 2001a); **Belgorod Oblast** (<sup>2</sup>Bedenko, 1979a; <sup>2</sup>Psurtseva, Belova, and Ryabusheva, 2003); **Bryansk Oblast** (<sup>2</sup>Kruglikov, 2007); **Crimea** (<sup>2</sup>Sarkina, 2001; <sup>2</sup>Dudka et al., 2004; <sup>2</sup>Akulov and Pryidiuk, 2007; <sup>2</sup>Sarkina, 2010b; <sup>2</sup>Sarkina, 2011; <sup>2,4</sup>Sarkina and Pryidiuk, 2012; <sup>2</sup>Sarkina, 2014b; <sup>2</sup>Sarkina and Mironova, 2015; <sup>2</sup>Sarkina, 2016a; <sup>1</sup>Sarkina and Stavishenko, 2019); **Kabardino-Balkarian Republic** (<sup>2</sup>Shkhagapsoev and Krapivina, 2004); **Kaliningrad Oblast** (<sup>2</sup>Dedkov, Volodina, and Gubareva, 2007; <sup>1</sup>Atayev and Volodina, 2020); **Kaluga Oblast** (<sup>2</sup>Antokhina et al., 2015); **Karachay-Cherkess Republic** (<sup>2</sup>Kalamees and Botashev, 2000); **Kirov Oblast** (<sup>1</sup>Svetasheva et al., 2017); **Krasnodar Krai** (<sup>2</sup>Vassiljeva, 1939; <sup>2</sup>Kovalenko, 1980a; <sup>2</sup>Kovalenko, 1980b; <sup>2</sup>Sopina, 2001a); **Kursk Oblast** (<sup>2</sup>Ryabova and Ignatenko, 1981; <sup>2</sup>Baranov, 2002; <sup>2</sup>Soshnina, 2005); **Leningrad Oblast** (<sup>2</sup>Kovalenko and Morozova, 1999a; <sup>2</sup>Popov et al., 2007); **Lipetsk Oblast** (<sup>2</sup>Alferova, 1977; <sup>2</sup>Rtishcheva, 1999; <sup>2</sup>Sarycheva, 1999; <sup>2</sup>Afanasyev, Rtishcheva, and Starodubtseva, 2007; <sup>2</sup>Sarycheva et al., 2009; <sup>2</sup>Sarycheva, 2011; <sup>2</sup>Sarycheva, 2014a; <sup>2</sup>Sarycheva, 2016; <sup>2</sup>Sarycheva, Starodubtseva, and Sapelnikova, 2017); **Mordovia** (<sup>2</sup>Ivoilov and Bolshakov, 2011b); **Moscow** (<sup>2</sup>Bucholtz, 1897b; <sup>2</sup>Bucholtz, 1897c; <sup>2</sup>Mosolov, 1906; <sup>2</sup>Samoilov and Morozova, 2011); **Moscow Oblast** (<sup>2</sup>Levitskaya, 1995b; <sup>2</sup>Levitskaya, 2013; <sup>1</sup>Varlygina, Zubakin, Nikitsky, and Sviridov, 2018); **North Ossetia** (<sup>2</sup>Nikolayev, 2001); **Orenburg Oblast** (<sup>2</sup>Vorontsovsky, 1921; <sup>2</sup>Korshikova, 2006; <sup>2</sup>Desyatova, 2008); **Oryol Oblast** (<sup>2</sup>Radygina, Derzhavina, and Tsutsupa, 2014); **Penza Oblast** (<sup>2</sup>Ivanov, 1981a; <sup>1</sup>Ivanov, 2019); **Perm Krai** (<sup>2</sup>Perevedentseva, 2008; <sup>2</sup>Shepel', 2008; <sup>1</sup>Baklanov, 2018); **Pskov Oblast** (<sup>2</sup>Popov et al., 2013); **Rostov Oblast** (<sup>2</sup>Rusanov et al., 2004; <sup>2</sup>Zmitrovich et al., 2008; <sup>1</sup>Rusanov, Rebriev, and Bulgakov, 2018); **Ryazan Oblast** (<sup>2</sup>Volosnova, 1997; <sup>2</sup>Volosnova, 2014); **Saint Petersburg** (<sup>2</sup>Weinmann, 1828; <sup>2</sup>Weinmann, 1836; <sup>2</sup>Weinmann, 1837; <sup>2</sup>Zhukova, Morozova, Volobuev, and Bryantseva, 2017); **Samara Oblast** (<sup>2</sup>Malysheva and Malysheva, 2005b; <sup>3</sup>Malysheva and Malysheva, 2008); **Saratov Oblast** (<sup>2</sup>Komirnaya, 1952; <sup>2</sup>Komirnaya, 1970; <sup>2</sup>Komirnaya, 1975); **Sevastopol** (<sup>2,4</sup>Sarkina, 2016b; <sup>1</sup>Sarkina, 2020c); **Smolensk Oblast** (<sup>2</sup>Jaczevski, 1898); **Sverdlovsk Oblast** (<sup>2</sup>Shiryayeva, 2015a); **Tambov Oblast** (<sup>2</sup>Elenevskiy, 2002; <sup>2</sup>Konakov et al., 2019); **Tatarstan** (<sup>2</sup>Sorokin, 1872; <sup>2</sup>Vassiljeva, 1977; <sup>3</sup>Potapov, Galeyev, and Zhukov, 2013; <sup>2</sup>Potapov, 2015b); **Tula Oblast** (<sup>2</sup>Svetasheva, 2004; <sup>3</sup>Svetasheva, 2013); **Tver Oblast** (<sup>2</sup>Kurochkin, 1993); **Udmurt Republic** (<sup>2</sup>Tychinin and Kuzmina, 2003; <sup>2</sup>Baranova, 2012); **Ulyanovsk Oblast** (<sup>2</sup>Ilyukhin, 2010a); **Vologda Oblast** (<sup>2</sup>Kirillova, 2007); **Voronezh Oblast** (<sup>2</sup>Chastukhin, 1952; <sup>2</sup>Rtishcheva, 1999; <sup>2</sup>Afanasyev, Rtishcheva, and Starodubtseva, 2007; <sup>2</sup>Agafonov, 2011; <sup>2</sup>Sarycheva, Starodubtseva, and Sapelnikova, 2017; <sup>1</sup>Agafonov, 2018; <sup>2</sup>Kochergina and Furmenkova, 2019); **Yaroslavl Oblast** (<sup>2</sup>Lazareva, 1997; <sup>2</sup>Lazareva, 1998a); **Arid territories** (<sup>2</sup>Rebriev, Rusanov, et al., 2012); **Northern Caucasus** (<sup>2</sup>Kovalenko, 1980b).

SIBERIA: **Altai Krai** (<sup>2</sup>Gorbunova and Chubarova, 2008; <sup>3</sup>Gorbunova, Vlasenko, and Tzhubarova, 2011); **Altai Republic** (<sup>2</sup>Gorbunova, 1997; <sup>2</sup>Perova and Gorbunova, 2001; <sup>2</sup>Gorbunova, 2008); **Krasnoyarsk Krai** (<sup>2</sup>Beglyanova,

1972a; <sup>2</sup>Beglyanova, 1972b; <sup>2</sup>Stepanov, 2012); **Novosibirsk Oblast** (<sup>2</sup>Perova and Gorbunova, 2001; <sup>2</sup>Gorbunova, 2007; <sup>3</sup>Koropachinskiy and Banaev, 2014); **Tomsk Oblast** (<sup>2</sup>Perova and Gorbunova, 2001; <sup>2</sup>Kudashova, Gashkov, and Kutafjeva, 2013).

FAR EAST: **Amur Oblast** (<sup>2</sup>Azbukina et al., 1998; <sup>2</sup>Bogacheva et al., 2018); **Primorsky Krai** (<sup>2</sup>Vassiljeva, 1956; <sup>2</sup>Vassiljeva, 1972; <sup>2</sup>Vassiljeva, 1973; <sup>2</sup>Bardunov et al., 2002; <sup>2</sup>Bau, Bulakh, and Govorova, 2011; <sup>2</sup>Bogacheva et al., 2018).

### ***Suillellus queletii* (Schulzer) Vizzini, Simonini & Gelardi<sup>1</sup>**

≡ *Boletus queletii* Schulzer<sup>2</sup>

EASTERN EUROPE: **Adygea** (<sup>2</sup>Vaasma, Kalamees, and Raitviir, 1986; <sup>2</sup>Sopina, 2001a); **Belgorod Oblast** (<sup>2</sup>Bedenko, 1979a); **Crimea** (<sup>2</sup>Sarkina, 2014a; <sup>2</sup>Sarkina, 2014b; <sup>2</sup>Sarkina and Mironova, 2015; <sup>2</sup>Sarkina, 2016a; <sup>1</sup>Sarkina and Stavishenko, 2019; <sup>1</sup>Sarkina, 2020a); **Krasnodar Krai** (<sup>2</sup>Vassiljeva, 1939; <sup>2</sup>Kovalenko, 1980a; <sup>2</sup>Kovalenko, 1980b; <sup>2</sup>Vaasma, Kalamees, and Raitviir, 1986; <sup>2</sup>Shumkova, Krivorotov, and Gayday, 2018); **Lipetsk Oblast** (<sup>2</sup>Sarycheva, 2014a; <sup>2</sup>Shcherbakov, 2014; <sup>2</sup>Sarycheva, 2016); **Orenburg Oblast** (<sup>2</sup>Desyatova, 2008); **Sevastopol** (<sup>2</sup>Sarkina, 2016b; <sup>1</sup>Sarkina, 2020c); **Volgograd Oblast** (<sup>2</sup>Rebriev, Svetasheva, Popov, and Zmitrovich, 2013; <sup>2</sup>Dudka and Vedeneyev, 2014; <sup>2</sup>Svetasheva, 2015).

FAR EAST: **Primorsky Krai** (<sup>2</sup>Vassiljeva, 1956; <sup>2</sup>Vassiljeva, 1972; <sup>2</sup>Vassiljeva, 1973; <sup>2</sup>Bau, Bulakh, and Govorova, 2011).

### ***Suillus abietinus* Pantidou & Watling**

SIBERIA: **Tomsk Oblast** (Kudashova, Gashkov, and Kutafjeva, 2013).

### ***Suillus acidus* (Peck) Singer**

EASTERN EUROPE: **Komi Republic** (Palamarchuk and Kirillov, 2018a; Dyogteva, 2019; Palamarchuk et al., 2019).

SIBERIA: **Khanty-Mansi Autonomous Okrug** (Zvyagina and Baykalova, 2012; Filippova, Bulyonkova, and Lapshina, 2015; Makarova, Makarov, Zvyagina, and Bobrikov, 2015; Zvyagina and Vasina, 2015; Filippova and Bulyonkova, 2017a; Filippova and Bulyonkova, 2017b); **Krasnoyarsk Krai** (Krom and Kapitonov, 2019); **Tomsk Oblast** (Vaishlya et al., 2017).

FAR EAST: **Chukotka Autonomous Okrug** (Karatygin, Nezdojminogo, Novozhilov, and Zhurbenko, 1999); **Magadan Oblast** (Rebriev, Bulakh, Sazanova, and Shiryaev, 2020).

### ***Suillus albidipes* (Peck) Singer**

FAR EAST: **Magadan Oblast** (Vassilkov, 1971a; Sazanova, 2005; Sazanova, 2009a).

### ***Suillus americanus* (Peck) Snell<sup>1</sup>**

≡ *Ixocomus americanus* (Peck) E.-J. Gilbert<sup>2</sup> = *Ixocomus sibiricus* Singer<sup>3</sup> = *Suillus sibiricus* (Singer) Singer<sup>4</sup>

EASTERN EUROPE: **Komi Republic** (<sup>4</sup>Palamarchuk and Kirillov, 2018a; <sup>1</sup>Dyogteva, 2019; <sup>1</sup>Palamarchuk et al., 2019); **Perm Krai** (<sup>4</sup>Shkaraba, Perevedentseva, and Moshkina, 1990; <sup>4</sup>Perevedentseva, 2008; <sup>4</sup>Belkovskaya et al., 2014); **Sverdlovsk Oblast** (<sup>4</sup>Marina, 2006).

SIBERIA: **Altai Krai** (<sup>4</sup>Gorbunova and Perova, 2006; <sup>1</sup>Gorbunova, 2018a); **Altai Republic** (<sup>3</sup>Singer, 1938d; <sup>1</sup>Gorbunova, 2001a; <sup>4</sup>Perova and Gorbunova, 2001; <sup>4</sup>Gorbunova, 2010); **Buryatia** (<sup>4</sup>Nezdojminogo, 1970a; <sup>4</sup>Penzina and Petrov, 1994; <sup>4</sup>Psurtseva, Kiyashko, Gachkova, and Belova, 2007); **Irkutsk Oblast** (<sup>4</sup>Kutafjeva, 1982; <sup>1,4</sup>Petrov, 1984; <sup>1,4</sup>Petrov, 1989; <sup>1,4</sup>Astapenko and Kutafjeva, 1990; <sup>1,4</sup>Astapenko, 1990b; <sup>1</sup>Petrov, 1991; <sup>4</sup>Muzyka, 2002; <sup>1,4</sup>Petrov, 2008; <sup>4</sup>Muzyka, 2009; <sup>4</sup>Gorbunova and Stepantsova, 2015; <sup>4</sup>Heklau and Dörfelt, 2017); **Khanty-Mansi Autonomous Okrug** (<sup>4</sup>Zvyagina, Baykalova, and Gorbunova, 2007; <sup>4</sup>Filippova and Thormann, 2014; <sup>4</sup>Filippova, 2014; <sup>4</sup>Filippova, Mourgues, and Philippe, 2014; <sup>4</sup>Filippova, Bulyonkova, and Lapshina, 2015; <sup>4</sup>Zvyagina and Vasina, 2015; <sup>4</sup>Filippova and Bulyonkova, 2017a; <sup>4</sup>Filippova and Bulyonkova, 2017b); **Krasnoyarsk Krai** (<sup>4</sup>Beglyanova, 1972a; <sup>1,4</sup>Nezdojminogo, 1976a; <sup>1</sup>Lapitskaya, 1990; <sup>4</sup>Kryuchkova, 2009; <sup>4</sup>Gorbunova, 2016; <sup>4</sup>Malysheva, Malysheva, Kiyashko, et al., 2017; <sup>4</sup>Krom and Kapitonov, 2019); **Novosibirsk Oblast** (<sup>4</sup>Perova and Gorbunova, 2001; <sup>4</sup>Koropachinskiy and Banaev, 2014); **Tomsk Oblast** (<sup>4</sup>Perova, 1972; <sup>1</sup>Milovidova, 1980; <sup>4</sup>Perova and Gorbunova, 2001; <sup>4</sup>Kosheleva and Kutafjeva, 2004; <sup>4</sup>Kudashova, Gashkov, and Kutafjeva, 2013).

FAR EAST: **Amur Oblast** (<sup>1</sup>Kochunova, 2019); **Chukotka Autonomous Okrug** (<sup>1,4</sup>Sazanova, 1993; <sup>1,4</sup>Karatygin, Nezdojminogo, Novozhilov, and Zhurbenko, 1999); **Jewish Autonomous Oblast** (<sup>1</sup>Bulakh, Govorova, Nazarova, and Vassiljeva, 2007; <sup>1</sup>Bau, Bulakh, and Govorova, 2011); **Khabarovsk Krai** (<sup>1</sup>Azbukina et al., 1986; <sup>1</sup>Azbukina et al., 1989; <sup>1</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Bulakh, 2013; <sup>1</sup>Bogacheva, Bulakh, Bukharova, and Egorova, 2015);

<sup>1</sup>Erofeeva and Bulakh, 2015a); **Magadan Oblast** (<sup>4</sup>Vassilkov, 1971a; <sup>4</sup>Sazanova, 1996; <sup>1,4</sup>Sazanova, 2005; <sup>1,4</sup>Sazanova, 2009a; <sup>4</sup>Sazanova, 2009b; <sup>1,4</sup>Sazanova, 2011; <sup>4</sup>Sazanova and Golodnova, 2015); **Primorsky Krai** (<sup>2</sup>Vassiljeva, 1956; <sup>1</sup>Vassiljeva, 1972; <sup>1</sup>Vassiljeva, 1973; <sup>1</sup>Shalapugina, 1976; <sup>1</sup>Bulakh, 1977; <sup>1</sup>Bunkina and Nazarova, 1978; <sup>1</sup>Azbukina et al., 1984; <sup>1</sup>Azbukina et al., 1990; <sup>1</sup>Bardunov et al., 2002; <sup>1</sup>Azbukina et al., 2006; <sup>1</sup>Bau, Bulakh, and Govorova, 2011; <sup>4</sup>Malysheva et al., 2014; <sup>1</sup>Bulakh et al., 2016; <sup>4</sup>Malysheva et al., 2016).

***Suillus aurihymenius* X.F. Shi & P.G. Liu**

SIBERIA: **Altai Republic** (Bolshakov et al., 2020).

***Suillus bellinii* (Inzenga) Kuntze**

EASTERN EUROPE: **Crimea** (Sarkina and Mironova, 2015; Dovgal and Korzhenevsky, 2018; Sarkina, 2020a); **Sevastopol** (Sarkina, 2016b; Dovgal and Korzhenevsky, 2018).

***Suillus bovinus* (L.) Roussel<sup>1</sup>**

≡ *Boletus bovinus* L.<sup>2</sup> ≡ *Ixocomus bovinus* (L.) Quél.<sup>3</sup>

EASTERN EUROPE: **Arkhangelsk Oblast** (<sup>1</sup>Ezhov, 2014); **Belgorod Oblast** (<sup>1</sup>Bedenko, 1979a); **Bryansk Oblast** (<sup>1</sup>Kruglikov, 2007); **Crimea** (<sup>2</sup>Sarkina, 2001; <sup>1</sup>Dudka et al., 2004; <sup>1</sup>Akulov and Pryidiuk, 2007; <sup>1</sup>Sarkina, 2010b; <sup>1</sup>Sarkina, 2011; <sup>1</sup>Sarkina and Pryidiuk, 2012; <sup>1</sup>Sarkina, 2013; <sup>1</sup>Sarkina, 2014b; <sup>1</sup>Sarkina, 2016a); **Kabardino-Balkarian Republic** (<sup>1</sup>Shkhagapsoev and Krapivina, 2004); **Kaliningrad Oblast** (<sup>1</sup>Dedkov, Volodina, and Gubareva, 2007; <sup>1</sup>Volodina, 2007); **Kaluga Oblast** (<sup>1</sup>Sionova, 2003); **Karachay-Cherkess Republic** (<sup>1</sup>Kalamees and Botashev, 2000); **Karelia** (<sup>3</sup>Freindling, 1949; <sup>1</sup>Kovalenko, Morozova, Fomina, and Särkisilta, 1998; <sup>1</sup>Bondartseva et al., 2001; <sup>1</sup>Psurtsseva, Kiyashko, Gachkova, and Belova, 2007; <sup>1</sup>Predtechenskaya and Ruokolainen, 2013; <sup>1</sup>Predtechenskaya, 2013; <sup>1</sup>Krutov et al., 2014; <sup>1</sup>Predtechenskaya and Ruokolainen, 2014; <sup>1</sup>Predtechenskaya, 2015; <sup>1</sup>Savelev and Kikeeva, 2018); **Kirov Oblast** (<sup>1</sup>Kirillov and Luginina, 2011; <sup>1</sup>Kirillov, 2011; <sup>1</sup>Kirillov, Perevedentseva, and Egoshina, 2011; <sup>1</sup>Stavishenko, Luginina, Kirillov, and Egoshina, 2019); **Komi Republic** (<sup>1</sup>Bobretsova, 2004; <sup>1</sup>Palamarchuk, 2012; <sup>1</sup>Palamarchuk and Kirillov, 2017; <sup>1</sup>Palamarchuk, 2017); **Kostroma Oblast** (<sup>1</sup>Burova, 1982); **Krasnodar Krai** (<sup>1</sup>Shumkova, Krivorotov, and Gayday, 2018); **Leningrad Oblast** (<sup>2</sup>Thesleff, 1920; <sup>2</sup>Chastukhin and Nikolaevskaya, 1969; <sup>1</sup>Kalamees and Kovalenko, 1984; <sup>1</sup>Stolyarskaya, 1989; <sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Morozova and Kovalenko, 2000; <sup>1</sup>Morozova, 2007; <sup>1</sup>Popov et al., 2007; <sup>1</sup>Psurtsseva, Kiyashko, Gachkova, and Belova, 2007; <sup>1</sup>Zmitrovich et al., 2015; <sup>1</sup>Malysheva, Malysheva, Shchepin, and Novozhilov, 2018); **Lipetsk Oblast** (<sup>1</sup>Rtishcheva, 1999; <sup>1</sup>Afanasyev, Rtishcheva, and Starodubtseva, 2007; <sup>1</sup>Sarycheva et al., 2009; <sup>1</sup>Sarycheva, Starodubtseva, and Sapelnikova, 2017); **Mordovia** (<sup>2</sup>Chastukhin, 1948a; <sup>2</sup>Kuznetsov, 1960; <sup>2</sup>Chastukhin and Nikolaevskaya, 1969; <sup>1</sup>Ivoilov and Bolshakov, 2011b; <sup>2</sup>Chastukhin, 2011); **Moscow** (<sup>2</sup>Bucholtz, 1897a); **Moscow Oblast** (<sup>1</sup>Gorlenko, Sidorova, and Sidorova, 1989; <sup>1</sup>Levitskaya, 1995b; <sup>1</sup>Levitskaya, 2013); **Murmansk Oblast** (<sup>2</sup>Karsten, 1866); **North Ossetia** (<sup>1</sup>Nikolayev, 2001); **Orenburg Oblast** (<sup>1</sup>Desyatova, 2008); **Penza Oblast** (<sup>1</sup>Ivanov, 1981a); **Perm Krai** (<sup>1</sup>Perevedentseva, 2008; <sup>1</sup>Belkovskaya et al., 2014; <sup>1</sup>Perevedentseva and Shishigin, 2015; <sup>1</sup>Botalov, 2017); **Pskov Oblast** (<sup>1</sup>Popov et al., 2013); **Rostov Oblast** (<sup>1</sup>Rusanov et al., 2004; <sup>1</sup>Morozova et al., 2008; <sup>1</sup>Zmitrovich et al., 2008); **Ryazan Oblast** (<sup>1</sup>Volosnova, 1997; <sup>1</sup>Volosnova, 2014); **Saint Petersburg** (<sup>2</sup>Weinmann, 1828; <sup>2</sup>Weinmann, 1837; <sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Kotkova, Morozova, and Popov, 2005; <sup>1</sup>Morozova and Smirnov, 2011); **Smolensk Oblast** (<sup>2</sup>Jaczevski, 1893; <sup>2</sup>Jaczevski, 1895); **Sverdlovsk Oblast** (<sup>3</sup>Tomilin, 1965; <sup>1</sup>Stepanova and Sirko, 1977; <sup>1</sup>Marina, 2006); **Tatarstan** (<sup>1</sup>Vassiljeva, 1977); **Tula Oblast** (<sup>1</sup>Svetasheva, 2001; <sup>1</sup>Svetasheva, 2004; <sup>1</sup>Svetasheva, 2005b); **Tver Oblast** (<sup>2</sup>Chastukhin, 1948b; <sup>2</sup>Chastukhin and Nikolaevskaya, 1969; <sup>1</sup>Kurochkin, 1993; <sup>1</sup>Mukhina, 2011a; <sup>1</sup>Mukhina, 2011b; <sup>1</sup>Kotkova, 2014); **Udmurt Republic** (<sup>1</sup>Tychinin and Kuzmina, 2003); **Ulyanovsk Oblast** (<sup>1</sup>Ilyukhin, 2009; <sup>1</sup>Ilyukhin, 2010a); **Vladimir Oblast** (<sup>2</sup>Weinmann, 1836); **Vologda Oblast** (<sup>2</sup>Kutova, 1957; <sup>1</sup>Kirillova, 2007); **Voronezh Oblast** (<sup>1</sup>Rtishcheva, 1999; <sup>1</sup>Afanasyev, Rtishcheva, and Starodubtseva, 2007; <sup>1</sup>Sarycheva, Starodubtseva, and Sapelnikova, 2017); **Yaroslavl Oblast** (<sup>1</sup>Lazareva, 1998a; <sup>1</sup>Lazareva, 1998b); **Arid territories** (<sup>1</sup>Rebriev, Rusanov, et al., 2012).

SIBERIA: **Altai Krai** (<sup>1</sup>Gorbunova and Perova, 2006); **Irkutsk Oblast** (<sup>1</sup>Kutafjeva, 1982; <sup>1</sup>Muzyka, 2002); **Khanty-Mansi Autonomous Okrug** (<sup>1</sup>Zvyagina, Baykalova, and Gorbunova, 2007; <sup>1</sup>Filippova, Bulyonkova, and Lapshina, 2015; <sup>1</sup>Makarova, Makarov, Zvyagina, and Bobrikov, 2015; <sup>1</sup>Zvyagina and Vasina, 2015); **Krasnoyarsk Krai** (<sup>2</sup>Thümen, 1880a; <sup>1</sup>Beglyanova, 1972a; <sup>1</sup>Lapitskaya, 1990; <sup>1</sup>Zauzolkova, 2015; <sup>1</sup>Zauzolkova and Gorbunova, 2016; <sup>1</sup>Krom and Kapitonov, 2019); **Kurgan Oblast** (<sup>1</sup>Bystrushkin, 2016); **Novosibirsk Oblast** (<sup>1</sup>Zaytseva, 1971); **Sverdlovsk Oblast** (<sup>1</sup>Stepanova and Sirko, 1977); **Tomsk Oblast** (<sup>1</sup>Milovidova, 1980; <sup>1</sup>Perova and Gorbunova, 2001; <sup>1</sup>Kudashova, Gashkov, and Kutafjeva, 2013; <sup>1</sup>Vaishlya et al., 2017); **Zabaykalsky Krai** (<sup>2</sup>Karsten, 1911).

FAR EAST: **Amur Oblast** (<sup>1</sup>Taranina, 2005); **Magadan Oblast** (<sup>1</sup>Sazanova, 2005; <sup>1</sup>Sazanova, 2009a; <sup>1</sup>Sazanova and Golodnova, 2015).

***Suillus bresadolae* (Quél.) Gerhold<sup>1</sup>**

≡ *Suillus aeruginascens* var. *bresadolae* (Quél.) M.M. Moser<sup>2</sup> ≡ *Suillus viscidus* var. *bresadolae* (Quél.) Bon<sup>3</sup> = *Suillus bresadolae* var. *flavogriseus* Cazzoli & Consiglio<sup>4</sup> = *Suillus nueschii* Singer<sup>5</sup> = *Suillus nueschii* var. *caerulescens* Singer<sup>6</sup>

EASTERN EUROPE: **Saint Petersburg** (<sup>1</sup>Morozova, Kovalenko, Rebriev, and Malysheva, 2014); **Yamalo-Nenets Autonomous Okrug** (<sup>5</sup>Stepanova and Sirko, 1977).

SIBERIA: **Altai Republic** (<sup>6</sup>Singer, 1962a); **Irkutsk Oblast** (<sup>2</sup>Petrov, 1984; <sup>6</sup>Kutafjeva, 1989; <sup>1</sup>Astapenko and Kutafjeva, 1990; <sup>1,6</sup>Astapenko, 1990b; <sup>2</sup>Petrov, 1991; <sup>2</sup>Petrov, 2008; <sup>2,5</sup>Muzyka, 2009; <sup>2</sup>Muzyka and Penzina, 2017); **Krasnoyarsk Krai** (<sup>2</sup>Nezdojminogo, 1982a); **Tyva Republic** (<sup>1</sup>Gorbunova, 2015).

FAR EAST: **Magadan Oblast** (<sup>2</sup>Sazanova, 1996; <sup>2</sup>Sazanova, 2005; <sup>3,4</sup>Sazanova, 2009a; <sup>3</sup>Sazanova, 2009b; <sup>3</sup>Sazanova, 2011).

***Suillus brunnescens* A.H. Sm. & Thiers**

SIBERIA: **Tomsk Oblast** (Kudashova, Gashkov, and Kutafjeva, 2013; Vaishlya et al., 2017).

***Suillus cavipes* (Klotzsch) A.H. Sm. & Thiers<sup>1</sup>**

≡ *Boletinus cavipes* (Klotzsch) Kalchbr.<sup>2</sup> ≡ *Boletinus cavipes* f. *cavipes* (Klotzsch) Kalchbr.<sup>3</sup> ≡ *Boletus cavipes* Klotzsch<sup>4</sup> = *Boletinus cavipes* f. *aureus* (Rolland) Singer<sup>5</sup>

EASTERN EUROPE: **Kaliningrad Oblast** (<sup>2</sup>Dedkov, Volodina, and Gubareva, 2007; <sup>2</sup>Dedkov and Grishanov, 2010); **Karelia** (<sup>1</sup>Krutov et al., 2014); **Komi Republic** (<sup>2</sup>Bobretsova, 2004; <sup>1</sup>Palamarchuk, 2012; <sup>1</sup>Palamarchuk, 2016a; <sup>1</sup>Palamarchuk, 2016b); **Leningrad Oblast** (<sup>4</sup>Thesleff, 1920; <sup>2</sup>Kovalenko and Morozova, 1999a; <sup>2</sup>Popov et al., 2007); **Moscow Oblast** (<sup>2</sup>Gorlenko, Sidorova, and Sidorova, 1989); **Perm Krai** (<sup>2</sup>Perevedentseva, 2008; <sup>1</sup>Belkovskaya et al., 2014); **Sverdlovsk Oblast** (<sup>2</sup>Tomilin, 1965; <sup>2</sup>Stepanova and Sirko, 1977); **Udmurt Republic** (<sup>2</sup>Tychinin and Kuzmina, 2003; <sup>2</sup>Baranova, 2012); **Yamalo-Nenets Autonomous Okrug** (<sup>2</sup>Kazantseva, 1970; <sup>2</sup>Stepanova and Sirko, 1970; <sup>2</sup>Kazantseva, 1972; <sup>2</sup>Stepanova and Sirko, 1977; <sup>4</sup>Karatygin, Nezdojminogo, Novozhilov, and Zhurbenko, 1999).

SIBERIA: **Altai Republic** (<sup>2</sup>Singer, 1938e; <sup>2</sup>Kovalenko, 1992; <sup>2</sup>Gorbunova, 2001b; <sup>2</sup>Perova and Gorbunova, 2001); **Buryatia** (<sup>2</sup>Nezdojminogo, 1970a; <sup>5</sup>Petrov, 1991; <sup>3,5</sup>Penzina and Petrov, 1994); **Irkutsk Oblast** (<sup>2</sup>Singer, 1938e; <sup>2</sup>Beglyanova, 1972a; <sup>2</sup>Kutafjeva, 1982; <sup>2</sup>Petrov, 1984; <sup>2</sup>Petrov, 1989; <sup>2</sup>Astapenko, 1990a; <sup>2</sup>Astapenko, 1990b; <sup>5</sup>Petrov, 1991; <sup>2</sup>Muzyka, 2002; <sup>2</sup>Bardunov et al., 2005; <sup>3,5</sup>Petrov, 2008; <sup>2</sup>Muzyka, 2009; <sup>1</sup>Petrov, 2013; <sup>2</sup>Heklau and Dörfelt, 2017; <sup>2</sup>Muzyka and Penzina, 2017); **Khakassia** (<sup>2</sup>Beglyanova, 1972a; <sup>1</sup>Zauzolkova, 2015); **Khanty-Mansi Autonomous Okrug** (<sup>2</sup>Zvyagina, Baykalova, and Gorbunova, 2007); **Krasnoyarsk Krai** (<sup>2</sup>Beglyanova, 1972a; <sup>2</sup>Nezdojminogo, 1982a; <sup>2</sup>Lapitskaya, 1990; <sup>2</sup>Kosheleva and Kutafjeva, 2008a; <sup>2</sup>Kryuchkova, 2009; <sup>1</sup>Malysheva, Malysheva, Kiyashko, et al., 2017; <sup>1</sup>Krom and Kapitonov, 2019); **Sakha Republic** (<sup>2</sup>Birkenhof, 1936; <sup>2</sup>Singer, 1938e); **Tomsk Oblast** (<sup>2</sup>Perova and Gorbunova, 2001; <sup>1</sup>Kudashova, Gashkov, and Kutafjeva, 2013); **Yamalo-Nenets Autonomous Okrug** (<sup>4</sup>Karatygin, Nezdojminogo, Novozhilov, and Zhurbenko, 1999); **Baikalia** (<sup>2</sup>Singer, 1938e).

FAR EAST: **Amur Oblast** (<sup>2</sup>Singer, 1938e; <sup>2</sup>Tomilin, 1962; <sup>2</sup>Gordienko, Petrova, and Tarasov, 1981; <sup>2</sup>Nazarova, 1986; <sup>2</sup>Taranina, 2005); **Jewish Autonomous Oblast** (<sup>2</sup>Bulakh, Govorova, Nazarova, and Vassiljeva, 2007; <sup>1</sup>Bau, Bulakh, and Govorova, 2011); **Khabarovsk Krai** (<sup>2</sup>Vassiljeva, 1956; <sup>2</sup>Azbukina et al., 1989; <sup>1</sup>Bulakh, Vassiljeva, and Erofeeva, 2010; <sup>1</sup>Bulakh, 2013; <sup>1</sup>Bogacheva, Bulakh, Bukharova, and Egorova, 2015); **Magadan Oblast** (<sup>2</sup>Nazarova, 1976; <sup>3</sup>Sazanova, 1996; <sup>3,5</sup>Sazanova, 2005; <sup>1</sup>Sazanova, 2009a; <sup>1</sup>Sazanova, 2009b; <sup>1</sup>Sazanova, 2011; <sup>1</sup>Sazanova and Golodnova, 2015); **Primorsky Krai** (<sup>2</sup>Vassiljeva, 1956; <sup>2</sup>Vassiljeva, 1973; <sup>1</sup>Bulakh et al., 2016); **Sakhalin Oblast** (<sup>2</sup>Vassiljeva and Nazarova, 1972).

***Suillus cembrae* (Singer) Singer**

≡ *Ixocomus cembrae* Singer<sup>1</sup>

SIBERIA: **Altai Republic** (<sup>1</sup>Singer, 1938d).

***Suillus collinitus* (Fr.) Kuntze**

EASTERN EUROPE: **Crimea** (Sarkina, 2013; Sarkina, 2014a; Sarkina, 2014b; Sarkina and Mironova, 2015; Sarkina, 2016a; Sarkina, 2020a); **Kaliningrad Oblast** (Dedkov, Volodina, and Gubareva, 2007; Dedkov and Grishanov, 2010); **Karachay-Cherkess Republic** (Kalamees and Botashev, 2000); **Sevastopol** (Sarkina, 2016b; Sarkina, 2020b; Sarkina, 2020c).

***Suillus flavidus* (Fr.) J. Presl<sup>1</sup>**

≡ *Boletus flavidus* Fr.<sup>2</sup> ≡ *Cricunopus flavidus* (Fr.) P. Karst.<sup>3</sup> ≡ *Ixocomus flavidus* (Fr.) Quél.<sup>4</sup>

EASTERN EUROPE: **Belgorod Oblast** (<sup>1</sup>Bedenko, 1979a); **Chelyabinsk Oblast** (<sup>2</sup>Aleksandrovskaya and Lobanova, 1968); **Kaliningrad Oblast** (<sup>2</sup>Neuhoff, 1922; <sup>1</sup>Dedkov, Volodina, and Gubareva, 2007; <sup>1</sup>Volodina, 2007; <sup>1</sup>Dedkov

and Grishanov, 2010); **Karelia** (<sup>1</sup>Krutov et al., 2014); **Komi Republic** (<sup>1</sup>Bobretsova, 2004; <sup>1</sup>Palamarchuk, 2012; <sup>1</sup>Palamarchuk and Kirillov, 2017); **Kursk Oblast** (<sup>2</sup>Ryabova and Ignatenko, 1981); **Leningrad Oblast** (<sup>3</sup>Thesleff, 1920; <sup>2</sup>Chastukhin and Nikolaevskaya, 1969; <sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Morozova, 2007; <sup>1</sup>Popov et al., 2007); **Moscow Oblast** (<sup>1</sup>Levitskaya, 2013); **Murmansk Oblast** (<sup>2</sup>Pystina, Pavlova, and Shestakova, 1969); **Perm Krai** (<sup>1</sup>Perevedentseva, 2008; <sup>1</sup>Botalov, 2017; <sup>1</sup>Botalov and Perevedentseva, 2018); **Saint Petersburg** (<sup>2</sup>Weinmann, 1828; <sup>2</sup>Weinmann, 1836; <sup>2</sup>Weinmann, 1837; <sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Kotkova, Morozova, and Popov, 2005; <sup>1</sup>Morozova and Smirnov, 2011); **Sverdlovsk Oblast** (<sup>1</sup>Stepanova and Sirko, 1977; <sup>1</sup>Marina, 2006); **Tatarstan** (<sup>1</sup>Vassiljeva, 1977; <sup>1</sup>Nazirov, Gorshkov, Ivanov, and Rogova, 2016); **Tver Oblast** (<sup>1</sup>Kurochkin, 1993); **Udmurt Republic** (<sup>1</sup>Tychinin and Kuzmina, 2003); **Vologda Oblast** (<sup>1</sup>Kirillova, 2007).

SIBERIA: **Altai Republic** (<sup>1</sup>Gorbunova, 2001b; <sup>1</sup>Perova and Gorbunova, 2001); **Buryatia** (<sup>1</sup>Nezdojminogo, 1973; <sup>1</sup>Petrov, 1991); **Irkutsk Oblast** (<sup>1</sup>Kutafjeva, 1989; <sup>1</sup>Muzyka, 2002; <sup>1</sup>Heklau and Dörfelt, 2017); **Khakassia** (<sup>1</sup>Zauzolkova, 2015); **Krasnoyarsk Krai** (<sup>2</sup>Thümen, 1880a; <sup>4</sup>Perova, 1970; <sup>1</sup>Beglyanova, 1972a; <sup>1</sup>Lapitskaya, 1990; <sup>1</sup>Kosheleva and Kutafjeva, 2008a); **Novosibirsk Oblast** (<sup>1</sup>Perova and Gorbunova, 2001; <sup>1</sup>Perova and Gorbunova, 2007; <sup>1</sup>Glupov and Shaulo, 2018); **Tomsk Oblast** (<sup>4</sup>Singer, 1938d; <sup>1</sup>Milovidova, 1980; <sup>1</sup>Perova and Gorbunova, 2001; <sup>1</sup>Kosheleva and Kutafjeva, 2004; <sup>1</sup>Kudashova, Gashkov, and Kutafjeva, 2013; <sup>1</sup>Kudashova, Gashkov, and Vaishlya, 2016b; <sup>1</sup>Vaishlya et al., 2017); **Yamalo-Nenets Autonomous Okrug** (<sup>1</sup>Tarchevskaya, 1990).

FAR EAST: **Khabarovsk Krai** (<sup>1</sup>Bulakh, 2013; <sup>1</sup>Bogacheva, Bulakh, Bukharova, and Egorova, 2015); **Magadan Oblast** (<sup>1</sup>Nazarova, 1976; <sup>1</sup>Sazanova, 2005; <sup>1</sup>Sazanova, 2009a); **Primorsky Krai** (<sup>1</sup>Bardunov et al., 2002).

### *Suillus flavus* (Quél.) Singer

≡ *Boletus flavus* With.<sup>1</sup> ≡ *Ixocomus flavus* (Quél.) Quél.<sup>2</sup>

EASTERN EUROPE: **Moscow** (<sup>1</sup>Bucholtz, 1897b; <sup>1</sup>Bucholtz, 1897c; <sup>1</sup>Mosolov, 1906); **Smolensk Oblast** (<sup>1</sup>Jaczewski, 1898).

SIBERIA: **Altai Republic** (<sup>2</sup>Singer, 1938d); **Krasnoyarsk Krai** (<sup>1</sup>Thümen, 1882); **Sakha Republic** (<sup>1</sup>Birkenhof, 1936).

FAR EAST: **Magadan Oblast** (<sup>1</sup>Sazanova, 2009a; <sup>1</sup>Sazanova, 2011).

### *Suillus granulatus* (L.) Roussel<sup>1</sup>

≡ *Boletus granulatus* L.<sup>2</sup> ≡ *Ixocomus granulatus* (L.) Quél.<sup>3</sup> = *Suillus granulatus* subsp. *albidipes* (Peck) Snell & E.A. Dick<sup>4</sup> = *Suillus granulatus* subsp. *snellii* Singer<sup>5</sup>

EASTERN EUROPE: **Adygea** (<sup>1</sup>Sopina, 2001a); **Astrakhan Oblast** (<sup>1</sup>Pilipenko et al., 2014); **Belgorod Oblast** (<sup>1</sup>Bedenko, 1979a); **Bryansk Oblast** (<sup>1</sup>Kruglikov, 2007); **Chelyabinsk Oblast** (<sup>1</sup>Sirko and Stepanova, 1977; <sup>1</sup>Stepanova and Sirko, 1977); **Crimea** (<sup>2</sup>Zerova, 1962; <sup>2</sup>Sarkina, 2001; <sup>1</sup>Dudka et al., 2004; <sup>1</sup>Akulov and Pryidiuk, 2007; <sup>1</sup>Sarkina, 2010b; <sup>1</sup>Sarkina, 2011; <sup>1</sup>Sarkina and Pryidiuk, 2012; <sup>1</sup>Sarkina, 2013; <sup>1</sup>Sarkina, 2014b; <sup>1</sup>Sarkina and Mironova, 2015; <sup>1</sup>Sarkina, 2016a; <sup>1</sup>Sarkina and Stavishenko, 2019); **Kaliningrad Oblast** (<sup>1</sup>Dedkov, Volodina, and Gubareva, 2007; <sup>1</sup>Volodina, 2007); **Kaluga Oblast** (<sup>1</sup>Sionova, 2003; <sup>1</sup>Sionova, 2006); **Karachay-Cherkess Republic** (<sup>1</sup>Onipchenko and Kaverina, 1989; <sup>1</sup>Kalamees and Botashev, 2000); **Karelia** (<sup>1</sup>Kovalenko, Morozova, Fomina, and Särkisilta, 1998; <sup>1</sup>Bondartseva et al., 2001; <sup>1</sup>Predtechenskaya and Ruokolainen, 2013; <sup>1</sup>Krutov et al., 2014; <sup>1</sup>Predtechenskaya and Ruokolainen, 2014); **Kirov Oblast** (<sup>1</sup>Kirillov, 2011; <sup>1</sup>Kirillov, Perevedentseva, and Egoshina, 2011; <sup>1</sup>Stavishenko, Luginina, Kirillov, and Egoshina, 2019); **Komi Republic** (<sup>1</sup>Palamarchuk, 2012; <sup>1</sup>Palamarchuk and Kirillov, 2017); **Kostroma Oblast** (<sup>1</sup>Veremyeva, 1986); **Krasnodar Krai** (<sup>3</sup>Vassiljeva, 1939; <sup>1</sup>Kovalenko, 1980a; <sup>1</sup>Shumkova, Krivorotov, and Gayday, 2018); **Kursk Oblast** (<sup>1</sup>Bedenko, 1985; <sup>1</sup>Soshnina, 2005); **Leningrad Oblast** (<sup>2</sup>Thesleff, 1920; <sup>1</sup>Stolyarskaya, 1989; <sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Popov et al., 2007; <sup>1</sup>Zmitrovich et al., 2015); **Lipetsk Oblast** (<sup>1</sup>Rtishcheva, 1999; <sup>1</sup>Sarycheva, 1999; <sup>1</sup>Afanasyev, Rtishcheva, and Starodubtseva, 2007; <sup>1,4</sup>Sarycheva et al., 2009; <sup>1</sup>Sarycheva, 2011; <sup>1</sup>Sarycheva, 2014a; <sup>1</sup>Sarycheva, 2016; <sup>1</sup>Sarycheva, Starodubtseva, and Sapelnikova, 2017); **Mari El Republic** (<sup>1</sup>Prokhorov, 2007); **Mordovia** (<sup>2</sup>Kuznetsov, 1960; <sup>1</sup>Ivoilov and Bolshakov, 2011b); **Moscow** (<sup>2</sup>Bucholtz, 1897b; <sup>2</sup>Bucholtz, 1897c; <sup>2</sup>Mosolov, 1906); **Moscow Oblast** (<sup>1</sup>Gorlenko, Sidorova, and Sidorova, 1989; <sup>1</sup>Levitskaya, 1995b; <sup>1</sup>Voronina et al., 2012; <sup>1</sup>Levitskaya, 2013; <sup>1</sup>Voronina et al., 2014; <sup>1</sup>Sidorova, Alexandrova, and Voronina, 2017); **North Ossetia** (<sup>1</sup>Nikolayev, 2001); **Novgorod Oblast** (<sup>1</sup>Kovalenko, Morozova, Nezdojminogo, and Popov, 2005; <sup>1</sup>Popov et al., 2013); **Orenburg Oblast** (<sup>1</sup>Korshikova, 2006; <sup>1</sup>Desyatova, 2008); **Penza Oblast** (<sup>1</sup>Ivanov, 1981a); **Perm Krai** (<sup>1</sup>Perevedentseva, 2008; <sup>1</sup>Belkovskaya et al., 2014; <sup>1</sup>Botalov, 2017); **Pskov Oblast** (<sup>1</sup>Kovalenko and Morozova, 1999b; <sup>1</sup>Popov, 2001a; <sup>1</sup>Popov et al., 2013); **Rostov Oblast** (<sup>1</sup>Rusanov et al., 2004; <sup>1</sup>Morozova et al., 2008; <sup>1</sup>Zmitrovich et al., 2008; <sup>1</sup>Rusanov, Rebriev, and Bulgakov, 2018); **Ryazan Oblast** (<sup>1</sup>Volosnova, 1997; <sup>1</sup>Volosnova, 2014); **Saint Petersburg** (<sup>2</sup>Weinmann, 1828; <sup>2</sup>Weinmann, 1837; <sup>1</sup>Morozova and Smirnov, 2011; <sup>1</sup>Morozova et al., 2020); **Samara Oblast** (<sup>1</sup>Malysheva and Malysheva, 2004; <sup>1</sup>Malysheva and Malysheva, 2008); **Saratov Oblast** (<sup>2</sup>Komirnaya, 1970;

<sup>1</sup>Komirnaya, 1975); **Sevastopol** (<sup>1</sup>Sarkina and Belyaeva, 2013; <sup>1</sup>Sarkina, 2016b; <sup>1</sup>Sarkina, 2020c); **Smolensk Oblast** (<sup>2</sup>Jaczewski, 1896); **Sverdlovsk Oblast** (<sup>1</sup>Stepanova and Sirko, 1977; <sup>1</sup>Marina, 2006); **Tatarstan** (<sup>1</sup>Vassiljeva, 1977; <sup>1</sup>Potapov, 2015b); **Tula Oblast** (<sup>1</sup>Svetasheva, 2001; <sup>1</sup>Svetasheva, 2004; <sup>1</sup>Svetasheva, 2013); **Tver Oblast** (<sup>1</sup>Kurochkin, 1993; <sup>1</sup>Mukhina, 2011a; <sup>1</sup>Mukhina, 2011b; <sup>1</sup>Kotkova, 2014); **Udmurt Republic** (<sup>1</sup>Tychinin and Kuzmina, 2003); **Ulyanovsk Oblast** (<sup>1</sup>Ilyukhin, 2009; <sup>1</sup>Ilyukhin, 2010a); **Vladimir Oblast** (<sup>1</sup>Mishulin, Blinov, and Gushchina, 2018); **Vologda Oblast** (<sup>1</sup>Kirillova, 2007); **Voronezh Oblast** (<sup>2</sup>Chastukhin and Nikolaevskaya, 1953; <sup>2</sup>Chastukhin and Nikolaevskaya, 1969; <sup>1</sup>Bedenko, 1985; <sup>1</sup>Rtishcheva, 1999; <sup>1</sup>Afanasyev, Rtishcheva, and Starodubtseva, 2007; <sup>1</sup>Selochnik, 2015; <sup>1</sup>Sarycheva, Starodubtseva, and Sapelnikova, 2017); **Yaroslavl Oblast** (<sup>1</sup>Lazareva, 1997; <sup>1</sup>Lazareva, 1998a); **Arid territories** (<sup>1</sup>Rebriev, Rusanov, et al., 2012); **Northern Caucasus** (<sup>1</sup>Kovalenko, 1980b).

SIBERIA: **Altai Krai** (<sup>1</sup>Gorbunova and Perova, 2006); **Altai Republic** (<sup>1</sup>Kovalenko, 1992; <sup>1</sup>Gorbunova, 1996; <sup>1</sup>Gorbunova, 1997; <sup>1</sup>Gorbunova, 2001b; <sup>1</sup>Perova and Gorbunova, 2001; <sup>1</sup>Gorbunova, 2008; <sup>1</sup>Gorbunova, 2017b); **Buryatia** (<sup>1</sup>Nezdojminogo, 1970a); **Irkutsk Oblast** (<sup>1</sup>Kutafjeva, 1982; <sup>1</sup>Petrov, 1984; <sup>1</sup>Astapenko, 1990b; <sup>1</sup>Muzyka, 2002; <sup>1</sup>Petrov, 2008; <sup>1</sup>Heklau and Dörfelt, 2017); **Khakassia** (<sup>1</sup>Beglyanova, 1972a; <sup>1</sup>Zauzolkova, 2015); **Khanty-Mansi Autonomous Okrug** (<sup>1</sup>Zvyagina, Baykalova, and Gorbunova, 2007); **Krasnoyarsk Krai** (<sup>2</sup>Kalchbrenner, 1878; <sup>2</sup>Thümen, 1878; <sup>3</sup>Perova, 1970; <sup>1</sup>Beglyanova, 1972a; <sup>1</sup>Lapitskaya, 1990; <sup>1</sup>Kosheleva and Kutafjeva, 2008b; <sup>1</sup>Kryuchkova, 2014a; <sup>1</sup>Krom and Kapitonov, 2019); **Kurgan Oblast** (<sup>1</sup>Bystrushkin, 2016); **Novosibirsk Oblast** (<sup>1</sup>Perova and Gorbunova, 2001; <sup>1</sup>Gorbunova, 2007; <sup>1</sup>Perova and Gorbunova, 2007; <sup>1</sup>Koropachinskiy and Banaev, 2014); **Tomsk Oblast** (<sup>1</sup>Milovidova, 1980; <sup>1</sup>Kosheleva and Kutafjeva, 2004; <sup>1</sup>Kudashova, Gashkov, and Kutafjeva, 2013; <sup>1</sup>Vaishlya et al., 2017).

FAR EAST: **Amur Oblast** (<sup>1</sup>Taranina, 2005; <sup>1</sup>Kochunova, 2019); **Magadan Oblast** (<sup>5</sup>Vassilkov, 1971a; <sup>5</sup>Sazanova, 2005; <sup>5</sup>Sazanova, 2009a); **Primorsky Krai** (<sup>3</sup>Vassiljeva, 1956; <sup>1</sup>Vassiljeva, 1973; <sup>1</sup>Azbukina et al., 2006; <sup>1</sup>Bau, Bulakh, and Govorova, 2011); **Sakhalin Oblast** (<sup>1</sup>Bulakh, Govorova, and Bogatov, 1999).

### ***Suillus grevillei* (Klotzsch) Singer<sup>1</sup>**

≡ *Boletus grevillei* Klotzsch<sup>2</sup> ≡ *Ixocomus grevillei* (Klotzsch) Vassilkov<sup>3</sup> ≡ *Suillus grevillei* f. *grevillei* (Klotzsch) Singer<sup>4</sup> = *Boletus elegans* Schumach.<sup>5</sup> = *Cricunopus elegans* P. Karst.<sup>6</sup> = *Ixocomus elegans* (P. Karst.) Singer<sup>7</sup> = *Ixocomus elegans* f. *badius* Singer<sup>8</sup> = *Ixocomus elegans* f. *griseoloporus* Singer<sup>9</sup> = *Suillus clintonianus* (Peck) Kuntze<sup>10</sup> = *Suillus grevillei* f. *badius* (Singer) Singer<sup>11</sup> = *Suillus grevillei* var. *clintonianus* (Peck) Singer<sup>12</sup>

EASTERN EUROPE: **Arkhangelsk Oblast** (<sup>1</sup>Ezhov, Ershov, Ruokolainen, and Zmitrovich, 2011; <sup>1</sup>Ezhov, 2014; <sup>1</sup>Ezhov, Zmitrovich, and Ruokolainen, 2019); **Bashkortostan** (<sup>10</sup>Korhonen, Hyvönen, and Ahti, 1993); **Chelyabinsk Oblast** (<sup>1</sup>Sirko and Stepanova, 1977; <sup>1</sup>Stepanova and Sirko, 1977); **Crimea** (<sup>1</sup>Sarkina and Prydiuk, 2012); **Kaliningrad Oblast** (<sup>1</sup>Dedkov, Volodina, and Gubareva, 2007; <sup>1</sup>Volodina, 2007; <sup>1</sup>Atayev and Volodina, 2020); **Kaluga Oblast** (<sup>1</sup>Sionova, 2006); **Karelia** (<sup>1</sup>Kovalenko, Morozova, Fomina, and Särkisilta, 1998; <sup>1</sup>Bondartseva et al., 2001; <sup>1</sup>Krutov et al., 2014; <sup>1</sup>Savelev and Kikeeva, 2018); **Kirov Oblast** (<sup>1,10</sup>Kirillov, 2011; <sup>1,10</sup>Kirillov, Perevedentseva, and Egoshina, 2011); **Komi Republic** (<sup>1</sup>Palamarchuk (Bobretsova), 2009; <sup>1,10</sup>Palamarchuk, 2011b; <sup>1,10</sup>Palamarchuk, 2012; <sup>1,10</sup>Palamarchuk, 2016a; <sup>1,10</sup>Palamarchuk, 2016b); **Leningrad Oblast** (<sup>6</sup>Thesleff, 1920; <sup>10</sup>Korhonen, Hyvönen, and Ahti, 1993; <sup>1,10</sup>Kovalenko and Morozova, 1999a; <sup>1,10</sup>Popov et al., 2007; <sup>10</sup>Psurtseva, Kiyashko, Gachkova, and Belova, 2007; <sup>1</sup>Bondartseva et al., 2015; <sup>1</sup>Zmitrovich et al., 2015); **Lipetsk Oblast** (<sup>1</sup>Sarycheva et al., 2009; <sup>1</sup>Sarycheva, 2014a; <sup>1</sup>Shcherbakov, 2014; <sup>1</sup>Sarycheva, 2016); **Mordovia** (<sup>1</sup>Ivoilov and Bolshakov, 2011b); **Moscow Oblast** (<sup>1</sup>Gorlenko, Sidorova, and Sidorova, 1989; <sup>1</sup>Levitskaya, 1998; <sup>1</sup>Levitskaya, 2013; <sup>1</sup>Sidorova, Alexandrova, and Voronina, 2017); **Penza Oblast** (<sup>5</sup>Vet, 1943; <sup>1</sup>Ivanov, 1981a); **Perm Krai** (<sup>1,10</sup>Perevedentseva, 2008; <sup>10</sup>Belkovskaya et al., 2014; <sup>1,10</sup>Botalov, 2017); **Pskov Oblast** (<sup>1</sup>Popov et al., 2013); **Rostov Oblast** (<sup>1</sup>Rusanov, Rebriev, and Bulgakov, 2018); **Saint Petersburg** (<sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Kotkova, Morozova, and Popov, 2007; <sup>1</sup>Morozova and Smirnov, 2011; <sup>1</sup>Morozova, Kovalenko, Rebriev, and Malysheva, 2014); **Saratov Oblast** (<sup>1</sup>Komirnaya, 1975); **Smolensk Oblast** (<sup>5</sup>Jaczewski, 1898); **Sverdlovsk Oblast** (<sup>1</sup>Stepanova and Sirko, 1977; <sup>4,11</sup>Marina, 2006); **Tambov Oblast** (<sup>1</sup>Elenevskiy, 2002); **Tatarstan** (<sup>1</sup>Potapov, 2016a; <sup>1</sup>Potapov, 2016b); **Tula Oblast** (<sup>1</sup>Svetasheva, 2001; <sup>1</sup>Svetasheva, 2004); **Tver Oblast** (<sup>1</sup>Mukhina, 2011a; <sup>1</sup>Mukhina, 2011b; <sup>1</sup>Kotkova, 2014); **Udmurt Republic** (<sup>1</sup>Tychinin and Kuzmina, 2003); **Ulyanovsk Oblast** (<sup>1</sup>Ilyukhin, 2009; <sup>1</sup>Ilyukhin, 2010a); **Vladimir Oblast** (<sup>1</sup>Azbukina et al., 2010); **Vologda Oblast** (<sup>2</sup>Kutova, 1957; <sup>1</sup>Kirillova, 2007); **Voronezh Oblast** (<sup>5</sup>Chastukhin and Nikolaevskaya, 1953; <sup>5</sup>Chastukhin and Nikolaevskaya, 1969; <sup>1</sup>Agafonov, 2011; <sup>1</sup>Agafonov, 2018); **Yamalo-Nenets Autonomous Okrug** (<sup>1</sup>Kazantseva, 1972; <sup>1</sup>Stepanova and Sirko, 1977; <sup>10</sup>Korhonen, Hyvönen, and Ahti, 1993; <sup>10</sup>Karatygin, Nezdojminogo, Novozhilov, and Zhurbenko, 1999); **Yaroslavl Oblast** (<sup>1</sup>Lazareva, 1997; <sup>1,10</sup>Lazareva, 1998a; <sup>10</sup>Lazareva, 1998b); **Arid territories** (<sup>1</sup>Rebriev, Rusanov, et al., 2012).

SIBERIA: **Altai Krai** (<sup>1</sup>Gorbunova, 2018a); **Altai Republic** (<sup>7,8,9</sup>Singer, 1938d; <sup>10</sup>Korhonen, Hyvönen, and Ahti, 1993; <sup>1</sup>Gorbunova, 1996; <sup>1</sup>Gorbunova, 1997; <sup>1</sup>Gorbunova, 2001a; <sup>1</sup>Gorbunova, 2001b; <sup>1</sup>Gorbunova, 2003;

<sup>1</sup>Gorbunova, 2008; <sup>10</sup>Gorbunova, 2010; <sup>1</sup>Gorbunova, 2010); **Buryatia** (<sup>1</sup>Nezdojminogo, 1970a; <sup>11</sup>Penzina and Petrov, 1994; <sup>10</sup>Heklau and Dörfelt, 2017); **Irkutsk Oblast** (<sup>1</sup>Kutafjeva, 1982; <sup>4,11</sup>Petrov, 1984; <sup>11</sup>Petrov, 1989; <sup>4,11</sup>Astapenko, 1990b; <sup>4</sup>Petrov, 1991; <sup>10</sup>Korhonen, Hyvönen, and Ahti, 1993; <sup>1,10</sup>Muzyka, 2002; <sup>10</sup>Bardunov et al., 2005; <sup>1,10</sup>Petrov, 2008; <sup>4,11</sup>Muzyka, 2009; <sup>1,10</sup>Muzyka and Penzina, 2017; <sup>1</sup>Heklau and Dörfelt, 2017); **Khakassia** (<sup>1</sup>Beglyanova, 1972a; <sup>1</sup>Zauzolkova, 2015); **Khanty-Mansi Autonomous Okrug** (<sup>1</sup>Zvyagina, Baykalova, and Gorbunova, 2007; <sup>1</sup>Zvyagina and Baykalova, 2012; <sup>10</sup>Zvyagina and Vasina, 2015); **Krasnoyarsk Krai** (<sup>3</sup>Perova, 1970; <sup>1</sup>Beglyanova, 1972a; <sup>1</sup>Nezdojminogo, 1976a; <sup>1</sup>Lapitskaya, 1990; <sup>10</sup>Korhonen, Hyvönen, and Ahti, 1993; <sup>1</sup>Kosheleva and Kutafjeva, 2008a; <sup>1</sup>Kryuchkova, 2009; <sup>1</sup>Malysheva, Malysheva, Kiyashko, et al., 2017; <sup>1,12</sup>Krom and Kapitonov, 2019); **Novosibirsk Oblast** (<sup>1</sup>Zaytseva, 1971; <sup>1</sup>Perova and Gorbunova, 2007; <sup>1</sup>Koropachinskiy and Banaev, 2014); **Sakha Republic** (<sup>7</sup>Singer, 1938d; <sup>1</sup>Nezdojminogo, 1997a; <sup>1</sup>Karatygin, Nezdojminogo, Novozhilov, and Zhurbenko, 1999); **Tomsk Oblast** (<sup>1</sup>Milovidova, 1980; <sup>1</sup>Kosheleva and Kutafjeva, 2004; <sup>1,10</sup>Kudashova, Gashkov, and Kutafjeva, 2013); **Yamalo-Netets Autonomous Okrug** (<sup>1</sup>Tarchevskaya, 1990).

FAR EAST: **Amur Oblast** (<sup>7</sup>Singer, 1938d; <sup>3</sup>Tomilin, 1962; <sup>1</sup>Gordienko, Petrova, and Tarasov, 1981; <sup>1</sup>Taranina, 2005; <sup>1</sup>Kochunova, 2019); **Chukotka Autonomous Okrug** (<sup>11</sup>Sazanova, 1993); **Jewish Autonomous Oblast** (<sup>1</sup>Bulakh, Govorova, Nazarova, and Vassiljeva, 2007; <sup>1</sup>Bau, Bulakh, and Govorova, 2011); **Khabarovsk Krai** (<sup>3</sup>Vassiljeva, 1956; <sup>1</sup>Azbukina et al., 1986; <sup>1</sup>Azbukina et al., 1989; <sup>10</sup>Korhonen, Hyvönen, and Ahti, 1993; <sup>1</sup>Bulakh, Vassiljeva, and Erofeeva, 2010; <sup>1</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Bulakh, 2013; <sup>1</sup>Bogacheva, Bulakh, Bukharova, and Egorova, 2015; <sup>1</sup>Erofeeva and Bulakh, 2015a); **Magadan Oblast** (<sup>1</sup>Nazarova, 1976; <sup>11</sup>Sazanova, 1996; <sup>10</sup>Sazanova, 2005; <sup>1</sup>Sazanova, 2009a; <sup>1</sup>Sazanova, 2009b; <sup>1</sup>Sazanova, 2011; <sup>1</sup>Sazanova and Golodnova, 2015); **Primorsky Krai** (<sup>3</sup>Vassiljeva, 1956; <sup>1</sup>Vassiljeva, 1973; <sup>1</sup>Azbukina et al., 2006; <sup>1</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Bulakh et al., 2016); **Sakhalin Oblast** (<sup>1</sup>Vassiljeva and Nazarova, 1972).

***Suillus intermedius* (A.H. Sm. & Thiers) A.H. Sm. & Thiers<sup>1</sup>**

≡ *Suillus acidus* var. *intermedius* A.H. Sm. & Thiers<sup>2</sup>

EASTERN EUROPE: **Komi Republic** (<sup>2</sup>Palamarchuk, 2015).

SIBERIA: **Tomsk Oblast** (<sup>1</sup>Kudashova, Gashkov, and Kutafjeva, 2013; <sup>1</sup>Vaishlya et al., 2017).

***Suillus jacuticus* (Singer) Singer<sup>1</sup>**

≡ *Ixocomus jacuticus* Singer<sup>2</sup>

SIBERIA: **Irkutsk Oblast** (<sup>1</sup>Petrov, 1984; <sup>1</sup>Petrov, 1991; <sup>1</sup>Petrov, 2008; <sup>1</sup>Gaykova and Popov, 2010; <sup>1</sup>Trofimova, Popov, and Merkacheva, 2020); **Sakha Republic** (<sup>2</sup>Singer, 1938d; <sup>2</sup>Singer, 1942).

***Suillus lakei* (Murrill) A.H. Sm. & Thiers**

SIBERIA: **Khanty-Mansi Autonomous Okrug** (Zvyagina, Baykalova, and Gorbunova, 2007).

***Suillus luteus* (L.) Roussel<sup>1</sup>**

≡ *Boletopsis lutea* (L.) Henn.<sup>2</sup> ≡ *Boletus luteus* L.<sup>3</sup> ≡ *Cricunopus luteus* (L.) P. Karst.<sup>4</sup> ≡ *Ixocomus luteus* (L.) Quél.<sup>5</sup>

EASTERN EUROPE: **Arkhangelsk Oblast** (<sup>3</sup>Lebedeva, 1933; <sup>1</sup>Ezhov, Ershov, Ruokolainen, and Zmitrovich, 2011; <sup>1</sup>Ezhov, 2014; <sup>1</sup>Ezhov, Zmitrovich, and Ruokolainen, 2019); **Belgorod Oblast** (<sup>1</sup>Bedenko, 1979a); **Bryansk Oblast** (<sup>1</sup>Kruglikov, 2007); **Chelyabinsk Oblast** (<sup>3</sup>Aleksandrovskaya and Lobanova, 1968; <sup>1</sup>Stepanova and Sirko, 1977); **Crimea** (<sup>1</sup>Dudka et al., 2004; <sup>1</sup>Akulov and Pryidiuk, 2007; <sup>1</sup>Sarkina, 2011; <sup>1</sup>Sarkina and Pryidiuk, 2012; <sup>1</sup>Sarkina and Mironova, 2015); **Ivanovo Oblast** (<sup>3</sup>Alyavdina, 1928); **Kabardino-Balkarian Republic** (<sup>3</sup>Singer, 1929; <sup>2</sup>Singer, 1931; <sup>1,2</sup>Shkhagapsoev and Krapivina, 2004); **Kaliningrad Oblast** (<sup>3</sup>Hennings, 1895; <sup>1</sup>Dedkov, Volodina, and Gubareva, 2007; <sup>1</sup>Volodina, 2007; <sup>1</sup>Atayev and Volodina, 2020); **Kaluga Oblast** (<sup>1</sup>Sionova, 2003; <sup>1</sup>Sionova, 2006); **Karachay-Cherkess Republic** (<sup>3</sup>Hollós, 1902; <sup>3</sup>Hollós, 1905; <sup>3</sup>Filarszky, 1907; <sup>1</sup>Kalamees and Botashev, 2000); **Karelia** (<sup>3</sup>Lebedeva, 1933; <sup>5</sup>Singer, 1938d; <sup>5</sup>Freindling, 1949; <sup>1</sup>Czerepanova, Perfiljeva, and Tobias, 1982; <sup>1</sup>Kovalenko, Morozova, Fomina, and Särkisilta, 1998; <sup>1</sup>Bondartseva et al., 2001; <sup>1</sup>Predtechenskaya and Ruokolainen, 2008; <sup>1</sup>Predtechenskaya and Ruokolainen, 2013; <sup>1</sup>Predtechenskaya, 2013; <sup>1</sup>Krutov et al., 2014; <sup>1</sup>Predtechenskaya and Ruokolainen, 2014; <sup>1</sup>Predtechenskaya, 2015; <sup>1</sup>Savelev and Kikeeva, 2018); **Kirov Oblast** (<sup>1</sup>Kirillov and Luginina, 2011; <sup>1</sup>Kirillov, 2011; <sup>1</sup>Kirillov, Perevedentseva, and Egoshina, 2011; <sup>1</sup>Stavishenko, Luginina, Kirillov, and Egoshina, 2019); **Komi Republic** (<sup>1</sup>Palamarchuk, 2012; <sup>1</sup>Palamarchuk and Kirillov, 2017; <sup>1</sup>Palamarchuk, 2017); **Kostroma Oblast** (<sup>1</sup>Burova, 1982; <sup>1</sup>Veremyeva, 1986); **Krasnodar Krai** (<sup>1</sup>Kovalenko, 1980a); **Kursk Oblast** (<sup>1</sup>Bedenko, 1985; <sup>1</sup>Baranov, 2002); **Leningrad Oblast** (<sup>4</sup>Thesleff, 1920; <sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Morozova, 2007; <sup>1</sup>Popov et al., 2007; <sup>1</sup>Zmitrovich et al., 2015; <sup>1</sup>Malysheva, Malysheva, Shchepin, and Novozhilov, 2018); **Lipetsk Oblast** (<sup>1</sup>Rtishcheva, 1999; <sup>1</sup>Afanasyev, Rtishcheva, and Starodubtseva, 2007; <sup>1</sup>Sarycheva et al., 2009; <sup>1</sup>Sarycheva, 2011; <sup>1</sup>Sarycheva, 2014a;

<sup>1</sup>Sarycheva, 2016; <sup>1</sup>Sarycheva, Starodubtseva, and Sapelnikova, 2017); **Mordovia** (<sup>3</sup>Chastukhin, 1948a; <sup>3</sup>Kuznetsov, 1960; <sup>3</sup>Chastukhin and Nikolaevskaya, 1969; <sup>3</sup>Chastukhin, 2011; <sup>1</sup>Ivoilov and Bolshakov, 2011b); **Moscow** (<sup>3</sup>Bucholtz, 1897a; <sup>3</sup>Bucholtz, 1897b; <sup>3</sup>Bucholtz, 1897c; <sup>3</sup>Mosolov, 1906); **Moscow Oblast** (<sup>3</sup>Heyden, 1899; <sup>1</sup>Gorlenko, Sidorova, and Sidorova, 1989; <sup>1</sup>Levitskaya, 1995b; <sup>1</sup>Levitskaya, 2013); **Murmansk Oblast** (<sup>5</sup>Pystina, Pavlova, and Shestakova, 1969); **North Ossetia** (<sup>1</sup>Nikolayev, 2001); **Novgorod Oblast** (<sup>1</sup>Rusakov, 1968; <sup>1</sup>Kovalenko, Morozova, Nezdojminogo, and Popov, 2005; <sup>1</sup>Popov et al., 2013); **Orenburg Oblast** (<sup>1</sup>Desyatova, 2008); **Penza Oblast** (<sup>3</sup>Vet, 1943; <sup>1</sup>Ivanov, 1981a); **Perm Krai** (<sup>1</sup>Perevedentseva, 2008; <sup>1</sup>Perevedentseva and Shishigin, 2015; <sup>1</sup>Botalov, 2017); **Pskov Oblast** (<sup>1</sup>Kovalenko and Morozova, 1999b; <sup>1</sup>Popov, 2001a; <sup>1</sup>Popov et al., 2013); **Rostov Oblast** (<sup>1</sup>Rusanov et al., 2004; <sup>1</sup>Morozova et al., 2008; <sup>1</sup>Zmitrovich et al., 2008); **Ryazan Oblast** (<sup>1</sup>Volosnova, 1997; <sup>1</sup>Volosnova, 2014); **Saint Petersburg** (<sup>3</sup>Weinmann, 1828; <sup>3</sup>Weinmann, 1837; <sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Morozova and Kovalenko, 2000; <sup>1</sup>Kotkova, Morozova, and Popov, 2005; <sup>1</sup>Kotkova, Morozova, and Popov, 2006; <sup>1</sup>Morozova and Smirnov, 2011; <sup>1</sup>Morozova et al., 2020); **Samara Oblast** (<sup>1</sup>Malysheva and Malysheva, 2004; <sup>1</sup>Malysheva and Malysheva, 2008); **Saratov Oblast** (<sup>1</sup>Komirnaya, 1975); **Smolensk Oblast** (<sup>3</sup>Jaczevski, 1893; <sup>3</sup>Jaczevski, 1895); **Sverdlovsk Oblast** (<sup>1</sup>Stepanova and Sirko, 1977; <sup>1</sup>Marina, 2006); **Tatarstan** (<sup>1</sup>Vassiljeva, 1977; <sup>1</sup>Potapov, 2016a); **Tula Oblast** (<sup>1</sup>Svetasheva, 2004); **Tver Oblast** (<sup>1</sup>Kurochkin, 1993); **Udmurt Republic** (<sup>1</sup>Tychinin and Kuzmina, 2003); **Ulyanovsk Oblast** (<sup>1</sup>Ilyukhin, 2009; <sup>1</sup>Ilyukhin, 2010a); **Vladimir Oblast** (<sup>3</sup>Weinmann, 1836); **Vologda Oblast** (<sup>3</sup>Kutova, 1957; <sup>1</sup>Kirillova, 2007); **Voronezh Oblast** (<sup>1</sup>Rtishcheva, 1999; <sup>1</sup>Afanasyev, Rtishcheva, and Starodubtseva, 2007; <sup>1</sup>Sarycheva, Starodubtseva, and Sapelnikova, 2017); **Yaroslavl Oblast** (<sup>1</sup>Lazareva, 1997; <sup>1</sup>Lazareva, 1998a); **Arid territories** (<sup>1</sup>Rebriev, Rusanov, et al., 2012); **Lapland** (<sup>3</sup>Karsten, 1866); **Northern Caucasus** (<sup>1</sup>Kovalenko, 1980b).

**SIBERIA:** **Altai Krai** (<sup>1</sup>Gorbunova and Perova, 2006; <sup>1</sup>Gorbunova, 2018b); **Altai Republic** (<sup>1</sup>Gorbunova, 1996; <sup>1</sup>Gorbunova, 1997; <sup>1</sup>Gorbunova, 2001b; <sup>1</sup>Gorbunova, 2008; <sup>1</sup>Gorbunova, 2010; <sup>1</sup>Gorbunova, 2017b); **Buryatia** (<sup>1</sup>Nezdojminogo, 1970a; <sup>1</sup>Krasnopevtseva and Ermakova, 2015); **Irkutsk Oblast** (<sup>1</sup>Kutafjeva, 1982; <sup>1</sup>Petrov, 1984; <sup>1</sup>Kutafjeva and Astapenko, 1989; <sup>1</sup>Astapenko, 1990b; <sup>1</sup>Muzyka, 2002; <sup>1</sup>Bardunov et al., 2005; <sup>1</sup>Petrov, 2008; <sup>1</sup>Muzyka, 2009; <sup>1</sup>Heklau and Dörfelt, 2017; <sup>1</sup>Muzyka and Penzina, 2017); **Khakassia** (<sup>1</sup>Beglyanova, 1972a; <sup>1</sup>Zauzolkova, 2015); **Khanty-Mansi Autonomous Okrug** (<sup>1</sup>Zvyagina, Baykalova, and Gorbunova, 2007; <sup>1</sup>Zvyagina and Baykalova, 2012; <sup>1</sup>Makarova, Makarov, Zvyagina, and Bobrikov, 2015; <sup>1</sup>Zvyagina and Vasina, 2015); **Krasnoyarsk Krai** (<sup>3</sup>Thümen, 1878; <sup>1</sup>Beglyanova, 1972a; <sup>1</sup>Nezdojminogo, 1976a; <sup>1</sup>Lapitskaya, 1990; <sup>1</sup>Kosheleva and Kutafjeva, 2008b; <sup>1</sup>Kryuchkova, 2014a; <sup>1</sup>Krom and Kapitonov, 2019); **Kurgan Oblast** (<sup>1</sup>Bystrushkin, 2016); **Novosibirsk Oblast** (<sup>1</sup>Gorbunova, 2007; <sup>1</sup>Perova and Gorbunova, 2007; <sup>1</sup>Koropachinskiy and Banaev, 2014); **Tomsk Oblast** (<sup>1</sup>Milovidova, 1980; <sup>1</sup>Kosheleva and Kutafjeva, 2004; <sup>1</sup>Kudashova, Gashkov, and Kutafjeva, 2013; <sup>1</sup>Vaishlya et al., 2017); **Zabaykalsky Krai** (<sup>4</sup>Karsten, 1911).

**FAR EAST:** **Amur Oblast** (<sup>1</sup>Gordienko, Petrova, and Tarasov, 1981; <sup>1</sup>Taranina, 2005; <sup>1</sup>Kochunova, 2019); **Khabarovsk Krai** (<sup>5</sup>Vassiljeva, 1956); **Primorsky Krai** (<sup>5</sup>Vassiljeva, 1956; <sup>1</sup>Vassiljeva, 1973; <sup>1</sup>Bau, Bulakh, and Govorova, 2011); **Sakhalin Oblast** (<sup>1</sup>Vassiljeva and Nazarova, 1972; <sup>1</sup>Bulakh, Govorova, and Bogatov, 1999).

### ***Suillus neoalbidipes* M.E. Palm & E.L. Stewart**

**SIBERIA:** **Krasnoyarsk Krai** (Zauzolkova, 2015; Zauzolkova and Gorbunova, 2016).

### ***Suillus placidus* (Bonord.) Singer<sup>1</sup>**

≡ *Ixocomus placidus* (Bonord.) E.-J. Gilbert<sup>2</sup>

**EASTERN EUROPE:** **Kaliningrad Oblast** (<sup>1</sup>Dedkov, Volodina, and Gubareva, 2007; <sup>1</sup>Dedkov and Grishanov, 2010); **Komi Republic** (<sup>1</sup>Taskaev, 2009; <sup>1</sup>Palamarchuk, 2012; <sup>1</sup>Palamarchuk and Kirillov, 2018a; <sup>1</sup>Dyogteva, 2019); **Perm Krai** (<sup>1</sup>Perevedentseva, 2008).

**SIBERIA:** **Altai Republic** (<sup>1</sup>Kovalenko, 1992; <sup>1</sup>Gorbunova, 2001a; <sup>1</sup>Gorbunova, 2001b; <sup>1</sup>Perova and Gorbunova, 2001; <sup>1</sup>Gorbunova, 2008; <sup>1</sup>Gorbunova, 2010); **Buryatia** (<sup>1</sup>Nezdojminogo, 1970a); **Irkutsk Oblast** (<sup>1</sup>Petrov, 1984; <sup>1</sup>Kutafjeva, 1989; <sup>1</sup>Petrov, 1989; <sup>1</sup>Astapenko, 1990b; <sup>1</sup>Bardunov et al., 2005; <sup>1</sup>Petrov, 2008; <sup>1</sup>Gorbunova and Stepantsova, 2015; <sup>1</sup>Muzyka and Penzina, 2017); **Khanty-Mansi Autonomous Okrug** (<sup>1</sup>Zvyagina, 2008; <sup>1</sup>Zvyagina and Baykalova, 2012; <sup>1</sup>Shepeleva et al., 2014; <sup>1</sup>Filippova, Bulyonkova, and Lapshina, 2015; <sup>1</sup>Zvyagina and Vasina, 2015; <sup>1</sup>Filippova and Bulyonkova, 2017a; <sup>1</sup>Filippova and Bulyonkova, 2017b; <sup>1</sup>Zvyagina and Baykalova, 2017); **Krasnoyarsk Krai** (<sup>1</sup>Nezdojminogo, 1976a; <sup>1</sup>Lapitskaya, 1990; <sup>1</sup>Kryuchkova, 2009); **Yamalo-Nenets Autonomous Okrug** (<sup>1</sup>Tarchevskaya, 1990).

**FAR EAST:** **Chukotka Autonomous Okrug** (<sup>1</sup>Sazanova, 1993; <sup>1</sup>Karatygin, Nezdojminogo, Novozhilov, and Zhurbenko, 1999); **Jewish Autonomous Oblast** (<sup>1</sup>Bulakh, Govorova, Nazarova, and Vassiljeva, 2007; <sup>1</sup>Bau, Bulakh, and Govorova, 2011); **Kamchatka Krai** (<sup>1</sup>Karatygin, Nezdojminogo, Novozhilov, and Zhurbenko, 1999); **Khabarovsk Krai** (<sup>2</sup>Vassiljeva, 1956; <sup>1</sup>Azbukina et al., 1986; <sup>1</sup>Azbukina et al., 1989; <sup>1</sup>Bulakh, Vassiljeva, and Erofeeva, 2010; <sup>1</sup>Bau,



Bulakh, and Govorova, 2011; <sup>1</sup>Bulakh, 2013; <sup>1</sup>Bogacheva, Bulakh, Bukharova, and Egorova, 2015; <sup>1</sup>Erofeeva and Bulakh, 2015a); **Magadan Oblast** (<sup>1</sup>Vassilkov, 1971a; <sup>1</sup>Nazarova, 1976; <sup>1</sup>Sazanova, 1996; <sup>1</sup>Sazanova, 2005; <sup>1</sup>Sazanova, 2009a; <sup>1</sup>Sazanova, 2009b; <sup>1</sup>Sazanova, 2011; <sup>1</sup>Sazanova, 2012; <sup>1</sup>Sazanova and Golodnova, 2015; <sup>1</sup>Sazanova, 2016); **Primorsky Krai** (<sup>2</sup>Vassiljeva, 1956; <sup>1</sup>Vassiljeva, 1972; <sup>1</sup>Vassiljeva, 1973; <sup>1</sup>Shalapugina, 1976; <sup>1</sup>Bulakh, 1977; <sup>1</sup>Bunkina and Nazarova, 1978; <sup>1</sup>Azbukina et al., 1984; <sup>1</sup>Azbukina et al., 1990; <sup>1</sup>Bardunov et al., 2002; <sup>1</sup>Azbukina et al., 2006; <sup>1</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Bulakh et al., 2016; <sup>1</sup>Bogacheva, Bulakh, Bukharova, and Egorova, 2020).

### ***Suillus plorans* (Rolland) Kuntze<sup>1</sup>**

≡ *Suillus plorans* subsp. *plorans* (Rolland) Kuntze<sup>2</sup> = *Suillus plorans* subsp. *cyanescens* Singer<sup>3</sup>

EASTERN EUROPE: **Perm Krai** (<sup>1</sup>Perevedentseva, 2008; <sup>1</sup>Belkovskaya et al., 2014).

SIBERIA: **Altai Krai** (<sup>1</sup>Gorbunova, 2018a); **Buryatia** (<sup>1</sup>Nezdojminogo, 1970a; <sup>1</sup>Penzina and Petrov, 1994); **Irkutsk Oblast** (<sup>1</sup>Petrov, 1984; <sup>1</sup>Kutafjeva, 1989; <sup>1</sup>Petrov, 1989; <sup>1</sup>Astapenko, 1990b; <sup>1</sup>Petrov, 2008; <sup>1</sup>Muzyka, 2009; <sup>1</sup>Heklau and Dörfelt, 2017; <sup>1</sup>Muzyka and Penzina, 2017); **Khakassia** (<sup>1</sup>Beglyanova, 1972a); **Krasnoyarsk Krai** (<sup>1</sup>Beglyanova, 1972a; <sup>1</sup>Nezdojminogo, 1976a; <sup>1</sup>Malysheva, Malysheva, Kiyashko, et al., 2017); **Tomsk Oblast** (<sup>1</sup>Perova, 1972; <sup>1</sup>Perova and Gorbunova, 2001; <sup>1</sup>Kudashova, Gashkov, and Kutafjeva, 2013; <sup>1</sup>Vaishlya et al., 2017).

FAR EAST: **Amur Oblast** (<sup>1</sup>Azbukina et al., 1998); **Chukotka Autonomous Okrug** (<sup>1</sup>Sazanova, 1993; <sup>1</sup>Karatygin, Nezdojminogo, Novozhilov, and Zhurbenko, 1999); **Jewish Autonomous Oblast** (<sup>1</sup>Bulakh, Govorova, Nazarova, and Vassiljeva, 2007; <sup>1</sup>Bau, Bulakh, and Govorova, 2011); **Kamchatka Krai** (<sup>1</sup>Karatygin, Nezdojminogo, Novozhilov, and Zhurbenko, 1999); **Khabarovsk Krai** (<sup>1</sup>Azbukina et al., 1986; <sup>1</sup>Azbukina et al., 1989; <sup>1</sup>Bulakh, Vassiljeva, and Erofeeva, 2010; <sup>1</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Bulakh, 2013; <sup>1</sup>Bogacheva, Bulakh, Bukharova, and Egorova, 2015; <sup>1</sup>Erofeeva and Bulakh, 2015a); **Magadan Oblast** (<sup>1</sup>Vassilkov, 1971a; <sup>1</sup>Nazarova, 1976; <sup>2</sup>Sazanova, 1996; <sup>2,3</sup>Sazanova, 2005; <sup>1,3</sup>Sazanova, 2009a; <sup>1</sup>Sazanova, 2011; <sup>1</sup>Sazanova and Golodnova, 2015; <sup>1</sup>Sazanova, 2016); **Primorsky Krai** (<sup>1</sup>Shalapugina, 1976; <sup>1</sup>Bulakh, 1977; <sup>1</sup>Bunkina and Nazarova, 1978; <sup>1</sup>Azbukina et al., 1984; <sup>1</sup>Azbukina et al., 1990; <sup>1</sup>Bardunov et al., 2002; <sup>1</sup>Azbukina et al., 2006; <sup>1</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Bulakh et al., 2016).

### ***Suillus punctipes* (Peck) Singer<sup>1</sup>**

≡ *Ixocomus punctipes* (Peck) Singer<sup>2</sup>

EASTERN EUROPE: **Perm Krai** (<sup>1</sup>Perevedentseva, 2008).

SIBERIA: **Altai Republic** (<sup>1</sup>Kovalenko, 1992; <sup>1</sup>Gorbunova, 2001a; <sup>1</sup>Perova and Gorbunova, 2001); **Buryatia** (<sup>1</sup>Nezdojminogo, 1970a); **Irkutsk Oblast** (<sup>1</sup>Gorbunova and Stepantsova, 2015).

FAR EAST: **Magadan Oblast** (<sup>1</sup>Vassilkov, 1971a; <sup>1</sup>Sazanova, 2005; <sup>1</sup>Sazanova, 2009a; <sup>1</sup>Sazanova, 2009b; <sup>1</sup>Sazanova, 2011); **Primorsky Krai** (<sup>2</sup>Vassiljeva, 1956; <sup>1</sup>Vassiljeva, 1972; <sup>1</sup>Vassiljeva, 1973; <sup>1</sup>Bulakh et al., 2016).

### ***Suillus spraguei* (Berk. & M.A. Curtis) Kuntze<sup>1</sup>**

= *Boletinus pictus* Peck<sup>2</sup> = *Suillus pictus* (Peck) Kuntze<sup>3</sup>

SIBERIA: **Altai Republic** (<sup>3</sup>Gorbunova, 2001b; <sup>3</sup>Perova and Gorbunova, 2001; <sup>3</sup>Gorbunova, 2010); **Buryatia** (<sup>2</sup>Nezdojminogo, 1970a; <sup>2</sup>Penzina and Petrov, 1994); **Irkutsk Oblast** (<sup>2</sup>Petrov, 1984; <sup>2</sup>Petrov, 1989; <sup>2</sup>Bardunov et al., 2005; <sup>2</sup>Petrov, 2008; <sup>3</sup>Muzyka, 2009; <sup>3</sup>Gorbunova and Stepantsova, 2015; <sup>3</sup>Muzyka and Penzina, 2017); **Khanty-Mansi Autonomous Okrug** (<sup>3</sup>Filippova, Bulyonkova, and Lapshina, 2015; <sup>1</sup>Zvyagina and Baykalova, 2017; <sup>3</sup>Filippova and Bulyonkova, 2017a; <sup>3</sup>Filippova and Bulyonkova, 2017b); **Krasnoyarsk Krai** (<sup>2</sup>Kutafjeva and Kosheleva, 2005; <sup>3</sup>Kryuchkova, 2009; <sup>3</sup>Gorbunova, 2016; <sup>1</sup>Malysheva, Malysheva, Kiyashko, et al., 2017; <sup>3</sup>Krom and Kapitonov, 2019); **Tomsk Oblast** (<sup>1</sup>Kudashova, Gashkov, and Vaishlya, 2016a; <sup>1</sup>Vaishlya et al., 2017).

FAR EAST: **Amur Oblast** (<sup>2</sup>Taranina, 2005); **Jewish Autonomous Oblast** (<sup>2</sup>Bulakh, Govorova, Nazarova, and Vassiljeva, 2007; <sup>3</sup>Bau, Bulakh, and Govorova, 2011); **Khabarovsk Krai** (<sup>2</sup>Azbukina et al., 1986; <sup>2</sup>Azbukina et al., 1989; <sup>3</sup>Bau, Bulakh, and Govorova, 2011; <sup>3</sup>Bulakh, 2013; <sup>3</sup>Bogacheva, Bulakh, Bukharova, and Egorova, 2015; <sup>3</sup>Erofeeva and Bulakh, 2015a); **Magadan Oblast** (<sup>2</sup>Sazanova, 2005; <sup>3</sup>Sazanova, 2009a; <sup>3</sup>Sazanova and Golodnova, 2015; <sup>1</sup>Sazanova, 2016); **Primorsky Krai** (<sup>2</sup>Vassilkov, 1952a; <sup>2</sup>Vassiljeva, 1956; <sup>2</sup>Vassiljeva, 1972; <sup>2</sup>Vassiljeva, 1973; <sup>2</sup>Shalapugina, 1976; <sup>2</sup>Bulakh, 1977; <sup>2</sup>Bunkina and Nazarova, 1978; <sup>2</sup>Azbukina et al., 1984; <sup>2</sup>Azbukina et al., 1990; <sup>2</sup>Bardunov et al., 2002; <sup>3</sup>Azbukina et al., 2006; <sup>3</sup>Bau, Bulakh, and Govorova, 2011; <sup>3</sup>Malysheva et al., 2014; <sup>3</sup>Bulakh et al., 2016; <sup>3</sup>Malysheva et al., 2016; <sup>1</sup>Bogacheva, Bulakh, Bukharova, and Egorova, 2020); **Sakhalin Oblast** (<sup>2</sup>Vassiljeva and Nazarova, 1972).

### ***Suillus subaureus* (Peck) Snell**

FAR EAST: **Magadan Oblast** (Vassilkov, 1971a; Sazanova, 2005; Sazanova, 2009a).

***Suillus subluteus* (Peck) Snell**

SIBERIA: **Altai Krai** (Gorbunova, 2018a); **Buryatia** (Nezdojminogo, 1973; Petrov, 1991); **Irkutsk Oblast** (Bardunov et al., 2005; Petrov, 2008); **Krasnoyarsk Krai** (Beglyanova, 1972a; Beglyanova, 1972b; Gorbunova, 2016); **Tomsk Oblast** (Kudashova, Gashkov, and Vaishlya, 2016a; Vaishlya et al., 2017).

FAR EAST: **Chukotka Autonomous Okrug** (Sazanova, 1993; Karatygin, Nezdojminogo, Novozhilov, and Zhurbenko, 1999); **Kamchatka Krai** (Kalamees and Vaasma, 1981; Karatygin, Nezdojminogo, Novozhilov, and Zhurbenko, 1999); **Magadan Oblast** (Vassilkov, 1971a; Sazanova, 2005; Sazanova, 2009a; Sazanova and Golodnova, 2015); **Primorsky Krai** (Malysheva et al., 2014; Malysheva et al., 2016); **Sakhalin Oblast** (Vassiljeva and Nazarova, 1972).

***Suillus tomentosus* Singer**

FAR EAST: **Primorsky Krai** (Malysheva et al., 2014; Malysheva et al., 2016).

***Suillus tridentinus* (Bres.) Singer<sup>1</sup>**

≡ *Ixocomus tridentinus* (Bres.) Singer<sup>2</sup>

EASTERN EUROPE: **Komi Republic** (<sup>1</sup>Palamarchuk, 2016a; <sup>1</sup>Palamarchuk, 2016b); **Mordovia** (<sup>1</sup>Bolshakov and Ivoilov, 2012a; <sup>1</sup>Bolshakov and Ivoilov, 2012b; <sup>1</sup>Silaeva, 2017).

SIBERIA: **Altai Krai** (<sup>1</sup>Gorbunova and Perova, 2006); **Altai Republic** (<sup>2</sup>Singer, 1938d; <sup>1</sup>Gorbunova, 2001b; <sup>1</sup>Perova and Gorbunova, 2001); **Buryatia** (<sup>1</sup>Nezdojminogo, 1970a); **Irkutsk Oblast** (<sup>1</sup>Kutafjeva and Astapenko, 1987; <sup>1</sup>Astapenko, 1990b; <sup>1</sup>Petrov, 1991; <sup>1</sup>Petrov, 2008; <sup>1</sup>Gorbunova and Stepanova, 2015; <sup>1</sup>Muzyka and Penzina, 2017); **Khakassia** (<sup>1</sup>Zauzolkova, 2015); **Khanty-Mansi Autonomous Okrug** (<sup>1</sup>Zvyagina, Baykalova, and Gorbunova, 2007); **Krasnoyarsk Krai** (<sup>1</sup>Stepanov, 2012); **Tomsk Oblast** (<sup>1</sup>Perova and Gorbunova, 2001; <sup>1</sup>Kudashova, Gashkov, and Kutafjeva, 2013; <sup>1</sup>Kudashova, Gashkov, and Vaishlya, 2016b).

FAR EAST: **Amur Oblast** (<sup>2</sup>Tomilin, 1962); **Khabarovsk Krai** (<sup>1</sup>Bulakh, 2013; <sup>1</sup>Bogacheva, Bulakh, Bukharova, and Egorova, 2015); **Magadan Oblast** (<sup>1</sup>Sazanova, 1996; <sup>1</sup>Sazanova, 2005; <sup>1</sup>Sazanova, 2009a; <sup>1</sup>Sazanova, 2011); **Sakhalin Oblast** (<sup>1</sup>Vassiljeva and Nazarova, 1972).

***Suillus variegatus* (Sw.) Richon & Roze<sup>1</sup>**

≡ *Boletus variegatus* Sw.<sup>2</sup> ≡ *Ixocomus variegatus* (Sw.) Quél.<sup>3</sup>

EASTERN EUROPE: **Arkhangelsk Oblast** (<sup>1</sup>Ezhov, Ershov, Ruokolainen, and Zmitrovich, 2011; <sup>1</sup>Ezhov, 2014; <sup>1</sup>Ezhov, Zmitrovich, and Ruokolainen, 2019); **Bashkortostan** (<sup>1</sup>Stepanova and Sirko, 1977); **Belgorod Oblast** (<sup>1</sup>Bedenko, 1979a); **Bryansk Oblast** (<sup>1</sup>Kruglikov, 2007); **Chelyabinsk Oblast** (<sup>2</sup>Aleksandrovskaya and Lobanova, 1968; <sup>1</sup>Sirko and Stepanova, 1977; <sup>1</sup>Stepanova and Sirko, 1977); **Crimea** (<sup>1</sup>Sarkina, 2001; <sup>1</sup>Dudka et al., 2004; <sup>1</sup>Akulov and Prydiuk, 2007; <sup>1</sup>Sarkina, 2010b; <sup>1</sup>Sarkina, 2011; <sup>1</sup>Sarkina and Prydiuk, 2012; <sup>1</sup>Sarkina, 2013; <sup>1</sup>Sarkina and Mironova, 2015); **Kabardino-Balkarian Republic** (<sup>2</sup>Singer, 1929; <sup>2</sup>Singer, 1931); **Kaliningrad Oblast** (<sup>2</sup>Neuhoff, 1922; <sup>1</sup>Dedkov, Volodina, and Gubareva, 2007; <sup>1</sup>Volodina, 2007); **Kaluga Oblast** (<sup>1</sup>Sionova, 2003; <sup>1</sup>Sionova, 2006); **Karachay-Cherkess Republic** (<sup>1</sup>Kalamees and Botashev, 2000); **Karelia** (<sup>1</sup>Kovalenko, Morozova, Fomina, and Särkisilta, 1998; <sup>1</sup>Bondartseva et al., 2001; <sup>1</sup>Predtechenskaya and Ruokolainen, 2008; <sup>1</sup>Predtechenskaya and Ruokolainen, 2013; <sup>1</sup>Predtechenskaya, 2013; <sup>1</sup>Krutov et al., 2014; <sup>1</sup>Predtechenskaya and Ruokolainen, 2014; <sup>1</sup>Predtechenskaya, 2015; <sup>1</sup>Savelev and Kikeeva, 2020); **Kirov Oblast** (<sup>1</sup>Kirillov, 2011; <sup>1</sup>Kirillov, Perevedentseva, and Egoshina, 2011; <sup>1</sup>Stavishenko, Luginina, Kirillov, and Egoshina, 2019); **Komi Republic** (<sup>1</sup>Palamarchuk, 2012; <sup>1</sup>Palamarchuk and Kirillov, 2017; <sup>1</sup>Palamarchuk, 2017); **Kostroma Oblast** (<sup>1</sup>Burova, 1982; <sup>1</sup>Veremyeva, 1986); **Krasnodar Krai** (<sup>3</sup>Vassiljeva, 1939; <sup>1</sup>Kovalenko, 1980a; <sup>1</sup>Kovalenko, 1980b); **Leningrad Oblast** (<sup>2</sup>Thesleff, 1920; <sup>2</sup>Chastukhin and Nikolaevskaya, 1969; <sup>1</sup>Kalamees and Kovalenko, 1984; <sup>1</sup>Stolyarskaya, 1989; <sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Morozova and Kovalenko, 2000; <sup>1</sup>Morozova, 2007; <sup>1</sup>Popov et al., 2007; <sup>1</sup>Psurtseva, Kiyashko, Gachkova, and Belova, 2007; <sup>1</sup>Zmitrovich et al., 2015; <sup>1</sup>Malysheva, Malysheva, Shchepin, and Novozhilov, 2018); **Lipetsk Oblast** (<sup>1</sup>Rtishcheva, 1999; <sup>1</sup>Afanasyev, Rtishcheva, and Starodubtseva, 2007; <sup>1</sup>Sarycheva et al., 2009; <sup>1</sup>Sarycheva, Starodubtseva, and Sapelnikova, 2017); **Mordovia** (<sup>2</sup>Chastukhin, 1948a; <sup>2</sup>Kuznetsov, 1960; <sup>2</sup>Chastukhin and Nikolaevskaya, 1969; <sup>1</sup>Ivoilov and Bolshakov, 2011b; <sup>2</sup>Chastukhin, 2011); **Moscow Oblast** (<sup>1</sup>Gorlenko, Sidorova, and Sidorova, 1989; <sup>1</sup>Levitskaya, 1995b; <sup>1</sup>Levitskaya, 2013); **Murmansk Oblast** (<sup>2</sup>Karsten, 1866; <sup>2</sup>Karsten, 1876); **North Ossetia** (<sup>1</sup>Nikolayev, 2001); **Novgorod Oblast** (<sup>1</sup>Rusakov, 1968; <sup>1</sup>Kovalenko, Morozova, Nezdojminogo, and Popov, 2005; <sup>1</sup>Popov et al., 2013); **Penza Oblast** (<sup>1</sup>Ivanov, 1981a); **Perm Krai** (<sup>1</sup>Perevedentseva, 2008; <sup>1</sup>Belkovskaya et al., 2014; <sup>1</sup>Botalov, 2017; <sup>1</sup>Botalov and Perevedentseva, 2018); **Pskov Oblast** (<sup>1</sup>Popov, 2001a; <sup>1</sup>Popov et al., 2013); **Rostov Oblast** (<sup>1</sup>Rusanov et al., 2004; <sup>1</sup>Zmitrovich et al., 2008); **Ryazan Oblast** (<sup>1</sup>Volosnova, 1997; <sup>1</sup>Volosnova, 2014); **Saint Petersburg** (<sup>2</sup>Weinmann, 1828; <sup>2</sup>Weinmann, 1836; <sup>2</sup>Weinmann, 1837; <sup>1</sup>Kovalenko and Morozova, 1999a;

<sup>1</sup>Kotkova, Morozova, and Popov, 2005; <sup>1</sup>Morozova and Smirnov, 2011; <sup>1</sup>Morozova et al., 2020); **Saratov Oblast** (<sup>1</sup>Komirnyaya, 1975); **Smolensk Oblast** (<sup>2</sup>Jaczewski, 1895); **Sverdlovsk Oblast** (<sup>1</sup>Stepanova and Sirko, 1977; <sup>1</sup>Marina, 2006); **Tatarstan** (<sup>1</sup>Vassiljeva, 1977); **Tula Oblast** (<sup>1</sup>Svetasheva, 2005b); **Tver Oblast** (<sup>1</sup>Kurochkin, 1993); **Udmurt Republic** (<sup>1</sup>Tychinin and Kuzmina, 2003); **Ulyanovsk Oblast** (<sup>1</sup>Ilyukhin, 2010a; <sup>1</sup>Ilyukhin, 2010b); **Vologda Oblast** (<sup>2</sup>Kutova, 1957; <sup>1</sup>Kirillova, 2007); **Voronezh Oblast** (<sup>1</sup>Rtishcheva, 1999; <sup>1</sup>Afanasyev, Rtishcheva, and Starodubtseva, 2007; <sup>1</sup>Sarycheva, Starodubtseva, and Sapelnikova, 2017); **Yaroslavl Oblast** (<sup>1</sup>Lazareva, 1997; <sup>1</sup>Lazareva, 1998a); **Arid territories** (<sup>1</sup>Rebriev, Rusanov, et al., 2012).

SIBERIA: **Altai Krai** (<sup>1</sup>Gorbunova and Perova, 2006); **Altai Republic** (<sup>1</sup>Kovalenko, 1992; <sup>1</sup>Gorbunova, 2010); **Buryatia** (<sup>1</sup>Nezdojminogo, 1970a); **Irkutsk Oblast** (<sup>1</sup>Kutafjeva, 1982; <sup>1</sup>Petrov, 1984; <sup>1</sup>Kutafjeva and Astapenko, 1989; <sup>1</sup>Astapenko, 1990b; <sup>1</sup>Muzyka, 2002; <sup>1</sup>Bardunov et al., 2005; <sup>1</sup>Petrov, 2008; <sup>1</sup>Muzyka, 2009; <sup>1</sup>Heklau and Dörfelt, 2017; <sup>1</sup>Muzyka and Penzina, 2017); **Khanty-Mansi Autonomous Okrug** (<sup>1</sup>Zvyagina, Baykalova, and Gorbunova, 2007; <sup>1</sup>Filippova, 2009; <sup>1</sup>Filippova and Thormann, 2014; <sup>1</sup>Filippova, 2014; <sup>1</sup>Filippova, Mourgues, and Philippe, 2014; <sup>1</sup>Filippova, Bulyonkova, and Lapshina, 2015; <sup>1</sup>Makarova, Makarov, Zvyagina, and Bobrikov, 2015; <sup>1</sup>Zvyagina and Vasina, 2015; <sup>1</sup>Filippova and Bulyonkova, 2017a; <sup>1</sup>Filippova and Bulyonkova, 2017b); **Krasnoyarsk Krai** (<sup>1</sup>Beglyanova, 1972a; <sup>1</sup>Lapitskaya, 1990; <sup>1</sup>Pavlov et al., 2007; <sup>1</sup>Kryuchkova, 2009; <sup>1</sup>Zauzolkova, 2015; <sup>1</sup>Krom and Kapitonov, 2019); **Novosibirsk Oblast** (<sup>1</sup>Zaytseva, 1971; <sup>1</sup>Gorbunova, 2007; <sup>1</sup>Perova and Gorbunova, 2007; <sup>1</sup>Koropachinskiy and Banaev, 2014); **Tomsk Oblast** (<sup>1</sup>Milovidova, 1980; <sup>1</sup>Kudashova, Gashkov, and Kutafjeva, 2013; <sup>1</sup>Vaishlya et al., 2017).

FAR EAST: **Magadan Oblast** (<sup>1</sup>Sazanova and Golodnova, 2015; <sup>1</sup>Sazanova, 2015); **Primorsky Krai** (<sup>1</sup>Malysheva et al., 2014; <sup>1</sup>Malysheva et al., 2016).

### ***Suillus viscidus* (L.) Roussel<sup>1</sup>**

≡ *Ixocomus viscidus* (L.) Quél.<sup>2</sup> = *Suillus aeruginascens* Secr. ex Snell<sup>3</sup> = *Suillus aeruginascens* var. *aeruginascens* Secr. ex Snell<sup>4</sup>

EASTERN EUROPE: **Arkhangelsk Oblast** (<sup>3</sup>Ezhov, Ershov, Ruokolainen, and Zmitrovich, 2011; <sup>3</sup>Ezhov, 2014); **Chelyabinsk Oblast** (<sup>3</sup>Sirko and Stepanova, 1977; <sup>3</sup>Stepanova and Sirko, 1977); **Karelia** (<sup>1</sup>Savelev and Kikeeva, 2020); **Komi Republic** (<sup>1</sup>Palamarchuk, 2016a; <sup>1</sup>Palamarchuk, 2016b); **Leningrad Oblast** (<sup>3</sup>Popov et al., 2007); **Mordovia** (<sup>1</sup>Bolshakov and Ivoilov, 2012a; <sup>1</sup>Bolshakov and Ivoilov, 2012b; <sup>1</sup>Silaeva, 2017); **Oryol Oblast** (<sup>1</sup>Radygina, Derzhavina, and Tsutsupa, 2014); **Perm Krai** (<sup>3</sup>Perevedentseva, 2008; <sup>3</sup>Botalov, 2017); **Saint Petersburg** (<sup>3</sup>Kovalenko and Morozova, 1999a; <sup>3</sup>Kotkova, Morozova, and Popov, 2007; <sup>1</sup>Morozova, Kovalenko, Rebriev, and Malysheva, 2014); **Sverdlovsk Oblast** (<sup>3</sup>Stepanova and Sirko, 1977; <sup>3</sup>Marina, 2006); **Tatarstan** (<sup>3</sup>Potapov, 2016a); **Udmurt Republic** (<sup>3</sup>Tychinin and Kuzmina, 2003); **Vladimir Oblast** (<sup>3</sup>Azbukina et al., 2010); **Vologda Oblast** (<sup>1</sup>Bolshakov et al., 2018); **Yamalo-Nenets Autonomous Okrug** (<sup>3</sup>Stepanova and Sirko, 1977; <sup>3</sup>Karatygin, Nezdojminogo, Novozhilov, and Zhurbenko, 1999).

SIBERIA: **Altai Republic** (<sup>2</sup>Singer, 1938d; <sup>3</sup>Gorbunova, 1996; <sup>3</sup>Gorbunova, 1997; <sup>3</sup>Gorbunova, 2001b); **Buryatia** (<sup>3</sup>Nezdojminogo, 1973; <sup>4</sup>Penzina and Petrov, 1994); **Irkutsk Oblast** (<sup>3</sup>Kutafjeva, 1982; <sup>4</sup>Petrov, 1984; <sup>3</sup>Petrov, 1989; <sup>3</sup>Astapenko, 1990b; <sup>3</sup>Muzyka, 2002; <sup>3</sup>Bardunov et al., 2005; <sup>4</sup>Petrov, 2008; <sup>4</sup>Muzyka, 2009; <sup>1</sup>Heklau and Dörfelt, 2017; <sup>4</sup>Muzyka and Penzina, 2017); **Khakassia** (<sup>3</sup>Beglyanova, 1972a; <sup>1</sup>Zauzolkova, 2015); **Khanty-Mansi Autonomous Okrug** (<sup>1</sup>Zvyagina and Vasina, 2015; <sup>1</sup>Zvyagina and Baykalova, 2017); **Krasnoyarsk Krai** (<sup>2</sup>Perova, 1970; <sup>3</sup>Beglyanova, 1972a; <sup>3</sup>Pavlov et al., 2007; <sup>1</sup>Kosheleva and Kutafjeva, 2008a; <sup>1</sup>Zauzolkova, 2012; <sup>1</sup>Malysheva, Malysheva, Kiyashko, et al., 2017); **Novosibirsk Oblast** (<sup>3</sup>Zaytseva, 1971; <sup>1</sup>Perova and Gorbunova, 2007; <sup>1</sup>Koropachinskiy and Banaev, 2014); **Tomsk Oblast** (<sup>3</sup>Kosheleva and Kutafjeva, 2004; <sup>1</sup>Kudashova, Gashkov, and Kutafjeva, 2013); **Yamalo-Nenets Autonomous Okrug** (<sup>3</sup>Tarчевskaya, 1990; <sup>3</sup>Karatygin, Nezdojminogo, Novozhilov, and Zhurbenko, 1999).

FAR EAST: **Amur Oblast** (<sup>2</sup>Tomilin, 1962; <sup>3</sup>Nazarova, 1986; <sup>1</sup>Taranina, 2005; <sup>1</sup>Kochunova and Erofeeva, 2017); **Chukotka Autonomous Okrug** (<sup>3</sup>Sazanova, 1993); **Jewish Autonomous Oblast** (<sup>3</sup>Bulakh, Govorova, Nazarova, and Vassiljeva, 2007; <sup>1</sup>Bau, Bulakh, and Govorova, 2011); **Kamchatka Krai** (<sup>3</sup>Kalamees and Vaasma, 1981); **Khabarovsk Krai** (<sup>2</sup>Vassiljeva, 1956; <sup>3</sup>Azbukina et al., 1986; <sup>3</sup>Azbukina et al., 1989; <sup>1</sup>Bulakh, Vassiljeva, and Erofeeva, 2010; <sup>1</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Bulakh, 2013; <sup>1</sup>Bogacheva, Bulakh, Bukharova, and Egorova, 2015); **Magadan Oblast** (<sup>3</sup>Nazarova, 1976; <sup>4</sup>Sazanova, 1996; <sup>4</sup>Sazanova, 2005; <sup>1</sup>Sazanova, 2009a; <sup>1</sup>Sazanova, 2009b; <sup>1</sup>Sazanova, 2011); **Primorsky Krai** (<sup>2</sup>Vassiljeva, 1956; <sup>3</sup>Vassiljeva, 1973; <sup>1</sup>Bulakh et al., 2016); **Sakhalin Oblast** (<sup>3</sup>Vassiljeva and Nazarova, 1972).

### ***Tapinella atrotomentosa* (Batsch) Šutara<sup>1</sup>**

≡ *Agaricus atrotomentosus* Batsch<sup>2</sup> ≡ *Paxillus atrotomentosus* (Batsch) Fr.<sup>3</sup> ≡ *Sarcopaxillus atrotomentosus* (Batsch) Zmitr., Malysheva & E.F. Malysheva<sup>4</sup>

EASTERN EUROPE: **Bashkortostan** (<sup>3</sup>Stepanova and Sirko, 1977); **Belgorod Oblast** (<sup>3</sup>Bedenko, 1979a; <sup>3</sup>Soshnina, 1995); **Bryansk Oblast** (<sup>3</sup>Kruglikov, 2007); **Chuvash Republic** (<sup>3</sup>Marfin, 2001); **Crimea** (<sup>3</sup>Sarkina, 2001; <sup>3</sup>Dudka et

al., 2004; <sup>3</sup>Akulov and Pryidiuk, 2007; <sup>3</sup>Sarkina, 2011; <sup>3</sup>Sarkina and Pryidiuk, 2012; <sup>3</sup>Sarkina, 2014b); **Kabardino-Balkarian Republic** (<sup>3</sup>Shkhagapsoev and Krapivina, 2003; <sup>3</sup>Shkhagapsoev and Krapivina, 2004); **Kaliningrad Oblast** (<sup>1</sup>Dedkov, Volodina, and Gubareva, 2007; <sup>1</sup>Volodina, 2007); **Kaluga Oblast** (<sup>3</sup>Sionova, 2003); **Karelia** (<sup>3</sup>Kovalenko, Morozova, Fomina, and Särkisilta, 1998; <sup>3</sup>Bondartseva et al., 2001; <sup>1</sup>Predtechenskaya and Ruokolainen, 2013; <sup>1</sup>Predtechenskaya, 2013; <sup>1</sup>Krutov et al., 2014; <sup>1</sup>Predtechenskaya and Ruokolainen, 2014; <sup>1</sup>Savelev and Kikeeva, 2018); **Kirov Oblast** (<sup>3</sup>Kirillov, 2011; <sup>3</sup>Kirillov, Perevedentseva, and Egoshina, 2011; <sup>1</sup>Stavishenko, Luginina, Kirillov, and Egoshina, 2019); **Komi Republic** (<sup>1</sup>Palamarchuk, 2012); **Krasnodar Krai** (<sup>3</sup>Vaasma, Kalamees, and Raitviir, 1986); **Leningrad Oblast** (<sup>3</sup>Thesleff, 1920; <sup>3</sup>Stolyarskaya, 1989; <sup>1</sup>Kovalenko and Morozova, 1999a; <sup>3</sup>Zmitrovich, 2003; <sup>4</sup>Zmitrovich, Malysheva, Malysheva, and Spirin, 2004; <sup>1</sup>Popov et al., 2007; <sup>3</sup>Morozova, 2007; <sup>1</sup>Zmitrovich et al., 2015); **Lipetsk Oblast** (<sup>3</sup>Rtishcheva, 1999; <sup>3</sup>Sarycheva, 1999; <sup>3</sup>Afanasyev, Rtishcheva, and Starodubtseva, 2007; <sup>1</sup>Sarycheva et al., 2009; <sup>1</sup>Sarycheva, 2011; <sup>1</sup>Sarycheva, 2014a; <sup>1</sup>Sarycheva, 2016; <sup>1</sup>Sarycheva, Starodubtseva, and Sapelnikova, 2017); **Mari El Republic** (<sup>1,3</sup>Prokhorov, 2007); **Mordovia** (<sup>3</sup>Chastukhin, 1948a; <sup>3</sup>Chastukhin and Nikolaevskaya, 1969; <sup>1</sup>Ivoilov and Bolshakov, 2011b; <sup>3</sup>Chastukhin, 2011); **Moscow Oblast** (<sup>3</sup>Gorlenko, Sidorova, and Sidorova, 1989; <sup>3</sup>Levitskaya, 1995a; <sup>1</sup>Voronina et al., 2012; <sup>1</sup>Levitskaya, 2013; <sup>1</sup>Voronina et al., 2014); **Orenburg Oblast** (<sup>1</sup>Desyatova, 2008; <sup>3</sup>Safonov, Malenkova, Rusakov, and Leneva, 2013; <sup>1</sup>Safonov, 2015); **Oryol Oblast** (<sup>1</sup>Volobuev and Tsutsupa, 2009; <sup>1</sup>Radygina, Derzhavina, and Tsutsupa, 2014); **Penza Oblast** (<sup>3</sup>Ivanov, 1981a; <sup>3</sup>Ivanov, 1981b); **Perm Krai** (<sup>3</sup>Perevedentseva, 2008; <sup>3</sup>Botalov, 2017); **Pskov Oblast** (<sup>1</sup>Popov, 2001a; <sup>1</sup>Psurtseva, Kiyashko, Gachkova, and Belova, 2007; <sup>1</sup>Popov et al., 2013); **Rostov Oblast** (<sup>3</sup>Rusanov et al., 2004; <sup>3</sup>Morozova et al., 2008; <sup>3</sup>Zmitrovich et al., 2008); **Ryazan Oblast** (<sup>3</sup>Vanin, 1916; <sup>3</sup>Volosnova, 1997; <sup>1</sup>Volosnova, 2014); **Saint Petersburg** (<sup>2</sup>Weinmann, 1836; <sup>1</sup>Kovalenko and Morozova, 1999a; <sup>4</sup>Zmitrovich, Malysheva, Malysheva, and Spirin, 2004; <sup>1</sup>Morozova and Smirnov, 2011); **Samara Oblast** (<sup>3</sup>Malysheva and Malysheva, 2004; <sup>4</sup>Malysheva and Malysheva, 2008); **Smolensk Oblast** (<sup>3</sup>Jaczevski, 1896); **Sverdlovsk Oblast** (<sup>3</sup>Stepanova and Sirko, 1977); **Tambov Oblast** (<sup>3</sup>Elenevskiy, 2002); **Tatarstan** (<sup>3</sup>Vassiljeva, 1977; <sup>1</sup>Potapov, 2015b); **Tula Oblast** (<sup>1</sup>Svetasheva, 2004); **Tver Oblast** (<sup>3</sup>Kurochkin, 1993; <sup>3</sup>Mukhina, 2011a; <sup>3</sup>Mukhina, 2011b; <sup>1</sup>Kotkova, 2014); **Udmurt Republic** (<sup>3</sup>Tychinin and Kuzmina, 2003); **Ulyanovsk Oblast** (<sup>1</sup>Ilyukhin, 2009; <sup>1</sup>Ilyukhin, 2010a); **Vologda Oblast** (<sup>1</sup>Kirillova, 2007); **Voronezh Oblast** (<sup>3</sup>Chastukhin and Nikolaevskaya, 1953; <sup>3</sup>Chastukhin and Nikolaevskaya, 1969; <sup>3</sup>Rtishcheva, 1999; <sup>3</sup>Afanasyev, Rtishcheva, and Starodubtseva, 2007; <sup>1</sup>Sarycheva, Starodubtseva, and Sapelnikova, 2017); **Yaroslavl Oblast** (<sup>3</sup>Lazareva, 1997; <sup>3</sup>Lazareva, 1998a); **Arid territories** (<sup>1</sup>Rebriev, Rusanov, et al., 2012).

SIBERIA: **Altai Krai** (<sup>3</sup>Gorbunova and Chubarova, 2008; <sup>1</sup>Gorbunova, Vlasenko, and Tzhubarova, 2011); **Khakassia** (<sup>3</sup>Beglyanova, 1972a); **Krasnoyarsk Krai** (<sup>3</sup>Beglyanova, 1972a; <sup>3</sup>Lapitskaya, 1990; <sup>3</sup>Pavlov et al., 2007; <sup>3</sup>Kosheleva and Kutafjeva, 2008a; <sup>1</sup>Zauzolkova, 2015); **Novosibirsk Oblast** (<sup>3</sup>Zaytseva, 1971); **Sverdlovsk Oblast** (<sup>3</sup>Stepanova and Sirko, 1977); **Tomsk Oblast** (<sup>3</sup>Milovidova, 1980; <sup>1</sup>Kudashova, Gashkov, and Kutafjeva, 2013; <sup>1</sup>Kudashova, Gashkov, and Vaishlya, 2016b; <sup>1</sup>Vaishlya et al., 2017).

### ***Tapinella panuoides* (Fr.) E.-J. Gilbert<sup>1</sup>**

≡ *Agaricus panuoides* Fr.<sup>2</sup> ≡ *Crepidotus panuoides* (Fr.) Pilát<sup>3</sup> ≡ *Paxillus panuoides* (Fr.) Fr.<sup>4</sup> ≡ *Serpula panuoides* (Fr.) Zmitr. ex Zmitr.<sup>5</sup> ≡ *Tapinia panuoides* (Fr.) P. Karst.<sup>6</sup> = *Paxillus acheruntius* (Humb.) J. Schröt.<sup>7</sup>

EASTERN EUROPE: **Arkhangelsk Oblast** (<sup>7</sup>Lebedeva, 1933); **Belgorod Oblast** (<sup>1</sup>Psurtseva, Belova, and Ryabusheva, 2003; <sup>1</sup>Psurtseva, Kiyashko, Gachkova, and Belova, 2007); **Crimea** (<sup>4</sup>Sarkina, 2001; <sup>4</sup>Dudka et al., 2004; <sup>1</sup>Akulov and Pryidiuk, 2007; <sup>4</sup>Sarkina, 2010b; <sup>4</sup>Sarkina, 2013); **Kaliningrad Oblast** (<sup>1</sup>Dedkov, Volodina, and Gubareva, 2007; <sup>1</sup>Volodina, 2007); **Karelia** (<sup>7</sup>Lebedeva, 1933; <sup>4</sup>Freindling, 1949; <sup>4</sup>Bulakh, Wasser, Nazarova, and Nezdjominogo, 1990; <sup>4</sup>Bondartseva et al., 2001; <sup>1</sup>Krutov et al., 2014); **Kirov Oblast** (<sup>4</sup>Kirillov, 2011; <sup>4</sup>Kirillov, Perevedentseva, and Egoshina, 2011); **Leningrad Oblast** (<sup>6</sup>Thesleff, 1920; <sup>1</sup>Kovalenko and Morozova, 1999a; <sup>5</sup>Zmitrovich, Malysheva, Malysheva, and Spirin, 2004; <sup>1</sup>Popov et al., 2007; <sup>4</sup>Morozova, 2007; <sup>1</sup>Zmitrovich et al., 2015); **Lipetsk Oblast** (<sup>1</sup>Sarycheva et al., 2009; <sup>1</sup>Sarycheva, 2016); **Mordovia** (<sup>4</sup>Kuznetsov, 1960; <sup>4</sup>Bulakh, Wasser, Nazarova, and Nezdjominogo, 1990; <sup>1</sup>Ivoilov and Bolshakov, 2011b); **Moscow** (<sup>7</sup>Bucholtz, 1897b; <sup>7</sup>Bucholtz, 1897c; <sup>7</sup>Mosolov, 1906); **Moscow Oblast** (<sup>4</sup>Gorlenko, Sidorova, and Sidorova, 1989; <sup>1</sup>Levitskaya, 2006; <sup>1</sup>Levitskaya, 2013); **Murmansk Oblast** (<sup>4</sup>Karsten, 1866; <sup>4</sup>Karsten, 1876; <sup>6</sup>Karsten, 1889; <sup>4</sup>Bulakh, Wasser, Nazarova, and Nezdjominogo, 1990); **Nizhny Novgorod Oblast** (<sup>5</sup>Spirin, 2003); **Orenburg Oblast** (<sup>1</sup>Safonov, 2015); **Penza Oblast** (<sup>4</sup>Ivanov, 1981a; <sup>4</sup>Ivanov, 1981b); **Perm Krai** (<sup>4</sup>Perevedentseva, 2008); **Pskov Oblast** (<sup>1</sup>Popov et al., 2013); **Ryazan Oblast** (<sup>4</sup>Volosnova, 1997; <sup>1</sup>Volosnova, 2014); **Saint Petersburg** (<sup>2</sup>Weinmann, 1836; <sup>2</sup>Weinmann, 1837; <sup>1</sup>Kovalenko and Morozova, 1999a; <sup>5</sup>Zmitrovich, Malysheva, Malysheva, and Spirin, 2004; <sup>1</sup>Morozova and Smirnov, 2011; <sup>1</sup>Morozova, Kovalenko, Rebriev, and Malysheva, 2014; <sup>1</sup>Morozova et al., 2020); **Samara Oblast** (<sup>5</sup>Malysheva and Malysheva, 2005b; <sup>1</sup>Malysheva and Malysheva, 2008); **Smolensk Oblast** (<sup>4</sup>Jaczevski, 1898); **Sverdlovsk Oblast** (<sup>3</sup>Pilát, 1935; <sup>1</sup>Marina, 2006); **Tver Oblast** (<sup>4</sup>Bulakh, Wasser, Nazarova, and Nezdjominogo, 1990; <sup>4</sup>Kurochkin, 1993); **Udmurt Republic** (<sup>1</sup>Kapitonov, 2008); **Ulyanovsk Oblast**

(<sup>1</sup>Ilyukhin, 2010a); **Vologda Oblast** (<sup>4</sup>Kutova, 1957); **Yamalo-Nenets Autonomous Okrug** (<sup>4</sup>Kazanthseva, 1970); **Arid territories** (<sup>1</sup>Rebriev, Rusanov, et al., 2012).

SIBERIA: **Altai Krai** (<sup>4</sup>Zhukov, 1980); **Altai Republic** (<sup>4</sup>Kovalenko, 1992; <sup>4</sup>Perova and Gorbunova, 2001); **Irkutsk Oblast** (<sup>4</sup>Kutafjeva, 1982); **Khanty-Mansi Autonomous Okrug** (<sup>4</sup>Mukhin, 1993); **Krasnoyarsk Krai** (<sup>4</sup>Beglyanova, 1972a; <sup>1</sup>Kosheleva and Kutafjeva, 2008a; <sup>1</sup>Krom and Kapitonov, 2019); **Novosibirsk Oblast** (<sup>4</sup>Nozdrenko, 1970; <sup>4</sup>Zhukov, 1980; <sup>4</sup>Perova and Gorbunova, 2001; <sup>4</sup>Perova and Gorbunova, 2007); **Tomsk Oblast** (<sup>3</sup>Pilát, 1935; <sup>4</sup>Milovidova, 1980; <sup>1</sup>Kudashova, Gashkov, and Kutafjeva, 2013; <sup>1</sup>Kudashova, Gashkov, and Vaishlya, 2016b); **Tyumen Oblast** (<sup>4</sup>Mukhin, 1993); **Zabaykalsky Krai** (<sup>4</sup>Karsten, 1911); **Sayans** (<sup>4</sup>Saccardo, 1896).

FAR EAST: **Amur Oblast** (<sup>1</sup>Bulakh, Govorova, and Taranina, 2003; <sup>1</sup>Kochunova, 2016); **Chukotka Autonomous Okrug** (<sup>4</sup>Sazanova, 1993); **Jewish Autonomous Oblast** (<sup>4</sup>Bulakh, Govorova, Nazarova, and Vassiljeva, 2007; <sup>1</sup>Bau, Bulakh, and Govorova, 2011); **Khбаровsk Krai** (<sup>4</sup>Vassiljeva, 1956; <sup>4</sup>Azbukina et al., 1986; <sup>4</sup>Bulakh, Wasser, Nazarova, and Nezdjominogo, 1990; <sup>1</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Bulakh, 2013; <sup>1</sup>Bogacheva, Bulakh, Bukharova, and Egorova, 2015); **Primorsky Krai** (<sup>4</sup>Vassiljeva, 1956; <sup>4</sup>Vassiljeva, 1972; <sup>4</sup>Vassiljeva, 1973; <sup>4</sup>Bunkina and Nazarova, 1978; <sup>4</sup>Azbukina et al., 1984; <sup>4</sup>Bulakh, Wasser, Nazarova, and Nezdjominogo, 1990; <sup>4</sup>Azbukina et al., 2006; <sup>1</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Bulakh et al., 2016); **Sakhalin Oblast** (<sup>4</sup>Vassiljeva and Nazarova, 1972).

### *Tapinella polychrous* (Singer) C. Hahn

≡ *Paxillus polychrous* Singer<sup>1</sup>

EASTERN EUROPE: **Krasnodar Krai** (<sup>1</sup>Singer, 1937; <sup>1</sup>Vassiljeva, 1939); **Voronezh Oblast** (<sup>1</sup>Singer, 1937).

### *Tectella patellaris* (Fr.) Murrill<sup>1</sup>

≡ *Panellus patellaris* (Fr.) Konrad & Maubl.<sup>2</sup> ≡ *Panus patellaris* Fr.<sup>3</sup> ≡ *Pleurotus patellaris* (Fr.) Pilát<sup>4</sup> = *Tectella operculata* (Berk. & M.A. Curtis) Murrill<sup>5</sup>

EASTERN EUROPE: **Komi Republic** (<sup>1</sup>Karatygin, Nezdjominogo, Novozhilov, and Zhurbenko, 1999; <sup>1</sup>Palamarchuk and Kirillov, 2018a; <sup>1</sup>Dyogteva, 2019; <sup>1</sup>Palamarchuk et al., 2019); **Krasnodar Krai** (<sup>1</sup>Vassiljeva, 1939; <sup>1</sup>Singer, 1950c); **Yamalo-Nenets Autonomous Okrug** (<sup>1</sup>Stepanova and Sirko, 1977; <sup>1</sup>Karatygin, Nezdjominogo, Novozhilov, and Zhurbenko, 1999); **Urals** (<sup>4</sup>Pilát, 1936).

SIBERIA: **Altai Republic** (<sup>1</sup>Singer, 1943; <sup>4</sup>Perova and Gorbunova, 2001); **Buryatia** (<sup>1</sup>Nezdjominogo, 1970a; <sup>1</sup>Petrov, 1991); **Irkutsk Oblast** (<sup>1</sup>Petrov, 1984; <sup>1</sup>Petrov, 1991; <sup>1</sup>Bardunov et al., 2005; <sup>1</sup>Petrov, 2008; <sup>1</sup>Gaykova and Popov, 2010; <sup>1</sup>Muzyka and Penzina, 2017; <sup>1</sup>Trofimova, Popov, and Merkacheva, 2020); **Khanty-Mansi Autonomous Okrug** (<sup>1</sup>Mukhin, 1993); **Krasnoyarsk Krai** (<sup>3</sup>Pilát, 1934; <sup>1</sup>Nezdjominogo, 1982a); **Tyumen Oblast** (<sup>1</sup>Mukhin, 1993); **Yamalo-Nenets Autonomous Okrug** (<sup>1</sup>Mukhin, 1987; <sup>1</sup>Tarчевskaya, 1990; <sup>1</sup>Mukhin, 1993; <sup>1</sup>Karatygin, Nezdjominogo, Novozhilov, and Zhurbenko, 1999; <sup>1</sup>Kapitonov, 2015).

FAR EAST: **Amur Oblast** (<sup>1</sup>Singer, 1950c; <sup>1</sup>Bulakh, Govorova, and Taranina, 2003; <sup>2</sup>Taranina, 2005; <sup>1</sup>Kochunova, 2016); **Chukotka Autonomous Okrug** (<sup>1</sup>Sazanova, 1993); **Jewish Autonomous Oblast** (<sup>1</sup>Bulakh, Govorova, Nazarova, and Vassiljeva, 2007; <sup>2</sup>Bau, Bulakh, and Govorova, 2011); **Kamchatka Krai** (<sup>1</sup>Kalamees and Vaasma, 1981); **Khбаровsk Krai** (<sup>2</sup>Bau, Bulakh, and Govorova, 2011); **Magadan Oblast** (<sup>1</sup>Nazarova, 1976; <sup>1</sup>Nazarova, 1978; <sup>1</sup>Sazanova, 2005; <sup>5</sup>Sazanova, 2009a; <sup>5</sup>Sazanova, 2009b; <sup>5</sup>Sazanova, 2011; <sup>5</sup>Sazanova, 2012); **Primorsky Krai** (<sup>1</sup>Nazarova, 1978; <sup>2</sup>Bau, Bulakh, and Govorova, 2011; <sup>2</sup>Bogacheva, Bulakh, Bukharova, and Egorova, 2020).

### *Tephrocycbe ambusta* (Fr.) Donk<sup>1</sup>

≡ *Agaricus umbratilis* β *ambustus* Fr.<sup>2</sup> ≡ *Collybia ambusta* (Fr.) Quél.<sup>3</sup> ≡ *Lyophyllum ambustum* (Fr.) Singer<sup>4</sup>

EASTERN EUROPE: **Crimea** (<sup>3</sup>Zerova, 1962; <sup>4</sup>Sarkina, 2001; <sup>1</sup>Dudka et al., 2004; <sup>1</sup>Sarkina, 2011); **Leningrad Oblast** (<sup>3</sup>Thesleff, 1920); **Rostov Oblast** (<sup>1</sup>Vyshchepan, 1992); **Saint Petersburg** (<sup>2</sup>Weinmann, 1836; <sup>2</sup>Weinmann, 1837); **Arid territories** (<sup>1</sup>Rebriev, Rusanov, et al., 2012).

SIBERIA: **Altai Krai** (<sup>1</sup>Gorbunova and Perova, 2006); **Altai Republic** (<sup>4</sup>Singer, 1943; <sup>1</sup>Gorbunova, 1997; <sup>1</sup>Perova and Gorbunova, 2001).

### *Tephrocycbe anthracophila* (Lasch) P.D. Orton<sup>1</sup>

≡ *Lyophyllum anthracophilum* (Lasch) M. Lange & Sivertsen<sup>2</sup> = *Lyophyllum carbonarium* (Velen.) M.M. Moser<sup>3</sup> = *Tephrocycbe carbonaria* (Velen.) Donk<sup>4</sup>

EASTERN EUROPE: **Moscow Oblast** (<sup>1</sup>Gorlenko, Sidorova, and Sidorova, 1989; <sup>2</sup>Vishnevsky, 1998); **Murmansk Oblast** (<sup>4</sup>Mikhailovskii, 1975b; <sup>1</sup>Karatygin, Nezdjominogo, Novozhilov, and Zhurbenko, 1999); **Rostov Oblast** (<sup>1</sup>Vyshchepan, 1992); **Ryazan Oblast** (<sup>1</sup>Volosnova, 2014); **Sverdlovsk Oblast** (<sup>4</sup>Stepanova and Sirko, 1977; <sup>1</sup>Marina,

2006); **Tula Oblast** (<sup>1</sup>Svetasheva, 2004); **Udmurt Republic** (<sup>1</sup>Kapitonov, 2013); **Yaroslavl Oblast** (<sup>1</sup>Lazareva, 1998a); **Arid territories** (<sup>1</sup>Rebriev, Rusanov, et al., 2012).

SIBERIA: **Krasnoyarsk Krai** (<sup>4</sup>Beglyanova, 1972a); **Novosibirsk Oblast** (<sup>1</sup>Koropachinskiy and Banaev, 2014); **Sverdlovsk Oblast** (<sup>4</sup>Stepanova and Sirko, 1977).

FAR EAST: **Kamchatka Krai** (<sup>1</sup>Kalamees and Vaasma, 1981); **Primorsky Krai** (<sup>3</sup>Vassiljeva, 1972).

***Tephrocye atrata* (Fr.) Donk<sup>1</sup>**

≡ *Agaricus atratus* Fr.<sup>2</sup> ≡ *Collybia atrata* (Fr.) P. Kumm.<sup>3</sup> ≡ *Lyophyllum atratum* (Fr.) Singer<sup>4</sup>

EASTERN EUROPE: **Karelia** (<sup>4</sup>Bondartseva et al., 2001; <sup>1</sup>Krutov et al., 2014); **Leningrad Oblast** (<sup>3</sup>Thesleff, 1920; <sup>3</sup>Chastukhin and Nikolaevskaya, 1969; <sup>4</sup>Kovalenko and Morozova, 1999a; <sup>4</sup>Popov et al., 2007); **Orenburg Oblast** (<sup>1</sup>Desyatova, 2008); **Saint Petersburg** (<sup>2</sup>Weinmann, 1828; <sup>2</sup>Weinmann, 1836; <sup>2</sup>Weinmann, 1837); **Tatarstan** (<sup>4</sup>Vassiljeva, 1977); **Tula Oblast** (<sup>1</sup>Svetasheva, 2004); **Udmurt Republic** (<sup>1</sup>Kapitonov, 2013); **Eastern Europe** (<sup>4</sup>Singer, 1943).

SIBERIA: **Altai Republic** (<sup>4</sup>Singer, 1943); **Krasnoyarsk Krai** (<sup>2</sup>Thümen, 1878; <sup>1</sup>Beglyanova, 1972a; <sup>1</sup>Zauzolkova, 2015); **Sverdlovsk Oblast** (<sup>1</sup>Stepanova and Sirko, 1977); **Tomsk Oblast** (<sup>1</sup>Kudashova, Gashkov, and Kutafjeva, 2013).

FAR EAST: **Sakhalin Oblast** (<sup>4</sup>Vassiljeva and Nazarova, 1972).

***Tephrocye cessans* (P. Karst.) M.M. Moser<sup>1</sup>**

≡ *Lyophyllum cessans* (P. Karst.) M.M. Moser<sup>2</sup>

EASTERN EUROPE: **Karachay-Cherkess Republic** (<sup>2</sup>Kalamees and Botashev, 2000).

SIBERIA: **Buryatia** (<sup>1</sup>Nezdojminogo, 1973; <sup>1</sup>Petrov, 1991).

***Tephrocye confusa* (P.D. Orton) P.D. Orton**

EASTERN EUROPE: **Orenburg Oblast** (Desyatova, 2008); **Perm Krai** (Perevedentseva, 2008; Belkovskaya et al., 2014; Botalov, 2017; Botalov and Perevedentseva, 2020); **Sverdlovsk Oblast** (Marina, 2006).

SIBERIA: **Altai Krai** (Gorbunova and Perova, 2006); **Altai Republic** (Gorbunova, 1997; Gorbunova, 2001a; Perova and Gorbunova, 2001); **Novosibirsk Oblast** (Gorbunova, 2007).

***Tephrocye coracina* (Fr.) M.M. Moser**

≡ *Collybia coracina* (Fr.) Gillet<sup>1</sup> ≡ *Lyophyllum coracinum* (Fr.) Singer<sup>2</sup>

EASTERN EUROPE: **Leningrad Oblast** (<sup>1</sup>Thesleff, 1920; <sup>2</sup>Kovalenko and Morozova, 1999a; <sup>2</sup>Popov et al., 2007).

***Tephrocye fuscipes* P.D. Orton**

SIBERIA: **Tomsk Oblast** (Kudashova, Gashkov, and Kutafjeva, 2013).

***Tephrocye fusispora* (Hora) M.M. Moser**

SIBERIA: **Krasnoyarsk Krai** (Vassilkov, 1971b; Beglyanova, 1972a).

***Tephrocye impexa* (P. Karst.) M.M. Moser**

EASTERN EUROPE: **Perm Krai** (Perevedentseva, 2008; Belkovskaya et al., 2014).

***Tephrocye mephitica* (Fr.) M.M. Moser<sup>1</sup>**

≡ *Lyophyllum mephiticum* (Fr.) Singer<sup>2</sup>

FAR EAST: **Jewish Autonomous Oblast** (<sup>1</sup>Bulakh, Govorova, Nazarova, and Vassiljeva, 2007; <sup>2</sup>Bau, Bulakh, and Govorova, 2011).

***Tephrocye misera* (Fr.) M.M. Moser ex Contu & Vizzini**

≡ *Agaricus miser* Fr.<sup>1</sup> ≡ *Collybia misera* (Fr.) Gillet<sup>2</sup> ≡ *Lyophyllum miserum* (Fr.) Singer<sup>3</sup> ≡ *Tephrocye misera* (Fr.) M.M. Moser<sup>4</sup>

EASTERN EUROPE: **Karelia** (<sup>3</sup>Singer, 1943); **Tatarstan** (<sup>3</sup>Singer, 1943).

SIBERIA: **Krasnoyarsk Krai** (<sup>1</sup>Thümen, 1878; <sup>4</sup>Beglyanova, 1972a; <sup>4</sup>Zauzolkova, 2015); **Tomsk Oblast** (<sup>2</sup>Perova and Gorbunova, 2001).

***Tephrocye murina* (Batsch) M.M. Moser<sup>1</sup>**

≡ *Lyophyllum murinum* (Batsch) M.M. Moser<sup>2</sup>

EASTERN EUROPE: **Moscow Oblast** (<sup>2</sup>Vishnevsky, 1998); **Tula Oblast** (<sup>1</sup>Svetasheva, 2004; <sup>1</sup>Svetasheva, 2005b; <sup>1</sup>Shcherbakov, 2010).

***Tephrocye ozes* (Fr.) Bon<sup>1</sup>**≡ *Collybia ozes* (Fr.) P. Karst.<sup>2</sup>

According to morphological (Bon, 1999) and phylogenetic studies (Bellanger et al., 2015; Bellanger, 2016) *Collybia ozes* (Fr.) P. Karst. belongs to *Tephrocye*, Lyophyllaceae.

EASTERN EUROPE: **Karelia** (<sup>2</sup>Krutov et al., 2014); **Leningrad Oblast** (<sup>1</sup>Stolyarskaya, 1989; <sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Popov et al., 2007; <sup>2</sup>Zmitrovich et al., 2015).

***Tephrocye platypus* (Kühner) M.M. Moser**EASTERN EUROPE: **Arid territories** (Rebriev, Rusanov, et al., 2012).***Tephrocye putida* (P. Karst.) M.M. Moser<sup>1</sup>**≡ *Lyophyllum putidum* (P. Karst.) Singer<sup>2</sup> ≡ *Tricholoma putidum* P. Karst.<sup>3</sup>

EASTERN EUROPE: **Crimea** (<sup>2</sup>Sarkina, 2001; <sup>1</sup>Dudka et al., 2004; <sup>1</sup>Sarkina, 2010b; <sup>1</sup>Sarkina, 2013); **Leningrad Oblast** (<sup>3</sup>Thesleff, 1920); **Saint Petersburg** (<sup>1</sup>Morozova et al., 2020).

FAR EAST: **Primorsky Krai** (<sup>1</sup>Bau, Bulakh, and Govorova, 2011).

***Tephrocye rancida* (Fr.) Donk<sup>1</sup>**≡ *Agaricus rancidus* Fr.<sup>2</sup> ≡ *Collybia rancida* (Fr.) Quél.<sup>3</sup> ≡ *Lyophyllum rancidum* (Fr.) Singer<sup>4</sup>

EASTERN EUROPE: **Crimea** (<sup>4</sup>Sarkina and Prydiuk, 2012); **Karelia** (<sup>1</sup>Kovalenko, Morozova, Fomina, and Särkisilta, 1998; <sup>1</sup>Krutov et al., 2014); **Kirov Oblast** (<sup>1</sup>Kirillov, 2011; <sup>1</sup>Kirillov, Perevedentseva, and Egoshina, 2011); **Komi Republic** (<sup>1</sup>Palamarchuk, 2020b); **Leningrad Oblast** (<sup>3</sup>Thesleff, 1920; <sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Morozova and Kovalenko, 2000; <sup>1</sup>Morozova, 2007; <sup>1</sup>Popov et al., 2007; <sup>1</sup>Kalinina, 2018); **Lipetsk Oblast** (<sup>1</sup>Sarycheva, 2014a; <sup>1</sup>Sarycheva, 2016); **Moscow** (<sup>2</sup>Bucholtz, 1897b; <sup>2</sup>Bucholtz, 1897c; <sup>2</sup>Mosolov, 1906); **Moscow Oblast** (<sup>1</sup>Levitskaya, 2006; <sup>1</sup>Levitskaya, 2013; <sup>1</sup>Voronina et al., 2014); **Novgorod Oblast** (<sup>1</sup>Svetasheva et al., 2017); **Penza Oblast** (<sup>1</sup>Ivanov, 1983); **Perm Krai** (<sup>1</sup>Perevedentseva, Nezdoininog, and Kovalenko, 1990; <sup>1</sup>Perevedentseva, 2008; <sup>1</sup>Botalov, 2017; <sup>1</sup>Botalov and Perevedentseva, 2020); **Pskov Oblast** (<sup>4</sup>Kalinina, Bolshakov, and Bulyonkova, 2020); **Saint Petersburg** (<sup>2</sup>Weinmann, 1836; <sup>2</sup>Weinmann, 1837; <sup>1</sup>Kotkova, Morozova, and Popov, 2005; <sup>1</sup>Morozova and Smirnov, 2011; <sup>1</sup>Morozova et al., 2020); **Sverdlovsk Oblast** (<sup>1</sup>Marina, 2006); **Tula Oblast** (<sup>1</sup>Svetasheva, 2004; <sup>1</sup>Svetasheva, 2013); **Udmurt Republic** (<sup>1</sup>Kapitonov, 2013); **Vologda Oblast** (<sup>1</sup>Kirillova, 2007; <sup>1</sup>Kirillova, 2009); **Voronezh Oblast** (<sup>1</sup>Sarycheva, Starodubtseva, and Sapelnikova, 2017); **Yaroslavl Oblast** (<sup>1</sup>Lazareva, 1998a).

SIBERIA: **Altai Krai** (<sup>1</sup>Gorbunova, 2018a); **Altai Republic** (<sup>3</sup>Gorbunova, 1996; <sup>3</sup>Gorbunova, 1997; <sup>1</sup>Perova and Gorbunova, 2001); **Irkutsk Oblast** (<sup>1</sup>Kutafjeva and Astapenko, 1988; <sup>1</sup>Kutafjeva and Astapenko, 1989); **Khanty-Mansi Autonomous Okrug** (<sup>1</sup>Filippova, Bulyonkova, and Lapshina, 2015; <sup>1</sup>Filippova and Bulyonkova, 2017a; <sup>1</sup>Filippova and Bulyonkova, 2017b); **Krasnoyarsk Krai** (<sup>1</sup>Zauzolkova, 2015; <sup>1</sup>Malysheva, Malysheva, Kiyashko, et al., 2017; <sup>1</sup>Krom and Kapitonov, 2019); **Novosibirsk Oblast** (<sup>1</sup>Perova and Gorbunova, 2001; <sup>1</sup>Perova and Gorbunova, 2007; <sup>1</sup>Koropachinskiy and Banaev, 2014); **Sverdlovsk Oblast** (<sup>1</sup>Stepanova and Sirko, 1977); **Tomsk Oblast** (<sup>3</sup>Perova, 1972; <sup>1</sup>Perova and Gorbunova, 2001; <sup>1</sup>Kudashova, Gashkov, and Kutafjeva, 2013).

FAR EAST: **Khabarovsk Krai** (<sup>3</sup>Azbukina et al., 1986; <sup>1</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Erofeeva and Bulakh, 2015a); **Primorsky Krai** (<sup>4</sup>Vassiljeva, 1972; <sup>3</sup>Vassiljeva, 1973; <sup>3</sup>Bunkina and Nazarova, 1978; <sup>4</sup>Azbukina et al., 1984; <sup>1</sup>Azbukina et al., 2006; <sup>1</sup>Bau, Bulakh, and Govorova, 2011).

***Tephrocye striipilea* (Fr.) Donk<sup>1</sup>**≡ *Lyophyllum striipileum* (Fr.) Kühner & Romagn.<sup>2</sup> ≡ *Omphalia striipilea* (Fr.) Gillet<sup>3</sup>

EASTERN EUROPE: **Kaliningrad Oblast** (<sup>3</sup>Neuhoff, 1922; <sup>3</sup>Dedkov, Volodina, and Gubareva, 2007); **Leningrad Oblast** (<sup>3</sup>Thesleff, 1920); **Saint Petersburg** (<sup>2</sup>Morozova and Smirnov, 2011).

FAR EAST: **Khabarovsk Krai** (<sup>3</sup>Azbukina et al., 1986; <sup>3</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Erofeeva and Bulakh, 2015a); **Primorsky Krai** (<sup>1</sup>Azbukina et al., 1990; <sup>1</sup>Bardunov et al., 2002).

***Tetrapyrgos nigripes* (Fr.) E. Horak**FAR EAST: **Primorsky Krai** (Bulakh, 2003; Bau, Bulakh, and Govorova, 2011).***Tetrapyrgos subdendrophora* (Redhead) E. Horak**FAR EAST: **Sakhalin Oblast** (Bulakh, 2003).

***Tricholoma acerbum* (Bull.) Quél.**

EASTERN EUROPE: **Belgorod Oblast** (Bedenko, 1980); **Tula Oblast** (Svetasheva, 2004; Svetasheva, 2005b; Shcherbakov, 2010); **Ulyanovsk Oblast** (Ilyukhin, 2010a; Ilyukhin, 2010b).

SIBERIA: **Novosibirsk Oblast** (Koropachinskiy and Banaev, 2014); **Tomsk Oblast** (Agaphonova, Kutafjeva, and Gashkov, 2009b).

FAR EAST: **Primorsky Krai** (Vassiljeva, 1973; Bau, Bulakh, and Govorova, 2011; Bulakh et al., 2016).

***Tricholoma aestuans* (Fr.) Gillet**

EASTERN EUROPE: **Karelia** (Bondartseva et al., 2001; Krutov et al., 2014; Savelev and Kikeeva, 2020); **Leningrad Oblast** (Thesleff, 1920; Kalamees and Kovalenko, 1984; Stolyarskaya, 1993; Kovalenko and Morozova, 1999a; Morozova, 2007; Popov et al., 2007; Zmitrovich et al., 2015; Malysheva, Malysheva, Shchepin, and Novozhilov, 2018).

***Tricholoma albidum* Bon<sup>1</sup>**

= *Tricholoma albatum* (Quél.) Maubl. & d'Astis<sup>2</sup>

EASTERN EUROPE: **Crimea** (<sup>2</sup>Sarkina, 2001; <sup>2</sup>Dudka et al., 2004; <sup>2</sup>Sarkina, 2010b; <sup>2</sup>Sarkina, 2013); **Sverdlovsk Oblast** (<sup>2</sup>Tomilin, 1965; <sup>2</sup>Stepanova and Sirko, 1977); **Volgograd Oblast** (<sup>2</sup>Burova and Nezdoyminogo, 1982).

SIBERIA: **Altai Republic** (<sup>2</sup>Gorbunova, 2001b; <sup>2</sup>Perova and Gorbunova, 2001); **Tomsk Oblast** (<sup>1</sup>Kudashova, Gashkov, and Vaishlya, 2016a; <sup>1</sup>Kudashova, Gashkov, and Vaishlya, 2016b).

***Tricholoma albobrunneum* (Pers.) P. Kumm.<sup>1</sup>**

≡ *Agaricus albobrunneus* Pers.<sup>2</sup>

EASTERN EUROPE: **Bryansk Oblast** (<sup>1</sup>Kruglikov, 2007); **Chelyabinsk Oblast** (<sup>1</sup>Stepanova and Sirko, 1977); **Crimea** (<sup>1</sup>Sarkina, 2010b; <sup>1</sup>Sarkina, 2011; <sup>1</sup>Sarkina and Prydiuk, 2012; <sup>1</sup>Sarkina, 2013; <sup>1</sup>Sarkina, 2014b; <sup>1</sup>Sarkina and Mironova, 2015; <sup>1</sup>Sarkina, 2016a; <sup>1</sup>Sarkina and Stavishenko, 2019); **Kaliningrad Oblast** (<sup>1</sup>Dedkov, Volodina, and Gubareva, 2007; <sup>1</sup>Volodina, 2007); **Kaluga Oblast** (<sup>1</sup>Sionova, 2003); **Karelia** (<sup>1</sup>Bondartseva et al., 2001; <sup>1</sup>Krutov et al., 2014); **Kirov Oblast** (<sup>1</sup>Kirillov, 2011; <sup>1</sup>Kirillov, Perevedentseva, and Egoshina, 2011); **Komi Republic** (<sup>1</sup>Palamarchuk and Kirillov, 2017); **Krasnodar Krai** (<sup>1</sup>Kovalenko, 1980a; <sup>1</sup>Kovalenko, 1980b); **Leningrad Oblast** (<sup>1</sup>Thesleff, 1920; <sup>1</sup>Stolyarskaya, 1993; <sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Popov et al., 2007; <sup>1</sup>Zmitrovich et al., 2015; <sup>1</sup>Malysheva, Malysheva, Shchepin, and Novozhilov, 2018); **Lipetsk Oblast** (<sup>1</sup>Sarycheva et al., 2009; <sup>1</sup>Sarycheva, 2011; <sup>1</sup>Sarycheva, 2014a); **Moscow Oblast** (<sup>1</sup>Vishnevsky, 1998); **Penza Oblast** (<sup>1</sup>Ivanov, 1983); **Perm Krai** (<sup>1</sup>Perevedentseva, 2008); **Ryazan Oblast** (<sup>1</sup>Volosnova, 2014); **Saint Petersburg** (<sup>2</sup>Weinmann, 1836; <sup>2</sup>Weinmann, 1837; <sup>1</sup>Morozova and Smirnov, 2011); **Sevastopol** (<sup>1</sup>Sarkina, 2016b; <sup>1</sup>Sarkina, 2020b); **Tver Oblast** (<sup>1</sup>Kurochkin, 1993); **Udmurt Republic** (<sup>1</sup>Tychinin and Kuzmina, 2003); **Vologda Oblast** (<sup>1</sup>Kirillova, 2007; <sup>1</sup>Kirillova, 2009).

SIBERIA: **Altai Krai** (<sup>1</sup>Gorbunova and Perova, 2006); **Irkutsk Oblast** (<sup>1</sup>Kutafjeva, 1983; <sup>1</sup>Petrov, 1991; <sup>1</sup>Muzyka, 2002; <sup>1</sup>Petrov, 2008; <sup>1</sup>Muzyka and Penzina, 2017); **Khakassia** (<sup>1</sup>Beglyanova, 1972a); **Krasnoyarsk Krai** (<sup>1</sup>Beglyanova, 1972a; <sup>1</sup>Lapitskaya, 1993; <sup>1</sup>Pavlov et al., 2007; <sup>1</sup>Zauzolkova, 2012; <sup>1</sup>Zauzolkova, 2015); **Novosibirsk Oblast** (<sup>1</sup>Perova and Gorbunova, 2001; <sup>1</sup>Koropachinskiy and Banaev, 2014); **Tomsk Oblast** (<sup>1</sup>Kosheleva and Kutafjeva, 2004; <sup>1</sup>Agaphonova, Kutafjeva, and Gashkov, 2007; <sup>1</sup>Kudashova, Gashkov, and Kutafjeva, 2013; <sup>1</sup>Vaishlya et al., 2017).

***Tricholoma alboconicum* (J.E. Lange) Cléménçon<sup>1</sup>**

≡ *Tricholoma myomyces* var. *alboconicum* J.E. Lange<sup>2</sup>

EASTERN EUROPE: **Sverdlovsk Oblast** (<sup>1</sup>Shiryayeva and Palamarchuk, 2019); **Tula Oblast** (<sup>2</sup>Svetasheva, 2001); **Voronezh Oblast** (<sup>2</sup>Chastukhin and Nikolaevskaya, 1953).

SIBERIA: **Krasnoyarsk Krai** (<sup>1</sup>Zauzolkova, 2015; <sup>1</sup>Zauzolkova and Gorbunova, 2016).

***Tricholoma album* (Schaeff.) P. Kumm.<sup>1</sup>**

≡ *Agaricus albus* Schaeff.<sup>2</sup> = *Tricholoma raphanicum* P. Karst.<sup>3</sup>

EASTERN EUROPE: **Belgorod Oblast** (<sup>1</sup>Bedenko, 1980); **Bryansk Oblast** (<sup>1</sup>Kruglikov, 2007); **Chechen Republic** (<sup>1</sup>Taysumov, Krapivina, and Kushaliev, 2016); **Crimea** (<sup>1</sup>Sarkina, 2011; <sup>1</sup>Sarkina and Prydiuk, 2012); **Kabardino-Balkarian Republic** (<sup>1</sup>Shkhagapsoev and Krapivina, 2003; <sup>1</sup>Shkhagapsoev and Krapivina, 2004); **Kaliningrad Oblast** (<sup>1</sup>Dedkov, Volodina, and Gubareva, 2007; <sup>1</sup>Volodina, 2007); **Kaluga Oblast** (<sup>1</sup>Sionova, 2012); **Karelia** (<sup>1</sup>Freindling, 1949; <sup>1</sup>Kovalenko, Morozova, Fomina, and Särkisilta, 1998; <sup>1</sup>Bondartseva et al., 2001; <sup>1</sup>Krutov et al., 2014; <sup>1</sup>Savelev and Kikeeva, 2018); **Kirov Oblast** (<sup>1</sup>Kirillov, 2011; <sup>1</sup>Kirillov, Perevedentseva, and Egoshina, 2011); **Leningrad Oblast** (<sup>3</sup>Thesleff, 1920; <sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Morozova and Kovalenko, 2000; <sup>1</sup>Popov et al., 2007; <sup>1</sup>Kalinina, 2018); **Lipetsk Oblast** (<sup>1</sup>Alferova, 1977; <sup>1</sup>Sarycheva, 1999; <sup>1</sup>Sarycheva et al., 2009; <sup>1</sup>Sarycheva, 2011; <sup>1</sup>Sarycheva,



2014a; <sup>1</sup>Sarycheva, 2016); **Moscow** (<sup>2</sup>Bucholtz, 1897b; <sup>2</sup>Bucholtz, 1897c; <sup>2</sup>Mosolov, 1906); **Moscow Oblast** (<sup>1</sup>Gorlenko, Sidorova, and Sidorova, 1989; <sup>1</sup>Levitskaya, 1995a; <sup>1</sup>Vishnevsky, 1998; <sup>1</sup>Levitskaya, 2013); **Murmansk Oblast** (<sup>1</sup>Pystina, Pavlova, and Shestakova, 1969); **Penza Oblast** (<sup>1</sup>Ivanov, 1981a); **Perm Krai** (<sup>1</sup>Perevedentseva, 2008; <sup>1</sup>Belkovskaya et al., 2014); **Rostov Oblast** (<sup>1</sup>Vyshchepan, 1992); **Ryazan Oblast** (<sup>1</sup>Volosnova, 1997; <sup>1</sup>Volosnova, 2014); **Saint Petersburg** (<sup>2</sup>Weinmann, 1828; <sup>2</sup>Weinmann, 1836; <sup>2</sup>Weinmann, 1837; <sup>1</sup>Kovalenko and Morozova, 1999a); **Saratov Oblast** (<sup>1</sup>Nagumanov, 2015); **Smolensk Oblast** (<sup>1</sup>Jaczewski, 1896); **Sverdlovsk Oblast** (<sup>1</sup>Marina, 2006); **Tula Oblast** (<sup>1</sup>Svetasheva, 2001; <sup>1</sup>Svetasheva, 2004; <sup>1</sup>Svetasheva, 2013); **Tver Oblast** (<sup>1</sup>Kurochkin, 1993); **Udmurt Republic** (<sup>1</sup>Tychinin, 1990; <sup>1</sup>Tychinin and Kuzmina, 2003); **Ulyanovsk Oblast** (<sup>1</sup>Ilyukhin, 2009); **Vologda Oblast** (<sup>1</sup>Kirillova, 2007; <sup>1</sup>Kirillova, 2009); **Voronezh Oblast** (<sup>1</sup>Chastukhin, 1952; <sup>1</sup>Chastukhin and Nikolaevskaya, 1953; <sup>1</sup>Chastukhin and Nikolaevskaya, 1969; <sup>1</sup>Selochnik, 2015; <sup>1</sup>Sarycheva, Starodubtseva, and Sapelnikova, 2017); **Yaroslavl Oblast** (<sup>1</sup>Lazareva, 1998a); **Arid territories** (<sup>1</sup>Rebriev, Rusanov, et al., 2012).

SIBERIA: **Altai Republic** (<sup>1</sup>Singer, 1943; <sup>1</sup>Gorbunova, 2001b; <sup>1</sup>Perova and Gorbunova, 2001); **Buryatia** (<sup>1</sup>Nezdojminogo, 1970a); **Irkutsk Oblast** (<sup>1</sup>Petrov, 1984; <sup>1</sup>Muzyka, 2002; <sup>1</sup>Bardunov et al., 2005; <sup>1</sup>Petrov, 2008; <sup>1</sup>Muzyka, 2009); **Khakassia** (<sup>1</sup>Zauzolkova, 2015); **Krasnoyarsk Krai** (<sup>1</sup>Beglyanova, 1972a; <sup>1</sup>Kosheleva and Kutafjeva, 2008a; <sup>1</sup>Zauzolkova, 2012; <sup>1</sup>Kryuchkova, 2014a; <sup>1</sup>Zauzolkova, 2015); **Kurgan Oblast** (<sup>1</sup>Stepanova and Sirko, 1977); **Novosibirsk Oblast** (<sup>1</sup>Perova and Gorbunova, 2001; <sup>1</sup>Koropachinskiy and Banaev, 2014); **Tomsk Oblast** (<sup>1</sup>Perova and Gorbunova, 2001; <sup>1</sup>Agaphonova, Kutafjeva, and Gashkov, 2007; <sup>1</sup>Kudashova, Gashkov, and Kutafjeva, 2013).

FAR EAST: **Amur Oblast** (<sup>1</sup>Azbukina et al., 1998); **Jewish Autonomous Oblast** (<sup>1</sup>Bulakh, Govorova, Nazarova, and Vassiljeva, 2007; <sup>1</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Bogacheva et al., 2018); **Kamchatka Krai** (<sup>1</sup>Kalamees and Vaasma, 1981); **Khabarovsk Krai** (<sup>1</sup>Azbukina et al., 1986; <sup>1</sup>Azbukina et al., 1989; <sup>1</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Erofeeva and Bulakh, 2015a); **Primorsky Krai** (<sup>1</sup>Vassiljeva, 1973; <sup>1</sup>Bunkina and Nazarova, 1978; <sup>1</sup>Azbukina et al., 1984; <sup>1</sup>Bardunov et al., 2002; <sup>1</sup>Azbukina et al., 2006; <sup>1</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Bulakh et al., 2016; <sup>1</sup>Bogacheva et al., 2018; <sup>1</sup>Bogacheva, Bulakh, Bukharova, and Egorova, 2020).

### *Tricholoma altaicum* Singer

SIBERIA: **Altai Republic** (Singer, 1943).

### *Tricholoma amplum* (Pers.) Rea

≡ *Agaricus amplus* Pers.<sup>1</sup>

EASTERN EUROPE: **Saint Petersburg** (<sup>1</sup>Weinmann, 1828).

### *Tricholoma apium* Jul. Schäff.

EASTERN EUROPE: **Chelyabinsk Oblast** (Stepanova and Sirko, 1977); **Saint Petersburg** (Morozova and Smirnov, 2011).

SIBERIA: **Khanty-Mansi Autonomous Okrug** (Zvyagina and Baykalova, 2017); **Krasnoyarsk Krai** (Beglyanova, 1972a; Beglyanova, 1972b); **Tomsk Oblast** (Kudashova, Gashkov, and Kutafjeva, 2013; Kudashova, Gashkov, and Vaishlya, 2016b; Vaishlya et al., 2017).

### *Tricholoma argyraceum* (Bull.) Gillet<sup>1</sup>

= *Tricholoma inocybeoides* A. Pearson<sup>2</sup>

EASTERN EUROPE: **Belgorod Oblast** (<sup>2</sup>Bedenko, 1979a; <sup>1</sup>Bedenko, 1980); **Crimea** (<sup>1</sup>Sarkina, 2001; <sup>1</sup>Dudka et al., 2004; <sup>1</sup>Sarkina, 2010b); **Kaliningrad Oblast** (<sup>1</sup>Dedkov, Volodina, and Gubareva, 2007); **Penza Oblast** (<sup>2</sup>Ivanov, 1983; <sup>2</sup>Ivanov, 2019); **Perm Krai** (<sup>2</sup>Perevedentseva, Shilkova, and Botalov, 2011); **Ryazan Oblast** (<sup>1</sup>Volosnova, 2014); **Saint Petersburg** (<sup>1</sup>Kotkova, Morozova, and Popov, 2005); **Tula Oblast** (<sup>1</sup>Svetasheva, 2004); **Tver Oblast** (<sup>2</sup>Kurochkin, 1993); **Udmurt Republic** (<sup>2</sup>Tychinin, 1990); **Vologda Oblast** (<sup>1</sup>Kirillova, 2007; <sup>1</sup>Kirillova, 2009); **Voronezh Oblast** (<sup>1</sup>Chastukhin and Nikolaevskaya, 1969; <sup>2</sup>Bedenko, 1987).

SIBERIA: **Khakassia** (<sup>1</sup>Zauzolkova, 2015; <sup>2</sup>Zauzolkova, 2015; <sup>1</sup>Zauzolkova and Gorbunova, 2016); **Krasnoyarsk Krai** (<sup>1</sup>Beglyanova, 1972a); **Tomsk Oblast** (<sup>1</sup>Perova and Gorbunova, 2001; <sup>1</sup>Kudashova, Gashkov, and Kutafjeva, 2013).

### *Tricholoma arvernense* Bon

EASTERN EUROPE: **Komi Republic** (Palamarchuk and Kirillov, 2017); **Leningrad Oblast** (Malysheva, Malysheva, Shchepin, and Novozhilov, 2018).

***Tricholoma atosquamosum* Sacc.<sup>1</sup>**

≡ *Tricholoma atosquamosum* var. *atosquamosum* Sacc.<sup>2</sup> = *Tricholoma atosquamosum* var. *squarrulosum* (Bres.) Mort. Chr. & Noordel.<sup>3</sup> = *Tricholoma squarrulosum* Bres.<sup>4</sup>

EASTERN EUROPE: **Belgorod Oblast** (<sup>1</sup>Bedenko, 1980); **Crimea** (<sup>1</sup>Sarkina, 2001; <sup>1</sup>Dudka et al., 2004; <sup>1</sup>Sarkina, 2010b; <sup>1</sup>Sarkina, 2011; <sup>1</sup>Sarkina and Prydiuk, 2012; <sup>1</sup>Sarkina, 2013; <sup>1</sup>Sarkina, 2014b; <sup>1</sup>Sarkina and Mironova, 2015; <sup>1</sup>Sarkina, 2016a; <sup>1</sup>Sarkina and Stavishenko, 2019); **Karelia** (<sup>1</sup>Singer, 1943; <sup>1</sup>Freindling, 1949; <sup>1</sup>Bondartseva et al., 2001; <sup>2</sup>Predtechenskaya and Ruokolainen, 2013; <sup>2</sup>Krutov et al., 2014); **Mordovia** (<sup>1</sup>Bolshakov and Ivoilov, 2012a; <sup>1</sup>Bolshakov and Ivoilov, 2012b; <sup>1</sup>Silaeva, 2017); **Penza Oblast** (<sup>1</sup>Ivanov, 1983); **Perm Krai** (<sup>1</sup>Perevedentseva, 2008); **Sevastopol** (<sup>1</sup>Sarkina, 2016b; <sup>1</sup>Sarkina, 2020c); **Sverdlovsk Oblast** (<sup>1</sup>Marina, 2006); **Tula Oblast** (<sup>1</sup>Svetasheva, 2004; <sup>1</sup>Shcherbakov, 2010).

SIBERIA: **Altai Republic** (<sup>1</sup>Gorbunova, 2001b; <sup>1</sup>Perova and Gorbunova, 2001); **Irkutsk Oblast** (<sup>1</sup>Kutafjeva and Astapenko, 1988; <sup>1</sup>Astapenko, 1990b); **Khanty-Mansi Autonomous Okrug** (<sup>4</sup>Filippova, Bulyonkova, and Lapshina, 2015); **Krasnoyarsk Krai** (<sup>1</sup>Beglyanova, 1972a); **Novosibirsk Oblast** (<sup>1</sup>Koropachinskiy and Banaev, 2014); **Tomsk Oblast** (<sup>1</sup>Agaphonova, Kutafjeva, and Gashkov, 2009b; <sup>3</sup>Kudashova, Gashkov, and Kutafjeva, 2013; <sup>1</sup>Vaishlya et al., 2017).

FAR EAST: **Jewish Autonomous Oblast** (<sup>1</sup>Bulakh, Govorova, Nazarova, and Vassiljeva, 2007; <sup>1</sup>Bau, Bulakh, and Govorova, 2011); **Primorsky Krai** (<sup>1,4</sup>Vassiljeva, 1972; <sup>1,4</sup>Vassiljeva, 1973; <sup>1,4</sup>Bunkina and Nazarova, 1978; <sup>4</sup>Azbukina et al., 1990; <sup>4</sup>Bardunov et al., 2002; <sup>1,4</sup>Azbukina et al., 2006; <sup>1,4</sup>Bau, Bulakh, and Govorova, 2011).

***Tricholoma aurantium* (Schaeff.) Ricken<sup>1</sup>**

≡ *Agaricus aurantius* Schaeff.<sup>2</sup>

EASTERN EUROPE: **Kabardino-Balkarian Republic** (<sup>1</sup>Shkhagapsoev and Krapivina, 2004); **Karachay-Cherkess Republic** (<sup>1</sup>Malysheva and Svetasheva, 2011; <sup>1</sup>Onipchenko et al., 2013); **Perm Krai** (<sup>1</sup>Perevedentseva, 2008); **Saint Petersburg** (<sup>2</sup>Weinmann, 1828); **Tatarstan** (<sup>1</sup>Nazirov, Gorshkov, Ivanov, and Rogova, 2016; <sup>1</sup>Potapov, 2016b); **Udmurt Republic** (<sup>1</sup>Tychinin and Kuzmina, 2003); **Vologda Oblast** (<sup>1</sup>Kirillova, 2007; <sup>1</sup>Kirillova, 2009; <sup>1</sup>Suslova et al., 2013).

SIBERIA: **Altai Republic** (<sup>1</sup>Singer, 1943; <sup>1</sup>Gorbunova, 2019); **Khakassia** (<sup>1</sup>Zauzolkova and Gorbunova, 2013; <sup>1</sup>Zauzolkova, 2015); **Krasnoyarsk Krai** (<sup>1</sup>Beglyanova, 1972a; <sup>1</sup>Beglyanova, 1972b; <sup>1</sup>Kutafjeva and Polenok, 2005).

***Tricholoma batschii* Gulden ex Mort. Chr. & Noordel.<sup>1</sup>**

≡ *Tricholoma batschii* Gulden<sup>2</sup>

EASTERN EUROPE: **Crimea** (<sup>2</sup>Sarkina, 2010b; <sup>2</sup>Sarkina and Prydiuk, 2012; <sup>2</sup>Sarkina, 2013; <sup>2</sup>Sarkina and Mironova, 2015); **Krasnodar Krai** (<sup>2</sup>Kovalenko, 1980a; <sup>2</sup>Kovalenko, 1980b); **Sevastopol** (<sup>1</sup>Sarkina, 2020c).

***Tricholoma bresadolanium* Cléménçon**

EASTERN EUROPE: **Crimea** (Moser, 1993; Sarkina, 2001; Dudka et al., 2004; Sarkina, 2011); **Arid territories** (Rebriev, Rusanov, et al., 2012).

***Tricholoma bryogenum* Mort. Chr., Heilm.-Claus. & Vauras**

SIBERIA: **Khanty-Mansi Autonomous Okrug** (Zvyagina and Baykalova, 2017).

***Tricholoma bufonium* (Pers.) Gillet**

EASTERN EUROPE: **Adygea** (Vaasma, Kalamees, and Raitviir, 1986); **Karachay-Cherkess Republic** (Kalamees and Botashev, 2000); **Penza Oblast** (Ivanov, 1983); **Perm Krai** (Perevedentseva, 2008); **Tula Oblast** (Svetasheva et al., 2017; Svetasheva, Aleksandrova, Zaytseva, and Solovjova, 2017).

SIBERIA: **Altai Krai** (Gorbunova, 2018a); **Krasnoyarsk Krai** (Krom and Kapitonov, 2019).

FAR EAST: **Primorsky Krai** (Vassiljeva, 1973; Bulakh et al., 2016).

***Tricholoma caligatum* (Viv.) Ricken**

EASTERN EUROPE: **Crimea** (Sarkina, 2014b; Sarkina, 2016a; Sarkina, 2020a).

SIBERIA: **Irkutsk Oblast** (Kutafjeva, 1983; Astapenko, 1990b; Gaykova and Popov, 2010); **Krasnoyarsk Krai** (Stepanov, 2012).

FAR EAST: **Primorsky Krai** (Vassiljeva, 1972; Vassiljeva, 1973; Azbukina et al., 2006; Kozhevnikov, 2008; Bau, Bulakh, and Govorova, 2011; Bulakh et al., 2016).

***Tricholoma cingulatum* (Almfelt ex Fr.) Jacobashch**

EASTERN EUROPE: **Kaliningrad Oblast** (Volodina, 2007); **Leningrad Oblast** (Kovalenko and Morozova, 1999a; Popov et al., 2007); **Perm Krai** (Perevedentseva, 2008; Shepel', 2008; Baklanov, 2018); **Ryazan Oblast** (Volosnova, 1997); **Saint Petersburg** (Kotkova, Morozova, and Popov, 2005; Morozova and Smirnov, 2011; Morozova et al., 2020); **Tula Oblast** (Svetasheva, 2001; Svetasheva, 2004); **Udmurt Republic** (Tychinin, 1990; Tychinin and Kuzmina, 2003; Baranova, 2012); **Volgograd Oblast** (Burova and Nezdojminogo, 1980; Burova and Nezdojminogo, 1982); **Yaroslavl Oblast** (Lazareva, 1998a).

SIBERIA: **Altai Republic** (Gorbunova, 2001b; Perova and Gorbunova, 2001); **Krasnoyarsk Krai** (Krom and Kapitonov, 2019); **Tomsk Oblast** (Agaphonova, Kutafjeva, and Gashkov, 2009b; Kudashova, Gashkov, and Kutafjeva, 2013).

FAR EAST: **Magadan Oblast** (Sazanova, 2005; Sazanova, 2009a).

***Tricholoma colossus* (Fr.) Quél.<sup>1</sup>**

≡ *Agaricus colossus* Fr.<sup>2</sup> ≡ *Armillaria colossus* (Fr.) Boud.<sup>3</sup>

EASTERN EUROPE: **Chechen Republic** (<sup>1</sup>Taysumov, Zamotaylov, and Batkhiev, 2020); **Crimea** (<sup>3</sup>Isikov, 2003; <sup>1</sup>Sarkina, 2010b; <sup>1</sup>Sarkina and Prydiuk, 2012); **Kabardino-Balkarian Republic** (<sup>1</sup>Shkhagapsoev and Krapivina, 2003; <sup>1</sup>Shkhagapsoev and Krapivina, 2004); **Karelia** (<sup>1</sup>Krutov et al., 2014); **Kirov Oblast** (<sup>1</sup>Baranova et al., 2014); **Leningrad Oblast** (<sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Tzvelev, 2000; <sup>1</sup>Popov et al., 2007; <sup>1</sup>Zmitrovich et al., 2015; <sup>1</sup>Geltman et al., 2018); **Penza Oblast** (<sup>1</sup>Ivanov, 2013a); **Saint Petersburg** (<sup>2</sup>Weinmann, 1828; <sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Noskov, 2004; <sup>1</sup>Geltman, 2018a).

SIBERIA: **Krasnoyarsk Krai** (<sup>1</sup>Beglyanova, 1972a; <sup>1</sup>Stepanov, 2012).

***Tricholoma columbetta* (Fr.) P. Kumm.<sup>1</sup>**

≡ *Agaricus columbetta* Fr.<sup>2</sup>

EASTERN EUROPE: **Belgorod Oblast** (<sup>1</sup>Bedenko, 1979a); **Karelia** (<sup>1</sup>Kovalenko, Morozova, Fomina, and Särkisilta, 1998; <sup>1</sup>Krutov et al., 2014); **Kirov Oblast** (<sup>1</sup>Kirillov, 2011; <sup>1</sup>Kirillov, Perevedentseva, and Egoshina, 2011); **Leningrad Oblast** (<sup>2</sup>Weinmann, 1836; <sup>2</sup>Weinmann, 1837; <sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Tzvelev, 2000; <sup>1</sup>Popov et al., 2007; <sup>1</sup>Geltman et al., 2018); **Lipetsk Oblast** (<sup>1</sup>Sarycheva et al., 2009); **Moscow** (<sup>2</sup>Bucholtz, 1897b; <sup>2</sup>Bucholtz, 1897c; <sup>2</sup>Mosolov, 1906); **Moscow Oblast** (<sup>1</sup>Levitskaya, 1995a; <sup>1</sup>Vishnevsky, 1998; <sup>1</sup>Levitskaya, 2013; <sup>1</sup>Voronina et al., 2014); **North Ossetia** (<sup>1</sup>Nikolayev, 2001); **Novgorod Oblast** (<sup>1</sup>Morozova, 2012; <sup>1</sup>Popov et al., 2013); **Penza Oblast** (<sup>1</sup>Ivanov, 1981a); **Perm Krai** (<sup>1</sup>Stepanova and Sirko, 1977; <sup>1</sup>Perevedentseva, 2008); **Pskov Oblast** (<sup>1</sup>Kalinina, Bolshakov, and Bulyonkova, 2020); **Ryazan Oblast** (<sup>1</sup>Volosnova, 2014); **Saint Petersburg** (<sup>2</sup>Weinmann, 1828; <sup>1</sup>Morozova and Smirnov, 2011; <sup>1</sup>Morozova et al., 2020); **Sverdlovsk Oblast** (<sup>1</sup>Marina, 2006); **Tula Oblast** (<sup>1</sup>Svetasheva, 2004); **Udmurt Republic** (<sup>1</sup>Tychinin and Kuzmina, 2003); **Yaroslavl Oblast** (<sup>1</sup>Lazareva, 1998a).

SIBERIA: **Khakassia** (<sup>1</sup>Zauzolkova, 2015); **Krasnoyarsk Krai** (<sup>1</sup>Beglyanova, 1972a; <sup>1</sup>Zauzolkova, 2012; <sup>1</sup>Zauzolkova, 2015); **Tomsk Oblast** (<sup>1</sup>Kudashova, Gashkov, and Kutafjeva, 2013; <sup>1</sup>Kudashova, Gashkov, and Vaishlya, 2016b).

***Tricholoma equestre* (L.) P. Kumm.<sup>1</sup>**

≡ *Agaricus equestris* L.<sup>2</sup> ≡ *Tricholoma equestre* var. *equestre* (L.) P. Kumm.<sup>3</sup> = *Agaricus flavovirens* Pers.<sup>4</sup> = *Tricholoma auratum* Gillet<sup>5</sup> = *Tricholoma flavovirens* (Pers.) S. Lundell<sup>6</sup>

EASTERN EUROPE: **Arkhangelsk Oblast** (<sup>6</sup>Ezhov, 2014); **Belgorod Oblast** (<sup>6</sup>Bedenko, 1979a); **Bryansk Oblast** (<sup>6</sup>Kruglikov, 2007); **Chelyabinsk Oblast** (<sup>1</sup>Aleksandrovskaia and Lobanova, 1968); **Crimea** (<sup>1</sup>Sarkina and Prydiuk, 2012); **Kabardino-Balkarian Republic** (<sup>6</sup>Shkhagapsoev and Krapivina, 2004); **Kaliningrad Oblast** (<sup>1,5,6</sup>Dedkov, Volodina, and Gubareva, 2007; <sup>6</sup>Volodina, 2007); **Kaluga Oblast** (<sup>6</sup>Sionova, 2003); **Karelia** (<sup>1</sup>Freindling, 1949; <sup>6</sup>Kovalenko, Morozova, Fomina, and Särkisilta, 1998; <sup>5,6</sup>Bondartseva et al., 2001; <sup>3</sup>Predtechenskaya, 2013; <sup>3</sup>Krutov et al., 2014; <sup>3</sup>Predtechenskaya, 2015; <sup>1</sup>Savelev and Kikeeva, 2020); **Kirov Oblast** (<sup>6</sup>Kirillov and Luginina, 2011; <sup>6</sup>Kirillov, 2011; <sup>6</sup>Kirillov, Perevedentseva, and Egoshina, 2011; <sup>1</sup>Stavishenko, Luginina, Kirillov, and Egoshina, 2019); **Komi Republic** (<sup>1</sup>Palamarchuk, 2012; <sup>1</sup>Palamarchuk and Kirillov, 2017; <sup>1</sup>Palamarchuk, 2017); **Kostroma Oblast** (<sup>6</sup>Burova, 1982); **Krasnodar Krai** (<sup>6</sup>Kovalenko, 1980a; <sup>6</sup>Kovalenko, 1980b); **Kursk Oblast** (<sup>6</sup>Bedenko, 1987); **Leningrad Oblast** (<sup>1</sup>Thesleff, 1920; <sup>5</sup>Stolyarskaya, 1989; <sup>5</sup>Stolyarskaya, 1993; <sup>1,5</sup>Kovalenko and Morozova, 1999a; <sup>6</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Kalamees, 2001; <sup>5</sup>Morozova, 2007; <sup>1,5,6</sup>Popov et al., 2007; <sup>1</sup>Zmitrovich et al., 2015; <sup>1</sup>Malysheva, Malysheva, Shchepin, and Novozhilov, 2018); **Lipetsk Oblast** (<sup>6</sup>Rtishcheva, 1999; <sup>6</sup>Afanasyev, Rtishcheva, and Starodubtseva, 2007; <sup>1</sup>Sarycheva et al., 2009; <sup>1</sup>Sarycheva, 2014a; <sup>1</sup>Sarycheva, 2016; <sup>1</sup>Sarycheva, Starodubtseva, and Sapelnikova, 2017); **Mordovia** (<sup>1</sup>Chastukhin, 2011; <sup>1</sup>Ivoilov and Bolshakov, 2011a); **Moscow** (<sup>2</sup>Bucholtz, 1897b; <sup>2</sup>Bucholtz, 1897c; <sup>2</sup>Mosolov, 1906); **Moscow Oblast** (<sup>6</sup>Levitskaya, 1995b; <sup>6</sup>Vishnevsky, 1998;

<sup>6</sup>Levitskaya, 2013); **Murmansk Oblast** (<sup>6</sup>Pystina, Pavlova, and Shestakova, 1969; <sup>1</sup>Kalamees, 2001); **North Ossetia** (<sup>6</sup>Nikolayev, 2001); **Penza Oblast** (<sup>6</sup>Ivanov, 1981a); **Perm Krai** (<sup>5,6</sup>Perevedentseva, 2008; <sup>6</sup>Botalov, 2017); **Pskov Oblast** (<sup>1</sup>Popov et al., 2013); **Rostov Oblast** (<sup>5,6</sup>Rusanov et al., 2004; <sup>5</sup>Morozova et al., 2008; <sup>5,6</sup>Zmitrovich et al., 2008); **Ryazan Oblast** (<sup>6</sup>Volosnova, 1997; <sup>6</sup>Volosnova, 2014); **Saint Petersburg** (<sup>4</sup>Weinmann, 1828; <sup>2</sup>Weinmann, 1837; <sup>1,6</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Morozova and Smirnov, 2011; <sup>1</sup>Morozova et al., 2020); **Samara Oblast** (<sup>6</sup>Malysheva and Malysheva, 2005b; <sup>1</sup>Malysheva and Malysheva, 2008); **Sevastopol** (<sup>1</sup>Sarkina, 2020c); **Sverdlovsk Oblast** (<sup>6</sup>Stepanova and Sirko, 1977; <sup>6</sup>Marina, 2006); **Tatarstan** (<sup>6</sup>Vassiljeva, 1977); **Tula Oblast** (<sup>1</sup>Svetasheva, 2004); **Tver Oblast** (<sup>6</sup>Kurochkin, 1993); **Udmurt Republic** (<sup>6</sup>Tychinin, 1990; <sup>6</sup>Tychinin and Kuzmina, 2003); **Ulyanovsk Oblast** (<sup>1</sup>Ilyukhin, 2010a); **Vologda Oblast** (<sup>1</sup>Kutova, 1957; <sup>1</sup>Kirillova, 2007; <sup>1</sup>Kirillova, 2009); **Voronezh Oblast** (<sup>6</sup>Bedenko, 1987; <sup>6</sup>Rtishcheva, 1999; <sup>6</sup>Afanasyev, Rtishcheva, and Starodubtseva, 2007; <sup>1</sup>Sarycheva, Starodubtseva, and Sapelnikova, 2017); **Yaroslavl Oblast** (<sup>6</sup>Lazareva, 1998a); **Arid territories** (<sup>1</sup>Rebriev, Rusanov, et al., 2012).

SIBERIA: **Altai Krai** (<sup>6</sup>Gorbunova and Perova, 2006); **Buryatia** (<sup>6</sup>Nezdojminogo, 1970a; <sup>6</sup>Petrov, 1991); **Irkutsk Oblast** (<sup>6</sup>Kutafjeva, 1983; <sup>5</sup>Petrov, 1984; <sup>6</sup>Astapenko, 1990b; <sup>5</sup>Petrov, 1991; <sup>6</sup>Muzyka, 2002; <sup>6</sup>Bardunov et al., 2005; <sup>5,6</sup>Petrov, 2008; <sup>6</sup>Muzyka, 2009; <sup>1,5</sup>Muzyka and Penzina, 2017); **Khakassia** (<sup>1</sup>Zauzolkova, 2015); **Khanty-Mansi Autonomous Okrug** (<sup>3</sup>Makarova, Makarov, Zvyagina, and Bobrikov, 2015); **Krasnoyarsk Krai** (<sup>6</sup>Lapitskaya, 1993; <sup>6</sup>Pavlov et al., 2007; <sup>1</sup>Zauzolkova, 2012; <sup>1</sup>Zauzolkova, 2015; <sup>1</sup>Krom and Kapitonov, 2019); **Novosibirsk Oblast** (<sup>6</sup>Perova and Gorbunova, 2001; <sup>6</sup>Perova and Gorbunova, 2007; <sup>1</sup>Koropachinskiy and Banaev, 2014); **Sverdlovsk Oblast** (<sup>6</sup>Stepanova and Sirko, 1977); **Tomsk Oblast** (<sup>6</sup>Perova, 1972; <sup>6</sup>Milovidova, 1980; <sup>6</sup>Perova and Gorbunova, 2001; <sup>6</sup>Agaphonova, Kutafjeva, and Gashkov, 2007; <sup>1</sup>Kudashova, Gashkov, and Kutafjeva, 2013; <sup>1</sup>Vaishlya et al., 2017).

FAR EAST: **Khabarovsk Krai** (<sup>1</sup>Erofeeva and Bulakh, 2015a); **Magadan Oblast** (<sup>1</sup>Sazanova, 2009a).

### ***Tricholoma evenosum* (Sacc.) Rea**

≡ *Melanoleuca evenosa* (Sacc.) Konrad<sup>1</sup>

EASTERN EUROPE: **Arid territories** (<sup>1</sup>Rebriev, Rusanov, et al., 2012).

SIBERIA: **Altai Republic** (<sup>1</sup>Gorbunova, 2003; <sup>1</sup>Gorbunova, 2006); **Krasnoyarsk Krai** (<sup>1</sup>Beglyanova, 1972a).

### ***Tricholoma focale* (Fr.) Ricken<sup>1</sup>**

≡ *Agaricus focalis* Fr.<sup>2</sup> ≡ *Armillaria focalis* (Fr.) P. Karst.<sup>3</sup>

EASTERN EUROPE: **Belgorod Oblast** (<sup>1</sup>Bedenko, 1980); **Kaliningrad Oblast** (<sup>1</sup>Dedkov, Volodina, and Gubareva, 2007; <sup>1</sup>Volodina, 2007); **Karelia** (<sup>1</sup>Freindling, 1949; <sup>1</sup>Bondartseva et al., 2001; <sup>1</sup>Krutov et al., 2014); **Komi Republic** (<sup>1</sup>Palamarchuk and Kirillov, 2017; <sup>1</sup>Palamarchuk, 2020a); **Leningrad Oblast** (<sup>1</sup>Stolyarskaya, 1993; <sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Popov et al., 2007; <sup>1</sup>Zmitrovich et al., 2015); **Lipetsk Oblast** (<sup>1</sup>Rtishcheva, 1999; <sup>1</sup>Afanasyev, Rtishcheva, and Starodubtseva, 2007; <sup>1</sup>Sarycheva et al., 2009; <sup>1</sup>Sarycheva, Starodubtseva, and Sapelnikova, 2017); **Penza Oblast** (<sup>1</sup>Ivanov, 1983); **Perm Krai** (<sup>1</sup>Perevedentseva, 2008; <sup>1</sup>Botalov, 2017); **Rostov Oblast** (<sup>1</sup>Rusanov et al., 2004; <sup>1</sup>Morozova et al., 2008; <sup>1</sup>Zmitrovich et al., 2008); **Ryazan Oblast** (<sup>1</sup>Volosnova, 1997; <sup>1</sup>Volosnova, 2014); **Saint Petersburg** (<sup>1</sup>Morozova and Smirnov, 2011); **Sverdlovsk Oblast** (<sup>1</sup>Tomilin, 1965; <sup>1</sup>Stepanova and Sirko, 1977); **Tver Oblast** (<sup>1</sup>Kurochkin, 1993); **Udmurt Republic** (<sup>1</sup>Tychinin and Kuzmina, 2003); **Vologda Oblast** (<sup>3</sup>Kutova, 1957; <sup>1</sup>Kirillova, 2007; <sup>1</sup>Kirillova, 2009); **Voronezh Oblast** (<sup>1</sup>Rtishcheva, 1999; <sup>1</sup>Afanasyev, Rtishcheva, and Starodubtseva, 2007; <sup>1</sup>Sarycheva, Starodubtseva, and Sapelnikova, 2017); **Arid territories** (<sup>1</sup>Rebriev, Rusanov, et al., 2012).

SIBERIA: **Buryatia** (<sup>1</sup>Nezdojminogo, 1970a); **Irkutsk Oblast** (<sup>1</sup>Kutafjeva, 1983; <sup>1</sup>Astapenko, 1990b; <sup>1</sup>Muzyka, 2002; <sup>1</sup>Bardunov et al., 2005; <sup>1</sup>Petrov, 2008; <sup>1</sup>Muzyka, 2009; <sup>1</sup>Muzyka and Penzina, 2017); **Khanty-Mansi Autonomous Okrug** (<sup>1</sup>Zvyagina, Baykalova, and Gorbunova, 2007); **Krasnoyarsk Krai** (<sup>2</sup>Thümen, 1878; <sup>1</sup>Beglyanova, 1972a; <sup>1</sup>Beglyanova, 1972b; <sup>1</sup>Lapitskaya, 1993; <sup>1</sup>Zauzolkova, 2015; <sup>1</sup>Krom and Kapitonov, 2019); **Novosibirsk Oblast** (<sup>1</sup>Perova and Gorbunova, 2001; <sup>1</sup>Koropachinskiy and Banaev, 2014; <sup>1</sup>Glupov and Shaulo, 2018); **Tomsk Oblast** (<sup>1</sup>Agaphonova, Kutafjeva, and Gashkov, 2007; <sup>1</sup>Agaphonova, Kutafjeva, and Gashkov, 2009b; <sup>1</sup>Kudashova, Gashkov, and Kutafjeva, 2013; <sup>1</sup>Vaishlya et al., 2017).

FAR EAST: **Khabarovsk Krai** (<sup>1</sup>Bulakh, Vassiljeva, and Erofeeva, 2010); **Magadan Oblast** (<sup>1</sup>Nazarova, 1976; <sup>1</sup>Sazanova, 2005; <sup>1</sup>Sazanova, 2009a).

### ***Tricholoma frondosae* Kalamees & Shchukin**

EASTERN EUROPE: **Leningrad Oblast** (Kalamees, 2001); **Lipetsk Oblast** (Sarycheva, 2014a; Sarycheva, 2016); **Penza Oblast** (Ivanov, 1988a; Ivanov, 1999); **Pskov Oblast** (Kalinina, Bolshakov, and Bulyonkova, 2020); **Tatarstan** (Potapov, 2016a); **Udmurt Republic** (Kapitonov, 2013).

SIBERIA: **Khanty-Mansi Autonomous Okrug** (Filippova, Bulyonkova, and Lapshina, 2015; Zvyagina and Baykalova, 2017); **Krasnoyarsk Krai** (Krom and Kapitonov, 2019).

***Tricholoma fucatum* (Fr.) P. Kumm.**

EASTERN EUROPE: **Belgorod Oblast** (Bedenko, 1980); **Kabardino-Balkarian Republic** (Singer, 1931; Shkhagapsoev and Krapivina, 2004); **Kursk Oblast** (Bedenko, 1987); **Leningrad Oblast** (Malysheva, Malysheva, Shchepin, and Novozhilov, 2018); **Voronezh Oblast** (Bedenko, 1987).

SIBERIA: **Sverdlovsk Oblast** (Stepanova and Sirko, 1977).

***Tricholoma fulvum* (DC.) Bigeard & H. Guill.<sup>1</sup>**

≡ *Agaricus fulvus* DC.<sup>2</sup> = *Tricholoma flavobrunneum* (Fr.) P. Kumm.<sup>3</sup>

EASTERN EUROPE: **Belgorod Oblast** (<sup>3</sup>Bedenko, 1979a); **Bryansk Oblast** (<sup>3</sup>Kruglikov, 2007); **Chelyabinsk Oblast** (<sup>3</sup>Sirko and Stepanova, 1977; <sup>3</sup>Stepanova and Sirko, 1977); **Kaliningrad Oblast** (<sup>1</sup>Volodina, 2007; <sup>1</sup>Atayev and Volodina, 2020); **Karelia** (<sup>3</sup>Freindling, 1949; <sup>1</sup>Kovalenko, Morozova, Fomina, and Särkisilta, 1998; <sup>3</sup>Bondartseva et al., 2001; <sup>1</sup>Predtechenskaya, 2013; <sup>1</sup>Krutov et al., 2014; <sup>1</sup>Predtechenskaya, 2015; <sup>1</sup>Savelev and Kikeeva, 2018); **Kirov Oblast** (<sup>1</sup>Kirillov and Luginina, 2011; <sup>1</sup>Stavishenko, Luginina, Kirillov, and Egoshina, 2019); **Komi Republic** (<sup>1</sup>Palamarchuk and Kirillov, 2017); **Krasnodar Krai** (<sup>3</sup>Kovalenko, 1980a; <sup>3</sup>Kovalenko, 1980b); **Leningrad Oblast** (<sup>3</sup>Thesleff, 1920; <sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Morozova, 2007; <sup>1</sup>Popov et al., 2007); **Mordovia** (<sup>3</sup>Kuznetsov, 1960; <sup>1</sup>Ivoilov and Bolshakov, 2011a); **Moscow Oblast** (<sup>3</sup>Gorlenko, Sidorova, and Sidorova, 1989; <sup>1</sup>Levitskaya, 1995c; <sup>1</sup>Vishnevsky, 1998; <sup>1</sup>Levitskaya, 2013; <sup>1</sup>Voronina et al., 2014; <sup>1</sup>Sidorova, Alexandrova, and Voronina, 2017); **Murmansk Oblast** (<sup>1</sup>Pystina, Pavlova, and Shestakova, 1969; <sup>3</sup>Mikhailovskii, 1975b); **Penza Oblast** (<sup>3</sup>Ivanov, 1981a; <sup>1</sup>Ivanov, 2019); **Perm Krai** (<sup>1</sup>Perevedentseva, 2008); **Pskov Oblast** (<sup>1</sup>Popov, 2001a; <sup>1</sup>Popov et al., 2013); **Rostov Oblast** (<sup>1</sup>Zmitrovich et al., 2008); **Ryazan Oblast** (<sup>3</sup>Volosnova, 1997; <sup>1</sup>Volosnova, 2014); **Saint Petersburg** (<sup>2</sup>Weinmann, 1836; <sup>2</sup>Weinmann, 1837; <sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Kotkova, Morozova, and Popov, 2005; <sup>1</sup>Morozova and Smirnov, 2011; <sup>1</sup>Morozova et al., 2020); **Sverdlovsk Oblast** (<sup>1</sup>Marina, 2006); **Tatarstan** (<sup>3</sup>Vassiljeva, 1977); **Tula Oblast** (<sup>1</sup>Svetasheva, 2004); **Tver Oblast** (<sup>3</sup>Kurochkin, 1993); **Udmurt Republic** (<sup>3</sup>Tychinin and Kuzmina, 2003); **Ulyanovsk Oblast** (<sup>1</sup>Ilyukhin, 2010a); **Vologda Oblast** (<sup>1</sup>Kirillova, 2007; <sup>1</sup>Kirillova, 2009); **Voronezh Oblast** (<sup>1</sup>Sarycheva, Starodubtseva, and Sapelnikova, 2017); **Yaroslavl Oblast** (<sup>1</sup>Lazareva, 1998a); **Arid territories** (<sup>1</sup>Rebriev, Rusanov, et al., 2012).

SIBERIA: **Altai Krai** (<sup>3</sup>Gorbunova and Perova, 2006; <sup>1</sup>Gorbunova, 2018a); **Altai Republic** (<sup>3</sup>Kovalenko, 1992; <sup>1</sup>Gorbunova, 2001b); **Irkutsk Oblast** (<sup>3</sup>Petrov, 1984; <sup>3</sup>Kutafjeva and Astapenko, 1988; <sup>3</sup>Astapenko, 1990b; <sup>3</sup>Petrov, 1991; <sup>3</sup>Petrov, 2008); **Khakassia** (<sup>1</sup>Zauzolkova, 2015); **Khanty-Mansi Autonomous Okrug** (<sup>1</sup>Filippova, Bulyonkova, and Lapshina, 2015; <sup>1</sup>Filippova and Bulyonkova, 2017a; <sup>1</sup>Filippova and Bulyonkova, 2017b; <sup>1</sup>Zvyagina and Baykalova, 2017); **Krasnoyarsk Krai** (<sup>3</sup>Beglyanova, 1972a; <sup>3</sup>Nezdojminogo, 1976a; <sup>1</sup>Zauzolkova, 2012; <sup>1</sup>Zauzolkova, 2015; <sup>1</sup>Krom and Kapitonov, 2019); **Novosibirsk Oblast** (<sup>3</sup>Zaytseva, 1971; <sup>3</sup>Perova, 1977; <sup>1</sup>Koropachinskiy and Banaev, 2014); **Tomsk Oblast** (<sup>1</sup>Perova and Gorbunova, 2001; <sup>3</sup>Agaphonova, Kutafjeva, and Gashkov, 2007; <sup>1</sup>Kudashova, Gashkov, and Kutafjeva, 2013; <sup>1</sup>Vaishlya et al., 2017).

FAR EAST: **Amur Oblast** (<sup>1</sup>Kochunova, 2019); **Kamchatka Krai** (<sup>3</sup>Kalamees and Vaasma, 1981); **Khabarovsk Krai** (<sup>3</sup>Azbukina et al., 1986; <sup>3</sup>Azbukina et al., 1989; <sup>3</sup>Bau, Bulakh, and Govorova, 2011); **Magadan Oblast** (<sup>3</sup>Sazanova, 2005; <sup>1</sup>Sazanova, 2009a; <sup>1</sup>Sazanova, 2009b; <sup>1</sup>Sazanova, 2011; <sup>1</sup>Sazanova and Golodnova, 2015); **Primorsky Krai** (<sup>3</sup>Vassiljeva, 1972; <sup>3</sup>Vassiljeva, 1973; <sup>3</sup>Bunkina and Nazarova, 1978; <sup>3</sup>Azbukina et al., 1990; <sup>3</sup>Bardunov et al., 2002; <sup>3</sup>Azbukina et al., 2006; <sup>3</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Bulakh et al., 2016).

***Tricholoma fusisporum* Singer**

SIBERIA: **Altai Republic** (Singer, 1943).

***Tricholoma gausapatum* (Fr.) Quél.<sup>1</sup>**

≡ *Agaricus gausapatus* Fr.<sup>2</sup>

EASTERN EUROPE: **Belgorod Oblast** (<sup>1</sup>Bedenko, 1980); **Chelyabinsk Oblast** (<sup>1</sup>Sirko and Stepanova, 1977; <sup>1</sup>Stepanova and Sirko, 1977); **Crimea** (<sup>1</sup>Sarkina, 2020a); **Leningrad Oblast** (<sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Popov et al., 2007); **Rostov Oblast** (<sup>1</sup>Rusanov, Rebriev, and Bulgakov, 2018); **Saint Petersburg** (<sup>2</sup>Weinmann, 1836; <sup>2</sup>Weinmann, 1837); **Yaroslavl Oblast** (<sup>1</sup>Lazareva, 1998a).

SIBERIA: **Krasnoyarsk Krai** (<sup>1</sup>Beglyanova, 1972a); **Novosibirsk Oblast** (<sup>1</sup>Zaytseva, 1971).

***Tricholoma imbricatum* (Fr.) P. Kumm.<sup>1</sup>**

≡ *Agaricus imbricatus* Fr.<sup>2</sup> ≡ *Cortinellus imbricatus* (Fr.) P. Karst.<sup>3</sup>

EASTERN EUROPE: **Belgorod Oblast** (<sup>1</sup>Bedenko, 1980); **Crimea** (<sup>1</sup>Moser, 1993; <sup>1</sup>Sarkina, 2001; <sup>1</sup>Dudka et al., 2004; <sup>1</sup>Sarkina, 2010b; <sup>1</sup>Sarkina, 2011; <sup>1</sup>Sarkina and Prydiuk, 2012; <sup>1</sup>Sarkina, 2013); **Kaliningrad Oblast** (<sup>1</sup>Dedkov,

Volodina, and Gubareva, 2007; <sup>1</sup>Volodina, 2007); **Kaluga Oblast** (<sup>1</sup>Sionova, 2003); **Karelia** (<sup>1</sup>Kovalenko, Morozova, Fomina, and Särkisilta, 1998; <sup>1</sup>Krutov et al., 2014); **Kirov Oblast** (<sup>1</sup>Kirillov, 2011; <sup>1</sup>Kirillov, Perevedentseva, and Egoshina, 2011; <sup>1</sup>Stavishenko, Luginina, Kirillov, and Egoshina, 2019); **Komi Republic** (<sup>1</sup>Palamarchuk and Kirillov, 2017; <sup>1</sup>Palamarchuk, 2017); **Krasnodar Krai** (<sup>1</sup>Vassiljeva, 1939); **Kursk Oblast** (<sup>1</sup>Bedenko, 1987); **Leningrad Oblast** (<sup>1</sup>Thesleff, 1920; <sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Morozova, 2007; <sup>1</sup>Popov et al., 2007; <sup>1</sup>Zmitrovich et al., 2015); **Lipetsk Oblast** (<sup>1</sup>Sarycheva et al., 2009; <sup>1</sup>Sarycheva, 2011; <sup>1</sup>Sarycheva, 2014a; <sup>1</sup>Sarycheva, 2016); **Moscow** (<sup>2</sup>Bucholtz, 1897b; <sup>2</sup>Bucholtz, 1897c; <sup>3</sup>Mosolov, 1906; <sup>1</sup>Burova, 1968); **Moscow Oblast** (<sup>1</sup>Gorlenko, Sidorova, and Sidorova, 1989; <sup>1</sup>Levitskaya, 1995b; <sup>1</sup>Vishnevsky, 1998; <sup>1</sup>Levitskaya, 2013); **Penza Oblast** (<sup>1</sup>Ivanov, 1981a); **Perm Krai** (<sup>1</sup>Perevedentseva, 2008); **Pskov Oblast** (<sup>1</sup>Popov et al., 2013); **Ryazan Oblast** (<sup>1</sup>Volosnova, 1997; <sup>1</sup>Volosnova, 2014); **Saint Petersburg** (<sup>2</sup>Weinmann, 1828; <sup>2</sup>Weinmann, 1836; <sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Morozova and Smirnov, 2011); **Sevastopol** (<sup>1</sup>Sarkina, 2016b); **Sverdlovsk Oblast** (<sup>1</sup>Stepanova and Sirko, 1977; <sup>1</sup>Marina, 2006); **Tatarstan** (<sup>1</sup>Vassiljeva, 1977); **Tula Oblast** (<sup>1</sup>Svetasheva, 2004); **Tver Oblast** (<sup>1</sup>Kurochkin, 1993); **Udmurt Republic** (<sup>1</sup>Tychinin, 1990; <sup>1</sup>Tychinin and Kuzmina, 2003); **Ulyanovsk Oblast** (<sup>1</sup>Ilyukhin, 2009; <sup>1</sup>Ilyukhin, 2010a); **Vologda Oblast** (<sup>1</sup>Kutova, 1957; <sup>1</sup>Kirillova, 2007; <sup>1</sup>Kirillova, 2009); **Voronezh Oblast** (<sup>1</sup>Bedenko, 1987; <sup>1</sup>Selochnik, 2015); **Arid territories** (<sup>1</sup>Rebriev, Rusanov, et al., 2012).

SIBERIA: **Altai Republic** (<sup>1</sup>Gorbunova, 2019); **Buryatia** (<sup>1</sup>Nezdojminogo, 1970a); **Irkutsk Oblast** (<sup>1</sup>Petrov, 1984; <sup>1</sup>Kutafjeva and Astapenko, 1988; <sup>1</sup>Astapenko, 1990b; <sup>1</sup>Petrov, 2008); **Khakassia** (<sup>1</sup>Beglyanova, 1972a; <sup>1</sup>Zauzolkova, 2015); **Khanty-Mansi Autonomous Okrug** (<sup>1</sup>Makarova, Makarov, Zvyagina, and Bobrikov, 2015); **Krasnoyarsk Krai** (<sup>1</sup>Beglyanova, 1972a); **Novosibirsk Oblast** (<sup>1</sup>Zaytseva, 1971; <sup>1</sup>Koropachinskiy and Banaev, 2014); **Tomsk Oblast** (<sup>1</sup>Perova, 1972; <sup>1</sup>Perova and Gorbunova, 2001; <sup>1</sup>Kudashova, Gashkov, and Kutafjeva, 2013; <sup>1</sup>Vaishlya et al., 2017).

FAR EAST: **Magadan Oblast** (<sup>1</sup>Sazanova, 2005; <sup>1</sup>Sazanova, 2009a); **Primorsky Krai** (<sup>1</sup>Vassiljeva, 1973; <sup>1</sup>Bulakh et al., 2016).

#### ***Tricholoma inamoenum* (Fr.) Gillet<sup>1</sup>**

≡ *Agaricus inamoenus* Fr.<sup>2</sup>

EASTERN EUROPE: **Chelyabinsk Oblast** (<sup>1</sup>Stepanova and Sirko, 1977); **Kaliningrad Oblast** (<sup>1</sup>Dedkov, Volodina, and Gubareva, 2007; <sup>1</sup>Volodina, 2007); **Kaluga Oblast** (<sup>1</sup>Sionova, 2012); **Karelia** (<sup>1</sup>Freindling, 1949; <sup>1</sup>Bondartseva et al., 2001; <sup>1</sup>Predtechenskaya, 2013; <sup>1</sup>Krutov et al., 2014; <sup>1</sup>Predtechenskaya, 2015); **Kirov Oblast** (<sup>1</sup>Kirillov, 2011; <sup>1</sup>Kirillov, Perevedentseva, and Egoshina, 2011); **Komi Republic** (<sup>1</sup>Palamarchuk and Kirillov, 2017; <sup>1</sup>Palamarchuk and Kirillov, 2018a; <sup>1</sup>Palamarchuk, 2020a); **Leningrad Oblast** (<sup>1</sup>Thesleff, 1920; <sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Fomina, 2000; <sup>1</sup>Morozova and Kovalenko, 2000; <sup>1</sup>Fomina, 2001; <sup>1</sup>Popov et al., 2007); **Lipetsk Oblast** (<sup>1</sup>Sarycheva et al., 2009; <sup>1</sup>Sarycheva, 2011; <sup>1</sup>Sarycheva, 2014a; <sup>1</sup>Sarycheva, 2016); **Moscow Oblast** (<sup>1</sup>Vishnevsky, 1998; <sup>1</sup>Voronina et al., 2014); **Novgorod Oblast** (<sup>1</sup>Kovalenko, Morozova, Nezdojminogo, and Popov, 2005; <sup>1</sup>Popov et al., 2013); **Perm Krai** (<sup>1</sup>Perevedentseva, 2008; <sup>1</sup>Belkovskaya et al., 2014; <sup>1</sup>Perevedentseva and Shishigin, 2015); **Saint Petersburg** (<sup>2</sup>Weinmann, 1836; <sup>2</sup>Weinmann, 1837; <sup>1</sup>Morozova et al., 2020); **Tula Oblast** (<sup>1</sup>Svetasheva, 2004); **Udmurt Republic** (<sup>1</sup>Tychinin and Kuzmina, 2003); **Ulyanovsk Oblast** (<sup>1</sup>Ilyukhin, 2010a; <sup>1</sup>Ilyukhin, 2010b); **Voronezh Oblast** (<sup>1</sup>Bedenko, 1987).

SIBERIA: **Altai Republic** (<sup>1</sup>Gorbunova, 2001a); **Irkutsk Oblast** (<sup>1</sup>Kutafjeva and Astapenko, 1987; <sup>1</sup>Astapenko, 1990b); **Khanty-Mansi Autonomous Okrug** (<sup>1</sup>Zvyagina, 2008; <sup>1</sup>Shepeleva et al., 2014; <sup>1</sup>Filippova, Bulyonkova, and Lapshina, 2015; <sup>1</sup>Filippova and Bulyonkova, 2017a; <sup>1</sup>Filippova and Bulyonkova, 2017b; <sup>1</sup>Zvyagina and Baykalova, 2017); **Krasnoyarsk Krai** (<sup>1</sup>Beglyanova, 1972a).

FAR EAST: **Magadan Oblast** (<sup>1</sup>Sazanova, 2009a; <sup>1</sup>Sazanova, 2009b; <sup>1</sup>Sazanova, 2011).

#### ***Tricholoma lascivum* (Fr.) Gillet<sup>1</sup>**

≡ *Agaricus lascivus* Fr.<sup>2</sup>

EASTERN EUROPE: **Adygea** (<sup>1</sup>Vaasma, Kalamees, and Raitviir, 1986); **Kaliningrad Oblast** (<sup>1</sup>Dedkov, Volodina, and Gubareva, 2007); **Karelia** (<sup>1</sup>Krutov et al., 2014); **Kirov Oblast** (<sup>1</sup>Kirillov, 2011; <sup>1</sup>Kirillov, Perevedentseva, and Egoshina, 2011); **Leningrad Oblast** (<sup>1</sup>Thesleff, 1920; <sup>1</sup>Stolyarskaya, 1993; <sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Fomina, 2000; <sup>1</sup>Popov et al., 2007; <sup>1</sup>Zmitrovich et al., 2015); **Lipetsk Oblast** (<sup>1</sup>Sarycheva et al., 2009; <sup>1</sup>Sarycheva, 2016); **Moscow Oblast** (<sup>1</sup>Vishnevsky, 1998); **Perm Krai** (<sup>1</sup>Perevedentseva, 2008; <sup>1</sup>Belkovskaya et al., 2014; <sup>1</sup>Perevedentseva and Shishigin, 2015); **Saint Petersburg** (<sup>2</sup>Weinmann, 1836; <sup>2</sup>Weinmann, 1837); **Sverdlovsk Oblast** (<sup>1</sup>Marina, 2006); **Tula Oblast** (<sup>1</sup>Svetasheva, 2004; <sup>1</sup>Svetasheva, 2005b; <sup>1</sup>Shcherbakov, 2010; <sup>1</sup>Svetasheva, Aleksandrova, Zaytseva, and Solovjova, 2017); **Yaroslavl Oblast** (<sup>1</sup>Lazareva, 1998a).

SIBERIA: **Altai Krai** (<sup>1</sup>Gorbunova and Perova, 2006); **Krasnoyarsk Krai** (<sup>1</sup>Beglyanova, 1972a); **Novosibirsk Oblast** (<sup>1</sup>Koropachinskiy and Banaev, 2014).

***Tricholoma luridum* (Schaeff.) P. Kumm.**

EASTERN EUROPE: **Kabardino-Balkarian Republic** (Shkhagapsoev and Krapivina, 2004); **Leningrad Oblast** (Thesleff, 1920; Kovalenko and Morozova, 1999a; Popov et al., 2007).

***Tricholoma magnivelare* (Peck) Redhead**

EASTERN EUROPE: **Karelia** (Krutov et al., 2014); **Orenburg Oblast** (Desyatova, 2008).

***Tricholoma matsutake* (S. Ito & S. Imai) Singer<sup>1</sup>**

= *Tricholoma nauseosum* (A. Blytt) Kytöv.<sup>2</sup>

EASTERN EUROPE: **Leningrad Oblast** (<sup>1</sup>Geltman et al., 2018; <sup>1</sup>Geltman, 2018b).

SIBERIA: **Irkutsk Oblast** (<sup>1</sup>Trofimova, Popov, and Merkacheva, 2020); **Tomsk Oblast** (<sup>2</sup>Agaphonova, Kutafjeva, and Gashkov, 2009b; <sup>1</sup>Kudashova, Gashkov, and Kutafjeva, 2013; <sup>1</sup>Kudashova, Gashkov, and Vaishlya, 2016b; <sup>1</sup>Vaishlya et al., 2017).

***Tricholoma odorum* Peck**

SIBERIA: **Altai Republic** (Gorbunova, 2019).

***Tricholoma olivaceotinctum* Heilm.-Claus. & Mort. Chr.**

SIBERIA: **Khanty-Mansi Autonomous Okrug** (Filippova, Bulyonkova, and Lapshina, 2015; Zvyagina and Baykalova, 2017).

***Tricholoma orirubens* Quél.<sup>1</sup>**

= *Tricholoma guttatum* (Schaeff.) P. Kumm.<sup>2</sup>

EASTERN EUROPE: **Crimea** (<sup>1</sup>Zerova, 1962; <sup>1</sup>Sarkina, 2001; <sup>1</sup>Dudka et al., 2004; <sup>1</sup>Sarkina, 2010b; <sup>1</sup>Sarkina, 2011; <sup>1</sup>Sarkina and Prydiuk, 2012; <sup>1</sup>Sarkina, 2013; <sup>1</sup>Sarkina and Mironova, 2015); **Krasnodar Krai** (<sup>1</sup>Kovalenko, 1980a; <sup>1</sup>Kovalenko, 1980b); **Penza Oblast** (<sup>1</sup>Ivanov, 1983); **Sevastopol** (<sup>1</sup>Sarkina, 2016b).

SIBERIA: **Irkutsk Oblast** (<sup>2</sup>Petrov, 1984; <sup>2</sup>Petrov, 1991; <sup>2</sup>Petrov, 2008).

FAR EAST: **Amur Oblast** (<sup>1</sup>Taranina, 2005); **Khabarovsk Krai** (<sup>1</sup>Azbukina et al., 1986; <sup>1</sup>Azbukina et al., 1989; <sup>1</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Bulakh, 2013; <sup>1</sup>Bogacheva, Bulakh, Bukharova, and Egorova, 2015); **Primorsky Krai** (<sup>1</sup>Vassiljeva, 1973; <sup>1</sup>Azbukina et al., 1984; <sup>1</sup>Azbukina et al., 1990; <sup>1</sup>Bardunov et al., 2002; <sup>1</sup>Bau, Bulakh, and Govorova, 2011); **Sakhalin Oblast** (<sup>1</sup>Vassiljeva and Nazarova, 1972).

***Tricholoma pardinum* (Pers.) Quél.**

EASTERN EUROPE: **Crimea** (Sarkina, 2001; Dudka et al., 2004); **Kaliningrad Oblast** (Dedkov, Volodina, and Gubareva, 2007); **Sverdlovsk Oblast** (Stepanova and Sirko, 1977); **Voronezh Oblast** (Bedenko, 1987); **Arid territories** (Rebriev, Rusanov, et al., 2012).

SIBERIA: **Sverdlovsk Oblast** (Stepanova and Sirko, 1977).

***Tricholoma pessundatum* (Fr.) Quél.<sup>1</sup>**

≡ *Agaricus pessundatus* Fr.<sup>2</sup>

EASTERN EUROPE: **Belgorod Oblast** (<sup>1</sup>Bedenko, 1979a); **Chelyabinsk Oblast** (<sup>1</sup>Stepanova and Sirko, 1977); **Kaliningrad Oblast** (<sup>1</sup>Dedkov, Volodina, and Gubareva, 2007); **Karelia** (<sup>1</sup>Krutov et al., 2014); **Komi Republic** (<sup>1</sup>Palamarchuk and Kirillov, 2017; <sup>1</sup>Palamarchuk and Kirillov, 2018a); **Krasnodar Krai** (<sup>1</sup>Vassiljeva, 1939); **Kursk Oblast** (<sup>1</sup>Bedenko, 1987); **Leningrad Oblast** (<sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Popov et al., 2007; <sup>1</sup>Zmitrovich et al., 2015); **Moscow Oblast** (<sup>1</sup>Gorlenko, Sidorova, and Sidorova, 1989; <sup>1</sup>Vishnevsky, 1998); **Rostov Oblast** (<sup>1</sup>Morozova et al., 2008); **Saint Petersburg** (<sup>2</sup>Weinmann, 1836; <sup>2</sup>Weinmann, 1837; <sup>1</sup>Morozova and Kovalenko, 2000; <sup>1</sup>Kotkova, Morozova, and Popov, 2006); **Sevastopol** (<sup>1</sup>Sarkina, 2020c); **Tula Oblast** (<sup>1</sup>Svetasheva, 2001; <sup>1</sup>Svetasheva, 2004; <sup>1</sup>Svetasheva, 2005b); **Udmurt Republic** (<sup>1</sup>Tychinin and Kuzmina, 2003); **Ulyanovsk Oblast** (<sup>1</sup>Ilyukhin, 2009; <sup>1</sup>Ilyukhin, 2010a); **Vologda Oblast** (<sup>1</sup>Kirillova, 2007; <sup>1</sup>Kirillova, 2009); **Voronezh Oblast** (<sup>1</sup>Bedenko, 1987); **Arid territories** (<sup>1</sup>Rebriev, Rusanov, et al., 2012).

SIBERIA: **Irkutsk Oblast** (<sup>1</sup>Astapenko, 1990b; <sup>1</sup>Muzyka, 2009); **Krasnoyarsk Krai** (<sup>1</sup>Perova, 1970; <sup>1</sup>Beglyanova, 1972a); **Novosibirsk Oblast** (<sup>1</sup>Perova and Gorbunova, 2001); **Tomsk Oblast** (<sup>1</sup>Agaphonova, Kutafjeva, and Gashkov, 2007; <sup>1</sup>Agaphonova, Kutafjeva, and Gashkov, 2009b; <sup>1</sup>Kudashova, Gashkov, and Kutafjeva, 2013; <sup>1</sup>Vaishlya et al., 2017).

FAR EAST: **Amur Oblast** (<sup>1</sup>Taranina, 2005); **Magadan Oblast** (<sup>1</sup>Sazanova and Golodnova, 2015; <sup>1</sup>Sazanova, 2015); **Primorsky Krai** (<sup>1</sup>Vassiljeva, 1972; <sup>1</sup>Vassiljeva, 1973).

*Tricholoma phoeniceum* (P. Karst.) SingerEASTERN EUROPE: **Leningrad Oblast** (Singer, 1943).*Tricholoma populinum* J.E. Lange

EASTERN EUROPE: **Belgorod Oblast** (Bedenko, 1980); **Bryansk Oblast** (Kruglikov, 2007); **Chelyabinsk Oblast** (Stepanova and Sirko, 1977); **Kirov Oblast** (Kirillov, 2011; Kirillov, Perevedentseva, and Egoshina, 2011); **Komi Republic** (Palamarchuk, 2020b); **Krasnodar Krai** (Kovalenko, 1980a); **Kursk Oblast** (Bedenko, 1987); **Leningrad Oblast** (Morozova and Kovalenko, 2000; Popov et al., 2007); **Lipetsk Oblast** (Sarycheva et al., 2009; Sarycheva, 2011; Sarycheva, 2016); **Mordovia** (Ivoilov and Bolshakov, 2011a); **Orenburg Oblast** (Desyatova, 2008); **Penza Oblast** (Ivanov, 1981a; Ivanov, 1999); **Perm Krai** (Perevedentseva, 2008); **Rostov Oblast** (Rusanov et al., 2004; Morozova et al., 2008; Zmitrovich et al., 2008; Rebriev and Svetasheva, 2010); **Saint Petersburg** (Kovalenko and Morozova, 1999a; Kotkova, Morozova, and Popov, 2005; Morozova et al., 2020); **Tula Oblast** (Svetasheva, 2004); **Tver Oblast** (Kurochkin, 1993); **Udmurt Republic** (Tychinin and Kuzmina, 2003); **Ulyanovsk Oblast** (Ilyukhin, 2010a); **Volgograd Oblast** (Burova and Nezdojminogo, 1982; Dudka and Vedeneyev, 2014); **Voronezh Oblast** (Bedenko, 1987); **Arid territories** (Rebriev, Rusanov, et al., 2012); **Northern Caucasus** (Kovalenko, 1980b).

SIBERIA: **Altai Republic** (Zhukov, 1979); **Irkutsk Oblast** (Muzyka and Penzina, 2017); **Khakassia** (Zauzolkova, 2015); **Khanty-Mansi Autonomous Okrug** (Zvyagina, 2008; Shepeleva et al., 2014; Filippova, Bulyonkova, and Lapshina, 2015); **Krasnoyarsk Krai** (Beglyanova, 1972a; Zauzolkova, 2012; Zauzolkova, 2015); **Novosibirsk Oblast** (Perova and Gorbunova, 2001; Koropachinskiy and Banaev, 2014); **Tomsk Oblast** (Agaphonova, Kutafjeva, and Gashkov, 2007; Agaphonova, Kutafjeva, and Gashkov, 2009b; Kudashova, Gashkov, and Kutafjeva, 2013).

FAR EAST: **Chukotka Autonomous Okrug** (Sazanova, 1993; Chereshev, 2008a).

*Tricholoma portentosum* (Fr.) Quél.<sup>1</sup>≡ *Agaricus portentosus* Fr.<sup>2</sup>

EASTERN EUROPE: **Bryansk Oblast** (<sup>1</sup>Kruglikov, 2007); **Chechen Republic** (<sup>1</sup>Taysumov, Krapivina, Umarov, and Astamirova, 2012; <sup>1</sup>Taysumov, Krapivina, and Kushaliev, 2016); **Chelyabinsk Oblast** (<sup>1</sup>Aleksandrovskaia and Lobanova, 1968; <sup>1</sup>Sirko and Stepanova, 1977; <sup>1</sup>Stepanova and Sirko, 1977); **Chuvash Republic** (<sup>1</sup>Marfin, 2001); **Crimea** (<sup>1</sup>Sarkina and Prydiuk, 2012; <sup>1</sup>Sarkina and Stavishenko, 2019); **Kabardino-Balkarian Republic** (<sup>1</sup>Shkhagapsoev and Krapivina, 2003; <sup>1</sup>Shkhagapsoev and Krapivina, 2004); **Kaliningrad Oblast** (<sup>1</sup>Dedkov, Volodina, and Gubareva, 2007; <sup>1</sup>Volodina, 2007); **Kaluga Oblast** (<sup>1</sup>Sionova, 2003; <sup>1</sup>Sionova, 2006); **Karelia** (<sup>1</sup>Bondartseva et al., 2001; <sup>1</sup>Krutov et al., 2014; <sup>1</sup>Savelev and Kikeeva, 2018); **Kirov Oblast** (<sup>1</sup>Kirillov and Luginina, 2011; <sup>1</sup>Kirillov, 2011; <sup>1</sup>Kirillov, Perevedentseva, and Egoshina, 2011; <sup>1</sup>Stavishenko, Luginina, Kirillov, and Egoshina, 2019); **Komi Republic** (<sup>1</sup>Palamarchuk, 2012; <sup>1</sup>Palamarchuk and Kirillov, 2017; <sup>1</sup>Palamarchuk and Kirillov, 2018a); **Kostroma Oblast** (<sup>1</sup>Burova, 1982); **Leningrad Oblast** (<sup>1</sup>Thesleff, 1920; <sup>1</sup>Stolyarskaya, 1989; <sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Morozova, 2007; <sup>1</sup>Popov et al., 2007; <sup>1</sup>Zmitrovich et al., 2015; <sup>1</sup>Malysheva, Malysheva, Shchepin, and Novozhilov, 2018); **Lipetsk Oblast** (<sup>1</sup>Rtishcheva, 1999; <sup>1</sup>Sarycheva, 1999; <sup>1</sup>Afanasyev, Rtishcheva, and Starodubtseva, 2007; <sup>1</sup>Sarycheva et al., 2009; <sup>1</sup>Sarycheva, 2011; <sup>1</sup>Sarycheva, 2014a; <sup>1</sup>Sarycheva, 2016; <sup>1</sup>Sarycheva, Starodubtseva, and Sapelnikova, 2017); **Mordovia** (<sup>1</sup>Kuznetsov, 1960; <sup>1</sup>Chastukhin, 2011; <sup>1</sup>Ivoilov and Bolshakov, 2011a; <sup>1</sup>Bolshakov and Ivoilov, 2012b); **Moscow Oblast** (<sup>1</sup>Gorlenko, Sidorova, and Sidorova, 1989; <sup>1</sup>Levitskaya, 1995b; <sup>1</sup>Vishnevsky, 1998; <sup>1</sup>Levitskaya, 2013); **Murmansk Oblast** (<sup>1</sup>Pystina, Pavlova, and Shestakova, 1969); **North Ossetia** (<sup>1</sup>Nikolayev, 2001); **Oryol Oblast** (<sup>1</sup>Radygina, Derzhavina, and Tsutsupa, 2014); **Penza Oblast** (<sup>1</sup>Ivanov, 1981a); **Perm Krai** (<sup>1</sup>Perevedentseva, 2008); **Pskov Oblast** (<sup>1</sup>Popov et al., 2013); **Rostov Oblast** (<sup>1</sup>Rusanov et al., 2004; <sup>1</sup>Morozova et al., 2008; <sup>1</sup>Zmitrovich et al., 2008); **Ryazan Oblast** (<sup>1</sup>Volosnova, 1997; <sup>1</sup>Volosnova, 2014); **Saint Petersburg** (<sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Morozova and Smirnov, 2011; <sup>1</sup>Morozova et al., 2020); **Smolensk Oblast** (<sup>1</sup>Jaczewski, 1898); **Sverdlovsk Oblast** (<sup>1</sup>Tomilin, 1965; <sup>1</sup>Stepanova and Sirko, 1977; <sup>1</sup>Marina, 2006); **Tatarstan** (<sup>1</sup>Vassiljeva, 1977); **Tula Oblast** (<sup>1</sup>Svetasheva, 2004; <sup>1</sup>Shcherbakov, 2010); **Tver Oblast** (<sup>1</sup>Kurochkin, 1993; <sup>1</sup>Mukhina, 2011a; <sup>1</sup>Kotkova, 2014); **Udmurt Republic** (<sup>1</sup>Tychinin, 1990; <sup>1</sup>Tychinin and Kuzmina, 2003); **Vologda Oblast** (<sup>1</sup>Kutova, 1957; <sup>1</sup>Kirillova, 2007; <sup>1</sup>Kirillova, 2009); **Voronezh Oblast** (<sup>1</sup>Rtishcheva, 1999; <sup>1</sup>Afanasyev, Rtishcheva, and Starodubtseva, 2007; <sup>1</sup>Sarycheva, Starodubtseva, and Sapelnikova, 2017; <sup>1</sup>Kochergina and Furmenkova, 2019); **Yaroslavl Oblast** (<sup>1</sup>Lazareva, 1998a); **Arid territories** (<sup>1</sup>Rebriev, Rusanov, et al., 2012).

SIBERIA: **Altai Krai** (<sup>1</sup>Gorbunova and Chubarova, 2008; <sup>1</sup>Gorbunova, Vlasenko, and Tzhubarova, 2011); **Altai Republic** (<sup>1</sup>Singer, 1943); **Buryatia** (<sup>1</sup>Nezdojminogo, 1970a; <sup>1</sup>Petrov, 1991); **Irkutsk Oblast** (<sup>1</sup>Kutafjeva, 1983; <sup>1</sup>Astapenko, 1990b; <sup>1</sup>Muzyka, 2002; <sup>1</sup>Petrov, 2008; <sup>1</sup>Muzyka, 2009; <sup>1</sup>Muzyka and Penzina, 2017); **Khakassia** (<sup>1</sup>Zauzolkova, 2015); **Khanty-Mansi Autonomous Okrug** (<sup>1</sup>Filippova, Bulyonkova, and Lapshina, 2015; <sup>1</sup>Zvyagina and Baykalova, 2017); **Krasnoyarsk Krai** (<sup>2</sup>Thümen, 1880a; <sup>1</sup>Singer, 1943; <sup>1</sup>Beglyanova, 1972a); **Kurgan**



**Oblast** (<sup>1</sup>Stepanova and Sirko, 1977); **Novosibirsk Oblast** (<sup>1</sup>Nozdrenko, 1970; <sup>1</sup>Perova and Gorbunova, 2001; <sup>1</sup>Koropachinskiy and Banaev, 2014); **Sverdlovsk Oblast** (<sup>1</sup>Stepanova and Sirko, 1977); **Tomsk Oblast** (<sup>1</sup>Milovidova, 1980; <sup>1</sup>Agaphonova, Kutafjeva, and Gashkov, 2007; <sup>1</sup>Kudashova, Gashkov, and Kutafjeva, 2013; <sup>1</sup>Vaishlya et al., 2017).

FAR EAST: **Magadan Oblast** (<sup>1</sup>Sazanova, 2015); **Primorsky Krai** (<sup>1</sup>Vassiljeva, 1972; <sup>1</sup>Vassiljeva, 1973; <sup>1</sup>Bulakh, 1977; <sup>1</sup>Bunkina and Nazarova, 1978; <sup>1</sup>Azbukina et al., 1984; <sup>1</sup>Azbukina et al., 1990; <sup>1</sup>Bardunov et al., 2002; <sup>1</sup>Azbukina et al., 2006; <sup>1</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Bulakh et al., 2016).

### *Tricholoma psammopus* (Kalchbr.) Quél.

EASTERN EUROPE: **Chelyabinsk Oblast** (Sirko and Stepanova, 1977; Stepanova and Sirko, 1977); **Komi Republic** (Palamarchuk, 2012; Palamarchuk, 2016a; Palamarchuk, 2016b); **Leningrad Oblast** (Kovalenko and Morozova, 1999a; Popov et al., 2007); **Penza Oblast** (Ivanov, 1981a); **Perm Krai** (Perevedentseva, Nezdojminogo, and Kovalenko, 1990; Perevedentseva, 2008; Botalov, 2017); **Yaroslavl Oblast** (Lazareva, 1998a).

SIBERIA: **Altai Republic** (Singer, 1943); **Buryatia** (Nezdojminogo, 1970a); **Irkutsk Oblast** (Petrov, 1984; Petrov, 2008); **Krasnoyarsk Krai** (Beglyanova, 1972a; Nezdojminogo, 1976a; Malysheva, Malysheva, Kiyashko, et al., 2017); **Tyva Republic** (Gorbunova, 2015).

FAR EAST: **Magadan Oblast** (Nazarova, 1976; Sazanova, 2005; Sazanova, 2009a; Sazanova, 2009b; Sazanova, 2011; Sazanova and Golodnova, 2015); **Primorsky Krai** (Bardunov et al., 2002); **Sakhalin Oblast** (Vassiljeva and Nazarova, 1972).

### *Tricholoma ramentaceum* (Bull. ex Pers.) Ricken

EASTERN EUROPE: **Chelyabinsk Oblast** (Sirko and Stepanova, 1977; Stepanova and Sirko, 1977).

### *Tricholoma rapipes* (Krombh.) Heilm.-Claus. & Mort. Chr.<sup>1</sup>

≡ *Tricholoma saponaceum* var. *rapipes* (Krombh.) J.E. Lange<sup>2</sup>

EASTERN EUROPE: **Komi Republic** (<sup>2</sup>Bobretsova, 2004; <sup>2</sup>Palamarchuk, 2012).

SIBERIA: **Khanty-Mansi Autonomous Okrug** (<sup>1</sup>Filippova and Bulyonkova, 2017a; <sup>1</sup>Filippova and Bulyonkova, 2017b); **Krasnoyarsk Krai** (<sup>1</sup>Krom and Kapitonov, 2019).

### *Tricholoma robustum* (Alb. & Schwein.) Ricken<sup>1</sup>

≡ *Armillaria robusta* (Alb. & Schwein.) Gillet<sup>2</sup>

EASTERN EUROPE: **Belgorod Oblast** (<sup>1</sup>Bedenko, 1980); **Kaliningrad Oblast** (<sup>1</sup>Dedkov, Volodina, and Gubareva, 2007; <sup>1</sup>Volodina, 2007); **Perm Krai** (<sup>1</sup>Perevedentseva, 2008); **Rostov Oblast** (<sup>1</sup>Rusanov et al., 2004; <sup>1</sup>Zmitrovich et al., 2008); **Smolensk Oblast** (<sup>2</sup>Jaczevski, 1896); **Vologda Oblast** (<sup>2</sup>Kutova, 1957); **Arid territories** (<sup>1</sup>Rebriev, Rusanov, et al., 2012).

SIBERIA: **Irkutsk Oblast** (<sup>1</sup>Kutafjeva, 1983); **Tomsk Oblast** (<sup>1</sup>Kudashova, Gashkov, and Kutafjeva, 2013; <sup>1</sup>Kudashova, Gashkov, and Vaishlya, 2016b; <sup>1</sup>Vaishlya et al., 2017).

### *Tricholoma roseoacervum* A. Riva

SIBERIA: **Krasnoyarsk Krai** (Malysheva, Malysheva, Kiyashko, et al., 2017).

### *Tricholoma saponaceum* (Fr.) P. Kumm.<sup>1</sup>

≡ *Agaricus saponaceus* Fr.<sup>2</sup> ≡ *Tricholoma saponaceum* var. *saponaceum* (Fr.) P. Kumm.<sup>3</sup> = *Tricholoma saponaceum* var. *boudieri* (Barla) Barla<sup>4</sup> = *Tricholoma saponaceum* var. *cnista* (Fr.) J.E. Lange<sup>5</sup> = *Tricholoma saponaceum* var. *squamosum* (Cooke) Rea<sup>6</sup>

EASTERN EUROPE: **Adygea** (<sup>1</sup>Vaasma, Kalamees, and Raitviir, 1986); **Belgorod Oblast** (<sup>1</sup>Bedenko, 1980); **Crimea** (<sup>1</sup>Moser, 1993; <sup>1</sup>Sarkina, 2001; <sup>1</sup>Dudka et al., 2004; <sup>1</sup>Sarkina, 2010b; <sup>1</sup>Sarkina, 2011; <sup>1</sup>Sarkina and Prydiuk, 2012; <sup>1</sup>Sarkina, 2013; <sup>1</sup>Sarkina and Mironova, 2015; <sup>1,4,6</sup>Sarkina and Stavishenko, 2019); **Kaliningrad Oblast** (<sup>3,5</sup>Dedkov, Volodina, and Gubareva, 2007); **Karachay-Cherkess Republic** (<sup>1</sup>Kalamees and Botashev, 2000); **Karelia** (<sup>1</sup>Freindling, 1949; <sup>1</sup>Bondartseva et al., 2001; <sup>3</sup>Krutov et al., 2014); **Kirov Oblast** (<sup>1</sup>Kirillov, 2011; <sup>1</sup>Kirillov, Perevedentseva, and Egoshina, 2011); **Komi Republic** (<sup>1</sup>Palamarchuk, 2012; <sup>1</sup>Palamarchuk and Kirillov, 2017; <sup>6</sup>Palamarchuk, 2017; <sup>1</sup>Palamarchuk and Kirillov, 2018a); **Krasnodar Krai** (<sup>1</sup>Kovalenko, 1980a; <sup>1</sup>Kovalenko, 1980b); **Kursk Oblast** (<sup>1</sup>Bedenko, 1987); **Leningrad Oblast** (<sup>1</sup>Thesleff, 1920; <sup>1</sup>Kalamees and Kovalenko, 1984; <sup>1</sup>Stolyarskaya, 1989; <sup>3,6</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Morozova, 2007; <sup>3,6</sup>Popov et al., 2007; <sup>1</sup>Zmitrovich et al., 2015; <sup>1</sup>Malysheva, Malysheva, Shchepin, and Novozhilov, 2018); **Moscow Oblast** (<sup>1</sup>Gorlenko, Sidorova, and Sidorova, 1989; <sup>3,6</sup>Levitskaya, 1995a; <sup>1</sup>Vishnevsky, 1998; <sup>3,6</sup>Levitskaya, 2013; <sup>1</sup>Voronina et al., 2014); **Murmansk Oblast** (<sup>1</sup>Pystina, Pavlova, and Shestakova, 1969); **Penza**

**Oblast** (<sup>1</sup>Ivanov, 1983); **Perm Krai** (<sup>1,6</sup>Perevedentseva, 2008); **Pskov Oblast** (<sup>1</sup>Kalinina, Bolshakov, and Bulyonkova, 2020); **Rostov Oblast** (<sup>1</sup>Rusanov et al., 2004; <sup>1</sup>Zmitrovich et al., 2008); **Ryazan Oblast** (<sup>1</sup>Volosnova, 2014); **Saint Petersburg** (<sup>2</sup>Weinmann, 1836; <sup>2</sup>Weinmann, 1837; <sup>3</sup>Kovalenko and Morozova, 1999a; <sup>3,6</sup>Morozova and Smirnov, 2011; <sup>3</sup>Morozova et al., 2020); **Samara Oblast** (<sup>3</sup>Malysheva and Malysheva, 2004; <sup>3</sup>Malysheva and Malysheva, 2008); **Sevastopol** (<sup>1</sup>Sarkina, 2016b; <sup>1</sup>Sarkina, 2020c); **Smolensk Oblast** (<sup>1</sup>Jaczevski, 1896); **Sverdlovsk Oblast** (<sup>1</sup>Marina, 2006); **Tatarstan** (<sup>3</sup>Potapov, 2016b); **Tula Oblast** (<sup>1</sup>Svetasheva, 2001; <sup>3,6</sup>Svetasheva, 2004); **Tver Oblast** (<sup>1</sup>Kurochkin, 1993; <sup>1</sup>Mukhina, 2011a; <sup>1</sup>Mukhina, 2011b; <sup>1</sup>Kotkova, 2014); **Udmurt Republic** (<sup>1</sup>Tychinin, 1990; <sup>1</sup>Tychinin and Kuzmina, 2003); **Ulyanovsk Oblast** (<sup>1</sup>Ilyukhin, 2009; <sup>1</sup>Ilyukhin, 2010a); **Vologda Oblast** (<sup>6</sup>Kirillova, 2007; <sup>6</sup>Kirillova, 2009); **Voronezh Oblast** (<sup>1</sup>Bedenko, 1987); **Arid territories** (<sup>1</sup>Rebriev, Rusanov, et al., 2012).

SIBERIA: **Altai Krai** (<sup>1</sup>Gorbunova and Perova, 2006; <sup>1</sup>Gorbunova, 2018a); **Buryatia** (<sup>1</sup>Nezdojminogo, 1970a; <sup>1</sup>Petrov, 1991); **Irkutsk Oblast** (<sup>1</sup>Kutafjeva, 1983; <sup>1</sup>Astapenko, 1990b; <sup>1</sup>Bardunov et al., 2005); **Khanty-Mansi Autonomous Okrug** (<sup>1</sup>Filippova, Bulyonkova, and Lapshina, 2015); **Krasnoyarsk Krai** (<sup>1</sup>Perova, 1970; <sup>1</sup>Beglyanova, 1972a; <sup>1</sup>Nezdojminogo, 1976a; <sup>1</sup>Zauzolkova, 2012; <sup>1</sup>Zauzolkova, 2015; <sup>1</sup>Krom and Kapitonov, 2019); **Novosibirsk Oblast** (<sup>1</sup>Perova, 1977; <sup>1</sup>Perova and Gorbunova, 2001; <sup>3</sup>Koropachinskiy and Banaev, 2014); **Tomsk Oblast** (<sup>1</sup>Perova and Gorbunova, 2001; <sup>1</sup>Agaphonova, Kutafjeva, and Gashkov, 2007; <sup>1</sup>Kudashova, Gashkov, and Kutafjeva, 2013; <sup>1</sup>Vaishlya et al., 2017).

FAR EAST: **Chukotka Autonomous Okrug** (<sup>2</sup>Berkeley and Curtis, 1978); **Khabarovsk Krai** (<sup>1</sup>Azbukina et al., 1986; <sup>1</sup>Bau, Bulakh, and Govorova, 2011); **Magadan Oblast** (<sup>1</sup>Sazanova, 2005; <sup>1</sup>Sazanova, 2009a); **Primorsky Krai** (<sup>1</sup>Vassiljeva, 1972; <sup>1</sup>Vassiljeva, 1973; <sup>1</sup>Azbukina et al., 1984; <sup>1</sup>Azbukina et al., 1990; <sup>1</sup>Bardunov et al., 2002; <sup>1</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Bogacheva et al., 2018).

#### *Tricholoma scalpturatum* (Fr.) Quél.

EASTERN EUROPE: **Belgorod Oblast** (Bedenko, 1980); **Crimea** (Zerova, 1962; Sarkina and Stavishenko, 2019); **Kabardino-Balkarian Republic** (Krapivina et al., 2020); **Kaliningrad Oblast** (Volodina, 2007; Atayev and Volodina, 2020); **Kaluga Oblast** (Sionova, 2012); **Karelia** (Freindling, 1949; Bondartseva et al., 2001; Krutov et al., 2014); **Kirov Oblast** (Kirillov, 2011; Kirillov, Perevedentseva, and Egoshina, 2011); **Komi Republic** (Palamarchuk, 2016a; Palamarchuk, 2016b; Palamarchuk and Kirillov, 2017); **Kursk Oblast** (Bedenko, 1987); **Leningrad Oblast** (Popov et al., 2007); **Lipetsk Oblast** (Sarycheva et al., 2009; Sarycheva, 2011; Sarycheva, 2014a; Sarycheva, 2016); **Mordovia** (Bolshakov and Ivoilov, 2012a); **Moscow Oblast** (Levitskaya, 1995a; Vishnevsky, 1998; Levitskaya, 2013); **Orenburg Oblast** (Desyatova, 2007; Desyatova, 2008); **Penza Oblast** (Ivanov, 1983; Ivanov, 1999; Ivanov, 2019); **Perm Krai** (Perevedentseva, 2008); **Pskov Oblast** (Popov et al., 2013); **Rostov Oblast** (Rusanov, Rebriev, and Bulgakov, 2018); **Saint Petersburg** (Kovalenko and Morozova, 1999a; Morozova and Smirnov, 2011; Morozova, Kovalenko, Rebriev, and Malysheva, 2014; Morozova et al., 2020); **Samara Oblast** (Malysheva and Malysheva, 2004; Malysheva and Malysheva, 2008); **Sevastopol** (Sarkina, 2016b; Sarkina, 2020c); **Tatarstan** (Potapov, 2016a); **Tula Oblast** (Svetasheva, 2001; Svetasheva, 2004; Svetasheva, 2013); **Ulyanovsk Oblast** (Ilyukhin, 2009; Ilyukhin, 2010a); **Vologda Oblast** (Kirillova, 2007; Kirillova, 2009); **Voronezh Oblast** (Bedenko, 1987); **Yaroslavl Oblast** (Lazareva, 1998a); **Arid territories** (Rebriev, Rusanov, et al., 2012).

SIBERIA: **Altai Krai** (Gorbunova and Perova, 2006); **Altai Republic** (Singer, 1943); **Irkutsk Oblast** (Kutafjeva, 1983; Astapenko, 1990a; Astapenko, 1990b); **Khakassia** (Beglyanova, 1972a; Gorbunova and Majnagasheva, 2013; Zauzolkova, 2015); **Krasnoyarsk Krai** (Perova, 1970; Beglyanova, 1972a; Kosheleva and Kutafjeva, 2008a); **Novosibirsk Oblast** (Koropachinskiy and Banaev, 2014); **Tomsk Oblast** (Kudashova, Gashkov, and Kutafjeva, 2013; Vaishlya et al., 2017).

FAR EAST: **Primorsky Krai** (Vassiljeva, 1973; Bunkina and Nazarova, 1978; Azbukina et al., 2006; Bau, Bulakh, and Govorova, 2011).

#### *Tricholoma sciodes* (Pers.) C. Martín

EASTERN EUROPE: **Crimea** (Moser, 1993; Sarkina, 2001; Dudka et al., 2004; Sarkina, 2011; Sarkina, 2014b; Sarkina and Mironova, 2015; Sarkina, 2016a); **Perm Krai** (Botalov, 2015; Botalov, 2017).

FAR EAST: **Amur Oblast** (Taranina, 2005; Streltsov, 2009; Senchik and Malikova, 2019).

#### *Tricholoma sejunctum* (Sowerby) Quél.<sup>1</sup>

= *Tricholoma sejunctum* var. *coniferarum* Bon<sup>2</sup>

EASTERN EUROPE: **Adygea** (<sup>1</sup>Vaasma, Kalamees, and Raitviir, 1986); **Chelyabinsk Oblast** (<sup>1</sup>Stepanova and Sirko, 1977); **Crimea** (<sup>1</sup>Zerova, 1962; <sup>1</sup>Sarkina, 2001; <sup>1</sup>Dudka et al., 2004; <sup>1</sup>Sarkina, 2010b; <sup>1</sup>Sarkina, 2011; <sup>1</sup>Sarkina and Prydiuk, 2012; <sup>1</sup>Sarkina and Stavishenko, 2019); **Kabardino-Balkarian Republic** (<sup>1</sup>Shkhagapsoev and Krapivina,

2004); **Kaliningrad Oblast** (<sup>1</sup>Dedkov, Volodina, and Gubareva, 2007; <sup>1</sup>Volodina, 2007); **Karachay-Cherkess Republic** (<sup>1</sup>Kalamees and Botashev, 2000); **Karelia** (<sup>2</sup>Krutov et al., 2014); **Leningrad Oblast** (<sup>1</sup>Stolyarskaya, 1993; <sup>2</sup>Kovalenko and Morozova, 1999a; <sup>2</sup>Popov et al., 2007; <sup>2</sup>Zmitrovich et al., 2015); **Moscow Oblast** (<sup>1</sup>Vishnevsky, 1998); **Penza Oblast** (<sup>1</sup>Ivanov, 1981a); **Perm Krai** (<sup>1</sup>Perevedentseva, Shilkova, and Botalov, 2011); **Ryazan Oblast** (<sup>1</sup>Volosnova, 2014); **Saint Petersburg** (<sup>1</sup>Morozova and Smirnov, 2011; <sup>1</sup>Morozova et al., 2020); **Sevastopol** (<sup>1</sup>Sarkina, 2020c); **Sverdlovsk Oblast** (<sup>1</sup>Stepanova and Sirko, 1977); **Udmurt Republic** (<sup>1</sup>Tychinin and Kuzmina, 2003); **Arid territories** (<sup>1</sup>Rebriev, Rusanov, et al., 2012).

SIBERIA: **Irkutsk Oblast** (<sup>1</sup>Kutafjeva, 1983; <sup>1</sup>Astapenko, 1990b; <sup>1</sup>Muzyka and Penzina, 2017); **Khakassia** (<sup>1</sup>Zauzolkova, 2015; <sup>1</sup>Zauzolkova and Gorbunova, 2016); **Krasnoyarsk Krai** (<sup>1</sup>Beglyanova, 1972a); **Novosibirsk Oblast** (<sup>1</sup>Perova and Gorbunova, 2001; <sup>1</sup>Perova and Gorbunova, 2007); **Tomsk Oblast** (<sup>1</sup>Agaphonova, Kutafjeva, and Gashkov, 2007; <sup>1</sup>Agaphonova, Kutafjeva, and Gashkov, 2009b; <sup>1</sup>Kudashova, Gashkov, and Kutafjeva, 2013; <sup>1</sup>Vaishlya et al., 2017).

FAR EAST: **Amur Oblast** (<sup>1</sup>Taranina, 2005); **Jewish Autonomous Oblast** (<sup>1</sup>Erofeeva, Bukharova, and Bulakh, 2019); **Khabarovsk Krai** (<sup>1</sup>Azbukina et al., 1986; <sup>1</sup>Azbukina et al., 1989; <sup>1</sup>Bulakh, Vassiljeva, and Erofeeva, 2010; <sup>1</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Erofeeva and Bulakh, 2015a); **Magadan Oblast** (<sup>1</sup>Sazanova, 2005; <sup>1</sup>Sazanova, 2009a); **Primorsky Krai** (<sup>1</sup>Vassiljeva, 1972; <sup>1</sup>Vassiljeva, 1973; <sup>1</sup>Bunkina and Nazarova, 1978; <sup>1</sup>Azbukina et al., 1990; <sup>1</sup>Bardunov et al., 2002; <sup>1</sup>Azbukina et al., 2006; <sup>1</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Bulakh et al., 2016).

#### *Tricholoma stans* (Fr.) Sacc.

EASTERN EUROPE: **Belgorod Oblast** (Bedenko, 1980); **Karelia** (Krutov et al., 2014; Savelev and Kikeeva, 2020); **Kirov Oblast** (Kirillov, 2011; Kirillov, Perevedentseva, and Egoshina, 2011); **Leningrad Oblast** (Stolyarskaya, 1993; Kovalenko and Morozova, 1999a; Popov et al., 2007; Zmitrovich et al., 2015); **Saint Petersburg** (Morozova and Smirnov, 2011); **Vologda Oblast** (Kirillova, 2007; Kirillova, 2009).

SIBERIA: **Krasnoyarsk Krai** (Krom and Kapitonov, 2019).

#### *Tricholoma stiparophyllum* (N. Lund) P. Karst.

EASTERN EUROPE: **Kaliningrad Oblast** (Atayev and Volodina, 2020); **Karachay-Cherkess Republic** (Kalamees and Botashev, 2000); **Karelia** (Savelev and Kikeeva, 2018); **Komi Republic** (Palamarchuk and Kirillov, 2017); **Leningrad Oblast** (Thesleff, 1920; Singer, 1943; Bondartseva et al., 2015; Zmitrovich et al., 2015); **Moscow Oblast** (Voronina et al., 2014; Sidorova, Alexandrova, and Voronina, 2017); **Novgorod Oblast** (Morozova, 2012; Popov et al., 2013); **Penza Oblast** (Ivanov, 2019); **Pskov Oblast** (Popov et al., 2013); **Saint Petersburg** (Morozova and Smirnov, 2011; Morozova, Kovalenko, Rebriev, and Malysheva, 2014; Morozova et al., 2020); **Tatarstan** (Potapov, 2016a); **Udmurt Republic** (Kapitonov, 2013).

SIBERIA: **Altai Krai** (Gorbunova, 2018a); **Khanty-Mansi Autonomous Okrug** (Filippova and Bulyonkova, 2017a; Filippova and Bulyonkova, 2017b; Zvyagina and Baykalova, 2017); **Krasnoyarsk Krai** (Krom and Kapitonov, 2019).

#### *Tricholoma striatum* (Schaeff.) Quél.<sup>1</sup>

≡ *Agaricus striatus* Schaeff.<sup>2</sup>

EASTERN EUROPE: **Moscow** (<sup>1</sup>Hennings, 1905; <sup>2</sup>Mosolov, 1906).

#### *Tricholoma sudum* (Fr.) Quél.

EASTERN EUROPE: **Karelia** (Krutov et al., 2014); **Leningrad Oblast** (Kovalenko and Morozova, 1999a; Fomina, 2000; Fomina, 2001; Popov et al., 2007; Zmitrovich et al., 2015); **Moscow Oblast** (Levitskaya, 2006; Levitskaya, 2013); **Tver Oblast** (Kurochkin, 1993); **Vologda Oblast** (Kirillova, 2007; Kirillova, 2009).

SIBERIA: **Khanty-Mansi Autonomous Okrug** (Filippova, Bulyonkova, and Lapshina, 2015; Filippova and Bulyonkova, 2017a; Filippova and Bulyonkova, 2017b); **Krasnoyarsk Krai** (Beglyanova, 1972a); **Tomsk Oblast** (Agaphonova, Kutafjeva, and Gashkov, 2007; Agaphonova, Kutafjeva, and Gashkov, 2009b; Kudashova, Gashkov, and Kutafjeva, 2013; Vaishlya et al., 2017).

FAR EAST: **Primorsky Krai** (Bulakh et al., 2016).

#### *Tricholoma sulphurescens* Bres.

EASTERN EUROPE: **Belgorod Oblast** (Bedenko, 1980); **Samara Oblast** (Malysheva and Malysheva, 2005b; Malysheva and Malysheva, 2008).

SIBERIA: **Altai Republic** (Singer, 1943).

***Tricholoma sulphureum* (Bull.) P. Kumm.<sup>1</sup>**

≡ *Agaricus sulphureus* Bull.<sup>2</sup> ≡ *Tricholoma sulphureum* var. *sulphureum* (Bull.) P. Kumm.<sup>3</sup>

EASTERN EUROPE: **Adygea** (<sup>1</sup>Vaasma, Kalamees, and Raitviir, 1986); **Bashkortostan** (<sup>1</sup>Stepanova and Sirko, 1977); **Belgorod Oblast** (<sup>1</sup>Bedenko, 1980); **Bryansk Oblast** (<sup>1</sup>Kruglikov, 2007); **Chelyabinsk Oblast** (<sup>1</sup>Sirko and Stepanova, 1977); **Crimea** (<sup>1</sup>Moser, 1993; <sup>1</sup>Sarkina, 2001; <sup>1</sup>Dudka et al., 2004; <sup>1</sup>Sarkina, 2010b; <sup>1</sup>Sarkina and Prydiuk, 2012; <sup>1</sup>Sarkina, 2013); **Kabardino-Balkarian Republic** (<sup>1</sup>Shkhagapsoev and Krapivina, 2004); **Kaliningrad Oblast** (<sup>1</sup>Dedkov, Volodina, and Gubareva, 2007; <sup>1</sup>Volodina, 2007; <sup>1</sup>Atayev and Volodina, 2020); **Kaluga Oblast** (<sup>1</sup>Sionova, 2003); **Karelia** (<sup>1</sup>Freindling, 1949; <sup>1</sup>Czerepanova, Perfiljeva, and Tobias, 1982; <sup>1</sup>Bondartseva et al., 2001; <sup>3</sup>Krutov et al., 2014; <sup>1</sup>Savelev and Kikeeva, 2018); **Krasnodar Krai** (<sup>1</sup>Vassiljeva, 1939; <sup>1</sup>Kovalenko, 1980a; <sup>1</sup>Kovalenko, 1980b; <sup>1</sup>Vaasma, Kalamees, and Raitviir, 1986); **Leningrad Oblast** (<sup>1</sup>Thesleff, 1920; <sup>1</sup>Kalamees and Kovalenko, 1984; <sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Morozova and Kovalenko, 2000; <sup>1</sup>Morozova, 2007; <sup>1</sup>Popov et al., 2007; <sup>1</sup>Zmitrovich et al., 2015; <sup>1</sup>Kalinina, 2018); **Lipetsk Oblast** (<sup>1</sup>Alferova, 1977; <sup>1</sup>Rtishcheva, 1999; <sup>1</sup>Sarycheva, 1999; <sup>1</sup>Afanasyev, Rtishcheva, and Starodubtseva, 2007; <sup>1</sup>Sarycheva et al., 2009; <sup>1</sup>Sarycheva, 2011; <sup>1</sup>Sarycheva, 2014a; <sup>1</sup>Sarycheva, 2016; <sup>1</sup>Sarycheva, Starodubtseva, and Sapelnikova, 2017); **Moscow Oblast** (<sup>1</sup>Gorlenko, Sidorova, and Sidorova, 1989; <sup>1</sup>Levitskaya, 1995a; <sup>1</sup>Vishnevsky, 1998; <sup>1</sup>Levitskaya, 2013); **Penza Oblast** (<sup>1</sup>Ivanov, 1981a); **Perm Krai** (<sup>1</sup>Perevedentseva, 2008); **Pskov Oblast** (<sup>1</sup>Popov et al., 2013); **Ryazan Oblast** (<sup>1</sup>Volosnova, 1997; <sup>1</sup>Volosnova, 2014); **Saint Petersburg** (<sup>2</sup>Weinmann, 1836; <sup>2</sup>Weinmann, 1837; <sup>1</sup>Kotkova, Morozova, and Popov, 2007; <sup>1</sup>Morozova et al., 2020); **Sverdlovsk Oblast** (<sup>1</sup>Stepanova and Sirko, 1977); **Tatarstan** (<sup>1</sup>Vassiljeva, 1977); **Tula Oblast** (<sup>1</sup>Svetasheva, 2004); **Udmurt Republic** (<sup>1</sup>Tychinin and Kuzmina, 2003); **Volgograd Oblast** (<sup>1</sup>Burova and Nezdoinogogo, 1982); **Voronezh Oblast** (<sup>1</sup>Chastukhin, 1952; <sup>1</sup>Chastukhin and Nikolaevskaya, 1953; <sup>1</sup>Chastukhin and Nikolaevskaya, 1969; <sup>1</sup>Rtishcheva, 1999; <sup>1</sup>Afanasyev, Rtishcheva, and Starodubtseva, 2007; <sup>1</sup>Selochnik, 2015; <sup>1</sup>Sarycheva, Starodubtseva, and Sapelnikova, 2017; <sup>1</sup>Kochergina and Furmenkova, 2019); **Arid territories** (<sup>1</sup>Rebriev, Rusanov, et al., 2012).

SIBERIA: **Altai Republic** (<sup>1</sup>Gorbunova, 2001b; <sup>1</sup>Perova and Gorbunova, 2001); **Buryatia** (<sup>1</sup>Nezdoinogogo, 1970a; <sup>1</sup>Petrov, 1991); **Irkutsk Oblast** (<sup>1</sup>Astapenko, 1990b); **Krasnoyarsk Krai** (<sup>1</sup>Kryuchkova, 2009); **Tomsk Oblast** (<sup>1</sup>Perova, 1972; <sup>1</sup>Perova and Gorbunova, 2001; <sup>1</sup>Agaphonova, Kutafjeva, and Gashkov, 2007; <sup>3</sup>Kudashova, Gashkov, and Kutafjeva, 2013; <sup>1</sup>Vaishlya et al., 2017).

FAR EAST: **Amur Oblast** (<sup>1</sup>Azbukina et al., 1998); **Primorsky Krai** (<sup>1</sup>Vassiljeva, 1972; <sup>1</sup>Vassiljeva, 1973; <sup>1</sup>Bunkina and Nazarova, 1978; <sup>1</sup>Azbukina et al., 1984; <sup>1</sup>Azbukina et al., 1990; <sup>1</sup>Bardunov et al., 2002; <sup>1</sup>Azbukina et al., 2006; <sup>1</sup>Bau, Bulakh, and Govorova, 2011).

***Tricholoma terreum* (Schaeff.) P. Kumm.<sup>1</sup>**

≡ *Agaricus terreus* Schaeff.<sup>2</sup> = *Agaricus myomyces* Pers.<sup>3</sup> = *Tricholoma myomyces* (Pers.) J.E. Lange<sup>4</sup>

EASTERN EUROPE: **Adygea** (<sup>1</sup>Kovalenko, 1979a; <sup>1</sup>Kovalenko, 1980b); **Belgorod Oblast** (<sup>1</sup>Bedenko, 1980); **Bryansk Oblast** (<sup>1</sup>Kruglikov, 2007); **Chelyabinsk Oblast** (<sup>1</sup>Aleksandrovskaia and Lobanova, 1968); **Crimea** (<sup>1</sup>Sarkina, 2001; <sup>1</sup>Dudka et al., 2004; <sup>1</sup>Sarkina, 2010b; <sup>1</sup>Sarkina, 2011; <sup>1</sup>Sarkina and Prydiuk, 2012; <sup>1</sup>Sarkina, 2013; <sup>1</sup>Sarkina, 2014b; <sup>1</sup>Sarkina and Mironova, 2015; <sup>1</sup>Sarkina, 2016a; <sup>1</sup>Sarkina and Stavishenko, 2019); **Kabardino-Balkarian Republic** (<sup>1</sup>Shkhagapsoev and Krapivina, 2004); **Kaliningrad Oblast** (<sup>1</sup>Dedkov, Volodina, and Gubareva, 2007; <sup>1</sup>Volodina, 2007; <sup>1</sup>Atayev and Volodina, 2020); **Karelia** (<sup>1</sup>Freindling, 1949; <sup>1</sup>Bondartseva et al., 2001; <sup>4</sup>Krutov et al., 2014); **Kirov Oblast** (<sup>1</sup>Kirillov, 2011; <sup>1</sup>Kirillov, Perevedentseva, and Egoshina, 2011); **Komi Republic** (<sup>1</sup>Palamarchuk and Kirillov, 2017); **Krasnodar Krai** (<sup>1</sup>Vassiljeva, 1939; <sup>1</sup>Kovalenko, 1980a; <sup>1</sup>Kovalenko, 1980b); **Kursk Oblast** (<sup>1</sup>Bedenko, 1987); **Leningrad Oblast** (<sup>1</sup>Thesleff, 1920; <sup>1,4</sup>Kovalenko and Morozova, 1999a; <sup>1,4</sup>Morozova and Kovalenko, 2000; <sup>1</sup>Morozova, 2007; <sup>1,4</sup>Popov et al., 2007); **Lipetsk Oblast** (<sup>1</sup>Rtishcheva, 1999; <sup>1</sup>Sarycheva, 1999; <sup>1</sup>Afanasyev, Rtishcheva, and Starodubtseva, 2007; <sup>4</sup>Sarycheva et al., 2009; <sup>4</sup>Sarycheva, 2011; <sup>4</sup>Sarycheva, 2014a; <sup>4</sup>Sarycheva, 2016; <sup>1</sup>Sarycheva, Starodubtseva, and Sapelnikova, 2017); **Moscow** (<sup>2</sup>Bucholtz, 1897b; <sup>2</sup>Bucholtz, 1897c; <sup>2</sup>Mosolov, 1906); **Moscow Oblast** (<sup>1</sup>Gorlenko, Sidorova, and Sidorova, 1989; <sup>1</sup>Levitskaya, 1995b; <sup>1</sup>Vishnevsky, 1998; <sup>1</sup>Levitskaya, 2013; <sup>1</sup>Voronina et al., 2014); **Murmansk Oblast** (<sup>1</sup>Pystina, Pavlova, and Shestakova, 1969); **North Ossetia** (<sup>1</sup>Nikolayev, 2001); **Orenburg Oblast** (<sup>1,4</sup>Desyatova, 2007; <sup>1,4</sup>Desyatova, 2008); **Penza Oblast** (<sup>1</sup>Ivanov, 1981a; <sup>1</sup>Ivanov, 2019); **Perm Krai** (<sup>1</sup>Perevedentseva, 2008; <sup>1</sup>Botalov, 2017); **Pskov Oblast** (<sup>1</sup>Popov et al., 2013); **Rostov Oblast** (<sup>1</sup>Morozova et al., 2008); **Ryazan Oblast** (<sup>1</sup>Volosnova, 1997; <sup>1</sup>Volosnova, 2014); **Saint Petersburg** (<sup>3</sup>Weinmann, 1828; <sup>2</sup>Weinmann, 1836; <sup>2</sup>Weinmann, 1837; <sup>1</sup>Morozova and Smirnov, 2011; <sup>1</sup>Morozova, Kovalenko, Rebriev, and Malysheva, 2014; <sup>1</sup>Morozova et al., 2020); **Samara Oblast** (<sup>1</sup>Malysheva and Malysheva, 2008); **Saratov Oblast** (<sup>1</sup>Nagumanov, 2015); **Sevastopol** (<sup>1</sup>Sarkina and Belyaeva, 2013; <sup>1</sup>Sarkina, 2016b; <sup>1</sup>Sarkina, 2020b; <sup>1</sup>Sarkina, 2020c); **Smolensk Oblast** (<sup>1</sup>Jaczewski, 1896); **Tatarstan** (<sup>1</sup>Potapov, 2016b); **Tula Oblast** (<sup>1</sup>Svetasheva, 2001; <sup>1,4</sup>Svetasheva, 2004); **Tver Oblast** (<sup>1</sup>Kurochkin, 1993); **Udmurt Republic** (<sup>1</sup>Tychinin, 1990; <sup>1</sup>Tychinin and Kuzmina, 2003); **Ulyanovsk Oblast** (<sup>1</sup>Ilyukhin, 2009; <sup>1</sup>Ilyukhin, 2010a; <sup>4</sup>Ilyukhin, 2010b); **Vologda Oblast** (<sup>1,4</sup>Kirillova, 2007; <sup>1,4</sup>Kirillova, 2009); **Voronezh Oblast** (<sup>1</sup>Bedenko, 1987; <sup>1</sup>Rtishcheva, 1999);

<sup>1</sup>Afanasyev, Rtishcheva, and Starodubtseva, 2007; <sup>1</sup>Sarycheva, Starodubtseva, and Sapelnikova, 2017); **Yaroslavl Oblast** (<sup>1</sup>Lazareva, 1997; <sup>4</sup>Lazareva, 1998a); **Arid territories** (<sup>1</sup>Rebriev, Rusanov, et al., 2012).

SIBERIA: **Altai Krai** (<sup>1</sup>Gorbunova and Perova, 2006); **Altai Republic** (<sup>1</sup>Gorbunova, 1997; <sup>1</sup>Gorbunova, 2001b); **Buryatia** (<sup>1</sup>Nezdojminogo, 1970a); **Irkutsk Oblast** (<sup>1</sup>Kutafjeva, 1983; <sup>1</sup>Petrov, 1984; <sup>1</sup>Astapenko, 1990b; <sup>4</sup>Petrov, 1991; <sup>1</sup>Muzyka, 2002; <sup>1,4</sup>Petrov, 2008); **Khakassia** (<sup>1</sup>Beglyanova, 1972a; <sup>1</sup>Gorbunova and Majnagasheva, 2013; <sup>1</sup>Zauzolkova, 2015); **Krasnoyarsk Krai** (<sup>1</sup>Beglyanova, 1972a; <sup>1</sup>Zauzolkova, 2012; <sup>1</sup>Kryuchkova, 2014a; <sup>1</sup>Zauzolkova, 2015; <sup>1</sup>Krom and Kapitonov, 2019); **Novosibirsk Oblast** (<sup>1</sup>Zaytseva, 1971; <sup>1</sup>Perova, 1977; <sup>4</sup>Gorbunova, 2007; <sup>4</sup>Perova and Gorbunova, 2007; <sup>1</sup>Koropachinskiy and Banaev, 2014); **Sverdlovsk Oblast** (<sup>1</sup>Stepanova and Sirko, 1977); **Tomsk Oblast** (<sup>1</sup>Perova, 1972; <sup>1</sup>Agaphonova, Kutafjeva, and Gashkov, 2007; <sup>1</sup>Kudashova, Gashkov, and Kutafjeva, 2013; <sup>1</sup>Vaishlya et al., 2017).

FAR EAST: **Amur Oblast** (<sup>1</sup>Taranina, 2005; <sup>1</sup>Kochunova and Erofeeva, 2017; <sup>1</sup>Kochunova, 2019); **Chukotka Autonomous Okrug** (<sup>1</sup>Sazanova, 1993); **Jewish Autonomous Oblast** (<sup>1</sup>Bulakh, Govorova, Nazarova, and Vassiljeva, 2007; <sup>4</sup>Bau, Bulakh, and Govorova, 2011); **Magadan Oblast** (<sup>1</sup>Sazanova, 2005; <sup>4</sup>Sazanova, 2009a; <sup>4</sup>Sazanova, 2011); **Primorsky Krai** (<sup>1</sup>Vassiljeva, 1972; <sup>1</sup>Vassiljeva, 1973; <sup>1</sup>Bunkina and Nazarova, 1978; <sup>1</sup>Azbukina et al., 1984; <sup>1</sup>Azbukina et al., 2006; <sup>4</sup>Bau, Bulakh, and Govorova, 2011); **Sakhalin Oblast** (<sup>1</sup>Vassiljeva and Nazarova, 1972).

### *Tricholoma triste* (Scop.) Quél.

EASTERN EUROPE: **Belgorod Oblast** (Bedenko, 1980); **Crimea** (Sarkina and Mironova, 2015); **Kursk Oblast** (Bedenko, 1987); **Lipetsk Oblast** (Alferova, 1977; Sarycheva, 1999; Sarycheva et al., 2009; Sarycheva, 2011; Sarycheva, 2014a; Sarycheva, 2016); **Moscow Oblast** (Vishnevsky, 1998; Levitskaya, 2006; Levitskaya, 2013); **Perm Krai** (Perevedentseva, 2008); **Pskov Oblast** (Popov et al., 2013); **Saint Petersburg** (Morozova and Smirnov, 2011); **Udmurt Republic** (Tychinin and Kuzmina, 2003); **Voronezh Oblast** (Bedenko, 1987).

SIBERIA: **Tomsk Oblast** (Perova, 1972; Perova and Gorbunova, 2001; Agaphonova, Kutafjeva, and Gashkov, 2007; Kudashova, Gashkov, and Kutafjeva, 2013; Vaishlya et al., 2017).

FAR EAST: **Magadan Oblast** (Nazarova, 1976; Sazanova, 2005; Sazanova, 2009a); **Primorsky Krai** (Vassiljeva, 1973).

### *Tricholoma tumidum* (Pers.) P. Karst.

≡ *Agaricus tumidus* Pers.<sup>1</sup>

EASTERN EUROPE: **Saint Petersburg** (<sup>1</sup>Weinmann, 1828; <sup>1</sup>Weinmann, 1836; <sup>1</sup>Weinmann, 1837).

### *Tricholoma ustale* (Fr.) P. Kumm.<sup>1</sup>

≡ *Agaricus ustalis* Fr.<sup>2</sup>

EASTERN EUROPE: **Belgorod Oblast** (<sup>1</sup>Bedenko, 1980); **Kostroma Oblast** (<sup>1</sup>Burova, 1982); **Leningrad Oblast** (<sup>1</sup>Thesleff, 1920; <sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Popov et al., 2007); **Ryazan Oblast** (<sup>1</sup>Volosnova, 1997; <sup>1</sup>Volosnova, 2014); **Saint Petersburg** (<sup>2</sup>Weinmann, 1828; <sup>2</sup>Weinmann, 1836; <sup>2</sup>Weinmann, 1837); **Sverdlovsk Oblast** (<sup>1</sup>Stepanova and Sirko, 1977).

SIBERIA: **Irkutsk Oblast** (<sup>1</sup>Kutafjeva, 1989); **Krasnoyarsk Krai** (<sup>2</sup>Thümen, 1878; <sup>1</sup>Beglyanova, 1972a; <sup>1</sup>Zauzolkova, 2015); **Tomsk Oblast** (<sup>1</sup>Agaphonova, Kutafjeva, and Gashkov, 2007; <sup>1</sup>Agaphonova, Kutafjeva, and Gashkov, 2009b; <sup>1</sup>Kudashova, Gashkov, and Kutafjeva, 2013; <sup>1</sup>Kudashova, Gashkov, and Vaishlya, 2016b).

FAR EAST: **Amur Oblast** (<sup>1</sup>Azbukina et al., 1998; <sup>1</sup>Taranina, 2005; <sup>1</sup>Bogacheva et al., 2018; <sup>1</sup>Kochunova, 2019); **Jewish Autonomous Oblast** (<sup>1</sup>Bulakh, Govorova, Nazarova, and Vassiljeva, 2007; <sup>1</sup>Bogacheva et al., 2018; <sup>1</sup>Erofeeva, Bukharova, and Bulakh, 2019); **Khabarovsk Krai** (<sup>1</sup>Erofeeva and Bulakh, 2015a; <sup>1</sup>Bogacheva et al., 2018); **Magadan Oblast** (<sup>1</sup>Nazarova, 1976; <sup>1</sup>Sazanova, 2005; <sup>1</sup>Sazanova, 2009a); **Primorsky Krai** (<sup>1</sup>Vassiljeva, 1973; <sup>1</sup>Azbukina et al., 1990; <sup>1</sup>Bardunov et al., 2002; <sup>1</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Bogacheva et al., 2018); **Sakhalin Oblast** (<sup>1</sup>Vassiljeva and Nazarova, 1972).

### *Tricholoma ustaloides* Romagn.

EASTERN EUROPE: **Penza Oblast** (Ivanov, 1989); **Arid territories** (Rebriev, Rusanov, et al., 2012).

SIBERIA: **Tomsk Oblast** (Kudashova, Gashkov, and Kutafjeva, 2013; Kudashova, Gashkov, and Vaishlya, 2016b).

### *Tricholoma vaccinum* (Schaeff.) P. Kumm.<sup>1</sup>

≡ *Agaricus vaccinum* Schaeff.<sup>2</sup> ≡ *Cortinellus vaccinum* (Schaeff.) P. Karst.<sup>3</sup>

EASTERN EUROPE: **Belgorod Oblast** (<sup>1</sup>Bedenko, 1979a; <sup>1</sup>Bedenko, 1980); **Crimea** (<sup>1</sup>Sarkina, 2020a); **Komi Republic** (<sup>1</sup>Palamarchuk and Kirillov, 2017; <sup>1</sup>Palamarchuk, 2020a); **Leningrad Oblast** (<sup>1</sup>Thesleff, 1920; <sup>1</sup>Kovalenko

and Morozova, 1999a; <sup>1</sup>Popov et al., 2007); **Moscow** (<sup>3</sup>Bucholtz, 1897a); **Moscow Oblast** (<sup>1</sup>Levitskaya, 1995a; <sup>1</sup>Vishnevsky, 1998; <sup>1</sup>Levitskaya, 2013); **Novgorod Oblast** (<sup>1</sup>Bolshakov et al., 2020); **Penza Oblast** (<sup>1</sup>Ivanov, 1986); **Perm Krai** (<sup>1</sup>Perevedentseva, 2008; <sup>1</sup>Botalov, 2017); **Saint Petersburg** (<sup>2</sup>Weinmann, 1828; <sup>1</sup>Morozova and Smirnov, 2011); **Sevastopol** (<sup>1</sup>Sarkina, 2020c); **Smolensk Oblast** (<sup>1</sup>Jaczewski, 1898); **Sverdlovsk Oblast** (<sup>1</sup>Stepanova and Sirko, 1977; <sup>1</sup>Marina, 2006); **Udmurt Republic** (<sup>1</sup>Kapitonov, 2013); **Vologda Oblast** (<sup>1</sup>Kirillova, 2007; <sup>1</sup>Kirillova, 2009); **Yaroslavl Oblast** (<sup>1</sup>Lazareva, 1998a).

SIBERIA: **Altai Republic** (<sup>1</sup>Gorbunova, 2008; <sup>1</sup>Gorbunova, 2017b); **Buryatia** (<sup>1</sup>Penzina and Petrov, 1994); **Irkutsk Oblast** (<sup>1</sup>Petrov, 1984; <sup>1</sup>Kutafjeva and Astapenko, 1988; <sup>1</sup>Petrov, 1991; <sup>1</sup>Petrov, 2008); **Khanty-Mansi Autonomous Okrug** (<sup>1</sup>Zvyagina and Baykalova, 2017); **Krasnoyarsk Krai** (<sup>1</sup>Beglyanova, 1972a; <sup>1</sup>Malysheva, Malysheva, Kiyashko, et al., 2017; <sup>1</sup>Krom and Kapitonov, 2019); **Tomsk Oblast** (<sup>1</sup>Perova and Gorbunova, 2001; <sup>1</sup>Kosheleva and Kutafjeva, 2004; <sup>1</sup>Agaphonova, Kutafjeva, and Gashkov, 2007; <sup>1</sup>Kudashova, Gashkov, and Kutafjeva, 2013; <sup>1</sup>Vaishlya et al., 2017); **Tyva Republic** (<sup>1</sup>Gorbunova, 2015).

FAR EAST: **Amur Oblast** (<sup>1</sup>Kochunova and Erofeeva, 2017); **Jewish Autonomous Oblast** (<sup>1</sup>Bulakh, Govorova, Nazarova, and Vassiljeva, 2007; <sup>1</sup>Bau, Bulakh, and Govorova, 2011); **Khabarovsk Krai** (<sup>1</sup>Azbukina et al., 1986; <sup>1</sup>Bulakh, Vassiljeva, and Erofeeva, 2010; <sup>1</sup>Bau, Bulakh, and Govorova, 2011); **Primorsky Krai** (<sup>1</sup>Vassiljeva, 1972; <sup>1</sup>Vassiljeva, 1973; <sup>1</sup>Bulakh, 1977; <sup>1</sup>Bunkina and Nazarova, 1978; <sup>1</sup>Azbukina et al., 1984; <sup>1</sup>Azbukina et al., 2006; <sup>1</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Bulakh et al., 2016); **Sakhalin Oblast** (<sup>1</sup>Vassiljeva and Nazarova, 1972).

### ***Tricholoma virgatum* (Fr.) P. Kumm.<sup>1</sup>**

≡ *Agaricus virgatus* Fr.<sup>2</sup>

EASTERN EUROPE: **Adygea** (<sup>1</sup>Vaasma, Kalamees, and Raitviir, 1986); **Crimea** (<sup>1</sup>Sarkina and Prydiuk, 2012); **Kaliningrad Oblast** (<sup>1</sup>Dedkov, Volodina, and Gubareva, 2007); **Kaluga Oblast** (<sup>1</sup>Sionova, 2009; <sup>1</sup>Antokhina et al., 2015); **Karachay-Cherkess Republic** (<sup>1</sup>Kalamees and Botashev, 2000); **Karelia** (<sup>1</sup>Kovalenko, Morozova, Fomina, and Särkisilta, 1998; <sup>1</sup>Bondartseva et al., 2001; <sup>1</sup>Krutov et al., 2014); **Kirov Oblast** (<sup>1</sup>Stavishenko, Luginina, Kirillov, and Egoshina, 2019); **Komi Republic** (<sup>1</sup>Palamarchuk, 2012; <sup>1</sup>Palamarchuk and Kirillov, 2017; <sup>1</sup>Palamarchuk and Kirillov, 2018a); **Krasnodar Krai** (<sup>1</sup>Vassiljeva, 1939); **Kursk Oblast** (<sup>1</sup>Bedenko, 1987); **Leningrad Oblast** (<sup>2</sup>Weinmann, 1836; <sup>1</sup>Thesleff, 1920; <sup>1</sup>Stolyarskaya, 1993; <sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Fomina, 2000; <sup>1</sup>Fomina, 2001; <sup>1</sup>Morozova, 2007; <sup>1</sup>Popov et al., 2007; <sup>1</sup>Zmitrovich et al., 2015); **Moscow Oblast** (<sup>1</sup>Gorlenko, Sidorova, and Sidorova, 1989; <sup>1</sup>Levitskaya, 1995a; <sup>1</sup>Vishnevsky, 1998; <sup>1</sup>Levitskaya, 2013; <sup>1</sup>Voronina et al., 2014); **Penza Oblast** (<sup>1</sup>Ivanov, 1983); **Perm Krai** (<sup>1</sup>Perevedentseva, 2008; <sup>1</sup>Botalov, 2017); **Ryazan Oblast** (<sup>1</sup>Volosnova, 1997; <sup>1</sup>Volosnova, 2014); **Saint Petersburg** (<sup>2</sup>Weinmann, 1837; <sup>1</sup>Morozova and Smirnov, 2011); **Sverdlovsk Oblast** (<sup>1</sup>Marina, 2006); **Tatarstan** (<sup>1</sup>Potapov, 2016a); **Tula Oblast** (<sup>1</sup>Svetasheva, 2004; <sup>1</sup>Svetasheva, 2005b; <sup>1</sup>Shcherbakov, 2010); **Tver Oblast** (<sup>1</sup>Mukhina and Garibova, 2010; <sup>1</sup>Mukhina, 2011a; <sup>1</sup>Mukhina, 2011b; <sup>1</sup>Kotkova, 2014); **Udmurt Republic** (<sup>1</sup>Tychinin and Kuzmina, 2003); **Ulyanovsk Oblast** (<sup>1</sup>Ilyukhin, 2010a); **Vologda Oblast** (<sup>1</sup>Kirillova, 2007; <sup>1</sup>Kirillova, 2009); **Voronezh Oblast** (<sup>1</sup>Bedenko, 1987).

SIBERIA: **Altai Republic** (<sup>1</sup>Gorbunova, 2001b; <sup>1</sup>Perova and Gorbunova, 2001); **Buryatia** (<sup>1</sup>Nezdojminogo, 1970a); **Irkutsk Oblast** (<sup>1</sup>Petrov, 1984; <sup>1</sup>Kutafjeva, 1989; <sup>1</sup>Petrov, 1989; <sup>1</sup>Astapenko, 1990b; <sup>1</sup>Muzyka, 2002; <sup>1</sup>Petrov, 2008; <sup>1</sup>Muzyka, 2009; <sup>1</sup>Muzyka and Penzina, 2017); **Khanty-Mansi Autonomous Okrug** (<sup>1</sup>Filippova, Bulyonkova, and Lapshina, 2015; <sup>1</sup>Filippova and Bulyonkova, 2017a; <sup>1</sup>Filippova and Bulyonkova, 2017b; <sup>1</sup>Zvyagina and Baykalova, 2017); **Krasnoyarsk Krai** (<sup>1</sup>Nezdojminogo, 1976a; <sup>1</sup>Lapitskaya, 1993; <sup>1</sup>Krom and Kapitonov, 2019); **Tomsk Oblast** (<sup>1</sup>Perova, 1972; <sup>1</sup>Milovidova, 1980; <sup>1</sup>Perova and Gorbunova, 2001; <sup>1</sup>Agaphonova, Kutafjeva, and Gashkov, 2007; <sup>1</sup>Kudashova, Gashkov, and Kutafjeva, 2013; <sup>1</sup>Vaishlya et al., 2017).

FAR EAST: **Amur Oblast** (<sup>1</sup>Bulakh, Govorova, and Taranina, 2003); **Khabarovsk Krai** (<sup>1</sup>Azbukina et al., 1986; <sup>1</sup>Azbukina et al., 1989; <sup>1</sup>Bulakh, Vassiljeva, and Erofeeva, 2010; <sup>1</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Bulakh, 2013; <sup>1</sup>Bogacheva, Bulakh, Bukharova, and Egorova, 2015; <sup>1</sup>Erofeeva and Bulakh, 2015a); **Magadan Oblast** (<sup>1</sup>Nazarova, 1976; <sup>1</sup>Sazanova, 2005; <sup>1</sup>Sazanova, 2009a); **Primorsky Krai** (<sup>1</sup>Vassiljeva, 1973; <sup>1</sup>Bunkina and Nazarova, 1978; <sup>1</sup>Azbukina et al., 1984; <sup>1</sup>Azbukina et al., 1990; <sup>1</sup>Bardunov et al., 2002; <sup>1</sup>Azbukina et al., 2006; <sup>1</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Bulakh et al., 2016).

### ***Tricholoma viridilutescens* M.M. Moser**

SIBERIA: **Khanty-Mansi Autonomous Okrug** (Filippova, Bulyonkova, and Lapshina, 2015; Filippova and Bulyonkova, 2017a; Filippova and Bulyonkova, 2017b).

### ***Tricholomella constricta* (Fr.) Zerova ex Kalamees<sup>1</sup>**

≡ *Armillaria constricta* (Fr.) Gillet<sup>2</sup> ≡ *Calocybe constricta* (Fr.) Kühner<sup>3</sup> ≡ *Lyophyllum constrictum* (Fr.) Singer<sup>4</sup> ≡ *Tricholoma constrictum* (Fr.) Ricken<sup>5</sup> = *Calocybe leucocephala* (Bull.) Singer<sup>6</sup> = *Tricholoma leucocephalum* (Bull.) Qué<sup>7</sup>.

EASTERN EUROPE: **Kaliningrad Oblast** (<sup>1,3</sup>Dedkov, Volodina, and Gubareva, 2007); **Leningrad Oblast** (<sup>2,7</sup>Thesleff, 1920; <sup>5</sup>Singer, 1938b; <sup>4</sup>Singer, 1943; <sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Kalamees, 2004; <sup>1</sup>Popov et al., 2007); **Moscow Oblast** (<sup>6</sup>Gorlenko, Sidorova, and Sidorova, 1989; <sup>3</sup>Vishnevsky, 1998); **Rostov Oblast** (<sup>3</sup>Vyshchepan, 1992); **Ryazan Oblast** (<sup>3</sup>Volosnova, 2005; <sup>3</sup>Volosnova, 2014); **Saint Petersburg** (<sup>1</sup>Kovalenko and Morozova, 1999a); **Arid territories** (<sup>3</sup>Rebriev, Rusanov, et al., 2012).

FAR EAST: **Khabarovsk Krai** (<sup>6</sup>Azbukina et al., 1986; <sup>3</sup>Bau, Bulakh, and Govorova, 2011); **Primorsky Krai** (<sup>3,6</sup>Vassiljeva, 1973; <sup>3,6</sup>Bunkina and Nazarova, 1978; <sup>3,6</sup>Azbukina et al., 2006; <sup>3</sup>Bau, Bulakh, and Govorova, 2011).

### *Tricholomopsis decora* (Fr.) Singer<sup>1</sup>

≡ *Agaricus decorus* Fr.<sup>2</sup> ≡ *Pleurotus decorus* (Fr.) Sacc.<sup>3</sup> ≡ *Tricholoma decorum* (Fr.) Quél.<sup>4</sup> ≡ *Tricholomopsis decora* f. *decora* (Fr.) Singer<sup>5</sup> = *Tricholomopsis decora* f. *longispora* A.N. Petrov<sup>6</sup>

EASTERN EUROPE: **Adygea** (<sup>4</sup>Vassiljeva, 1939; <sup>1</sup>Kovalenko, 1980b; <sup>1</sup>Vaasma, Kalamees, and Raitviir, 1986); **Kaliningrad Oblast** (<sup>1</sup>Dedkov, Volodina, and Gubareva, 2007; <sup>1</sup>Volodina, 2007); **Kaluga Oblast** (<sup>1</sup>Sionova, 2012); **Karachay-Cherkess Republic** (<sup>4</sup>Vassiljeva, 1939; <sup>1</sup>Kalamees and Botashev, 2000); **Karelia** (<sup>4</sup>Freindling, 1949; <sup>1</sup>Bondartseva et al., 2001; <sup>1</sup>Predtechenskaya and Ruokolainen, 2008; <sup>1</sup>Predtechenskaya and Ruokolainen, 2013; <sup>1</sup>Krutov et al., 2014; <sup>1</sup>Predtechenskaya and Ruokolainen, 2014; <sup>1</sup>Predtechenskaya, 2015); **Komi Republic** (<sup>1</sup>Bobretsova, 2004; <sup>1</sup>Taskaev, 2009; <sup>1</sup>Palamarchuk, 2011b; <sup>1</sup>Palamarchuk, 2012; <sup>1</sup>Palamarchuk and Kirillov, 2014; <sup>1</sup>Palamarchuk, 2016a; <sup>1</sup>Palamarchuk, 2016b; <sup>1</sup>Palamarchuk, 2017); **Krasnodar Krai** (<sup>4</sup>Vassiljeva, 1939; <sup>1</sup>Kovalenko, 1980a; <sup>1</sup>Kovalenko, 1980b; <sup>1</sup>Vaasma, Kalamees, and Raitviir, 1986); **Leningrad Oblast** (<sup>2</sup>Weinmann, 1836; <sup>4</sup>Thesleff, 1920; <sup>1</sup>Kalamees and Kovalenko, 1984; <sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Popov et al., 2007; <sup>1</sup>Psurtseva, Kiyashko, Gachkova, and Belova, 2007; <sup>1</sup>Zmitrovich et al., 2015); **Lipetsk Oblast** (<sup>1</sup>Sarycheva et al., 2009); **Mordovia** (<sup>1</sup>Bolshakov, 2015); **Moscow Oblast** (<sup>1</sup>Levitskaya, 1995b; <sup>1</sup>Vishnevsky, 1998; <sup>1</sup>Levitskaya, 2013); **Novgorod Oblast** (<sup>1</sup>Kovalenko, Morozova, Nezdoyminogo, and Popov, 2005; <sup>1</sup>Popov et al., 2013); **Perm Krai** (<sup>1</sup>Perevedentseva, 2008; <sup>1</sup>Shepel', 2008; <sup>1</sup>Belkovskaya et al., 2014; <sup>1</sup>Botalov, 2017; <sup>1</sup>Baklanov, 2018); **Ryazan Oblast** (<sup>1</sup>Volosnova, 2005; <sup>1</sup>Volosnova, 2014); **Saint Petersburg** (<sup>2</sup>Weinmann, 1828; <sup>2</sup>Weinmann, 1836; <sup>2</sup>Weinmann, 1837; <sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Morozova and Kovalenko, 2000; <sup>1</sup>Kotkova, Morozova, and Popov, 2006; <sup>1</sup>Morozova and Smirnov, 2011; <sup>1</sup>Morozova et al., 2020); **Sverdlovsk Oblast** (<sup>1</sup>Marina, 2006); **Tatarstan** (<sup>1</sup>Potapov, 2016b); **Tula Oblast** (<sup>1</sup>Svetasheva, 2004); **Udmurt Republic** (<sup>1</sup>Tychinin, 1990; <sup>1</sup>Kapitonov, 2013); **Vologda Oblast** (<sup>1</sup>Kirillova, 2007; <sup>1</sup>Kirillova, 2009); **Voronezh Oblast** (<sup>3</sup>Chastukhin and Nikolaevskaya, 1953; <sup>1</sup>Chastukhin and Nikolaevskaya, 1969); **Yamalo-Nenets Autonomous Okrug** (<sup>1</sup>Kazanthseva, 1970; <sup>1</sup>Stepanova and Sirko, 1977).

SIBERIA: **Altai Krai** (<sup>1</sup>Gorbunova and Chubarova, 2008; <sup>1</sup>Gorbunova, Vlasenko, and Tzhubarova, 2011); **Altai Republic** (<sup>1</sup>Singer, 1943; <sup>1</sup>Kovalenko, 1992; <sup>1</sup>Gorbunova, 1996; <sup>1</sup>Gorbunova, 1997; <sup>1</sup>Gorbunova, 2001a; <sup>1</sup>Gorbunova, 2001b; <sup>1</sup>Gorbunova, 2010); **Buryatia** (<sup>1</sup>Nezdoyminogo, 1970a); **Irkutsk Oblast** (<sup>6</sup>Petrov, 1983; <sup>5,6</sup>Petrov, 1984; <sup>1</sup>Kutafjeva and Astapenko, 1987; <sup>1</sup>Petrov, 1989; <sup>1</sup>Astapenko, 1990a; <sup>6</sup>Petrov, 1991; <sup>5,6</sup>Petrov, 2008; <sup>1</sup>Muzyka and Penzina, 2017); **Khanty-Mansi Autonomous Okrug** (<sup>1</sup>Filippova, Bulyonkova, and Lapshina, 2015; <sup>1</sup>Zvyagina and Vasina, 2015; <sup>1</sup>Filippova and Bulyonkova, 2017a; <sup>1</sup>Filippova and Bulyonkova, 2017b); **Krasnoyarsk Krai** (<sup>1</sup>Beglyanova, 1972a; <sup>1</sup>Nezdoyminogo, 1976a; <sup>1</sup>Kutafjeva and Kosheleva, 2005; <sup>1</sup>Kosheleva and Kutafjeva, 2008a; <sup>1</sup>Malysheva, Malysheva, Kiyashko, et al., 2017; <sup>1</sup>Krom and Kapitonov, 2019); **Novosibirsk Oblast** (<sup>1</sup>Gorbunova, 2007; <sup>1</sup>Perova and Gorbunova, 2007); **Tomsk Oblast** (<sup>1</sup>Kudashova, Gashkov, and Kutafjeva, 2013; <sup>1</sup>Kudashova, Gashkov, and Vaishlya, 2016b); **Tyva Republic** (<sup>1</sup>Gorbunova, 2015).

FAR EAST: **Amur Oblast** (<sup>1</sup>Kochunova, 2016); **Khabarovsk Krai** (<sup>1</sup>Azbukina et al., 1986; <sup>1</sup>Azbukina et al., 1989; <sup>1</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Bulakh, 2013; <sup>1</sup>Bogacheva, Bulakh, Bukharova, and Egorova, 2015; <sup>1</sup>Erofeeva and Bulakh, 2015a); **Magadan Oblast** (<sup>1</sup>Nazarova, 1976; <sup>1</sup>Sazanova, 1996; <sup>1</sup>Sazanova, 2005; <sup>1</sup>Sazanova, 2009a; <sup>1</sup>Sazanova, 2011); **Primorsky Krai** (<sup>1</sup>Vassiljeva, 1973; <sup>1</sup>Shalapugina, 1976; <sup>1</sup>Bunkina and Nazarova, 1978; <sup>1</sup>Azbukina et al., 1984; <sup>1</sup>Kovalenko and Nezdoyminogo, 1989; <sup>1</sup>Bardunov et al., 2002; <sup>1</sup>Azbukina et al., 2006; <sup>1</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Bulakh et al., 2016; <sup>1</sup>Bogacheva, Bulakh, Bukharova, and Egorova, 2020); **Sakhalin Oblast** (<sup>1</sup>Vassiljeva and Nazarova, 1972).

### *Tricholomopsis flammula* Métrod ex Holec<sup>1</sup>

≡ *Tricholomopsis flammula* Métrod<sup>2</sup> ≡ *Tricholomopsis rutilans* var. *flammula* (Métrod ex Holec) Gminder<sup>3</sup>

EASTERN EUROPE: **Komi Republic** (Palamarchuk (Bobretsova), 2009 [as *Tricholomopsis ornata* (Fr.) Singer, redet. in Palamarchuk and Kirillov, 2014]; Palamarchuk, 2012 [as *Tricholomopsis ornata* (Fr.) Singer, redet. in Palamarchuk and Kirillov, 2014]; <sup>1</sup>Palamarchuk and Kirillov, 2014; <sup>1</sup>Palamarchuk and Kirillov, 2017); **Lipetsk Oblast** (<sup>2</sup>Sarycheva et al., 2009; <sup>1</sup>Sarycheva, 2011); **Sverdlovsk Oblast** (<sup>2</sup>Marina, 2006); **Vologda Oblast** (<sup>2</sup>Kirillova, 2007; <sup>2</sup>Kirillova, 2009).

SIBERIA: **Altai Krai** (<sup>2</sup>Gorbunova, 2018a); **Altai Republic** (<sup>1</sup>Gorbunova, 2017a); **Krasnoyarsk Krai** (<sup>1</sup>Krom and Kapitonov, 2019); **Tomsk Oblast** (<sup>2</sup>Kudashova, Gashkov, and Kutafjeva, 2013; <sup>3</sup>Kudashova, Gashkov, and Vaishlya, 2016b).

***Tricholomopsis ornata* (Fr.) Singer**

EASTERN EUROPE: **Adygea** (Zamotajlov, Sirotyuk (Kuvaeva), Akatova, and Lipka, 2012); **Chelyabinsk Oblast** (Stepanova and Sirko, 1977); **Kaliningrad Oblast** (Dedkov, Volodina, and Gubareva, 2007; Volodina, 2007); **Karachay-Cherkess Republic** (Kalamees and Botashev, 2000).

SIBERIA: **Altai Republic** (Singer, 1943); **Irkutsk Oblast** (Kutafjeva, 1983); **Khanty-Mansi Autonomous Okrug** (Zvyagina, 2008; Shepeleva et al., 2014; Zvyagina and Vasina, 2015); **Tomsk Oblast** (Agaphonova, Kutafjeva, and Gashkov, 2007; Kudashova, Gashkov, and Kutafjeva, 2013; Kudashova, Gashkov, and Vaishlya, 2016b).

***Tricholomopsis rutilans* (Schaeff.) Singer<sup>1</sup>**

≡ *Agaricus rutilans* Schaeff.<sup>2</sup> ≡ *Tricholoma rutilans* (Schaeff.) P. Kumm.<sup>3</sup> = *Tricholoma variegatum* (Scop.) Gillet<sup>4</sup> = *Tricholomopsis variegata* (Scop.) Singer<sup>5</sup>

EASTERN EUROPE: **Adygea** (<sup>1</sup>Vaasma, Kalamees, and Raitviir, 1986); **Arkhangelsk Oblast** (<sup>3</sup>Lebedeva, 1933); **Bashkortostan** (<sup>1</sup>Stepanova and Sirko, 1977); **Bryansk Oblast** (<sup>1</sup>Kruglikov, 2007); **Chechen Republic** (<sup>1</sup>Taysumov, Krapivina, and Kushalieva, 2016); **Chelyabinsk Oblast** (<sup>3</sup>Aleksandrovskaya and Lobanova, 1968; <sup>1</sup>Stepanova and Sirko, 1977; <sup>3</sup>Sirko and Stepanova, 1977; <sup>1</sup>Krasutsky, 2013; <sup>1</sup>Krasutsky, 2014); **Crimea** (<sup>1</sup>Sarkina, 2001; <sup>1</sup>Dudka et al., 2004; <sup>1</sup>Sarkina and Prydiuk, 2012; <sup>1</sup>Isikov, 2020); **Kabardino-Balkarian Republic** (<sup>1,3</sup>Shkhagapsoev and Krapivina, 2004); **Kaliningrad Oblast** (<sup>1</sup>Dedkov, Volodina, and Gubareva, 2007; <sup>1</sup>Volodina, 2007); **Kaluga Oblast** (<sup>1</sup>Sionova, 2003); **Karachay-Cherkess Republic** (<sup>3</sup>Vassiljeva, 1939; <sup>1</sup>Kalamees and Botashev, 2000); **Karelia** (<sup>3</sup>Freindling, 1949; <sup>1</sup>Kovalenko, Morozova, Fomina, and Särkisilta, 1998; <sup>1</sup>Bondartseva et al., 2001; <sup>1</sup>Predtechenskaya and Ruokolainen, 2008; <sup>1</sup>Krutov et al., 2014; <sup>1</sup>Savelev and Kikeeva, 2020); **Kirov Oblast** (<sup>3</sup>Lebedeva, 1926; <sup>1</sup>Kirillov, 2011; <sup>1</sup>Kirillov, Perevedentseva, and Egoshina, 2011; <sup>1</sup>Stavishenko, Luginina, Kirillov, and Egoshina, 2019); **Komi Republic** (<sup>1</sup>Bobretsova, 2004; <sup>1</sup>Palamarchuk, 2012; <sup>1</sup>Palamarchuk and Kirillov, 2014; <sup>1</sup>Palamarchuk, 2016a; <sup>1</sup>Palamarchuk, 2016b); **Krasnodar Krai** (<sup>3</sup>Vassiljeva, 1939; <sup>1</sup>Kovalenko, 1980a; <sup>1</sup>Kovalenko, 1980b; <sup>1</sup>Vaasma, Kalamees, and Raitviir, 1986); **Kursk Oblast** (<sup>1</sup>Bedenko, 1987); **Leningrad Oblast** (<sup>3,4</sup>Thesleff, 1920; <sup>1</sup>Kalamees and Kovalenko, 1984; <sup>1</sup>Stolyarskaya, 1989; <sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Morozova, 2007; <sup>1</sup>Popov et al., 2007; <sup>1</sup>Zmitrovich et al., 2015; <sup>1</sup>Malysheva, Malysheva, Shchepin, and Novozhilov, 2018); **Lipetsk Oblast** (<sup>1</sup>Rtishcheva, 1999; <sup>1</sup>Sarycheva, 1999; <sup>1</sup>Afanasyev, Rtishcheva, and Starodubtseva, 2007; <sup>1</sup>Sarycheva et al., 2009; <sup>1</sup>Sarycheva, 2011; <sup>1</sup>Sarycheva, 2014a; <sup>1</sup>Sarycheva, 2016; <sup>1</sup>Sarycheva, Starodubtseva, and Sapelnikova, 2017); **Mordovia** (<sup>3</sup>Chastukhin, 1948a; <sup>1</sup>Chastukhin and Nikolaevskaya, 1969; <sup>1</sup>Ivoilov and Bolshakov, 2011a; <sup>3</sup>Chastukhin, 2011); **Moscow** (<sup>3</sup>Burova, 1968); **Moscow Oblast** (<sup>1</sup>Gorlenko, Sidorova, and Sidorova, 1989; <sup>1</sup>Levitskaya, 1995b; <sup>1</sup>Vishnevsky, 1998; <sup>1</sup>Levitskaya, 2013); **Murmansk Oblast** (<sup>2</sup>Karsten, 1866; <sup>2</sup>Karsten, 1876; <sup>3</sup>Karsten, 1889; <sup>3</sup>Pystina, Pavlova, and Shestakova, 1969); **North Ossetia** (<sup>1</sup>Nikolayev, 2001); **Novgorod Oblast** (<sup>3</sup>Lebedeva, 1926; <sup>1</sup>Kovalenko and Morozova, 1999b; <sup>1</sup>Malysheva, Malysheva, and Zmitrovich, 2007); **Penza Oblast** (<sup>1</sup>Ivanov, 1981a; <sup>1</sup>Ivanov, 1981b); **Perm Krai** (<sup>3</sup>Lebedeva, 1926; <sup>1</sup>Perevedentseva, 2008; <sup>1</sup>Belkovskaya et al., 2014; <sup>1</sup>Botalov, 2017); **Pskov Oblast** (<sup>1</sup>Popov, 2001a; <sup>1</sup>Popov et al., 2013); **Rostov Oblast** (<sup>1</sup>Morozova et al., 2008; <sup>1</sup>Rebriev, 2018); **Ryazan Oblast** (<sup>1</sup>Volosnova, 1997; <sup>1</sup>Volosnova, 2014); **Saint Petersburg** (<sup>2</sup>Weinmann, 1828; <sup>2</sup>Weinmann, 1836; <sup>2</sup>Weinmann, 1837; <sup>3</sup>Lebedeva, 1926; <sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Morozova and Kovalenko, 2000; <sup>1</sup>Kotkova, Morozova, and Popov, 2005; <sup>1</sup>Kotkova, Morozova, and Popov, 2006; <sup>1</sup>Morozova and Smirnov, 2011; <sup>1</sup>Morozova, Kovalenko, Rebriev, and Malysheva, 2014; <sup>1</sup>Morozova et al., 2020); **Samara Oblast** (<sup>1</sup>Malysheva and Malysheva, 2005b; <sup>1</sup>Malysheva and Malysheva, 2008); **Smolensk Oblast** (<sup>3</sup>Jaczewski, 1896; <sup>3</sup>Lebedeva, 1926); **Sverdlovsk Oblast** (<sup>1</sup>Stepanova and Sirko, 1977; <sup>1</sup>Marina, 2006); **Tatarstan** (<sup>1</sup>Vassiljeva, 1977; <sup>1</sup>Potapov, Galeyev, and Zhukov, 2013; <sup>1</sup>Potapov, 2015b); **Tula Oblast** (<sup>1</sup>Svetasheva, 2001; <sup>1</sup>Svetasheva, 2004); **Tver Oblast** (<sup>3</sup>Lebedeva, 1926; <sup>3</sup>Chastukhin, 1948b; <sup>1</sup>Chastukhin and Nikolaevskaya, 1969; <sup>1</sup>Kurochkin, 1993; <sup>3</sup>Mukhina, 2011a; <sup>1</sup>Mukhina, 2011b; <sup>1</sup>Kotkova, 2014); **Udmurt Republic** (<sup>1</sup>Tychinin, 1990; <sup>1</sup>Tychinin and Kuzmina, 2003); **Ulyanovsk Oblast** (<sup>1</sup>Ilyukhin, 2009; <sup>1</sup>Ilyukhin, 2010a); **Vologda Oblast** (<sup>3</sup>Kutova, 1957; <sup>1</sup>Kirillova, 2007; <sup>1</sup>Kirillova, 2009); **Voronezh Oblast** (<sup>3</sup>Chastukhin and Nikolaevskaya, 1953; <sup>1</sup>Chastukhin and Nikolaevskaya, 1969; <sup>1</sup>Bedenko, 1987; <sup>1</sup>Rtishcheva, 1999; <sup>1</sup>Afanasyev, Rtishcheva, and Starodubtseva, 2007; <sup>1</sup>Sarycheva, Starodubtseva, and Sapelnikova, 2017); **Yaroslavl Oblast** (<sup>1</sup>Lazareva, 1997; <sup>1</sup>Lazareva, 1998a); **Arid territories** (<sup>1</sup>Rebriev, Rusanov, et al., 2012).

SIBERIA: **Altai Krai** (<sup>1</sup>Gorbunova and Perova, 2006; <sup>1</sup>Gorbunova, Vlasenko, and Tzhubarova, 2011); **Altai Republic** (<sup>1,5</sup>Singer, 1943; <sup>1</sup>Kovalenko, 1992; <sup>1</sup>Gorbunova, 1997; <sup>1</sup>Gorbunova, 2001a; <sup>1</sup>Gorbunova, 2008; <sup>1</sup>Gorbunova, 2010); **Buryatia** (<sup>1</sup>Nezdojminogo, 1970a); **Irkutsk Oblast** (<sup>1</sup>Kutafjeva, 1983; <sup>1</sup>Petrov, 1984; <sup>1</sup>Astapenko, 1990a);



<sup>1</sup>Petrov, 2008; <sup>1</sup>Muzyka and Penzina, 2017); **Khakassia** (<sup>1</sup>Zauzolkova and Gorbunova, 2013; <sup>1</sup>Zauzolkova, 2015); **Khanty-Mansi Autonomous Okrug** (<sup>1</sup>Zvyagina and Vasina, 2015; <sup>1</sup>Filippova and Bulyonkova, 2017a; <sup>1</sup>Filippova and Bulyonkova, 2017b); **Krasnoyarsk Krai** (<sup>1</sup>Beglyanova, 1972a; <sup>1</sup>Nezdojminogo, 1982a; <sup>1</sup>Lapitskaya, 1993; <sup>1</sup>Pavlov et al., 2007; <sup>1</sup>Kosheleva and Kutafjeva, 2008a; <sup>1</sup>Kosheleva and Kutafjeva, 2008b; <sup>1</sup>Kosheleva, 2010; <sup>1</sup>Kryuchkova and Yaskova, 2017; <sup>1</sup>Krom and Kapitonov, 2019); **Novosibirsk Oblast** (<sup>1</sup>Zaytseva, 1971; <sup>1</sup>Perova and Gorbunova, 2007; <sup>1</sup>Koropachinskiy and Banaev, 2014); **Tomsk Oblast** (<sup>1</sup>Perova, 1972; <sup>1</sup>Milovidova, 1980; <sup>1</sup>Kosheleva and Kutafjeva, 2004; <sup>1</sup>Kudashova, Gashkov, and Kutafjeva, 2013).

FAR EAST: **Amur Oblast** (<sup>1</sup>Taranina, 2005; <sup>1</sup>Kochunova, 2016); **Chukotka Autonomous Okrug** (<sup>1</sup>Sazanova, 1993); **Jewish Autonomous Oblast** (<sup>1</sup>Bulakh, Govorova, Nazarova, and Vassiljeva, 2007; <sup>1</sup>Bau, Bulakh, and Govorova, 2011); **Kamchatka Krai** (<sup>1</sup>Kalamees and Vaasma, 1981); **Khabarovsk Krai** (<sup>1</sup>Azbukina et al., 1986; <sup>1</sup>Azbukina et al., 1989; <sup>1</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Bulakh, 2013; <sup>1</sup>Bogacheva, Bulakh, Bukharova, and Egorova, 2015; <sup>1</sup>Erofeeva and Bulakh, 2015a); **Magadan Oblast** (<sup>1</sup>Nazarova, 1976; <sup>1</sup>Sazanova, 1996; <sup>1</sup>Sazanova, 2005; <sup>1</sup>Sazanova, 2009a); **Primorsky Krai** (<sup>1</sup>Vassiljeva, 1972; <sup>1</sup>Vassiljeva, 1973; <sup>1</sup>Shalapugina, 1976; <sup>1</sup>Bunkina and Nazarova, 1978; <sup>1</sup>Azbukina et al., 1984; <sup>1</sup>Azbukina et al., 2006; <sup>1</sup>Bau, Bulakh, Zhuang, and Li, 2007; <sup>1</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Bulakh et al., 2016; <sup>1</sup>Bogacheva, Bulakh, Bukharova, and Egorova, 2020); **Sakhalin Oblast** (<sup>1</sup>Vassiljeva and Nazarova, 1972).

***Tricholomopsis sulfureoides* (Peck) Singer**

= *Tricholomopsis osiliensis* Vauras<sup>1</sup>

EASTERN EUROPE: **Udmurt Republic** (<sup>1</sup>Kapitonov, 2013).

***Tricholoporum cossonianum* (Maire) P.-A. Moreau & Contu**

≡ *Tricholoma cossonianum* Maire<sup>1</sup>

FAR EAST: **Primorsky Krai** (<sup>1</sup>Vassiljeva, 1973; <sup>1</sup>Bunkina and Nazarova, 1978; <sup>1</sup>Azbukina et al., 2006; <sup>1</sup>Bau, Bulakh, and Govorova, 2011).

***Tricholoporum goniospermum* (Bres.) Guzmán ex T.J. Baroni<sup>1</sup>**

≡ *Tricholoma goniospermum* Bres.<sup>2</sup>

EASTERN EUROPE: **Arid territories** (<sup>1</sup>Rebriev, Rusanov, et al., 2012).

FAR EAST: **Primorsky Krai** (<sup>2</sup>Vassiljeva, 1973; <sup>2</sup>Bunkina and Nazarova, 1978; <sup>2</sup>Azbukina et al., 2006; <sup>2</sup>Bau, Bulakh, and Govorova, 2011).

***Tubaria agrocyboides* Singer**

EASTERN EUROPE: **Penza Oblast** (Ivanov, 1983; Ivanov, 1999); **Samara Oblast** (Malysheva and Malysheva, 2008); **Tatarstan** (Singer, 1945; Vassiljeva, 1977).

SIBERIA: **Altai Republic** (Singer, 1945); **Irkutsk Oblast** (Petrov, 1986; Petrov, 1989; Petrov, 1991; Trofimova, Popov, and Merkacheva, 2020); **Kemerovo Oblast** (Perova and Gorbunova, 2001); **Khakassia** (Zauzolkova, 2015; Zauzolkova and Gorbunova, 2016); **Novosibirsk Oblast** (Perova, 1977; Perova, 1982; Perova and Gorbunova, 2001; Perova and Gorbunova, 2007; Koropachinskiy and Banaev, 2014); **Tomsk Oblast** (Perova and Gorbunova, 2001; Kudashova, Gashkov, and Kutafjeva, 2013).

***Tubaria confragosa* (Fr.) Harmaja<sup>1</sup>**

≡ *Naucoria confragosa* (Fr.) Singer<sup>2</sup> ≡ *Phaeomarasmium confragosus* (Fr.) Singer<sup>3</sup> ≡ *Pholiota confragosa* (Fr.) P. Karst.<sup>4</sup> ≡ *Tubaria confragosa* (Fr.) Kühner<sup>5</sup>

EASTERN EUROPE: **Adygea** (<sup>5</sup>Sopina, 2001a); **Kaliningrad Oblast** (<sup>5</sup>Dedkov, Volodina, and Gubareva, 2007; <sup>5</sup>Volodina, 2007; <sup>1</sup>Atayev and Volodina, 2020); **Karelia** (<sup>2</sup>Singer, 1948b; <sup>4</sup>Freindling, 1949; <sup>3</sup>Czerepanova, Perfiljeva, and Tobias, 1982; <sup>1</sup>Bondartseva et al., 2001; <sup>1</sup>Krutov et al., 2014); **Komi Republic** (<sup>5</sup>Bobretsova, 2004; <sup>1</sup>Palamarchuk, 2012; <sup>1</sup>Palamarchuk and Kirillov, 2017; <sup>1</sup>Palamarchuk and Kirillov, 2018a); **Leningrad Oblast** (<sup>4</sup>Thesleff, 1920; <sup>2</sup>Singer, 1945; <sup>2</sup>Singer, 1948b; <sup>5</sup>Kovalenko and Morozova, 1999a; <sup>5</sup>Popov et al., 2007); **Moscow Oblast** (<sup>1</sup>Voronina et al., 2014); **Murmansk Oblast** (<sup>5</sup>Berlina, 2005); **Novgorod Oblast** (<sup>5</sup>Kovalenko, Morozova, Nezdojminogo, and Popov, 2005; <sup>5</sup>Popov et al., 2013); **Penza Oblast** (<sup>5</sup>Ivanov, 1985); **Perm Krai** (<sup>1</sup>Perevedentseva, 2008; <sup>1</sup>Belkovskaya et al., 2014); **Saint Petersburg** (<sup>1</sup>Morozova and Smirnov, 2011; <sup>1</sup>Morozova et al., 2020); **Samara Oblast** (<sup>5</sup>Malysheva and Malysheva, 2005b; <sup>1</sup>Malysheva and Malysheva, 2008); **Sverdlovsk Oblast** (<sup>5</sup>Marina, 2006); **Tver Oblast** (<sup>5</sup>Kurochkin, 1993); **Udmurt Republic** (<sup>1</sup>Kapitonov, 2013).

SIBERIA: **Irkutsk Oblast** (<sup>5</sup>Petrov, 1986; <sup>5</sup>Petrov, 1989; <sup>5</sup>Astapenko and Kutafjeva, 1990; <sup>5</sup>Astapenko, 1990a; <sup>5</sup>Petrov, 1991; <sup>5</sup>Petrov, 2008; <sup>5</sup>Trofimova, Popov, and Merkacheva, 2020); **Kemerovo Oblast** (<sup>5</sup>Perova and Gorbunova, 2001); **Khakassia** (<sup>1</sup>Zauzolkova, 2015; <sup>1</sup>Zauzolkova and Gorbunova, 2016); **Khanty-Mansi Autonomous Okrug** (<sup>1</sup>Filippova, Bulyonkova, and Lapshina, 2015; <sup>1</sup>Filippova and Bulyonkova, 2017a; <sup>1</sup>Filippova and Bulyonkova, 2017b; <sup>1</sup>Zvyagina and Baykalova, 2017); **Krasnoyarsk Krai** (<sup>3</sup>Nezdojminogo, 1976a; <sup>1</sup>Zauzolkova, 2015; <sup>1</sup>Zauzolkova and Gorbunova, 2016); **Novosibirsk Oblast** (<sup>1</sup>Koropachinskiy and Banaev, 2014); **Tomsk Oblast** (<sup>5</sup>Perova and Gorbunova, 2001; <sup>1</sup>Kudashova, Gashkov, and Kutafjeva, 2013).

***Tubaria conspersa* (Pers.) Fayod<sup>1</sup>**

≡ *Agaricus conspersus* Pers.<sup>2</sup> ≡ *Naucoria conspersa* (Pers.) P. Kumm.<sup>3</sup>

EASTERN EUROPE: **Adygea** (<sup>1</sup>Sopina, 2001a); **Belgorod Oblast** (<sup>1</sup>Bedenko, 1980); **Crimea** (<sup>1</sup>Sarkina and Mironova, 2015; <sup>1</sup>Sarkina, 2020a); **Kaliningrad Oblast** (<sup>1</sup>Dedkov, Volodina, and Gubareva, 2007; <sup>1</sup>Volodina, 2007; <sup>1</sup>Atayev and Volodina, 2020); **Karachay-Cherkess Republic** (<sup>1</sup>Kalamees and Botashev, 2000); **Karelia** (<sup>1</sup>Krutov et al., 2014); **Kirov Oblast** (<sup>1</sup>Kirillov, 2011; <sup>1</sup>Kirillov, Perevedentseva, and Egoshina, 2011); **Komi Republic** (<sup>1</sup>Palamarchuk (Bobretsova), 2009; <sup>1</sup>Palamarchuk, 2012); **Leningrad Oblast** (<sup>3</sup>Thesleff, 1920; <sup>1</sup>Nezdojminogo, 1967; <sup>1</sup>Stolyarskaya, 1989; <sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Popov et al., 2007; <sup>1</sup>Zmitrovich et al., 2015); **Lipetsk Oblast** (<sup>1</sup>Sarycheva et al., 2009; <sup>1</sup>Sarycheva, 2011; <sup>1</sup>Sarycheva, 2016); **Moscow Oblast** (<sup>1</sup>Voronina et al., 2012; <sup>1</sup>Voronina et al., 2014); **Novgorod Oblast** (<sup>1</sup>Kovalenko, Morozova, Nezdojminogo, and Popov, 2005); **Orenburg Oblast** (<sup>1</sup>Desyatova, 2008); **Perm Krai** (<sup>1</sup>Perevedentseva, 2008; <sup>1</sup>Botalov, 2017); **Pskov Oblast** (<sup>1</sup>Popov et al., 2013); **Ryazan Oblast** (<sup>1</sup>Malysheva and Volosnova, 2008; <sup>1</sup>Volosnova, 2014); **Saint Petersburg** (<sup>2</sup>Weinmann, 1828; <sup>2</sup>Weinmann, 1836; <sup>2</sup>Weinmann, 1837; <sup>1</sup>Morozova and Smirnov, 2011; <sup>1</sup>Morozova et al., 2020); **Samara Oblast** (<sup>1</sup>Malysheva and Malysheva, 2004; <sup>1</sup>Malysheva and Malysheva, 2008); **Sverdlovsk Oblast** (<sup>1</sup>Marina, 2006); **Tula Oblast** (<sup>1</sup>Svetasheva, 2004; <sup>1</sup>Svetasheva, 2013); **Udmurt Republic** (<sup>1</sup>Tychinin and Kuzmina, 2003); **Ulyanovsk Oblast** (<sup>1</sup>Ilyukhin, 2010a; <sup>1</sup>Ilyukhin, 2010b); **Yamalo-Nenets Autonomous Okrug** (<sup>1</sup>Karatygin, Nezdojminogo, Novozhilov, and Zhurbenko, 1999); **Yaroslavl Oblast** (<sup>1</sup>Lazareva, 1998a; <sup>1</sup>Lazareva, 1998b).

SIBERIA: **Altai Krai** (<sup>1</sup>Gorbunova and Chubarova, 2008; <sup>1</sup>Gorbunova, Vlasenko, and Tzhubarova, 2011); **Altai Republic** (<sup>1</sup>Gorbunova, 2001b; <sup>1</sup>Perova and Gorbunova, 2001); **Irkutsk Oblast** (<sup>1</sup>Gorbunova and Stepantsova, 2015); **Khakassia** (<sup>1</sup>Zauzolkova and Gorbunova, 2013; <sup>1</sup>Zauzolkova, 2015); **Khanty-Mansi Autonomous Okrug** (<sup>1</sup>Filippova, Bulyonkova, and Lapshina, 2015; <sup>1</sup>Filippova and Bulyonkova, 2017a; <sup>1</sup>Filippova and Bulyonkova, 2017b; <sup>1</sup>Zvyagina and Baykalova, 2017); **Krasnoyarsk Krai** (<sup>1</sup>Beglyanova, 1972a); **Novosibirsk Oblast** (<sup>1</sup>Perova and Gorbunova, 2001; <sup>1</sup>Perova and Gorbunova, 2007; <sup>1</sup>Koropachinskiy and Banaev, 2014); **Tomsk Oblast** (<sup>1</sup>Perova and Gorbunova, 2001; <sup>1</sup>Kudashova, Gashkov, and Kutafjeva, 2013).

FAR EAST: **Chukotka Autonomous Okrug** (<sup>1</sup>Sazanova, 1993); **Magadan Oblast** (<sup>1</sup>Sazanova, 2009a; <sup>1</sup>Sazanova, 2009b; <sup>1</sup>Sazanova, 2011).

***Tubaria dispersa* (Pers.) Singer<sup>1</sup>**

= *Tubaria autochthona* (Berk. & Broome) Sacc.<sup>2</sup>

EASTERN EUROPE: **Crimea** (<sup>1</sup>Prydiuk, 2002; <sup>1</sup>Dudka et al., 2004; <sup>1</sup>Sarkina, 2006; <sup>1</sup>Sarkina, 2011); **Murmansk Oblast** (<sup>2</sup>Pyatina, Pavlova, and Shestakova, 1969); **Orenburg Oblast** (<sup>1</sup>Korshikova, 2005; <sup>1</sup>Desyatova, 2008); **Rostov Oblast** (<sup>1</sup>Morozova et al., 2008; <sup>1</sup>Rusanov, Rebriev, and Bulgakov, 2018); **Ryazan Oblast** (<sup>1</sup>Volosnova, 2014); **Tula Oblast** (<sup>1</sup>Svetasheva, 2004; <sup>1</sup>Svetasheva, 2013); **Arid territories** (<sup>1</sup>Rebriev, Rusanov, et al., 2012).

SIBERIA: **Altai Republic** (<sup>1</sup>Gorbunova, 2003); **Krasnoyarsk Krai** (<sup>2</sup>Beglyanova, 1972a); **Novosibirsk Oblast** (<sup>1</sup>Koropachinskiy and Banaev, 2014).

***Tubaria ferruginea* Maire ex E. Horak & P.-A. Moreau**

≡ *Flammulaster ferrugineus* Maire ex Watling<sup>1</sup>

EASTERN EUROPE: **Rostov Oblast** (<sup>1</sup>Rusanov, Rebriev, and Bulgakov, 2018); **Arid territories** (<sup>1</sup>Rebriev, Rusanov, et al., 2012).

FAR EAST: **Primorsky Krai** (<sup>1</sup>Bau, Bulakh, and Govorova, 2011).

***Tubaria furfuracea* (Pers.) Gillet<sup>1</sup>**

≡ *Agaricus furfuraceus* Pers.<sup>2</sup> = *Agaricus sobrius* (Fr.) Fr.<sup>3</sup> = *Tubaria hiemalis* Romagn. ex Bon<sup>4</sup>

EASTERN EUROPE: **Adygea** (<sup>1</sup>Sopina, 2001a); **Belgorod Oblast** (<sup>1</sup>Bedenko, 1980; <sup>1</sup>Psurtseva, Kiyashko, Gachkova, and Belova, 2007); **Chelyabinsk Oblast** (<sup>1</sup>Psurtseva, Kiyashko, Gachkova, and Belova, 2007); **Crimea** (<sup>1</sup>Moser, 1993; <sup>1,4</sup>Dudka et al., 2004; <sup>1</sup>Sarkina, 2010b; <sup>1,4</sup>Sarkina, 2011; <sup>1</sup>Sarkina and Prydiuk, 2012; <sup>1</sup>Sarkina, 2013; <sup>1</sup>Sarkina,

2014b; <sup>1,4</sup>Sarkina and Mironova, 2015); **Kaliningrad Oblast** (<sup>1</sup>Atayev and Volodina, 2020); **Karelia** (<sup>1</sup>Bondartseva et al., 2001); **Kirov Oblast** (<sup>1</sup>Kirillov, 2011; <sup>1</sup>Kirillov, Perevedentseva, and Egoshina, 2011; <sup>1</sup>Stavishenko, Luginina, Kirillov, and Egoshina, 2019); **Komi Republic** (<sup>4</sup>Palamarchuk, 2012; <sup>1</sup>Palamarchuk, 2016a; <sup>1</sup>Palamarchuk, 2016b; <sup>1</sup>Palamarchuk and Kirillov, 2017); **Krasnodar Krai** (<sup>1</sup>Kovalenko, 1980a; <sup>1</sup>Kovalenko, 1980b); **Leningrad Oblast** (<sup>1</sup>Thesleff, 1920; <sup>1</sup>Nezdojminogo, 1967; <sup>1</sup>Chastukhin and Nikolaevskaya, 1969; <sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Morozova, 2007; <sup>1</sup>Popov et al., 2007; <sup>1</sup>Zmitrovich et al., 2015); **Lipetsk Oblast** (<sup>1</sup>Sarycheva et al., 2009; <sup>1</sup>Sarycheva, 2011; <sup>1</sup>Sarycheva, 2014a; <sup>1</sup>Sarycheva, 2016); **Mordovia** (<sup>1</sup>Chastukhin, 1948a; <sup>1</sup>Chastukhin, 2011; <sup>1</sup>Ivoilov and Bolshakov, 2011a); **Moscow** (<sup>1</sup>Burova, 1968); **Moscow Oblast** (<sup>1</sup>Gorlenko, Sidorova, and Sidorova, 1989; <sup>1</sup>Levitskaya, 1995c; <sup>1</sup>Voronina et al., 2012; <sup>1</sup>Levitskaya, 2013; <sup>1</sup>Voronina et al., 2014); **Novgorod Oblast** (<sup>1</sup>Kovalenko, Morozova, Nezdojminogo, and Popov, 2005; <sup>1</sup>Psurtseva, Kiyashko, Gachkova, and Belova, 2007; <sup>1</sup>Popov et al., 2013); **Orenburg Oblast** (<sup>1,4</sup>Desyatova, 2008); **Penza Oblast** (<sup>1</sup>Ivanov, 1981b; <sup>1</sup>Ivanov, 1983); **Perm Krai** (<sup>1,4</sup>Perevedentseva, 2008; <sup>1</sup>Botalov, 2017); **Pskov Oblast** (<sup>1</sup>Popov, 2001a; <sup>1</sup>Popov et al., 2013); **Rostov Oblast** (<sup>1</sup>Rebriev, 2018; <sup>1</sup>Rusanov, Rebriev, and Bulgakov, 2018); **Ryazan Oblast** (<sup>1</sup>Volosnova, 2005; <sup>1</sup>Volosnova, 2014); **Saint Petersburg** (<sup>2</sup>Weinmann, 1828; <sup>2</sup>Weinmann, 1836; <sup>2</sup>Weinmann, 1837; <sup>1</sup>Morozova and Smirnov, 2011; <sup>1</sup>Morozova et al., 2020); **Samara Oblast** (<sup>1,4</sup>Malysheva and Malysheva, 2008); **Smolensk Oblast** (<sup>1</sup>Jaczewski, 1896); **Sverdlovsk Oblast** (<sup>1</sup>Stepanova and Sirko, 1977; <sup>1</sup>Marina, 2006); **Tula Oblast** (<sup>1</sup>Svetasheva, 2001; <sup>1</sup>Svetasheva, 2004; <sup>1</sup>Svetasheva, 2013); **Tver Oblast** (<sup>1</sup>Kurochkin, 1993); **Udmurt Republic** (<sup>1</sup>Tychinin, 1990; <sup>1</sup>Tychinin and Kuzmina, 2003); **Ulyanovsk Oblast** (<sup>1</sup>Ilyukhin, 2009; <sup>1,4</sup>Ilyukhin, 2010a; <sup>4</sup>Ilyukhin, 2010b); **Vladimir Oblast** (<sup>1</sup>Mishulin, Blinov, and Gushchina, 2018); **Vologda Oblast** (<sup>1</sup>Kirillova, 2007); **Yaroslavl Oblast** (<sup>1</sup>Lazareva, 1998a; <sup>1</sup>Lazareva, 1998b); **Arid territories** (<sup>1</sup>Rebriev, Rusanov, et al., 2012).

SIBERIA: **Altai Krai** (<sup>1</sup>Gorbunova, 2018a); **Altai Republic** (<sup>1</sup>Gorbunova, 1996; <sup>1</sup>Gorbunova, 1997; <sup>1</sup>Gorbunova, 2001b); **Irkutsk Oblast** (<sup>1</sup>Petrov, 1986; <sup>1</sup>Astapenko, 1990a; <sup>1</sup>Petrov, 1991; <sup>1</sup>Petrov, 2008); **Khakassia** (<sup>1</sup>Zauzolkova, 2015); **Khanty-Mansi Autonomous Okrug** (<sup>1</sup>Filippova, Bulyonkova, and Lapshina, 2015; <sup>1</sup>Filippova and Bulyonkova, 2017a; <sup>1</sup>Filippova and Bulyonkova, 2017b); **Krasnoyarsk Krai** (<sup>1</sup>Beglyanova, 1972a; <sup>1</sup>Nezdojminogo, 1982a; <sup>1</sup>Pavlov et al., 2007; <sup>1</sup>Zauzolkova, 2012; <sup>1</sup>Zauzolkova, 2015; <sup>1</sup>Krom and Kapitonov, 2019); **Novosibirsk Oblast** (<sup>1</sup>Zaytseva, 1971; <sup>1</sup>Perova, 1977; <sup>1</sup>Zhukov, 1980; <sup>1</sup>Perova and Gorbunova, 2007; <sup>1</sup>Koropachinskiy and Banaev, 2014); **Sakha Republic** (<sup>1</sup>Birkenhof, 1936); **Tomsk Oblast** (<sup>1</sup>Perova and Gorbunova, 2001; <sup>1</sup>Kudashova, Gashkov, and Kutafjeva, 2013); **Yamalo-Nenets Autonomous Okrug** (<sup>1</sup>Tarchevskaya, 1990).

FAR EAST: **Chukotka Autonomous Okrug** (<sup>3</sup>Berkeley and Curtis, 1978); **Khabarovsk Krai** (<sup>1</sup>Azbukina et al., 1986; <sup>1</sup>Azbukina et al., 1989; <sup>1</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Erofeeva and Bulakh, 2015a); **Primorsky Krai** (<sup>1</sup>Vassiljeva, 1973; <sup>1</sup>Bunkina and Nazarova, 1978; <sup>1</sup>Azbukina et al., 1984; <sup>1</sup>Azbukina et al., 1990; <sup>1</sup>Bardunov et al., 2002; <sup>1</sup>Azbukina et al., 2006; <sup>1</sup>Bau, Bulakh, and Govorova, 2011); **Sakhalin Oblast** (<sup>1</sup>Bulakh, Govorova, and Bogatov, 1999).

### ***Tubaria minutalis* Romagn.**

EASTERN EUROPE: **Ryazan Oblast** (Volosnova, 2005; Volosnova, 2014).

SIBERIA: **Altai Krai** (Gorbunova, 2018a); **Altai Republic** (Gorbunova, 2019).

### ***Tubaria pallidispora* J.E. Lange**

EASTERN EUROPE: **Yaroslavl Oblast** (Lazareva, 1998a; Lazareva, 1998b); **Arid territories** (Rebriev, Rusanov, et al., 2012).

### ***Tubaria praestans* (Romagn.) M.M. Moser**

EASTERN EUROPE: **Tula Oblast** (Svetasheva, 2004; Shcherbakov, 2010).

### ***Tubaria pseudoconspersa* Romagn.**

EASTERN EUROPE: **Yamalo-Nenets Autonomous Okrug** (Kazantseva, 1972; Stepanova and Sirko, 1977).

### ***Tubaria romagnesiana* Arnolds**

EASTERN EUROPE: **Perm Krai** (Perevedentseva, 2008); **Rostov Oblast** (Rebriev, 2018); **Arid territories** (Rebriev, Rusanov, et al., 2012).

SIBERIA: **Novosibirsk Oblast** (Koropachinskiy and Banaev, 2014).

### ***Tubaria segestria* (Fr.) Boud.**

≡ *Agaricus segestrius* Fr.<sup>1</sup>

EASTERN EUROPE: **Saint Petersburg** (<sup>1</sup>Weinmann, 1828; <sup>1</sup>Weinmann, 1836; <sup>1</sup>Weinmann, 1837).

***Tubaria trigonophylla* (Lasch) Fayod**EASTERN EUROPE: **Moscow Oblast** (Levitskaya, 1995c; Levitskaya, 2013).***Tylopilus alboater* (Schwein.) Murrill**FAR EAST: **Primorsky Krai** (Bulakh, 2008; Bogacheva et al., 2018; Bogacheva, Bulakh, Bukharova, and Egorova, 2020).***Tylopilus atrobrunneus* (Lj.N. Vassiljeva) Wolfe<sup>1</sup>**≡ *Porphyrellus atrobrunneus* Lj.N. Vassiljeva<sup>2</sup>FAR EAST: **Amur Oblast** (<sup>2</sup>Vassiljeva, 1973; <sup>2</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>2</sup>Azbukina et al., 1998); **Jewish Autonomous Oblast** (<sup>1</sup>Erofeeva and Bukharova, 2019; <sup>1</sup>Shlotgauer and Rubtsova, 2019); **Khabarovsk Krai** (<sup>2</sup>Voronov, 2008; <sup>2</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Bogacheva et al., 2018; <sup>2</sup>Ermolin et al., 2018); **Primorsky Krai** (<sup>2</sup>Vassiljeva, 1950; <sup>2</sup>Vassiljeva, 1956; <sup>2</sup>Vassiljeva, 1972; <sup>2</sup>Vassiljeva, 1973; <sup>2</sup>Azbukina et al., 1990; <sup>2</sup>Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; <sup>2</sup>Bardunov et al., 2002; <sup>2</sup>Bulakh et al., 2016; <sup>1</sup>Bogacheva et al., 2018).***Tylopilus balloui* (Peck) Singer**FAR EAST: **Primorsky Krai** (Vassiljeva, 1956).***Tylopilus felleus* (Bull.) P. Karst.<sup>1</sup>**≡ *Boletus felleus* Bull.<sup>2</sup>EASTERN EUROPE: **Belgorod Oblast** (<sup>1</sup>Bedenko, 1979a); **Bryansk Oblast** (<sup>1</sup>Kruglikov, 2007); **Chuvash Republic** (<sup>1</sup>Vladimirova and Potapov, 2018); **Crimea** (<sup>1</sup>Sarkina, 2001; <sup>1</sup>Dudka et al., 2004; <sup>1</sup>Akulov and Pryidiuk, 2007); **Kaliningrad Oblast** (<sup>2</sup>Hennings, 1895; <sup>1</sup>Dedkov, Volodina, and Gubareva, 2007; <sup>1</sup>Volodina, 2007); **Kaluga Oblast** (<sup>1</sup>Sionova, 2003; <sup>1</sup>Sionova, 2006); **Karelia** (<sup>1</sup>Bondartseva et al., 2001; <sup>1</sup>Predtechenskaya and Ruokolainen, 2008; <sup>1</sup>Predtechenskaya and Ruokolainen, 2013; <sup>1</sup>Predtechenskaya, 2013; <sup>1</sup>Krutov et al., 2014; <sup>1</sup>Predtechenskaya and Ruokolainen, 2014; <sup>1</sup>Savelev and Kikeeva, 2018); **Kirov Oblast** (<sup>1</sup>Kirillov, 2011; <sup>1</sup>Kirillov, Perevedentseva, and Egoshina, 2011; <sup>1</sup>Stavishenko, Luginina, Kirillov, and Egoshina, 2019); **Komi Republic** (<sup>1</sup>Bobretsova, 2004; <sup>1</sup>Palamarchuk, 2012; <sup>1</sup>Palamarchuk, 2017); **Kostroma Oblast** (<sup>1</sup>Burova, 1982); **Krasnodar Krai** (<sup>1</sup>Kovalenko, 1980b); **Leningrad Oblast** (<sup>1</sup>Thesleff, 1920; <sup>1</sup>Stolyarskaya, 1989; <sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Fomina, 2000; <sup>1</sup>Morozova and Kovalenko, 2000; <sup>1</sup>Fomina, 2001; <sup>1</sup>Morozova, 2007; <sup>1</sup>Popov et al., 2007; <sup>1</sup>Zmitrovich et al., 2015; <sup>1</sup>Malysheva, Malysheva, Shchepin, and Novozhilov, 2018); **Lipetsk Oblast** (<sup>1</sup>Rtishcheva, 1999; <sup>1</sup>Afanasyev, Rtishcheva, and Starodubtseva, 2007; <sup>1</sup>Sarycheva et al., 2009; <sup>1</sup>Sarycheva, 2011; <sup>1</sup>Sarycheva, 2014a; <sup>1</sup>Sarycheva, 2016; <sup>1</sup>Sarycheva, Starodubtseva, and Sapelnikova, 2017); **Mordovia** (<sup>2</sup>Chastukhin, 1948a; <sup>1</sup>Kuznetsov, 1960; <sup>1</sup>Chastukhin and Nikolaevskaya, 1969; <sup>1</sup>Ivoilov and Bolshakov, 2011b; <sup>2</sup>Chastukhin, 2011); **Moscow Oblast** (<sup>1</sup>Gorlenko, Sidorova, and Sidorova, 1989; <sup>1</sup>Levitskaya, 1995b; <sup>1</sup>Voronina et al., 2012; <sup>1</sup>Levitskaya, 2013; <sup>1</sup>Voronina et al., 2014; <sup>1</sup>Sidorova, Alexandrova, and Voronina, 2017); **North Ossetia** (<sup>1</sup>Nikolayev, 2001); **Novgorod Oblast** (<sup>1</sup>Kovalenko, Morozova, Nezdojminogo, and Popov, 2005; <sup>1</sup>Malysheva, Malysheva, and Zmitrovich, 2007; <sup>1</sup>Popov et al., 2013); **Orenburg Oblast** (<sup>2</sup>Vorontsovsky, 1921); **Oryol Oblast** (<sup>1</sup>Radygina, Derzhavina, and Tsutsupa, 2014); **Penza Oblast** (<sup>1</sup>Ivanov, 1981a; <sup>1</sup>Ivanov, 1981b); **Perm Krai** (<sup>1</sup>Shkaraba, Perevedentseva, and Moshkina, 1990; <sup>1</sup>Perevedentseva, 2008; <sup>1</sup>Belkovskaya et al., 2014; <sup>1</sup>Perevedentseva and Shishigin, 2014; <sup>1</sup>Perevedentseva and Shishigin, 2015; <sup>1</sup>Botalov, Perevedentseva, and Shishigin, 2020); **Pskov Oblast** (<sup>1</sup>Popov, 2001a; <sup>1</sup>Popov et al., 2013); **Rostov Oblast** (<sup>1</sup>Rusanov et al., 2004; <sup>1</sup>Zmitrovich et al., 2008); **Ryazan Oblast** (<sup>1</sup>Volosnova, 1997; <sup>1</sup>Volosnova, 2014); **Saint Petersburg** (<sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Morozova and Smirnov, 2011; <sup>1</sup>Morozova et al., 2020); **Saratov Oblast** (<sup>1</sup>Komirnaya, 1975); **Smolensk Oblast** (<sup>2</sup>Jaczewski, 1896; <sup>1</sup>Burova, 1969); **Sverdlovsk Oblast** (<sup>1</sup>Stepanova and Sirko, 1977; <sup>1</sup>Marina, 2006); **Tatarstan** (<sup>1</sup>Vassiljeva, 1977; <sup>1</sup>Potapov, 2015b); **Tula Oblast** (<sup>1</sup>Svetasheva, 2004); **Tver Oblast** (<sup>2</sup>Chastukhin, 1948b; <sup>1</sup>Chastukhin and Nikolaevskaya, 1969; <sup>1</sup>Kurochkin, 1993; <sup>1</sup>Mukhina, 2011a; <sup>1</sup>Mukhina, 2011b; <sup>1</sup>Kotkova, 2014); **Udmurt Republic** (<sup>1</sup>Tychinin and Kuzmina, 2003); **Ulyanovsk Oblast** (<sup>1</sup>Ilyukhin, 2010a); **Vologda Oblast** (<sup>1</sup>Kirillova, 2007); **Voronezh Oblast** (<sup>1</sup>Rtishcheva, 1999; <sup>1</sup>Afanasyev, Rtishcheva, and Starodubtseva, 2007; <sup>1</sup>Sarycheva, Starodubtseva, and Sapelnikova, 2017); **Yaroslavl Oblast** (<sup>1</sup>Lazareva, 1997; <sup>1</sup>Lazareva, 1998a); **Arid territories** (<sup>1</sup>Rebriev, Rusanov, et al., 2012).SIBERIA: **Altai Krai** (<sup>1</sup>Gorbunova and Perova, 2006); **Khakassia** (<sup>1</sup>Zauzolkova, 2015); **Khanty-Mansi Autonomous Okrug** (<sup>1</sup>Zvyagina, Baykalova, and Gorbunova, 2007; <sup>1</sup>Zvyagina and Baykalova, 2012; <sup>1</sup>Filippova, Bulyonkova, and Lapshina, 2015; <sup>1</sup>Filippova and Bulyonkova, 2017a; <sup>1</sup>Filippova and Bulyonkova, 2017b); **Krasnoyarsk Krai** (<sup>2</sup>Thümen, 1880a; <sup>1</sup>Beglyanova, 1972a; <sup>1</sup>Lapitskaya, 1990; <sup>1</sup>Stepanov, 2012; <sup>1</sup>Zauzolkova, 2015; <sup>1</sup>Krom and

Kapitonov, 2019); **Novosibirsk Oblast** (<sup>1</sup>Gorbunova, 2007); **Sverdlovsk Oblast** (<sup>1</sup>Stepanova and Sirko, 1977); **Tomsk Oblast** (<sup>1</sup>Milovidova, 1980; <sup>1</sup>Perova and Gorbunova, 2001; <sup>1</sup>Kosheleva and Kutafjeva, 2004; <sup>1</sup>Kudashova, Gashkov, and Kutafjeva, 2013; <sup>1</sup>Kudashova, Gashkov, and Vaishlya, 2016b; <sup>1</sup>Vaishlya et al., 2017).

FAR EAST: **Jewish Autonomous Oblast** (<sup>1</sup>Bulakh, Govorova, Nazarova, and Vassiljeva, 2007; <sup>1</sup>Bau, Bulakh, and Govorova, 2011); **Khabarovsk Krai** (<sup>1</sup>Azbukina et al., 1986; <sup>1</sup>Azbukina et al., 1989; <sup>1</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Erofeeva and Bulakh, 2015a).

***Tylopilus peralbidus* (Snell & Beardslee) Murrill**

FAR EAST: **Primorsky Krai** (Vassiljeva, 1956; Vassiljeva, 1972; Vassiljeva, 1973; Kozhevnikov, 2008).

***Tylopilus plumbeoviolaceus* (Snell & E.A. Dick) Snell & E.A. Dick**

FAR EAST: **Primorsky Krai** (Vassiljeva, 1972; Vassiljeva, 1973; Kozhevnikov, 2008; Bogacheva et al., 2018).

***Tylopilus rubrobrunneus* Ma er & A.H. Sm.**

FAR EAST: **Primorsky Krai** (Bogacheva et al., 2018; Bogacheva, Bulakh, Bukharova, and Egorova, 2020).

***Tylopilus violatinctus* T.J. Baroni & Both**

FAR EAST: **Primorsky Krai** (Bogacheva et al., 2018).

***Typhrasa gossypina* (Bull.) Örstadius & E. Larss.**

≡ *Psathyrella gossypina* (Bull.) A. Pearson & Dennis<sup>1</sup>

EASTERN EUROPE: **Kaliningrad Oblast** (<sup>1</sup>Dedkov, Volodina, and Gubareva, 2007); **Leningrad Oblast** (<sup>1</sup>Popov et al., 2007); **Saint Petersburg** (<sup>1</sup>Kovalenko and Morozova, 1999a); **Sverdlovsk Oblast** (<sup>1</sup>Marina, 2006); **Tatarstan** (<sup>1</sup>Vassiljeva, 1977).

SIBERIA: **Khanty-Mansi Autonomous Okrug** (<sup>1</sup>Filippova, Bulyonkova, and Lapshina, 2015); **Krasnoyarsk Krai** (<sup>1</sup>Beglyanova, 1972a).

FAR EAST: **Amur Oblast** (<sup>1</sup>Azbukina et al., 1998); **Magadan Oblast** (<sup>1</sup>Sazanova, 2012).

***Volvariella bombycina* (Schaeff.) Singer<sup>1</sup>**

≡ *Agaricus bombycinus* Schaeff.<sup>2</sup> = *Volvariella bombycina* var. *flaviceps* (Murrill) Shaffer<sup>3</sup>

EASTERN EUROPE: **Adygea** (<sup>1</sup>Kovalenko, 1979a; <sup>1</sup>Vaasma, Kalamees, and Raitviir, 1986; <sup>1</sup>Zamotajlov, Sirotyuk (Kuvaeva), Akatova, and Lipka, 2012); **Astrakhan Oblast** (<sup>1</sup>Rebriev, Aleksandrova, et al., 2012; <sup>1</sup>Pilipenko et al., 2014); **Bashkortostan** (<sup>1</sup>Mirkin, 2011); **Belgorod Oblast** (<sup>1</sup>Bedenko, 1979a); **Bryansk Oblast** (<sup>1</sup>Bolshakov et al., 2020); **Chechen Republic** (<sup>1</sup>Taysumov, Krapivina, and Kushaliev, 2016); **Chelyabinsk Oblast** (<sup>1</sup>Bolshakov, Bogdanov, Knyazev, and Lagunov, 2017); **Crimea** (<sup>1</sup>Sarkina, 2001; <sup>1</sup>Dudka et al., 2004; <sup>1</sup>Sarkina and Prydiuk, 2012; <sup>1</sup>Sarkina and Mironova, 2015); **Dagestan** (<sup>1</sup>Magomedov, 2020); **Kabardino-Balkarian Republic** (<sup>1</sup>Shkhagapsoev and Krapivina, 2004); **Kaliningrad Oblast** (<sup>1</sup>Dedkov and Grishanov, 2010); **Kaluga Oblast** (<sup>1</sup>Sionova, 2009; <sup>1</sup>Sionova, 2012; <sup>1</sup>Antokhina et al., 2015); **Kirov Oblast** (<sup>1</sup>Kirillov, 2011; <sup>1</sup>Kirillov, Perevedentseva, and Egoshina, 2011; <sup>1</sup>Baranova et al., 2014); **Krasnodar Krai** (<sup>1</sup>Vassiljeva, 1939; <sup>1</sup>Kovalenko, 1980a; <sup>1</sup>Kovalenko, 1980b; <sup>1</sup>Litvinskaya, 2007; <sup>1</sup>Litvinskaya, 2017); **Kursk Oblast** (<sup>1</sup>Baranov, 2002; <sup>1</sup>Soshnina, 2013; <sup>1</sup>Soshnina, 2017); **Lipetsk Oblast** (<sup>1</sup>Rtishcheva, 1999; <sup>1</sup>Afanasyev, Rtishcheva, and Starodubtseva, 2007; <sup>1</sup>Sarycheva et al., 2009; <sup>1</sup>Shcherbakov, 2014; <sup>1</sup>Sarycheva, Starodubtseva, and Sapelnikova, 2017; <sup>1</sup>Volobuev, Bolshakov, and Shakhova, 2020); **Mordovia** (<sup>1</sup>Ivoilov and Bolshakov, 2011a; <sup>1</sup>Bolshakov and Ivoilov, 2012b; <sup>1</sup>Bolshakov, 2015; <sup>1</sup>Silaeva, 2017); **Moscow** (<sup>1</sup>Muchnik et al., 2020); **Moscow Oblast** (<sup>1</sup>Gorlenko, Sidorova, and Sidorova, 1989; <sup>1</sup>Voronina et al., 2012; <sup>1</sup>Voronina et al., 2014); **Orenburg Oblast** (<sup>1</sup>Desyatova, 2007; <sup>1</sup>Desyatova, 2008; <sup>1</sup>Safonov, Malenkova, Rusakov, and Leneva, 2013; <sup>1</sup>Belov, 2019); **Penza Oblast** (<sup>1</sup>Ivanov, 1981b; <sup>1</sup>Ivanov, 1982; <sup>3</sup>Ivanov, 1988a; <sup>1</sup>Ivanov, 2019); **Perm Krai** (<sup>1</sup>Perevedentseva, 2008; <sup>1</sup>Shepel', 2008; <sup>1</sup>Baklanov, 2018); **Rostov Oblast** (<sup>1</sup>Rusanov et al., 2004; <sup>1</sup>Zmitrovich et al., 2008; <sup>1</sup>Rusanov, Rebriev, and Bulgakov, 2018); **Ryazan Oblast** (<sup>1</sup>Volosnova, 1997; <sup>1</sup>Ivanchev and Kazakova, 2011; <sup>1</sup>Volosnova, 2014); **Saint Petersburg** (<sup>1</sup>Zhukova, Morozova, Volobuev, and Bryantseva, 2017); **Samara Oblast** (<sup>1</sup>Malysheva and Malysheva, 2004; <sup>1</sup>Malysheva and Malysheva, 2008); **Sverdlovsk Oblast** (<sup>1</sup>Shiryayeva, 2015a; <sup>1</sup>Shiryayeva, 2018); **Tatarstan** (<sup>1</sup>Vassiljeva, 1977; <sup>1</sup>Shchepovskih, Bojko, Gorshkov, and Rogova, 2006; <sup>1</sup>Potapov, 2015b; <sup>1</sup>Nazirov, Gorshkov, Ivanov, and Rogova, 2016); **Udmurt Republic** (<sup>1</sup>Tychinin, 1990; <sup>1</sup>Tychinin and Kuzmina, 2003); **Ulyanovsk Oblast** (<sup>1</sup>Ilyukhin, 2009; <sup>1</sup>Ilyukhin, 2010a); **Volgograd Oblast** (<sup>1</sup>Dudka and Vedeneyev, 2015); **Vologda Oblast** (<sup>1</sup>Bolshakov et al., 2018); **Voronezh Oblast** (<sup>1</sup>Rtishcheva, 1999; <sup>1</sup>Afanasyev, Rtishcheva, and Starodubtseva, 2007; <sup>1</sup>Agafonov, 2011; <sup>1</sup>Sarycheva, Starodubtseva, and Sapelnikova, 2017; <sup>1</sup>Agafonov, 2018); **Arid territories** (<sup>1</sup>Rebriev, Rusanov, et al., 2012).

SIBERIA: **Irkutsk Oblast** (<sup>1</sup>Kutafjeva, 1983; <sup>1</sup>Astapenko, 1990a; <sup>1</sup>Trofimova, Popov, and Merkacheva, 2020); **Khakassia** (<sup>1</sup>Ankipovich, 2012; <sup>1</sup>Zauzolkova, 2015); **Khanty-Mansi Autonomous Okrug** (<sup>1</sup>Zvyagina and Baykalova, 2017); **Krasnoyarsk Krai** (<sup>2</sup>Thümen, 1878; <sup>1</sup>Beglyanova, 1972a; <sup>1</sup>Krom and Kapitonov, 2019); **Novosibirsk Oblast** (<sup>1</sup>Nozdrenko, 1970; <sup>1</sup>Yudkin and Shauro, 2008; <sup>1</sup>Koropachinskiy and Banaev, 2014); **Tomsk Oblast** (<sup>3</sup>Agaphonova, Kutafjeva, and Gashkov, 2007; <sup>3</sup>Agaphonova, Kutafjeva, and Gashkov, 2009b; <sup>1,3</sup>Kudashova, Gashkov, and Kutafjeva, 2013; <sup>1</sup>Kudashova, Gashkov, and Vaishlya, 2016b).

FAR EAST: **Amur Oblast** (<sup>1</sup>Taranina, 2005; <sup>1</sup>Kochunova, 2016; <sup>1</sup>Kochunova and Timchenko, 2019; <sup>1</sup>Kochunova, 2019); **Jewish Autonomous Oblast** (<sup>1</sup>Bau, Bulakh, and Govorova, 2011); **Khabarovsk Krai** (<sup>1</sup>Azbukina et al., 1986; <sup>1</sup>Azbukina et al., 1989; <sup>1</sup>Bau, Bulakh, and Govorova, 2011); **Primorsky Krai** (<sup>1</sup>Vassiljeva, 1973; <sup>1</sup>Bunkina and Nazarova, 1978; <sup>1</sup>Azbukina et al., 1984; <sup>1</sup>Azbukina et al., 2006; <sup>1</sup>Bau, Bulakh, and Govorova, 2011).

#### ***Volvariella caesiotincta* P.D. Orton**

EASTERN EUROPE: **Karachay-Cherkess Republic** (Kalamees and Botashev, 2000); **Sverdlovsk Oblast** (Shiryayeva, 2018); **Tatarstan** (Potapov, 2015b; Nazirov, Gorshkov, Ivanov, and Rogova, 2016).

#### ***Volvariella cinerascens* (Bres.) M.M. Moser**

EASTERN EUROPE: **Crimea** (Sarkina, 2001; Dudka et al., 2004; Sarkina and Prydiuk, 2012).

#### ***Volvariella hypopithys* (Fr.) Shaffer<sup>1</sup>**

≡ *Volvariella hypopithys* (Fr.) M.M. Moser<sup>2</sup> = *Volvariella pubescentipes* (Peck) Singer<sup>3</sup>

EASTERN EUROPE: **Kaliningrad Oblast** (<sup>2</sup>Dedkov, Volodina, and Gubareva, 2007); **Lipetsk Oblast** (<sup>2</sup>Sarycheva et al., 2009; <sup>2</sup>Shcherbakov, 2014; <sup>2</sup>Sarycheva, 2016); **Moscow Oblast** (<sup>2</sup>Levitskaya, 1995c; <sup>2</sup>Levitskaya, 2013); **Novgorod Oblast** (<sup>2</sup>Kovalenko, Morozova, Nezdojminogo, and Popov, 2005; <sup>2</sup>Popov et al., 2013); **Penza Oblast** (<sup>2</sup>Ivanov, 1982); **Perm Krai** (<sup>2</sup>Perevedentseva, 2008); **Pskov Oblast** (<sup>2</sup>Popov et al., 2013); **Samara Oblast** (<sup>2</sup>Malysheva and Malysheva, 2005b; <sup>2</sup>Malysheva and Malysheva, 2008); **Sverdlovsk Oblast** (<sup>1</sup>Shiryayeva, 2015a); **Volgograd Oblast** (<sup>2</sup>Burova and Nezdojminogo, 1980); **Yaroslavl Oblast** (<sup>2</sup>Lazareva, 1998a; <sup>2</sup>Lazareva, 2002).

SIBERIA: **Krasnoyarsk Krai** (<sup>2</sup>Beglyanova, 1972a); **Novosibirsk Oblast** (<sup>1</sup>Koropachinskiy and Banaev, 2014).

FAR EAST: **Primorsky Krai** (<sup>3</sup>Vassiljeva, 1973).

#### ***Volvariella media* (Schumach.) Singer**

EASTERN EUROPE: **Adygea** (Kovalenko, 1979a; Kovalenko, 1980b); **Belgorod Oblast** (Bedenko, 1979a); **Crimea** (Sarkina, 2001; Dudka et al., 2004); **Krasnodar Krai** (Kovalenko, 1980a); **Lipetsk Oblast** (Sarycheva, 1999; Sarycheva et al., 2009; Sarycheva, 2016); **Perm Krai** (Perevedentseva, 2008); **Arid territories** (Rebriev, Rusanov, et al., 2012).

SIBERIA: **Altai Republic** (Gorbunova, 1996; Gorbunova, 1997; Gorbunova, 2001a; Perova and Gorbunova, 2001); **Krasnoyarsk Krai** (Beglyanova, 1972a); **Novosibirsk Oblast** (Perova and Gorbunova, 2001; Gorbunova, 2007).

#### ***Volvariella murinella* (Quél.) M.M. Moser ex Dennis, P.D. Orton & Hora<sup>1</sup>**

≡ *Volvariella murinella* (Quél.) M.M. Moser<sup>2</sup>

EASTERN EUROPE: **Crimea** (<sup>1</sup>Sarkina, 2001; <sup>1</sup>Dudka et al., 2004; <sup>2</sup>Sarkina and Prydiuk, 2012); **Lipetsk Oblast** (<sup>2</sup>Sarycheva, 1999; <sup>2</sup>Sarycheva et al., 2009; <sup>2</sup>Shcherbakov, 2014; <sup>2</sup>Sarycheva, 2016); **Novgorod Oblast** (<sup>2</sup>Morozova, 2012); **Pskov Oblast** (<sup>2</sup>Popov et al., 2013; <sup>2</sup>Morozova et al., 2015); **Samara Oblast** (<sup>2</sup>Malysheva and Malysheva, 2004; <sup>2</sup>Malysheva and Malysheva, 2008); **Sverdlovsk Oblast** (<sup>1</sup>Shiryayeva, 2015a; <sup>1</sup>Shiryayeva, 2018); **Tver Oblast** (<sup>2</sup>Morozova, Aleksandrova, Popov, and Malysheva, 2016); **Udmurt Republic** (<sup>2</sup>Kapitonov, 2013); **Ulyanovsk Oblast** (<sup>2</sup>Ilyukhin, 2010a).

SIBERIA: **Krasnoyarsk Krai** (<sup>1</sup>Malysheva, Malysheva, Kiyashko, et al., 2017); **Novosibirsk Oblast** (<sup>2</sup>Koropachinskiy and Banaev, 2014).

FAR EAST: **Primorsky Krai** (<sup>2</sup>Azbukina et al., 2006; <sup>2</sup>Bau, Bulakh, and Govorova, 2011).

#### ***Volvariella paludosa* Kapitonov & E.F. Malysheva**

SIBERIA: **Tyumen Oblast** (Crous et al., 2020).

#### ***Volvariella pusilla* (Pers.) Singer<sup>1</sup>**

≡ *Agaricus pusillus* (Pers.) DC.<sup>2</sup> = *Agaricus parvulus* Weinm.<sup>3</sup> = *Volvariella parvula* (Weinm.) Speg.<sup>4</sup> = *Volvariella parvula* var. *biloba* Masseur<sup>5</sup>

EASTERN EUROPE: **Leningrad Oblast** (<sup>4</sup>Kovalenko and Morozova, 1999a; <sup>4</sup>Popov et al., 2007); **Lipetsk Oblast** (<sup>5</sup>Sarycheva et al., 2009; <sup>1</sup>Shcherbakov, 2014); **Moscow Oblast** (<sup>1</sup>Voronina et al., 2012; <sup>1</sup>Voronina et al., 2014);

**Orenburg Oblast** (<sup>1</sup>Desyatova, 2008); **Penza Oblast** (<sup>1</sup>Ivanov, 1981b; <sup>1</sup>Ivanov, 1983); **Perm Krai** (<sup>1</sup>Perevedentseva, 2008); **Rostov Oblast** (<sup>1</sup>Zmitrovich et al., 2008); **Ryazan Oblast** (<sup>1</sup>Volosnova, 1997; <sup>1</sup>Volosnova, 2014); **Saint Petersburg** (<sup>2,3</sup>Weinmann, 1828; <sup>3</sup>Weinmann, 1836; <sup>3</sup>Weinmann, 1837); **Sverdlovsk Oblast** (<sup>1</sup>Shiryayeva, 2018); **Tatarstan** (<sup>1</sup>Vassiljeva, 1977); **Tula Oblast** (<sup>1</sup>Shcherbakov, 2010); **Volgograd Oblast** (<sup>1</sup>Burova and Nezdjominogo, 1980); **Arid territories** (<sup>1</sup>Rebriev, Rusanov, et al., 2012).

SIBERIA: **Altai Republic** (<sup>1</sup>Perova and Gorbunova, 2001; <sup>4</sup>Gorbunova, 2001b); **Khakassia** (<sup>1</sup>Zauzolkova, 2015; <sup>1</sup>Zauzolkova and Gorbunova, 2016); **Krasnoyarsk Krai** (<sup>1</sup>Beglyanova, 1972a); **Novosibirsk Oblast** (<sup>1</sup>Perova and Gorbunova, 2001; <sup>1</sup>Gorbunova, 2006; <sup>1</sup>Gorbunova, 2007; <sup>1</sup>Koropachinskiy and Banaev, 2014).

FAR EAST: **Primorsky Krai** (<sup>1</sup>Vassiljeva, 1973; <sup>1</sup>Bunkina and Nazarova, 1978; <sup>1</sup>Azbukina et al., 1984; <sup>1</sup>Kovalenko and Nezdjominogo, 1989; <sup>1</sup>Azbukina et al., 2006; <sup>1</sup>Bau, Bulakh, and Govorova, 2011).

### ***Volvariella surrecta* (Knapp) Singer**

EASTERN EUROPE: **Crimea** (Sarkina, 2001; Dudka et al., 2004; Sarkina and Mironova, 2015); **Saint Petersburg** (Morozova et al., 2020); **Tatarstan** (Vassiljeva, 1977).

FAR EAST: **Amur Oblast** (Taranina, 2005; Streltsov, 2009; Senchik and Malikova, 2019).

### ***Volvariella taylorii* (Berk. & Broome) Singer**

EASTERN EUROPE: **Crimea** (Sarkina, 2001; Dudka et al., 2004; Sarkina and Prydiuk, 2012); **Moscow Oblast** (Levitskaya, 1995b; Levitskaya, 2013); **Rostov Oblast** (Fedyaeva, 2014; Rebriev, 2018); **Ryazan Oblast** (Volosnova, 2005; Volosnova, 2014); **Tula Oblast** (Svetasheva, 2004; Svetasheva, 2005b); **Arid territories** (Rebriev, Rusanov, et al., 2012).

SIBERIA: **Krasnoyarsk Krai** (Beglyanova, 1972a); **Tomsk Oblast** (Perova and Gorbunova, 2001; Kudashova, Gashkov, and Kutafjeva, 2013; Kudashova, Gashkov, and Vaishlya, 2016b).

### ***Volvariella volvacea* (Bull.) Singer<sup>1</sup>**

≡ *Agaricus volvaceus* Bull.<sup>2</sup> ≡ *Volvaria volvacea* (Bull.) P. Kumm.<sup>3</sup>

EASTERN EUROPE: **Crimea** (<sup>3</sup>Zerova, 1962; <sup>1</sup>Sarkina, 2001; <sup>1</sup>Dudka et al., 2004; <sup>1</sup>Sarkina, 2010b); **Moscow** (<sup>2</sup>Weinmann, 1836; <sup>3</sup>Bucholtz, 1897a); **Ryazan Oblast** (<sup>1</sup>Volosnova, 1997; <sup>1</sup>Volosnova, 2014); **Saint Petersburg** (<sup>2</sup>Weinmann, 1828; <sup>2</sup>Weinmann, 1837); **Samara Oblast** (<sup>1</sup>Malysheva and Malysheva, 2005b; <sup>1</sup>Malysheva and Malysheva, 2008); **Tatarstan** (<sup>1</sup>Vassiljeva, 1977); **Ulyanovsk Oblast** (<sup>1</sup>Ilyukhin, 2009; <sup>1</sup>Ilyukhin, 2010a).

SIBERIA: **Buryatia** (<sup>1</sup>Pronin, 2013); **Irkutsk Oblast** (<sup>1</sup>Trofimova, Popov, and Merkacheva, 2020); **Khakassia** (<sup>1</sup>Zauzolkova, 2015; <sup>1</sup>Zauzolkova and Gorbunova, 2016).

FAR EAST: **Amur Oblast** (<sup>1</sup>Streltsov, 2009; <sup>1</sup>Senchik and Malikova, 2019); **Jewish Autonomous Oblast** (<sup>1</sup>Bulakh, Govorova, Nazarova, and Vassiljeva, 2007; <sup>1</sup>Bau, Bulakh, and Govorova, 2011); **Khabarovsk Krai** (<sup>1</sup>Bau, Bulakh, and Govorova, 2011); **Primorsky Krai** (<sup>1</sup>Vassiljeva, 1972; <sup>1</sup>Vassiljeva, 1973; <sup>1</sup>Bunkina and Nazarova, 1978; <sup>1</sup>Azbukina et al., 2006; <sup>1</sup>Bau, Bulakh, and Govorova, 2011).

### ***Volvopluteus gloiocephalus* (DC.) Vizzini, Contu & Justo<sup>1</sup>**

≡ *Volvariella gloiocephala* (DC.) Boekhout & Enderle<sup>2</sup> ≡ *Volvariella speciosa* var. *gloiocephala* (DC.) Singer<sup>3</sup> = *Agaricus speciosus* (Fr.) Fr.<sup>4</sup> = *Volvaria speciosa* (Fr.) P. Kumm.<sup>5</sup> = *Volvariella speciosa* (Fr.) Singer<sup>6</sup>

EASTERN EUROPE: **Adygea** (<sup>6</sup>Kovalenko, 1979a; <sup>6</sup>Kovalenko, 1980b; <sup>6</sup>Sopina, 2001a); **Belgorod Oblast** (<sup>6</sup>Bedenko, 1980); **Crimea** (<sup>2</sup>Sarkina, 2001; <sup>2</sup>Dudka et al., 2004; <sup>2</sup>Sarkina, 2011); **Kaliningrad Oblast** (<sup>2</sup>Dedkov, Volodina, and Gubareva, 2007; <sup>2</sup>Volodina, 2007); **Kaluga Oblast** (<sup>2</sup>Sionova, 2012); **Karelia** (<sup>2</sup>Krutov et al., 2014); **Komi Republic** (<sup>1</sup>Palamarchuk, 2020b); **Krasnodar Krai** (<sup>2</sup>Vassiljeva, 1939; <sup>6</sup>Kovalenko, 1980a); **Kursk Oblast** (<sup>6</sup>Ryabova and Ignatenko, 1981); **Leningrad Oblast** (<sup>5</sup>Thesleff, 1920; <sup>2</sup>Kovalenko and Morozova, 1999a; <sup>2</sup>Popov et al., 2007; <sup>1</sup>Zmitrovich et al., 2015); **Lipetsk Oblast** (<sup>6</sup>Alferova, 1977; <sup>6</sup>Sarycheva, 1999; <sup>2</sup>Sarycheva et al., 2009; <sup>2</sup>Sarycheva, 2014a; <sup>2</sup>Sarycheva, 2016); **Moscow Oblast** (<sup>2</sup>Levitskaya, 2006; <sup>2</sup>Levitskaya, 2013); **North Ossetia** (<sup>2</sup>Nikolayev, 2001); **Novgorod Oblast** (<sup>2</sup>Morozova, 2012); **Penza Oblast** (<sup>6</sup>Ivanov, 1988a); **Perm Krai** (<sup>2</sup>Perevedentseva, 2008); **Rostov Oblast** (<sup>1</sup>Rusanov, Rebriev, and Bulgakov, 2018); **Ryazan Oblast** (<sup>6</sup>Volosnova, 1997; <sup>2</sup>Volosnova, 2014); **Saint Petersburg** (<sup>4</sup>Weinmann, 1836; <sup>4</sup>Weinmann, 1837; <sup>2</sup>Kovalenko and Morozova, 1999a; <sup>2</sup>Morozova and Kovalenko, 2000; <sup>2</sup>Kotkova, Morozova, and Popov, 2006); **Smolensk Oblast** (<sup>6</sup>Jaczewski, 1896); **Sverdlovsk Oblast** (<sup>2</sup>Marina, 2006); **Tatarstan** (<sup>6</sup>Vassiljeva, 1977; <sup>1</sup>Potapov, Galeyev, and Zhukov, 2013; <sup>2</sup>Potapov, 2015b); **Tver Oblast** (<sup>2</sup>Mukhina, 2011a; <sup>2</sup>Mukhina, 2011b; <sup>1</sup>Kotkova, 2014); **Udmurt Republic** (<sup>6</sup>Tychinin, 1990; <sup>6</sup>Tychinin and Kuzmina, 2003); **Ulyanovsk Oblast** (<sup>2</sup>Ilyukhin, 2009; <sup>2</sup>Ilyukhin, 2010a); **Vologda Oblast** (<sup>1</sup>Bolshakov et al., 2018); **Voronezh Oblast**

(<sup>5</sup>Chastukhin and Nikolaevskaya, 1953; <sup>6</sup>Chastukhin and Nikolaevskaya, 1969; <sup>6</sup>Selochnik, 2015); **Arid territories** (<sup>2</sup>Rebriev, Rusanov, et al., 2012).

SIBERIA: **Altai Krai** (<sup>2</sup>Gorbunova and Chubarova, 2008; <sup>2</sup>Gorbunova, Vlasenko, and Tzhubarova, 2011); **Altai Republic** (<sup>6</sup>Gorbunova, 1996; <sup>6</sup>Gorbunova, 1997; <sup>6</sup>Gorbunova, 2001b; <sup>6</sup>Perova and Gorbunova, 2001); **Buryatia** (<sup>6</sup>Nezdojminogo, 1970a; <sup>6</sup>Petrov, 1991); **Irkutsk Oblast** (<sup>6</sup>Kutafjeva and Astapenko, 1987; <sup>6</sup>Petrov, 2008); **Kemerovo Oblast** (<sup>6</sup>Perova and Gorbunova, 2001); **Khakassia** (<sup>6</sup>Beglyanova, 1972a; <sup>2</sup>Gorbunova and Majnagasheva, 2013); **Krasnoyarsk Krai** (<sup>6</sup>Beglyanova, 1972a; <sup>2</sup>Kosheleva and Kutafjeva, 2008a; <sup>1</sup>Malysheva, Malysheva, Kiyashko, et al., 2017; <sup>1</sup>Krom and Kapitonov, 2019); **Novosibirsk Oblast** (<sup>6</sup>Zaytseva, 1971; <sup>3</sup>Perova and Gorbunova, 2001; <sup>2</sup>Perova and Gorbunova, 2007; <sup>1</sup>Koropachinskiy and Banaev, 2014); **Tomsk Oblast** (<sup>6</sup>Perova and Gorbunova, 2001; <sup>2</sup>Kudashova, Gashkov, and Kutafjeva, 2013; <sup>2</sup>Kudashova, Gashkov, and Vaishlya, 2016b).

FAR EAST: **Amur Oblast** (<sup>6</sup>Azbukina et al., 1998; <sup>2</sup>Bogacheva et al., 2018); **Jewish Autonomous Oblast** (<sup>1</sup>Erofeeva, Bukharova, and Bulakh, 2019); **Khabarovsk Krai** (<sup>6</sup>Azbukina et al., 1989); **Primorsky Krai** (<sup>6</sup>Vassiljeva, 1972; <sup>2,6</sup>Vassiljeva, 1973; <sup>2</sup>Bunkina and Nazarova, 1978; <sup>2</sup>Azbukina et al., 1984; <sup>2</sup>Azbukina et al., 1990; <sup>2</sup>Bardunov et al., 2002; <sup>2,6</sup>Azbukina et al., 2006; <sup>6</sup>Bau, Bulakh, Zhuang, and Li, 2007; <sup>2</sup>Bau, Bulakh, and Govorova, 2011; <sup>2</sup>Bogacheva et al., 2018).

### *Volvopluteus michiganensis* (A.H. Sm.) Justo & Minnis

SIBERIA: **Krasnoyarsk Krai** (Krom and Kapitonov, 2019; Krom, Ageev, Bulyonkova, and Morozova, 2019).

### *Xerocomellus chrysenteron* (Bull.) Šutara<sup>1</sup>

≡ *Boletus chrysenteron* Bull.<sup>2</sup> ≡ *Xerocomus chrysenteron* (Bull.) Quél.<sup>3</sup>

EASTERN EUROPE: **Adygea** (<sup>3</sup>Kovalenko, 1979a; <sup>3</sup>Kovalenko, 1980b; <sup>3</sup>Vaasma, Kalamees, and Raitviir, 1986; <sup>3</sup>Sopina, 2001a); **Arkhangelsk Oblast** (<sup>3</sup>Ezhov, Ershov, Ruokolainen, and Zmitrovich, 2011; <sup>3</sup>Ezhov, 2014); **Bashkortostan** (<sup>3</sup>Stepanova and Sirko, 1977); **Belgorod Oblast** (<sup>3</sup>Bedenko, 1979a; <sup>3</sup>Ryabova and Ignatenko, 1981; <sup>3</sup>Psurtseva, Belova, and Ryabusheva, 2003); **Bryansk Oblast** (<sup>3</sup>Kruglikov, 2007); **Chechen Republic** (<sup>3</sup>Taysumov, Krapivina, Umarov, and Astamirova, 2012); **Crimea** (<sup>2</sup>Zerova, 1962; <sup>3</sup>Sarkina, 2001; <sup>3</sup>Dudka et al., 2004; <sup>2</sup>Akulov and Pryidiuk, 2007; <sup>2</sup>Sarkina, 2010b; <sup>2</sup>Sarkina, 2011; <sup>2</sup>Sarkina and Pryidiuk, 2012; <sup>2</sup>Sarkina, 2013; <sup>2</sup>Sarkina, 2014b; <sup>2</sup>Sarkina and Mironova, 2015; <sup>2</sup>Sarkina, 2016a; <sup>1</sup>Sarkina and Stavishenko, 2019); **Kabardino-Balkarian Republic** (<sup>3</sup>Shkhagapsoev and Krapivina, 2003; <sup>3</sup>Shkhagapsoev and Krapivina, 2004); **Kaliningrad Oblast** (<sup>3</sup>Dedkov, Volodina, and Gubareva, 2007; <sup>3</sup>Volodina, 2007; <sup>1</sup>Atayev and Volodina, 2020); **Kaluga Oblast** (<sup>3</sup>Sionova, 2003); **Krasnodar Krai** (<sup>3</sup>Vassiljeva, 1939; <sup>3</sup>Kovalenko, 1980a; <sup>3</sup>Kovalenko, 1980b); **Kursk Oblast** (<sup>3</sup>Ryabova and Ignatenko, 1981; <sup>3</sup>Baranov, 2002; <sup>3</sup>Soshnina, 2005); **Leningrad Oblast** (<sup>2</sup>Thesleff, 1920; <sup>3</sup>Kovalenko and Morozova, 1999a; <sup>3</sup>Popov et al., 2007); **Lipetsk Oblast** (<sup>3</sup>Alferova, 1977; <sup>3</sup>Rtishcheva, 1999; <sup>3</sup>Sarycheva, 1999; <sup>3</sup>Afanasyev, Rtishcheva, and Starodubtseva, 2007; <sup>2</sup>Sarycheva et al., 2009; <sup>2</sup>Sarycheva, 2011; <sup>3</sup>Sarycheva, 2014a; <sup>2</sup>Sarycheva, 2016; <sup>2</sup>Sarycheva, Starodubtseva, and Sapelnikova, 2017); **Mordovia** (<sup>2</sup>Ivoilov and Bolshakov, 2011b; <sup>1</sup>Bolshakov, 2015); **Moscow** (<sup>2</sup>Bucholtz, 1897b; <sup>2</sup>Bucholtz, 1897c; <sup>2</sup>Mosolov, 1906); **Moscow Oblast** (<sup>3</sup>Gorlenko, Sidorova, and Sidorova, 1989; <sup>3</sup>Levitskaya, 1995b; <sup>2</sup>Voronina et al., 2012; <sup>3</sup>Levitskaya, 2013; <sup>2</sup>Voronina et al., 2014; <sup>1</sup>Sidorova, Alexandrova, and Voronina, 2017); **North Ossetia** (<sup>3</sup>Nikolayev, 2001); **Novgorod Oblast** (<sup>3</sup>Kovalenko, Morozova, Nezdojminogo, and Popov, 2005; <sup>3</sup>Popov et al., 2013); **Orenburg Oblast** (<sup>3</sup>Korshikova, 2006; <sup>3</sup>Desyatova, 2008); **Oryol Oblast** (<sup>3</sup>Volobuev and Tsutsupa, 2009; <sup>3</sup>Radygina, Derzhavina, and Tsutsupa, 2014); **Penza Oblast** (<sup>3</sup>Ivanov, 1981a; <sup>3</sup>Ivanov, 1999; <sup>1</sup>Ivanov, 2019); **Perm Krai** (<sup>3</sup>Perevedentseva, 2008); **Pskov Oblast** (<sup>3</sup>Popov et al., 2013); **Rostov Oblast** (<sup>3</sup>Rusanov et al., 2004; <sup>3</sup>Zmitrovich et al., 2008; <sup>1</sup>Rusanov, Rebriev, and Bulgakov, 2018); **Ryazan Oblast** (<sup>3</sup>Volosnova, 1997; <sup>2</sup>Volosnova, 2014); **Saint Petersburg** (<sup>3</sup>Kovalenko and Morozova, 1999a; <sup>3</sup>Morozova and Smirnov, 2011); **Samara Oblast** (<sup>2</sup>Malysheva and Malysheva, 2008); **Saratov Oblast** (<sup>3</sup>Komirnaya, 1975); **Sevastopol** (<sup>2</sup>Sarkina, 2016b; <sup>1</sup>Sarkina, 2020c); **Sverdlovsk Oblast** (<sup>3</sup>Stepanova and Sirko, 1977; <sup>3</sup>Marina, 2006); **Tatarstan** (<sup>3</sup>Vassiljeva, 1977); **Tula Oblast** (<sup>3</sup>Svetasheva, 2004; <sup>3</sup>Svetasheva, 2013); **Tver Oblast** (<sup>3</sup>Kurochkin, 1993); **Udmurt Republic** (<sup>3</sup>Tychinin and Kuzmina, 2003); **Ulyanovsk Oblast** (<sup>3</sup>Ilyukhin, 2009; <sup>3</sup>Ilyukhin, 2010a); **Volgograd Oblast** (<sup>3</sup>Burova and Nezdojminogo, 1980; <sup>3</sup>Burova and Nezdojminogo, 1982; <sup>3</sup>Dudka and Vedeneyev, 2014); **Vologda Oblast** (<sup>3</sup>Kirillova, 2007); **Voronezh Oblast** (<sup>3</sup>Rtishcheva, 1999; <sup>3</sup>Afanasyev, Rtishcheva, and Starodubtseva, 2007; <sup>3</sup>Selochnik, 2015; <sup>2</sup>Sarycheva, Starodubtseva, and Sapelnikova, 2017; <sup>3</sup>Kochergina and Furmenkova, 2019); **Yaroslavl Oblast** (<sup>3</sup>Lazareva, 1997; <sup>3</sup>Lazareva, 1998a); **Arid territories** (<sup>2</sup>Rebriev, Rusanov, et al., 2012).

SIBERIA: **Altai Krai** (<sup>3</sup>Gorbunova and Chubarova, 2008; <sup>2</sup>Gorbunova, Vlasenko, and Tzhubarova, 2011); **Altai Republic** (<sup>2</sup>Gorbunova, 2001a); **Irkutsk Oblast** (<sup>2</sup>Muzyka and Penzina, 2017); **Kemerovo Oblast** (<sup>3</sup>Perova and Gorbunova, 2001); **Krasnoyarsk Krai** (<sup>3</sup>Beglyanova, 1972a); **Novosibirsk Oblast** (<sup>2</sup>Koropachinskiy and Banaev, 2014); **Tomsk Oblast** (<sup>3</sup>Milovidova, 1980; <sup>3</sup>Perova and Gorbunova, 2001; <sup>2</sup>Kudashova, Gashkov, and Kutafjeva, 2013; <sup>1</sup>Vaishlya et al., 2017).



FAR EAST: **Amur Oblast** (<sup>3</sup>Taranina, 2005; <sup>1</sup>Bogacheva et al., 2018; <sup>1</sup>Kochunova, 2019); **Jewish Autonomous Oblast** (<sup>3</sup>Bulakh, Govorova, Nazarova, and Vassiljeva, 2007; <sup>2</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Bogacheva et al., 2018); **Khabarovsk Krai** (<sup>1</sup>Erofeeva and Bulakh, 2015a; <sup>1</sup>Bogacheva et al., 2018); **Primorsky Krai** (<sup>3</sup>Vassiljeva, 1973; <sup>3</sup>Bunkina and Nazarova, 1978; <sup>3</sup>Bardunov et al., 2002; <sup>3</sup>Azbukina et al., 2006; <sup>2</sup>Bau, Bulakh, and Govorova, 2011; <sup>2</sup>Bulakh et al., 2016; <sup>1</sup>Bogacheva et al., 2018; <sup>1,2</sup>Bogacheva, Bulakh, Bukharova, and Egorova, 2020).

***Xerocomellus cisalpinus* (Simonini, H. Ladurner & Peintner) Klofac<sup>1</sup>**

≡ *Xerocomus cisalpinus* Simonini, H. Ladurner & Peintner<sup>2</sup>

EASTERN EUROPE: **Saint Petersburg** (<sup>1</sup>Morozova et al., 2020); **Volgograd Oblast** (<sup>1</sup>Rebriev, Popov, and Svetasheva, 2015; <sup>2</sup>Svetasheva, 2015).

***Xerocomellus fennicus* (Harmaja) Šutara**

EASTERN EUROPE: **Saint Petersburg** (Morozova et al., 2020).

***Xerocomellus porosporus* (Imler ex Watling) Šutara<sup>1</sup>**

≡ *Boletus porosporus* Imler ex Watling<sup>2</sup> ≡ *Xerocomus porosporus* (Imler ex Watling) Contu<sup>3</sup> ≡ *Xerocomus porosporus* Imler<sup>4</sup>

EASTERN EUROPE: **Crimea** (<sup>4</sup>Dudka et al., 2004; <sup>2</sup>Sarkina, 2011; <sup>2</sup>Sarkina and Mironova, 2015); **Kaliningrad Oblast** (<sup>1</sup>Atayev and Volodina, 2020); **Kursk Oblast** (<sup>4</sup>Baranov, 2002); **Leningrad Oblast** (<sup>1</sup>Morozova and Kovalenko, 2000 [as *Xerocomus chrysenteron* (Bull.) Quél., redet. in Kalinina, 2018]; <sup>1</sup>Kalinina, 2018); **Lipetsk Oblast** (<sup>2</sup>Sarycheva, 2014a; <sup>2</sup>Sarycheva, 2016); **Orenburg Oblast** (<sup>3</sup>Korshikova, 2006; <sup>2</sup>Desyatova, 2008); **Saint Petersburg** (<sup>1</sup>Morozova et al., 2020); **Samara Oblast** (<sup>2</sup>Malysheva and Malysheva, 2008); **Tatarstan** (<sup>2</sup>Potapov, 2015b; <sup>1</sup>Potapov, 2016b); **Tula Oblast** (<sup>4</sup>Svetasheva, 2004; <sup>3</sup>Svetasheva, 2013); **Udmurt Republic** (<sup>3</sup>Kapitonov, 2013); **Ulyanovsk Oblast** (<sup>2</sup>Ilyukhin, 2010a).

***Xerocomellus pruinatus* (Fr. & Hök) Šutara<sup>1</sup>**

≡ *Boletus pruinatus* Fr. & Hök<sup>2</sup> ≡ *Xerocomus pruinatus* (Fr. & Hök) Quél.<sup>3</sup> = *Boletus pascuus* (Pers.) Corda<sup>4</sup> = *Xerocomus pascuus* (Pers.) E.-J. Gilbert<sup>5</sup>

EASTERN EUROPE: **Adygea** (<sup>3</sup>Sopina, 2001a; <sup>3</sup>Zamotajlov, Sirotyuk (Kuvaeva), Akatova, and Lipka, 2012); **Crimea** (<sup>3</sup>Moser, 1993; <sup>3</sup>Sarkina, 2001; <sup>3</sup>Dudka et al., 2004; <sup>2</sup>Akulov and Pryidiuk, 2007; <sup>2</sup>Sarkina, 2010b; <sup>2</sup>Sarkina, 2013; <sup>2</sup>Sarkina, 2014b; <sup>2</sup>Sarkina and Mironova, 2015; <sup>2</sup>Sarkina, 2016a; <sup>1</sup>Sarkina and Stavishenko, 2019; <sup>1</sup>Sarkina, 2020a); **Kaliningrad Oblast** (<sup>3</sup>Dedkov, Volodina, and Gubareva, 2007); **Karachay-Cherkess Republic** (<sup>5</sup>Kalamees and Botashev, 2000); **Oryol Oblast** (<sup>4</sup>Radygina, Derzhavina, and Tsutsupa, 2014); **Penza Oblast** (<sup>1</sup>Ivanov, 2019); **Pskov Oblast** (<sup>4</sup>Popov, 2001a); **Saint Petersburg** (<sup>3</sup>Morozova, Kovalenko, Rebriev, and Malysheva, 2014).

***Xerocomellus ripariellus* (Redeuilh) Šutara**

EASTERN EUROPE: **Leningrad Oblast** (Volobuev et al., 2019); **Novgorod Oblast** (Kalinina, 2019); **Udmurt Republic** (Kapitonov, 2013).

***Xerocomellus truncatus* (Singer, Snell & E.A. Dick) Klofac**

≡ *Xerocomus truncatus* Singer, Snell & E.A. Dick<sup>1</sup>

EASTERN EUROPE: **Moscow Oblast** (<sup>1</sup>Levitskaya, 1995b; <sup>1</sup>Levitskaya, 2013); **Saratov Oblast** (<sup>1</sup>Komirnaya, 1975).

***Xerocomus chostensis* Vassilkov**

EASTERN EUROPE: **Krasnodar Krai** (Vassilkov, 1955b).

***Xerocomus ferrugineus* (Schaeff.) Alessio<sup>1</sup>**

≡ *Boletus ferrugineus* Schaeff.<sup>2</sup> = *Xerocomus spadiceus* (Schaeff. ex Fr.) Quél.<sup>3</sup>

EASTERN EUROPE: **Crimea** (<sup>3</sup>Dudka et al., 2004); **Kirov Oblast** (<sup>3</sup>Kirillov, 2011; <sup>3</sup>Kirillov, Perevedentseva, and Egoshina, 2011); **Komi Republic** (<sup>1</sup>Palamarchuk, 2016a; <sup>1</sup>Palamarchuk, 2016b; <sup>2</sup>Palamarchuk, 2020a); **Leningrad Oblast** (<sup>2</sup>Zmitrovich et al., 2015); **Lipetsk Oblast** (<sup>1</sup>Sarycheva, 2014a; <sup>2</sup>Sarycheva, 2016; <sup>2</sup>Sarycheva, Starodubtseva, and Sapelnikova, 2017); **Penza Oblast** (<sup>1</sup>Ivanov, 2019); **Perm Krai** (<sup>3</sup>Perevedentseva, 2008); **Saint Petersburg** (<sup>1</sup>Morozova et al., 2020); **Saratov Oblast** (<sup>3</sup>Komirnaya, 1975); **Tatarstan** (<sup>2</sup>Potapov, 2015b; <sup>1</sup>Potapov, 2016b).

SIBERIA: **Krasnoyarsk Krai** (<sup>2</sup>Krom and Kapitonov, 2019).

FAR EAST: **Primorsky Krai** (<sup>2</sup>Malysheva et al., 2016).

***Xerocomus subtomentosus* (L.) Quél.<sup>1</sup>**

≡ *Boletus subtomentosus* L.<sup>2</sup> ≡ *Boletus subtomentosus* var. *subtomentosus* L.<sup>3</sup> ≡ *Xerocomus subtomentosus* f. *subtomentosus* (L.) Quél.<sup>4</sup> ≡ *Xerocomus subtomentosus* var. *subtomentosus* (L.) Quél.<sup>5</sup> = *Xerocomus lanatus* (Rostk.) Singer<sup>6</sup> = *Xerocomus subtomentosus* f. *squarrosus* A.N. Petrov<sup>7</sup>

EASTERN EUROPE: **Adygea** (<sup>1</sup>Vassiljeva, 1939; <sup>1</sup>Kovalenko, 1980b; <sup>1</sup>Sopina, 2001a); **Arkhangelsk Oblast** (<sup>2</sup>Lebedeva, 1933; <sup>1</sup>Ezhov, Ershov, Ruokolainen, and Zmitrovich, 2011; <sup>1</sup>Ezhov, 2014); **Belgorod Oblast** (<sup>1</sup>Bedenko, 1979a); **Bryansk Oblast** (<sup>1</sup>Kruglikov, 2007); **Chechen Republic** (<sup>1</sup>Taysumov, Krapivina, Umarov, and Astamirova, 2012); **Chelyabinsk Oblast** (<sup>2</sup>Aleksandrovskaya and Lobanova, 1968; <sup>1</sup>Stepanova and Sirko, 1977); **Crimea** (<sup>2</sup>Zerova, 1962; <sup>1</sup>Moser, 1993; <sup>1</sup>Sarkina, 2001; <sup>1</sup>Dudka et al., 2004; <sup>2</sup>Akulov and Pryidiuk, 2007; <sup>2</sup>Sarkina, 2010b; <sup>2</sup>Sarkina, 2011; <sup>2</sup>Sarkina and Pryidiuk, 2012; <sup>2</sup>Sarkina, 2013; <sup>2</sup>Sarkina, 2014b; <sup>2</sup>Sarkina and Mironova, 2015; <sup>2</sup>Sarkina, 2016a; <sup>2</sup>Sarkina and Stavishenko, 2019); **Kabardino-Balkarian Republic** (<sup>1</sup>Shkhagapsoev and Krapivina, 2003; <sup>1</sup>Shkhagapsoev and Krapivina, 2004); **Kaliningrad Oblast** (<sup>2</sup>Hennings, 1895; <sup>1,6</sup>Dedkov, Volodina, and Gubareva, 2007; <sup>1,6</sup>Volodina, 2007); **Kaluga Oblast** (<sup>1</sup>Sionova, 2003; <sup>1</sup>Sionova, 2006); **Karachay-Cherkess Republic** (<sup>1</sup>Vassiljeva, 1939; <sup>1,6</sup>Kalamees and Botashev, 2000); **Karelia** (<sup>1</sup>Freindling, 1949; <sup>1</sup>Kovalenko, Morozova, Fomina, and Särkisilta, 1998; <sup>1</sup>Bondartseva et al., 2001; <sup>2</sup>Predtechenskaya and Ruokolainen, 2013; <sup>2</sup>Predtechenskaya, 2013; <sup>2</sup>Krutov et al., 2014; <sup>2</sup>Predtechenskaya and Ruokolainen, 2014; <sup>2</sup>Savelev and Kikeeva, 2018); **Kirov Oblast** (<sup>1</sup>Kirillov, 2011; <sup>1</sup>Kirillov, Perevedentseva, and Egoshina, 2011; <sup>2</sup>Kirillov and Luginina, 2011; <sup>2</sup>Stavishenko, Luginina, Kirillov, and Egoshina, 2019); **Komi Republic** (<sup>1</sup>Karatygin, Nezdoininogo, Novozhilov, and Zhurbenko, 1999; <sup>1</sup>Palamarchuk, 2011b; <sup>2</sup>Palamarchuk, 2012; <sup>1</sup>Palamarchuk, 2016a; <sup>1</sup>Palamarchuk, 2016b; <sup>2</sup>Palamarchuk, 2017); **Kostroma Oblast** (<sup>1</sup>Burova, 1982; <sup>1</sup>Veremyeva, 1986); **Krasnodar Krai** (<sup>1</sup>Vassiljeva, 1939; <sup>1</sup>Kovalenko, 1980a; <sup>1</sup>Kovalenko, 1980b; <sup>1</sup>Vaasma, Kalamees, and Raitviir, 1986; <sup>1</sup>Shumkova, Krivorotov, and Gayday, 2018); **Kursk Oblast** (<sup>1</sup>Ryabova and Ignatenko, 1981); **Leningrad Oblast** (<sup>2</sup>Thesleff, 1920; <sup>1</sup>Kalamees and Kovalenko, 1984; <sup>1</sup>Stolyarskaya, 1989; <sup>1,6</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Fomina, 2000; <sup>6</sup>Morozova and Kovalenko, 2000; <sup>1</sup>Fomina, 2001; <sup>1</sup>Morozova, 2007; <sup>1,6</sup>Popov et al., 2007; <sup>1</sup>Psurtseva, Kiyashko, Gachkova, and Belova, 2007; <sup>2</sup>Kalinina, 2018); **Lipetsk Oblast** (<sup>1</sup>Alferova, 1977; <sup>1</sup>Rtishcheva, 1999; <sup>1</sup>Sarycheva, 1999; <sup>1</sup>Afanasyev, Rtishcheva, and Starodubtseva, 2007; <sup>2</sup>Sarycheva et al., 2009; <sup>2</sup>Sarycheva, 2011; <sup>1</sup>Sarycheva, 2014a; <sup>2</sup>Sarycheva, 2016; <sup>2</sup>Sarycheva, Starodubtseva, and Sapelnikova, 2017); **Mordovia** (<sup>2</sup>Chastukhin, 1948a; <sup>2</sup>Kuznetsov, 1960; <sup>2</sup>Chastukhin, 2011; <sup>2</sup>Ivoilov and Bolshakov, 2011b); **Moscow** (<sup>2</sup>Weinmann, 1836; <sup>2</sup>Bucholtz, 1897a; <sup>2</sup>Bucholtz, 1897b; <sup>2</sup>Bucholtz, 1897c; <sup>2</sup>Hennings, 1905; <sup>2</sup>Mosolov, 1906; <sup>1</sup>Burova, 1968); **Moscow Oblast** (<sup>1</sup>Gorlenko, Sidorova, and Sidorova, 1989; <sup>1</sup>Levitskaya, 1995b; <sup>2</sup>Voronina et al., 2012; <sup>1,6</sup>Levitskaya, 2013; <sup>2</sup>Voronina et al., 2014; <sup>2</sup>Sidorova, Alexandrova, and Voronina, 2017); **Murmansk Oblast** (<sup>1</sup>Pystina, Pavlova, and Shestakova, 1969; <sup>1</sup>Mikhailovskii, 1975b; <sup>1</sup>Karatygin, Nezdoininogo, Novozhilov, and Zhurbenko, 1999); **Novgorod Oblast** (<sup>1</sup>Kovalenko, Morozova, Nezdoininogo, and Popov, 2005; <sup>5</sup>Popov et al., 2013); **Orenburg Oblast** (<sup>1</sup>Desyatova, 2008); **Penza Oblast** (<sup>1</sup>Ivanov, 1981a); **Perm Krai** (<sup>1</sup>Perevedentseva, 2008; <sup>1</sup>Perevedentseva and Shishigin, 2014; <sup>2</sup>Belkovskaya et al., 2014; <sup>1</sup>Perevedentseva and Shishigin, 2015; <sup>1</sup>Botalov, 2017); **Pskov Oblast** (<sup>1</sup>Kovalenko and Morozova, 1999b; <sup>3</sup>Popov, 2001a; <sup>5</sup>Popov et al., 2013); **Rostov Oblast** (<sup>1</sup>Rusanov et al., 2004; <sup>1</sup>Zmitrovich et al., 2008; <sup>1</sup>Rusanov, Rebriev, and Bulgakov, 2018); **Ryazan Oblast** (<sup>1</sup>Volosnova, 1997; <sup>2</sup>Volosnova, 2014); **Saint Petersburg** (<sup>2</sup>Weinmann, 1828; <sup>2</sup>Weinmann, 1837; <sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Morozova and Smirnov, 2011; <sup>1</sup>Morozova, Kovalenko, Rebriev, and Malysheva, 2014); **Samara Oblast** (<sup>1</sup>Malysheva and Malysheva, 2004; <sup>2</sup>Malysheva and Malysheva, 2008); **Saratov Oblast** (<sup>2</sup>Lebedeva, 1927; <sup>2</sup>Komirnaya, 1970; <sup>2</sup>Komirnaya, 1975); **Sevastopol** (<sup>2</sup>Sarkina, 2016b; <sup>2</sup>Sarkina, 2020c); **Smolensk Oblast** (<sup>2</sup>Jaczewski, 1896); **Sverdlovsk Oblast** (<sup>1</sup>Stepanova and Sirko, 1977; <sup>1</sup>Marina, 2006); **Tatarstan** (<sup>1</sup>Vassiljeva, 1977); **Tula Oblast** (<sup>2</sup>Svetasheva, 2001; <sup>1</sup>Svetasheva, 2004; <sup>1</sup>Svetasheva, 2013); **Tver Oblast** (<sup>1</sup>Kurochkin, 1993; <sup>1</sup>Mukhina, 2011a; <sup>1</sup>Mukhina, 2011b; <sup>2</sup>Kotkova, 2014); **Udmurt Republic** (<sup>1</sup>Tychinin and Kuzmina, 2003); **Ulyanovsk Oblast** (<sup>1</sup>Ilyukhin, 2009; <sup>1</sup>Ilyukhin, 2010a); **Volgograd Oblast** (<sup>1</sup>Dudka and Vedeneyev, 2014); **Vologda Oblast** (<sup>2</sup>Kutova, 1957; <sup>1</sup>Kirillova, 2007); **Voronezh Oblast** (<sup>2</sup>Chastukhin, 1952; <sup>2</sup>Chastukhin and Nikolaevskaya, 1953; <sup>2</sup>Chastukhin and Nikolaevskaya, 1969; <sup>1</sup>Rtishcheva, 1999; <sup>1</sup>Afanasyev, Rtishcheva, and Starodubtseva, 2007; <sup>1</sup>Selochnik, 2015; <sup>2</sup>Sarycheva, Starodubtseva, and Sapelnikova, 2017); **Yamalo-Nenets Autonomous Okrug** (<sup>1</sup>Stepanova and Sirko, 1977; <sup>1</sup>Karatygin, Nezdoininogo, Novozhilov, and Zhurbenko, 1999; <sup>1</sup>Nezdoininogo, 2001); **Yaroslavl Oblast** (<sup>1</sup>Lazareva, 1997; <sup>1</sup>Lazareva, 1998a); **Arid territories** (<sup>2</sup>Rebriev, Rusanov, et al., 2012); **Lapland** (<sup>2</sup>Karsten, 1866).

SIBERIA: **Altai Krai** (<sup>1</sup>Gorbunova and Chubarova, 2008; <sup>2</sup>Gorbunova, Vlasenko, and Tzhubarova, 2011); **Altai Republic** (<sup>1</sup>Kovalenko, 1992; <sup>1</sup>Gorbunova, 2001b; <sup>1</sup>Gorbunova, 2008; <sup>2</sup>Gorbunova, 2010); **Buryatia** (<sup>1</sup>Nezdoininogo, 1970a; <sup>1</sup>Penzina and Petrov, 1994); **Irkutsk Oblast** (<sup>1</sup>Kutafjeva, 1982; <sup>7</sup>Petrov, 1983; <sup>4,7</sup>Petrov, 1984; <sup>1</sup>Petrov, 1989; <sup>1</sup>Astapenko, 1990b; <sup>7</sup>Petrov, 1991; <sup>1</sup>Muzyka, 2002; <sup>1</sup>Bardunov et al., 2005; <sup>5,7</sup>Petrov, 2008; <sup>2</sup>Gorbunova and Stepantsova, 2015); **Khakassia** (<sup>2</sup>Zauzolkova and Gorbunova, 2013; <sup>2</sup>Zauzolkova, 2015); **Khanty-Mansi Autonomous Okrug** (<sup>2</sup>Zvyagina, Baykalova, and Gorbunova, 2007; <sup>1</sup>Zvyagina, 2008; <sup>2</sup>Zvyagina and Baykalova,

2012; <sup>2</sup>Shepeleva et al., 2014; <sup>2</sup>Filippova, Bulyonkova, and Lapshina, 2015; <sup>2</sup>Makarova, Makarov, Zvyagina, and Bobrikov, 2015; <sup>2</sup>Zvyagina and Vasina, 2015; <sup>2</sup>Filippova and Bulyonkova, 2017a; <sup>2</sup>Filippova and Bulyonkova, 2017b); **Krasnoyarsk Krai** (<sup>1</sup>Perova, 1970; <sup>1</sup>Beglyanova, 1972a; <sup>1</sup>Nezdojminogo, 1976a; <sup>1</sup>Lapitskaya, 1990; <sup>1</sup>Kutafjeva and Kosheleva, 2005; <sup>1</sup>Pavlov et al., 2007; <sup>1</sup>Kosheleva and Kutafjeva, 2008a; <sup>2</sup>Kosheleva and Kutafjeva, 2008b; <sup>1</sup>Kosheleva, 2010; <sup>2</sup>Zauzolkova, 2012; <sup>2</sup>Zauzolkova, 2015); **Novosibirsk Oblast** (<sup>1</sup>Zaytseva, 1971; <sup>1</sup>Perova, 1977; <sup>2</sup>Perova and Gorbunova, 2007; <sup>2</sup>Koropachinskiy and Banaev, 2014); **Tomsk Oblast** (<sup>1</sup>Milovidova, 1980; <sup>1</sup>Kosheleva and Kutafjeva, 2004; <sup>2</sup>Kudashova, Gashkov, and Kutafjeva, 2013; <sup>2</sup>Vaishlya et al., 2017).

FAR EAST: **Amur Oblast** (<sup>1</sup>Bulakh, Govorova, and Taranina, 2003; <sup>1</sup>Taranina, 2005); **Chukotka Autonomous Okrug** (<sup>1</sup>Karatygin, Nezdojminogo, Novozhilov, and Zhurbenko, 1999); **Jewish Autonomous Oblast** (<sup>1</sup>Bulakh, Govorova, Nazarova, and Vassiljeva, 2007; <sup>2</sup>Bau, Bulakh, and Govorova, 2011); **Kamchatka Krai** (<sup>1</sup>Kalamees and Vaasma, 1981; <sup>1</sup>Karatygin, Nezdojminogo, Novozhilov, and Zhurbenko, 1999); **Khabarovsk Krai** (<sup>1</sup>Vassiljeva, 1956; <sup>1</sup>Azbukina et al., 1986; <sup>1</sup>Azbukina et al., 1989; <sup>2</sup>Bau, Bulakh, and Govorova, 2011; <sup>2</sup>Bulakh, 2013; <sup>2</sup>Bogacheva, Bulakh, Bukharova, and Egorova, 2015; <sup>2</sup>Erofeeva and Bulakh, 2015a); **Magadan Oblast** (<sup>1</sup>Nazarova, 1976; <sup>1</sup>Sazanova, 1996; <sup>1</sup>Sazanova, 2005; <sup>2</sup>Sazanova, 2009a; <sup>2</sup>Sazanova, 2009b; <sup>2</sup>Sazanova, 2011; <sup>2</sup>Sazanova, 2012; <sup>2</sup>Sazanova and Golodnova, 2015; <sup>2</sup>Sazanova, 2016); **Primorsky Krai** (<sup>1</sup>Vassiljeva, 1956; <sup>1</sup>Vassiljeva, 1972; <sup>1</sup>Vassiljeva, 1973; <sup>1</sup>Bunkina and Nazarova, 1978; <sup>1</sup>Azbukina et al., 1984; <sup>1</sup>Azbukina et al., 1990; <sup>1</sup>Bardunov et al., 2002; <sup>1</sup>Azbukina et al., 2006; <sup>2</sup>Bau, Bulakh, and Govorova, 2011; <sup>2</sup>Bulakh et al., 2016); **Sakhalin Oblast** (<sup>1</sup>Vassiljeva and Nazarova, 1972).

### *Xeromphalina amara* E. Horak & J. Peter

EASTERN EUROPE: **Karelia** (Krutov et al., 2014).

### *Xeromphalina brunneola* O.K. Mill.

EASTERN EUROPE: **Komi Republic** (Palamarchuk and Kirillov, 2017).

SIBERIA: **Buryatia** (Petrov, 2013); **Krasnoyarsk Krai** (Malysheva, Malysheva, Kiyashko, et al., 2017).

### *Xeromphalina campanella* (Batsch) Kühner & Maire<sup>1</sup>

≡ *Agaricus campanella* Batsch<sup>2</sup> ≡ *Omphalia campanella* (Batsch) P. Kumm.<sup>3</sup> ≡ *Omphalina campanella* (Batsch) Quéf.<sup>4</sup> = *Agaricus fragilis* Schaeff.<sup>5</sup> = *Omphalia fragilis* (Gray) Sacc.<sup>6</sup>

EASTERN EUROPE: **Adygea** (<sup>1</sup>Kovalenko, 1979a; <sup>1</sup>Kovalenko, 1980b; <sup>1</sup>Vaasma, Kalamees, and Raitviir, 1986); **Arkhangelsk Oblast** (<sup>4</sup>Lebedeva, 1933); **Bryansk Oblast** (<sup>1</sup>Kruglikov, 2007); **Chelyabinsk Oblast** (<sup>1</sup>Sirko and Stepanova, 1977; <sup>1</sup>Stepanova and Sirko, 1977); **Chuvash Republic** (<sup>1</sup>Vladimirova and Potapov, 2018); **Crimea** (<sup>1</sup>Dudka et al., 2004; <sup>1</sup>Sarkina, 2011); **Ivanovo Oblast** (<sup>4</sup>Alyavdina, 1949); **Kabardino-Balkarian Republic** (<sup>1</sup>Shkhagapsoev and Krapivina, 2004); **Kaliningrad Oblast** (<sup>4</sup>Hennings, 1895; <sup>1</sup>Deckov, Volodina, and Gubareva, 2007; <sup>1</sup>Volodina, 2007); **Kaluga Oblast** (<sup>1</sup>Sionova, 2003); **Karachay-Cherkess Republic** (<sup>1</sup>Vassiljeva, 1939; <sup>1</sup>Kalamees and Botashev, 2000); **Karelia** (<sup>1</sup>Freindling, 1949; <sup>1</sup>Czerepanova, Perfiljeva, and Tobias, 1982; <sup>1</sup>Kovalenko, Morozova, Fomina, and Särkisilta, 1998; <sup>1</sup>Bondartseva et al., 2001; <sup>1</sup>Predtechenskaya and Ruokolainen, 2013; <sup>1</sup>Predtechenskaya, 2013; <sup>1</sup>Krutov et al., 2014; <sup>1</sup>Predtechenskaya and Ruokolainen, 2014); **Kirov Oblast** (<sup>1</sup>Kirillov, 2011; <sup>1</sup>Kirillov, Perevedentseva, and Egoshina, 2011; <sup>1</sup>Stavishenko, Luginina, Kirillov, and Egoshina, 2019); **Komi Republic** (<sup>1</sup>Bobretsova, 2004; <sup>1</sup>Palamarchuk, 2012; <sup>1</sup>Palamarchuk, 2016a; <sup>1</sup>Palamarchuk, 2016b; <sup>1</sup>Palamarchuk and Kirillov, 2017); **Krasnodar Krai** (<sup>1</sup>Vassiljeva, 1939; <sup>1</sup>Kovalenko, 1980a; <sup>1</sup>Vaasma, Kalamees, and Raitviir, 1986); **Kursk Oblast** (<sup>1</sup>Bedenko, 1987); **Leningrad Oblast** (<sup>3</sup>Thesleff, 1920; <sup>1</sup>Nezdojminogo, 1967; <sup>1</sup>Chastukhin and Nikolaevskaya, 1969; <sup>1</sup>Kalamees and Kovalenko, 1984; <sup>1</sup>Stolyarskaya, 1989; <sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Morozova, 2007; <sup>1</sup>Popov et al., 2007; <sup>1</sup>Zmitrovich et al., 2015); **Lipetsk Oblast** (<sup>1</sup>Alferova, 1977; <sup>1</sup>Sarycheva, 1999; <sup>1</sup>Sarycheva et al., 2009; <sup>1</sup>Sarycheva, 2014a; <sup>1</sup>Sarycheva, 2016); **Mari El Republic** (<sup>1</sup>Prokhorov, 2007); **Mordovia** (<sup>3</sup>Chastukhin, 1948a; <sup>1</sup>Chastukhin and Nikolaevskaya, 1969; <sup>1</sup>Ivoilov and Bolshakov, 2011a; <sup>4</sup>Chastukhin, 2011); **Moscow** (<sup>5</sup>Bucholtz, 1897a; <sup>5</sup>Bucholtz, 1897b; <sup>5</sup>Bucholtz, 1897c; <sup>6</sup>Hennings, 1905; <sup>5</sup>Mosolov, 1906); **Moscow Oblast** (<sup>3</sup>Petroff, 1911; <sup>1</sup>Gorlenko, Sidorova, and Sidorova, 1989; <sup>1</sup>Levitskaya, 1995b; <sup>1</sup>Vishnevsky, 1998; <sup>1</sup>Voronina et al., 2012; <sup>1</sup>Levitskaya, 2013; <sup>1</sup>Voronina et al., 2014); **Murmansk Oblast** (<sup>2</sup>Karsten, 1866); **Nizhny Novgorod Oblast** (<sup>3</sup>Murashkinsky, 1911); **North Ossetia** (<sup>1</sup>Nikolayev, 2001); **Novgorod Oblast** (<sup>1</sup>Kovalenko, Morozova, Nezdojminogo, and Popov, 2005; <sup>1</sup>Psurtsseva, Kiyashko, Gachkova, and Belova, 2007; <sup>1</sup>Popov et al., 2013; <sup>1</sup>Baklan, 2015); **Penza Oblast** (<sup>1</sup>Ivanov, 1981a; <sup>1</sup>Ivanov, 1981b); **Perm Krai** (<sup>1</sup>Perevedentseva, 2008; <sup>1</sup>Belkovskaya et al., 2014; <sup>1</sup>Perevedentseva and Shishigin, 2014; <sup>1</sup>Botalov, 2015; <sup>1</sup>Botalov, Perevedentseva, and Denisov, 2015; <sup>1</sup>Botalov, 2017); **Pskov Oblast** (<sup>1</sup>Kovalenko and Morozova, 1999b; <sup>1</sup>Popov, 2001a; <sup>1</sup>Psurtsseva, Kiyashko, Gachkova, and Belova, 2007; <sup>1</sup>Popov et al., 2013); **Ryazan Oblast** (<sup>1</sup>Volosnova, 1997; <sup>1</sup>Volosnova, 2014); **Saint Petersburg** (<sup>2</sup>Weinmann, 1828; <sup>2</sup>Weinmann, 1836; <sup>2</sup>Weinmann, 1837; <sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Morozova and Smirnov, 2011; <sup>1</sup>Morozova et al., 2020); **Samara Oblast**

(<sup>1</sup>Malysheva and Malysheva, 2004; <sup>1</sup>Malysheva and Malysheva, 2008); **Smolensk Oblast** (<sup>3</sup>Jaczevski, 1896); **Sverdlovsk Oblast** (<sup>1</sup>Stepanova and Sirko, 1977; <sup>1</sup>Marina, 2006); **Tatarstan** (<sup>1</sup>Vassiljeva, 1977; <sup>1</sup>Potapov, Galeyev, and Zhukov, 2013; <sup>1</sup>Potapov, 2015b); **Tula Oblast** (<sup>1</sup>Svetasheva, 2004); **Tver Oblast** (<sup>3</sup>Chastukhin, 1948b; <sup>1</sup>Chastukhin and Nikolaevskaya, 1969; <sup>1</sup>Kurochkin, 1993; <sup>1</sup>Mukhina, 2011a; <sup>1</sup>Mukhina, 2011b; <sup>1</sup>Kotkova, 2014); **Udmurt Republic** (<sup>1</sup>Tychinin, 1990; <sup>1</sup>Tychinin and Kuzmina, 2003); **Ulyanovsk Oblast** (<sup>1</sup>Ilyukhin, 2010a); **Vologda Oblast** (<sup>4</sup>Kutova, 1957; <sup>1</sup>Kirillova, 2007; <sup>1</sup>Kirillova, 2009); **Voronezh Oblast** (<sup>3</sup>Chastukhin and Nikolaevskaya, 1953; <sup>1</sup>Chastukhin and Nikolaevskaya, 1969; <sup>1</sup>Bedenko, 1987); **Yaroslavl Oblast** (<sup>1</sup>Lazareva, 1998a).

SIBERIA: **Altai Krai** (<sup>1</sup>Gorbunova and Chubarova, 2008; <sup>1</sup>Gorbunova, Vlasenko, and Tzhubarova, 2011); **Altai Republic** (<sup>1</sup>Gorbunova, 1996; <sup>1</sup>Gorbunova, 1997; <sup>1</sup>Gorbunova, 2001a; <sup>1</sup>Gorbunova, 2001b; <sup>1</sup>Gorbunova, 2008; <sup>1</sup>Gorbunova, 2010); **Buryatia** (<sup>1</sup>Nezdojminogo, 1973; <sup>1</sup>Penzina and Petrov, 1994); **Irkutsk Oblast** (<sup>1</sup>Kutafjeva, 1983; <sup>1</sup>Petrov, 1984; <sup>1</sup>Petrov, 1989; <sup>1</sup>Astapenko, 1990a; <sup>1</sup>Muzyka, 2002; <sup>1</sup>Bardunov et al., 2005; <sup>1</sup>Petrov, 2008; <sup>1</sup>Muzyka, 2009; <sup>1</sup>Muzyka and Penzina, 2017); **Khakassia** (<sup>1</sup>Beglyanova, 1972a; <sup>1</sup>Zauzolkova, 2015); **Khanty-Mansi Autonomous Okrug** (<sup>1</sup>Zvyagina, 2008; <sup>1</sup>Shepeleva et al., 2014; <sup>1</sup>Filippova, Bulyonkova, and Lapshina, 2015; <sup>1</sup>Zvyagina and Vasina, 2015; <sup>1</sup>Filippova and Bulyonkova, 2017a; <sup>1</sup>Filippova and Bulyonkova, 2017b; <sup>1</sup>Zvyagina and Baykalova, 2017); **Krasnoyarsk Krai** (<sup>1</sup>Perova, 1970; <sup>1</sup>Beglyanova, 1972a; <sup>1</sup>Beglyanova, 1972c; <sup>1</sup>Nezdojminogo, 1976a; <sup>1</sup>Lapitskaya, 1993; <sup>1</sup>Pavlov et al., 2007; <sup>1</sup>Kosheleva and Kutafjeva, 2008a; <sup>1</sup>Kosheleva and Kutafjeva, 2008b; <sup>1</sup>Kosheleva, 2010; <sup>1</sup>Gorbunova, 2016; <sup>1</sup>Kryuchkova and Yaskova, 2017; <sup>1</sup>Malysheva, Malysheva, Kiyashko, et al., 2017; <sup>1</sup>Krom and Kapitonov, 2019); **Novosibirsk Oblast** (<sup>1</sup>Zhukov, 1980; <sup>1</sup>Gorbunova, 2007; <sup>1</sup>Perova and Gorbunova, 2007); **Omsk Oblast** (<sup>3</sup>Pilát, 1934; <sup>4</sup>Zhukov, 1980); **Tomsk Oblast** (<sup>1</sup>Perova, 1972; <sup>1</sup>Kosheleva and Kutafjeva, 2004; <sup>1</sup>Kudashova, Gashkov, and Kutafjeva, 2013); **Zabaykalsky Krai** (<sup>3</sup>Karsten, 1906).

FAR EAST: **Amur Oblast** (<sup>1</sup>Nazarova, 1986; <sup>1</sup>Azbukina et al., 1998; <sup>1</sup>Bulakh, Govorova, and Taranina, 2003; <sup>1</sup>Taranina, 2005; <sup>1</sup>Kochunova, 2016); **Chukotka Autonomous Okrug** (<sup>1</sup>Sazanova, 1993); **Jewish Autonomous Oblast** (<sup>1</sup>Bulakh, Govorova, Nazarova, and Vassiljeva, 2007; <sup>1</sup>Bau, Bulakh, and Govorova, 2011); **Khabarovsk Krai** (<sup>1</sup>Azbukina et al., 1986; <sup>1</sup>Azbukina et al., 1989; <sup>1</sup>Bau, Bulakh, Zhuang, and Li, 2007; <sup>1</sup>Bulakh, Vassiljeva, and Erofeeva, 2010; <sup>1</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Bulakh, 2013; <sup>1</sup>Bogacheva, Bulakh, Bukharova, and Egorova, 2015; <sup>1</sup>Erofeeva and Bulakh, 2015a); **Magadan Oblast** (<sup>1</sup>Nazarova, 1976; <sup>1</sup>Sazanova, 1996; <sup>1</sup>Sazanova, 2005; <sup>1</sup>Sazanova, 2009a; <sup>1</sup>Sazanova, 2011; <sup>1</sup>Sazanova and Golodnova, 2015); **Primorsky Krai** (<sup>1</sup>Vassiljeva, 1972; <sup>1</sup>Vassiljeva, 1973; <sup>1</sup>Bunkina and Nazarova, 1978; <sup>1</sup>Azbukina et al., 1984; <sup>1</sup>Azbukina et al., 1990; <sup>1</sup>Bardunov et al., 2002; <sup>1</sup>Azbukina et al., 2006; <sup>1</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Aldrovandi et al., 2015; <sup>1</sup>Bulakh et al., 2016; <sup>1</sup>Bogacheva, Bulakh, Bukharova, and Egorova, 2020); **Sakhalin Oblast** (<sup>1</sup>Vassiljeva and Nazarova, 1972).

### *Xeromphalina cauticinalis* (Fr.) Kühner & Maire<sup>1</sup>

≡ *Marasmius cauticinalis* Fr.<sup>2</sup> = *Xeromphalina cauticinalis* var. *subfellea* Bon<sup>3</sup> = *Xeromphalina fellea* Maire & Malençon<sup>4</sup>

EASTERN EUROPE: **Crimea** (<sup>1</sup>Sarkina, 2020a); **Kaliningrad Oblast** (<sup>4</sup>Dedkov, Volodina, and Gubareva, 2007; <sup>4</sup>Volodina, 2007); **Kaluga Oblast** (<sup>1</sup>Sionova, 2012); **Karachay-Cherkess Republic** (<sup>4</sup>Kalamees and Botashev, 2000); **Karelia** (<sup>4</sup>Kovalenko, Morozova, Fomina, and Särkisilta, 1998); **Kirov Oblast** (<sup>4</sup>Kirillov, 2011; <sup>4</sup>Kirillov, Perevedentseva, and Egoshina, 2011); **Komi Republic** (<sup>1</sup>Karatygin, Nezdojminogo, Novozhilov, and Zhurbenko, 1999; <sup>1</sup>Bobretsova, 2004; <sup>1</sup>Palamarchuk, 2012; <sup>1</sup>Palamarchuk, 2016a; <sup>1</sup>Palamarchuk, 2016b; <sup>1</sup>Palamarchuk and Kirillov, 2017); **Krasnodar Krai** (<sup>1</sup>Vassiljeva, 1939); **Leningrad Oblast** (<sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Morozova, 1999; <sup>4</sup>Morozova, 2002; <sup>1,4</sup>Popov et al., 2007); **Mordovia** (<sup>1</sup>Ivoilov and Bolshakov, 2011a); **Moscow Oblast** (<sup>4</sup>Gorlenko, Sidorova, and Sidorova, 1989; <sup>1</sup>Levitskaya, 1995b; <sup>4</sup>Levitskaya, 1995c; <sup>1</sup>Vishnevsky, 1998; <sup>4</sup>Vishnevsky, 1998; <sup>1,4</sup>Levitskaya, 2013); **Murmansk Oblast** (<sup>1</sup>Mikhailovskii, 1975b; <sup>1</sup>Karatygin, Nezdojminogo, Novozhilov, and Zhurbenko, 1999); **Penza Oblast** (<sup>1</sup>Ivanov, 1983); **Perm Krai** (<sup>1,4</sup>Perevedentseva, 2008; <sup>4</sup>Perevedentseva and Shishigin, 2014; <sup>1,4</sup>Botalov, 2017; <sup>1,4</sup>Botalov and Perevedentseva, 2020); **Pskov Oblast** (<sup>1</sup>Popov et al., 2013); **Ryazan Oblast** (<sup>1</sup>Volosnova, 2014); **Saint Petersburg** (<sup>3</sup>Morozova and Smirnov, 2011); **Smolensk Oblast** (<sup>2</sup>Jaczevski, 1896); **Sverdlovsk Oblast** (<sup>1</sup>Stepanova and Sirko, 1977; <sup>4</sup>Marina, 2006); **Tatarstan** (<sup>1</sup>Vassiljeva, 1977); **Tula Oblast** (<sup>1,4</sup>Svetasheva, 2004; <sup>1</sup>Svetasheva, 2013); **Tver Oblast** (<sup>4</sup>Kurochkin, 1993); **Ulyanovsk Oblast** (<sup>4</sup>Ilyukhin, 2009; <sup>4</sup>Ilyukhin, 2010a); **Vologda Oblast** (<sup>1</sup>Kirillova, 2007; <sup>1</sup>Kirillova, 2009); **Voronezh Oblast** (<sup>2</sup>Chastukhin and Nikolaevskaya, 1953); **Yaroslavl Oblast** (<sup>1</sup>Lazareva, 1997; <sup>1,4</sup>Lazareva, 1998a).

SIBERIA: **Altai Krai** (<sup>1</sup>Gorbunova and Perova, 2006; <sup>1</sup>Gorbunova and Chubarova, 2008; <sup>1</sup>Gorbunova, Vlasenko, and Tzhubarova, 2011); **Altai Republic** (<sup>1</sup>Gorbunova, 1997; <sup>1</sup>Gorbunova, 2001b; <sup>1</sup>Perova and Gorbunova, 2001; <sup>1</sup>Gorbunova, 2008; <sup>1</sup>Gorbunova, 2017b); **Buryatia** (<sup>1</sup>Nezdojminogo, 1973; <sup>1</sup>Petrov, 2013); **Irkutsk Oblast** (<sup>1,4</sup>Petrov, 1984; <sup>1</sup>Kutafjeva, 1989; <sup>1</sup>Petrov, 1989; <sup>1</sup>Astapenko, 1990a; <sup>4</sup>Petrov, 1991; <sup>4</sup>Petrov, 2008; <sup>1</sup>Gorbunova and Stepantsova, 2015); **Khakassia** (<sup>1</sup>Beglyanova, 1972a); **Khanty-Mansi Autonomous Okrug** (<sup>1</sup>Zvyagina and Baykalova, 2017);

**Krasnoyarsk Krai** (<sup>1</sup>Beglyanova, 1972a; <sup>1</sup>Nezdojminogo, 1976a; <sup>1</sup>Kosheleva and Kutafjeva, 2008b; <sup>1</sup>Kosheleva, 2010; <sup>1</sup>Zauzolkova, 2012; <sup>1</sup>Zauzolkova, 2015); **Novosibirsk Oblast** (<sup>1</sup>Perova and Gorbunova, 2001; <sup>1</sup>Gorbunova, 2007; <sup>1</sup>Perova and Gorbunova, 2007); **Tomsk Oblast** (<sup>1</sup>Perova, 1972; <sup>1</sup>Perova and Gorbunova, 2001; <sup>1</sup>Kosheleva and Kutafjeva, 2004; <sup>1,4</sup>Kudashova, Gashkov, and Kutafjeva, 2013); **Altai** (<sup>1</sup>Zhukov, 1979).

FAR EAST: **Amur Oblast** (<sup>1</sup>Taranina, 2005); **Chukotka Autonomous Okrug** (<sup>1</sup>Sazanova, 1993); **Jewish Autonomous Oblast** (<sup>1</sup>Bulakh, Govorova, Nazarova, and Vassiljeva, 2007; <sup>1</sup>Bau, Bulakh, and Govorova, 2011); **Kamchatka Krai** (<sup>1</sup>Kalamees and Vaasma, 1981); **Khabarovsk Krai** (<sup>1</sup>Azbukina et al., 1986; <sup>1</sup>Azbukina et al., 1989; <sup>1</sup>Bau, Bulakh, and Govorova, 2011); **Magadan Oblast** (<sup>1</sup>Nazarova, 1976; <sup>1</sup>Sazanova, 1996; <sup>1</sup>Sazanova, 2005; <sup>1</sup>Sazanova, 2009a; <sup>1</sup>Sazanova, 2009b; <sup>1</sup>Sazanova, 2011; <sup>1</sup>Sazanova and Golodnova, 2015); **Primorsky Krai** (<sup>1</sup>Vassiljeva, 1973; <sup>1</sup>Bunkina and Nazarova, 1978; <sup>1</sup>Azbukina et al., 1984; <sup>1</sup>Azbukina et al., 2006; <sup>1</sup>Bau, Bulakh, and Govorova, 2011; <sup>1</sup>Bulakh et al., 2016).

### ***Xeromphalina cornui* (Quél.) J. Favre<sup>1</sup>**

≡ *Omphalia cornui* Quél.<sup>2</sup> ≡ *Omphalina cornui* (Quél.) Quél.<sup>3</sup>

EASTERN EUROPE: **Chelyabinsk Oblast** (<sup>1</sup>Sirko and Stepanova, 1977; <sup>1</sup>Stepanova and Sirko, 1977); **Kaliningrad Oblast** (<sup>1</sup>Dedkov, Volodina, and Gubareva, 2007; <sup>1</sup>Volodina, 2007); **Karelia** (<sup>1</sup>Krutov et al., 2014); **Komi Republic** (<sup>1</sup>Palamarchuk and Kirillov, 2017); **Leningrad Oblast** (<sup>1</sup>Kovalenko and Morozova, 1999a; <sup>1</sup>Popov et al., 2007; <sup>1</sup>Zmitrovich et al., 2015); **Mordovia** (<sup>2</sup>Chastukhin, 1948a; <sup>1</sup>Chastukhin and Nikolaevskaya, 1969; <sup>1</sup>Ivoilov and Bolshakov, 2011a; <sup>3</sup>Chastukhin, 2011); **Perm Krai** (<sup>1</sup>Perevedentseva, 2008; <sup>1</sup>Botalov, 2017; <sup>1</sup>Botalov and Perevedentseva, 2020); **Pskov Oblast** (<sup>1</sup>Kovalenko, Kolmakov, Morozova, and Popov, 2003; <sup>1</sup>Popov et al., 2013); **Saint Petersburg** (<sup>1</sup>Morozova et al., 2020); **Tver Oblast** (<sup>2</sup>Chastukhin, 1948b; <sup>1</sup>Chastukhin and Nikolaevskaya, 1969; <sup>1</sup>Kotkova, 2014); **Vologda Oblast** (<sup>1</sup>Kirillova, 2007; <sup>1</sup>Kirillova, 2009).

SIBERIA: **Irkutsk Oblast** (<sup>1</sup>Kutafjeva, 1983); **Khakassia** (<sup>1</sup>Zauzolkova and Gorbunova, 2013; <sup>1</sup>Zauzolkova, 2015); **Khanty-Mansi Autonomous Okrug** (<sup>1</sup>Filippova and Thormann, 2014; <sup>1</sup>Filippova, 2014; <sup>1</sup>Filippova, Mourgues, and Philippe, 2014; <sup>1</sup>Zvyagina and Baykalova, 2017); **Krasnoyarsk Krai** (<sup>1</sup>Beglyanova, 1972a; <sup>1</sup>Krom and Kapitonov, 2019); **Kurgan Oblast** (<sup>1</sup>Bystrushkin, 2016); **Tomsk Oblast** (<sup>1</sup>Perova and Gorbunova, 2001; <sup>1</sup>Agaphonova, Kutafjeva, and Gashkov, 2007; <sup>1</sup>Kudashova, Gashkov, and Kutafjeva, 2013).

FAR EAST: **Kamchatka Krai** (<sup>1</sup>Kalamees and Vaasma, 1981); **Khabarovsk Krai** (<sup>1</sup>Erofeeva and Bulakh, 2016).

### ***Xeromphalina enigmatica* K.W. Hughes & R.H. Petersen**

EASTERN EUROPE: **Adygea** (Aldrovandi et al., 2015).

SIBERIA: **Krasnoyarsk Krai** (Krom and Kapitonov, 2019; Krom, Ageev, Bulyonkova, and Morozova, 2019).

FAR EAST: **Primorsky Krai** (Aldrovandi et al., 2015).

### ***Xeromphalina fraxinophila* A.H. Sm.**

EASTERN EUROPE: **Vologda Oblast** (Kirillova, 2007; Kirillova, 2009).

SIBERIA: **Irkutsk Oblast** (Gorbunova and Stepanova, 2015); **Khanty-Mansi Autonomous Okrug** (Filippova and Bulyonkova, 2017a; Filippova and Bulyonkova, 2017b); **Krasnoyarsk Krai** (Krom and Kapitonov, 2019).

### ***Xeromphalina mesopora* Singer**

SIBERIA: **Altai Republic** (Singer, 1938c).

### ***Xerula pseudoradicata* (M.M. Moser) Contu**

≡ *Oudemansiella pseudoradicata* M.M. Moser<sup>1</sup>

SIBERIA: **Tomsk Oblast** (<sup>1</sup>Agaphonova, Kutafjeva, and Gashkov, 2007; <sup>1</sup>Agaphonova, Kutafjeva, and Gashkov, 2009b; <sup>1</sup>Kudashova, Gashkov, and Kutafjeva, 2013).

### ***Xerula pudens* (Pers.) Singer<sup>1</sup>**

= *Collybia longipes* P. Kumm.<sup>2</sup> = *Oudemansiella badia* M.M. Moser<sup>3</sup> = *Oudemansiella longipes* (P. Kumm.) Boursier<sup>4</sup> = *Oudemansiella longipes* (P. Kumm.) M.M. Moser<sup>5</sup> = *Xerula longipes* (P. Kumm.) Maire<sup>6</sup>

EASTERN EUROPE: **Adygea** (<sup>6</sup>Vassiljeva, 1939; <sup>5</sup>Kovalenko, 1980b; <sup>1</sup>Psurtseva, Kiyashko, Gachkova, and Belova, 2007; <sup>1</sup>Zamotajlov, Sirotjuk (Kuvaeva), Akatova, and Lipka, 2012); **Belgorod Oblast** (<sup>5</sup>Bedenko, 1979a; <sup>3</sup>Bedenko, 1980); **Crimea** (<sup>2</sup>Zerova, 1962; <sup>5</sup>Sarkina, 2001; <sup>6</sup>Dudka et al., 2004; <sup>6</sup>Sarkina, 2010b; <sup>6</sup>Sarkina, 2011; <sup>1</sup>Sarkina and Prydiuk, 2012); **Krasnodar Krai** (<sup>3,5</sup>Kovalenko, 1980a; <sup>3,5</sup>Kovalenko, 1980b; <sup>6</sup>Vaasma, Kalamees, and Raitviir, 1986); **Kursk Oblast** (<sup>2</sup>Ryabova and Ignatenko, 1981); **Lipetsk Oblast** (<sup>4</sup>Alferova, 1977; <sup>5</sup>Rtishcheva, 1999; <sup>5</sup>Sarycheva,

1999; <sup>5</sup>Afanasyev, Rtishcheva, and Starodubtseva, 2007; <sup>1</sup>Sarycheva et al., 2009; <sup>1</sup>Sarycheva, 2011; <sup>1</sup>Sarycheva, 2014a; <sup>1</sup>Sarycheva, 2016); **Penza Oblast** (<sup>5</sup>Ivanov, 1981a; <sup>5</sup>Ivanov, 1981b); **Rostov Oblast** (<sup>6</sup>Morozova et al., 2008); **Samara Oblast** (<sup>1</sup>Malysheva and Malysheva, 2004; <sup>1</sup>Psurtseva, Kiyashko, Gachkova, and Belova, 2007; <sup>1</sup>Malysheva and Malysheva, 2008); **Sevastopol** (<sup>1</sup>Sarkina, 2020c); **Tatarstan** (<sup>1</sup>Potapov, 2016b); **Tula Oblast** (<sup>1</sup>Shcherbakov, 2010); **Ulyanovsk Oblast** (<sup>1</sup>Ilyukhin, 2010a; <sup>1</sup>Ilyukhin, 2010b); **Voronezh Oblast** (<sup>2</sup>Chastukhin and Nikolaevskaya, 1953; <sup>5</sup>Chastukhin and Nikolaevskaya, 1969; <sup>5</sup>Rtishcheva, 1999; <sup>5</sup>Afanasyev, Rtishcheva, and Starodubtseva, 2007; <sup>1</sup>Sarycheva, Starodubtseva, and Sapelnikova, 2017); **Arid territories** (<sup>1</sup>Rebriev, Rusanov, et al., 2012).

SIBERIA: **Krasnoyarsk Krai** (<sup>3</sup>Beglyanova, 1972a; <sup>3</sup>Beglyanova, 1972b; <sup>3</sup>Beglyanova, 1972c).

### ***Zhuliangomyces illinitus* (Fr.) Redhead<sup>1</sup>**

≡ *Limacella illinita* (Fr.) Maire<sup>2</sup> = *Limacella illinita* var. *rubescens* H.V. Sm.<sup>3</sup>

EASTERN EUROPE: **Adygea** (<sup>2</sup>Kiyashko, 2009); **Belgorod Oblast** (<sup>2</sup>Bedenko, 1980); **Crimea** (<sup>2</sup>Sarkina, 2001; <sup>2</sup>Dudka et al., 2004; <sup>2</sup>Sarkina, 2010b; <sup>2</sup>Sarkina and Prydiuk, 2012; <sup>2</sup>Sarkina, 2014b); **Kaliningrad Oblast** (<sup>2</sup>Dedkov, Volodina, and Gubareva, 2007; <sup>2</sup>Volodina, 2007); **Kaluga Oblast** (<sup>3</sup>Sionova, 2012); **Kirov Oblast** (<sup>2</sup>Kirillov, 2011; <sup>2</sup>Kirillov, Perevedentseva, and Egoshina, 2011; <sup>2</sup>Baranova et al., 2014); **Leningrad Oblast** (<sup>2</sup>Kovalenko and Morozova, 1999a; <sup>2</sup>Morozova, 1999; <sup>2</sup>Tzvelev, 2000; <sup>2</sup>Morozova, 2007; <sup>2</sup>Popov et al., 2007; <sup>2</sup>Geltman et al., 2018; <sup>2</sup>Geltman, 2018b); **Mordovia** (<sup>2</sup>Kuznetsov, 1960; <sup>2</sup>Ivoilov and Bolshakov, 2011a; <sup>2</sup>Bolshakov and Ivoilov, 2012b; <sup>2</sup>Silaeva, 2017); **Moscow Oblast** (<sup>2</sup>Levitskaya, 2006; <sup>2</sup>Levitskaya, 2013); **Penza Oblast** (<sup>2</sup>Ivanov, 1989); **Perm Krai** (<sup>2</sup>Perevedentseva, 2008; <sup>2</sup>Shepel', 2008; <sup>2</sup>Baklanov, 2018); **Ryazan Oblast** (<sup>2</sup>Volosnova, 1997; <sup>2</sup>Volosnova, 2014); **Saint Petersburg** (<sup>2</sup>Geltman, 2018a); **Samara Oblast** (<sup>2</sup>Malysheva and Malysheva, 2005b; <sup>2</sup>Malysheva and Malysheva, 2008); **Tatarstan** (<sup>2</sup>Vassiljeva, 1977; <sup>2</sup>Potapov, 2015b; <sup>2</sup>Nazirov, Gorshkov, Ivanov, and Rogova, 2016).

SIBERIA: **Altai Krai** (<sup>2</sup>Gorbunova and Perova, 2006; <sup>2</sup>Gorbunova, 2018a); **Altai Republic** (<sup>2</sup>Singer, 1943; <sup>2</sup>Gorbunova, 2017a); **Irkutsk Oblast** (<sup>2</sup>Kutafjeva, 1983; <sup>2</sup>Petrov, 1986; <sup>2</sup>Petrov, 1991; <sup>2</sup>Bardunov et al., 2005; <sup>2</sup>Petrov, 2008); **Khanty-Mansi Autonomous Okrug** (<sup>3</sup>Zvyagina, 2012; <sup>3</sup>Vasin and Vasina, 2013; <sup>3</sup>Filippova, Bulyonkova, and Lapshina, 2015); **Krasnoyarsk Krai** (<sup>2</sup>Beglyanova, 1972a; <sup>2</sup>Pavlov et al., 2007; <sup>2</sup>Kosheleva and Kutafjeva, 2008a; <sup>2</sup>Zauzolkova, 2015; <sup>2</sup>Zauzolkova and Gorbunova, 2016; <sup>2</sup>Malysheva, Malysheva, Kiyashko, et al., 2017); **Novosibirsk Oblast** (<sup>2</sup>Perova and Gorbunova, 2001; <sup>2</sup>Gorbunova, 2007; <sup>2</sup>Perova and Gorbunova, 2007); **Tomsk Oblast** (<sup>2</sup>Perova and Gorbunova, 2001; <sup>2</sup>Kudashova, Gashkov, and Kutafjeva, 2013; <sup>2</sup>Kudashova, Gashkov, and Vaishlya, 2016b).

FAR EAST: **Kamchatka Krai** (<sup>2</sup>Kalamees and Vaasma, 1981); **Khabarovsk Krai** (<sup>2</sup>Azbukina et al., 1989); **Magadan Oblast** (<sup>1</sup>Rebriev, Bulakh, Sazanova, and Shiryaev, 2020); **Primorsky Krai** (<sup>2</sup>Vassiljeva, 1972; <sup>2</sup>Vassiljeva, 1973; <sup>2</sup>Azbukina et al., 1984; <sup>2</sup>Azbukina et al., 1990; <sup>2</sup>Bardunov et al., 2002; <sup>2</sup>Bau, Bulakh, and Govorova, 2011; <sup>2</sup>Bulakh et al., 2016); **Sakhalin Oblast** (<sup>2</sup>Vassiljeva and Nazarova, 1972).

### ***Zhuliangomyces ochraceoluteus* (P.D. Orton) Redhead**

≡ *Limacella ochraceolutea* P.D. Orton<sup>1</sup>

SIBERIA: **Novosibirsk Oblast** (<sup>1</sup>Koropachinskiy and Banaev, 2014); **Tomsk Oblast** (<sup>1</sup>Agaphonova, Kutafjeva, and Gashkov, 2009b; <sup>1</sup>Kudashova, Gashkov, and Kutafjeva, 2013; <sup>1</sup>Kudashova, Gashkov, and Vaishlya, 2016b).

## Appendix B.

### Scientific names of agaricoid and boletoid fungi of Russia without accepted current names in Index Fungorum

This list includes 727 scientific names of agaricoid and boletoid fungi that do not ascribed unambiguously to accepted current names according querying with the API to Index Fungorum (IF) on 18.05.2021. The checklist is presented in alphabetical order for ease of searching.

For each name, the regions in which it is recorded are listed alphabetically. For each region, the publications in which the species has been published are listed in order from the earliest to the latest one. In cases where it has not been possible to assign the species to specific administrative regions due to lack of information in the publication, geographical regions have been retained as original distribution regions.

The reasons for their placement here are as follows:

- “No current name.” There is no accepted current name for such name in Species Fungorum.
- “Name with wrong authors’ citation.” The binomial combination exists, but its authors’ citations does not match any records in IF. It is impossible to interpret such records unambiguously and to bring them into correlation with specific taxa in IF.
- “Name absent from IF.” The combination is absent from IF.

#### *Agaricus affinis* Weinm.

No current name.

EASTERN EUROPE: **Saint Petersburg** (Weinmann, 1824; Weinmann, 1828).

#### *Agaricus alcalinus* Fr.

No current name.

EASTERN EUROPE: **Moscow** (Bucholtz, 1897b; Bucholtz, 1897c; Mosolov, 1906); **Saint Petersburg** (Weinmann, 1828; Weinmann, 1836; Weinmann, 1837).

#### *Agaricus algidus* var. *sorbinus*

Name absent from IF.

EASTERN EUROPE: **Murmansk Oblast** (Karsten, 1866).

#### *Agaricus amethystinus* Fr.

Name with wrong authors’ citation.

SIBERIA: **Novosibirsk Oblast** (Nozdrenko, 1970).

#### *Agaricus amethystinus* Quél.

No current name.

EASTERN EUROPE: **Bryansk Oblast** (Kruglikov, 2007); **Crimea** (Zerova, 1962; Sarkina, 2001).

#### *Agaricus ammoniacus* Fr.

No current name.

SIBERIA: **Krasnoyarsk Krai** (Thümen, 1880a).

#### *Agaricus anatolii* Lév.

No current name.

EASTERN EUROPE: **Crimea** (Léveillé, 1842).

#### *Agaricus anomalus* var. *incurvus* (Pers.) Fr.

No current name.

EASTERN EUROPE: **Saint Petersburg** (Weinmann, 1828; Weinmann, 1836; Weinmann, 1837).

#### *Agaricus anomalus* var. *proteus* Fr.

No current name.

EASTERN EUROPE: **Saint Petersburg** (Weinmann, 1837).

***Agaricus armeniacus* Pers.**

Name with wrong authors' citation.

EASTERN EUROPE: **Saint Petersburg** (Weinmann, 1828).

***Agaricus badius* Pers.**

No current name.

EASTERN EUROPE: **Saint Petersburg** (Weinmann, 1836).

***Agaricus behringensis* Berk. & M.A. Curtis**

No current name.

FAR EAST: **Chukotka Autonomous Okrug** (Berkeley and Curtis, 1860; Berkeley and Curtis, 1978).

***Agaricus bellus* Pers.**

No current name.

EASTERN EUROPE: **Saint Petersburg** (Weinmann, 1828).

***Agaricus bifurcatus* Weinm.**

No current name.

EASTERN EUROPE: **Saint Petersburg** (Weinmann, 1836; Weinmann, 1837).

***Agaricus blattarius* Fr.**

No current name.

EASTERN EUROPE: **Saint Petersburg** (Weinmann, 1836; Weinmann, 1837).

***Agaricus buxbaumii* Weinm.**

No current name.

EASTERN EUROPE: **Saint Petersburg** (Weinmann, 1832; Weinmann, 1836; Weinmann, 1837).

***Agaricus byssoides* Pers.**

No current name.

EASTERN EUROPE: **Saint Petersburg** (Weinmann, 1836).

***Agaricus calimorphus* Weinm.**

No current name.

EASTERN EUROPE: **Saint Petersburg** (Weinmann, 1832; Weinmann, 1836; Weinmann, 1837).

***Agaricus callosus* Fr.**

No current name.

EASTERN EUROPE: **Saint Petersburg** (Weinmann, 1836; Weinmann, 1837).

SIBERIA: **Krasnoyarsk Krai** (Thümen, 1877; Thümen, 1878).

***Agaricus calopus* Pers.**

No current name.

EASTERN EUROPE: **Saint Petersburg** (Weinmann, 1828; Weinmann, 1836; Weinmann, 1837).

***Agaricus canescens* Weinm.**

No current name.

EASTERN EUROPE: **Saint Petersburg** (Weinmann, 1836; Weinmann, 1837).

***Agaricus caninus* Fr.**

Name with wrong authors' citation.

EASTERN EUROPE: **Saint Petersburg** (Weinmann, 1836).

***Agaricus canobrunneus* Batsch**

No current name.

EASTERN EUROPE: **Saint Petersburg** (Weinmann, 1836).



***Agaricus castaneus* var. *caesius* (Vahl) Fr.**

No current name.

EASTERN EUROPE: **Saint Petersburg** (Weinmann, 1836; Weinmann, 1837).***Agaricus cinereus* Bull.**

No current name.

EASTERN EUROPE: **Saint Petersburg** (Weinmann, 1828; Weinmann, 1836; Weinmann, 1837).***Agaricus clavus* Bull.**

No current name.

EASTERN EUROPE: **Saint Petersburg** (Weinmann, 1828; Weinmann, 1836; Weinmann, 1837).***Agaricus clypeolarius* var. *calidariorum* Weinm.**

No current name.

EASTERN EUROPE: **Saint Petersburg** (Weinmann, 1828; Weinmann, 1836; Weinmann, 1837).***Agaricus coccineus* Scop.**

No current name.

EASTERN EUROPE: **Moscow** (Weinmann, 1836); **Saint Petersburg** (Weinmann, 1828).***Agaricus cognatus* Weinm.**

No current name.

EASTERN EUROPE: **Saint Petersburg** (Weinmann, 1828).***Agaricus connatus* Berk. & M.A. Curtis**

No current name.

FAR EAST: **Chukotka Autonomous Okrug** (Berkeley and Curtis, 1860; Berkeley and Curtis, 1978).***Agaricus coprinus* (Fr.) Fr.**

No current name.

EASTERN EUROPE: **Saint Petersburg** (Weinmann, 1836).***Agaricus cretaceus* Fr.**

Name with wrong authors' citation.

SIBERIA: **Novosibirsk Oblast** (Nozdrenko, 1970).***Agaricus cretaceus* Pers.**

No current name.

EASTERN EUROPE: **Saint Petersburg** (Weinmann, 1828).***Agaricus curvatus* Weinm.**

No current name.

EASTERN EUROPE: **Saint Petersburg** (Weinmann, 1836).***Agaricus cyathiformis* b *alutaceus* Weinm.**

No current name.

EASTERN EUROPE: **Saint Petersburg** (Weinmann, 1828; Weinmann, 1837).***Agaricus cyathiformis* c *dilute-cinammomeus* Weinm.**

No current name.

EASTERN EUROPE: **Saint Petersburg** (Weinmann, 1828; Weinmann, 1837).***Agaricus dealbatus* Sowerby**

No current name.

EASTERN EUROPE: **Saint Petersburg** (Weinmann, 1828; Weinmann, 1836; Weinmann, 1837).

***Agaricus dealbatus* var. *aggeralis* Fr.**

No current name.

*Agaricus dealbatus* var. *aggeralis* Fr. is given in tribus *Clitocybe*, sect. *Leucosporus* (Fries, 1821). Possibly this variety was erroneously ascribed to dark-spored *Agaricus dealbatus* Batsch that is synonym of *Homophron cernuum* instead of white-spored *Agaricus dealbatus* Sowerby.

EASTERN EUROPE: **Saint Petersburg** (Weinmann, 1828).

***Agaricus debilis* Fr.**

No current name.

SIBERIA: **Krasnoyarsk Krai** (Thümen, 1878).

***Agaricus declinis* Weinm.**

No current name.

EASTERN EUROPE: **Saint Petersburg** (Weinmann, 1835).

***Agaricus depressus* Weinm.**

Name absent from IF.

EASTERN EUROPE: **Saint Petersburg** (Weinmann, 1836).

***Agaricus detonsus* Fr.**

No current name.

EASTERN EUROPE: **Saint Petersburg** (Weinmann, 1828; Weinmann, 1836; Weinmann, 1837).

***Agaricus devexus* Fr.**

No current name.

EASTERN EUROPE: **Saint Petersburg** (Weinmann, 1837).

***Agaricus diaphanus* Bong. ex Weinm.**

No current name.

EASTERN EUROPE: **Saint Petersburg** (Weinmann, 1836).

***Agaricus difformis* Pers.**

No current name.

EASTERN EUROPE: **Saint Petersburg** (Weinmann, 1836; Weinmann, 1837).

***Agaricus elevatus* Weinm.**

No current name.

EASTERN EUROPE: **Leningrad Oblast** (Weinmann, 1835).

***Agaricus ephemerus* Fr.**

No current name.

EASTERN EUROPE: **Saint Petersburg** (Weinmann, 1836).

***Agaricus epiphyllus* b *bruneus* Weinm.**

No current name.

EASTERN EUROPE: **Saint Petersburg** (Weinmann, 1828).

***Agaricus epiphyllus* c *fuligineus* Weinm.**

No current name.

EASTERN EUROPE: **Saint Petersburg** (Weinmann, 1828).

***Agaricus excoriatus* Batsch**

Name with wrong authors' citation.

EASTERN EUROPE: **Crimea** (Léveillé, 1842).

***Agaricus extinctoriiformis* I.G. Borshch.**

No current name.

FAR EAST: **Khabarovsk Krai** (Borszczow and Borszczow, 1856).***Agaricus falkii* Weinm.**

No current name.

EASTERN EUROPE: **Saint Petersburg** (Weinmann, 1836).***Agaricus fascicularis a caespitosus* Fr.**

No current name.

EASTERN EUROPE: **Saint Petersburg** (Weinmann, 1828).***Agaricus fascicularis b solitarius* Fr.**

No current name.

EASTERN EUROPE: **Saint Petersburg** (Weinmann, 1828; Weinmann, 1836).***Agaricus fascinans* Fr.**

No current name.

EASTERN EUROPE: **Leningrad Oblast** (Weinmann, 1836; Weinmann, 1837); **Saint Petersburg** (Weinmann, 1828; Weinmann, 1836).***Agaricus fastibilis* Pers.**

No current name.

EASTERN EUROPE: **Moscow** (Weinmann, 1836); **Saint Petersburg** (Weinmann, 1828; Weinmann, 1837).SIBERIA: **Krasnoyarsk Krai** (Thümen, 1878).***Agaricus fastibilis* var. *circinans* (Pers.) Pers.**

No current name.

EASTERN EUROPE: **Moscow** (Weinmann, 1836).***Agaricus ferrugineus* Pers.**

Name with wrong authors' citation.

EASTERN EUROPE: **Crimea** (Léveillé, 1842).***Agaricus fertilis* Pers.**

No current name.

EASTERN EUROPE: **Saint Petersburg** (Weinmann, 1836; Weinmann, 1837).***Agaricus filamentosus* Scop.**

No current name.

EASTERN EUROPE: **Saint Petersburg** (Weinmann, 1836).***Agaricus fimicola* Fr.**

No current name.

EASTERN EUROPE: **Saint Petersburg** (Weinmann, 1828; Weinmann, 1837).***Agaricus fimiputris* Bull.**

No current name.

EASTERN EUROPE: **Saint Petersburg** (Weinmann, 1828; Weinmann, 1836; Weinmann, 1837).***Agaricus firmus* Weinm.**

No current name.

EASTERN EUROPE: **Saint Petersburg** (Weinmann, 1836).

***Agaricus flavescens* Scop.**

No current name.

EASTERN EUROPE: **Tver Oblast** (Mukhina, 2011a).

***Agaricus fragilis* Fr.**

Name with wrong authors' citation.

EASTERN EUROPE: **Penza Oblast** (Vet, 1943).

***Agaricus fulvomarginatus* Weinm.**

No current name.

EASTERN EUROPE: **Saint Petersburg** (Weinmann, 1836; Weinmann, 1837).

***Agaricus fuscescens* Weinm.**

Name absent from IF.

EASTERN EUROPE: **Leningrad Oblast** (Weinmann, 1835).

***Agaricus galericulatus* Pers.**

No current name.

EASTERN EUROPE: **Lapland** (Karsten, 1866).

***Agaricus giganteus* Leyss.**

No current name.

EASTERN EUROPE: **Saint Petersburg** (Weinmann, 1828).

***Agaricus gracillimus* Weinm.**

No current name.

EASTERN EUROPE: **Moscow** (Mosolov, 1906); **Murmansk Oblast** (Karsten, 1866); **Saint Petersburg** (Weinmann, 1828; Weinmann, 1836).

***Agaricus graminicola* Nees**

No current name.

EASTERN EUROPE: **Saint Petersburg** (Weinmann, 1836; Weinmann, 1837).

***Agaricus gueldenstedtii* Weinm.**

No current name.

EASTERN EUROPE: **Leningrad Oblast** (Weinmann, 1836); **Saint Petersburg** (Weinmann, 1837).

***Agaricus hapalopus* Kalchbr.**

No current name.

SIBERIA: **Krasnoyarsk Krai** (Thümen, 1877).

***Agaricus hepaticus* Weinm.**

No current name.

EASTERN EUROPE: **Saint Petersburg** (Weinmann, 1832).

***Agaricus holoianthinus* Kalchbr.**

No current name.

SIBERIA: **Krasnoyarsk Krai** (Thümen, 1877).

***Agaricus hortensis* Pers.**

No current name.

EASTERN EUROPE: **Moscow** (Bucholtz, 1897a); **Saint Petersburg** (Weinmann, 1828; Weinmann, 1837).

***Agaricus infractus* Alb. & Schwein.**

No current name.

EASTERN EUROPE: **Saint Petersburg** (Weinmann, 1836).

***Agaricus ingriscus* Weinm.**

No current name.

EASTERN EUROPE: **Saint Petersburg** (Weinmann, 1836).***Agaricus injucundus* Weinm.**

No current name.

EASTERN EUROPE: **Saint Petersburg** (Weinmann, 1836).***Agaricus inopus* Fr.**

No current name.

EASTERN EUROPE: **Leningrad Oblast** (Weinmann, 1836); **Saint Petersburg** (Weinmann, 1828; Weinmann, 1837).***Agaricus kolaensis* P. Karst.**

No current name.

EASTERN EUROPE: **Murmansk Oblast** (Karsten, 1876).***Agaricus laccatus d maximus* Weinm.**

No current name.

EASTERN EUROPE: **Saint Petersburg** (Weinmann, 1828).***Agaricus laevigatus* Lasch**

No current name.

EASTERN EUROPE: **Kirov Oblast** (Stavishenko, Luginina, Kirillov, and Egoshina, 2019).***Agaricus lanatus* Bong. ex Weinm.**

No current name.(blank) (Weinmann, 1836).

***Agaricus lateritius* Fr.**

No current name.

EASTERN EUROPE: **Saint Petersburg** (Weinmann, 1828).***Agaricus lerchei* Weinm.**

No current name.

EASTERN EUROPE: **Leningrad Oblast** (Weinmann, 1836; Weinmann, 1837).***Agaricus leucopus* Bull.**

No current name.

EASTERN EUROPE: **Saint Petersburg** (Weinmann, 1837).***Agaricus leucopus* Pers.**

No current name.

EASTERN EUROPE: **Saint Petersburg** (Weinmann, 1836).***Agaricus lignatilis* Fr.**

No current name.

EASTERN EUROPE: **Saint Petersburg** (Weinmann, 1828; Weinmann, 1836).***Agaricus lilacinoargillacea* Kalchbr.**

Name absent from IF.

SIBERIA: **Krasnoyarsk Krai** (Thümen, 1878).***Agaricus lucifugus* Fr.**

No current name.

EASTERN EUROPE: **Saint Petersburg** (Weinmann, 1836; Weinmann, 1837).

***Agaricus macilentus* Fr.**

No current name.

EASTERN EUROPE: **Saint Petersburg** (Weinmann, 1836; Weinmann, 1837).

***Agaricus malachus*  $\beta$  *privignus* Fr.**

No current name.

EASTERN EUROPE: **Leningrad Oblast** (Weinmann, 1836).

***Agaricus mammosus* Fr.**

Name with wrong authors' citation.

EASTERN EUROPE: **Saint Petersburg** (Weinmann, 1836; Weinmann, 1837).

***Agaricus melaspermus* Fr.**

No current name.

SIBERIA: **Krasnoyarsk Krai** (Thümen, 1878).

***Agaricus melleus*  $\beta$  *ingricus* Weinm.**

No current name.

EASTERN EUROPE: **Saint Petersburg** (Weinmann, 1824; Weinmann, 1828).

***Agaricus merus* Weinm.**

Name absent from IF.

EASTERN EUROPE: **Saint Petersburg** (Weinmann, 1836).

***Agaricus muralis* Sowerby**

No current name.

EASTERN EUROPE: **Saint Petersburg** (Weinmann, 1836; Weinmann, 1837).

FAR EAST: **Chukotka Autonomous Okrug** (Berkeley and Curtis, 1978).

***Agaricus muscigenus* Schumach.**

No current name.

EASTERN EUROPE: **Saint Petersburg** (Weinmann, 1828; Weinmann, 1836; Weinmann, 1837).

***Agaricus muscorum* Fr.**

Name with wrong authors' citation.

EASTERN EUROPE: **Saint Petersburg** (Weinmann, 1837).

***Agaricus muscorum* Hoffm.**

No current name.

EASTERN EUROPE: **Saint Petersburg** (Weinmann, 1828).

***Agaricus mutabilis* **b** *denudatus* Fr.**

No current name.

EASTERN EUROPE: **Saint Petersburg** (Weinmann, 1828; Weinmann, 1836; Weinmann, 1837).

***Agaricus mutabilis* **d** *minimus* Weinm.**

No current name.

EASTERN EUROPE: **Saint Petersburg** (Weinmann, 1828; Weinmann, 1837).

***Agaricus nauseosus* Weinm.**

No current name.

EASTERN EUROPE: **Saint Petersburg** (Weinmann, 1832).

***Agaricus nicotianus* Berk. & M.A. Curtis**

No current name.

FAR EAST: **Chukotka Autonomous Okrug** (Berkeley and Curtis, 1860; Berkeley and Curtis, 1978).

***Agaricus nitidus* Fr.**

Name with wrong authors' citation.

EASTERN EUROPE: **Leningrad Oblast** (Weinmann, 1836; Weinmann, 1837); **Saint Petersburg** (Weinmann, 1828).

***Agaricus nuceus* Bolton**

No current name.

EASTERN EUROPE: **Leningrad Oblast** (Weinmann, 1835).

***Agaricus obscurus* Pers.**

No current name.

FAR EAST: **Chukotka Autonomous Okrug** (Berkeley and Curtis, 1978).

***Agaricus olivaceus* Weinm.**

No current name.

EASTERN EUROPE: **Saint Petersburg** (Weinmann, 1828).

***Agaricus olorinus* Fr.**

No current name.

EASTERN EUROPE: **Saint Petersburg** (Weinmann, 1836; Weinmann, 1837).

***Agaricus opalus* Fr.**

No current name.

EASTERN EUROPE: **Saint Petersburg** (Weinmann, 1836; Weinmann, 1837).

***Agaricus pannosus* Fr.**

No current name.

EASTERN EUROPE: **Saint Petersburg** (Weinmann, 1828; Weinmann, 1836; Weinmann, 1837).

***Agaricus pantoleucus* Fr.**

No current name.

EASTERN EUROPE: **Moscow** (Mosolov, 1906).

SIBERIA: **Krasnoyarsk Krai** (Thümen, 1877).

***Agaricus papillatus* Batsch**

No current name.

EASTERN EUROPE: **Saint Petersburg** (Weinmann, 1836; Weinmann, 1837).

***Agaricus parasiticus* Schumach.**

No current name.

EASTERN EUROPE: **Saint Petersburg** (Weinmann, 1828).

***Agaricus perpusillus* Lumn.**

No current name.

EASTERN EUROPE: **Saint Petersburg** (Weinmann, 1828; Weinmann, 1836; Weinmann, 1837).

***Agaricus pholideus* Fr.**

Name with wrong authors' citation.

EASTERN EUROPE: **Saint Petersburg** (Weinmann, 1837).

***Agaricus picreus* var. *campanelliformis* Weinm.**

No current name.

EASTERN EUROPE: **Saint Petersburg** (Weinmann, 1828).

***Agaricus pityrius* Fr.**

No current name.

EASTERN EUROPE: **Saint Petersburg** (Weinmann, 1828; Weinmann, 1836; Weinmann, 1837).

***Agaricus plicatilis* Sowerby**

No current name.

EASTERN EUROPE: **Saint Petersburg** (Weinmann, 1828; Weinmann, 1836; Weinmann, 1837).

***Agaricus plumbeus* Bull.**

Name with wrong authors' citation.

EASTERN EUROPE: **Saint Petersburg** (Weinmann, 1828; Weinmann, 1836; Weinmann, 1837).

***Agaricus poliroleucus* Fr.**

Name absent from IF.

SIBERIA: **Krasnoyarsk Krai** (Thümen, 1878).

***Agaricus praecox* Schaeff.**

Name with wrong authors' citation.

EASTERN EUROPE: **Saint Petersburg** (Weinmann, 1837).

***Agaricus prescotii* Weinm.**

No current name.

EASTERN EUROPE: **Saint Petersburg** (Weinmann, 1836).

***Agaricus punctatus* Fr.**

No current name.

EASTERN EUROPE: **Saint Petersburg** (Weinmann, 1836).

***Agaricus purpurascens* Alb. & Schwein.**

No current name.

EASTERN EUROPE: **Leningrad Oblast** (Weinmann, 1836; Weinmann, 1837).

***Agaricus pustulatus* var. *consimilis* Pers.**

No current name.

EASTERN EUROPE: **Saint Petersburg** (Weinmann, 1836; Weinmann, 1837).

***Agaricus putidus* Weinm.**

No current name.

*Agaricus putidus* Weinm. is given in tribus *Lepiota*, ser. *Leucosporus* (Weinmann, 1836). According to the protologue it represents a white-spored agaric, so it does not belong to *Agaricus* in modern sense (e.g. Kerrigan, 2016). There are no extant type specimens, the protologue is not clear enough to identify modern species. So, we interpret *Agaricus putidus* Weinm. as the name that has no current name.

EASTERN EUROPE: **Leningrad Oblast** (Weinmann, 1836; Weinmann, 1837).

***Agaricus pyxidatus* b *fuliginus* Weinm.**

No current name.

EASTERN EUROPE: **Saint Petersburg** (Weinmann, 1828; Weinmann, 1837).

***Agaricus quinquepartitus* Fr.**

No current name.

SIBERIA: **Krasnoyarsk Krai** (Thümen, 1878).

***Agaricus repandus* Bull.**

No current name.

EASTERN EUROPE: **Saint Petersburg** (Weinmann, 1836; Weinmann, 1837).



***Agaricus roseus* Nees**

Name with wrong authors' citation.

EASTERN EUROPE: **Saint Petersburg** (Weinmann, 1837).

***Agaricus rufomarginatus* Weinm.**

No current name.

EASTERN EUROPE: **Saint Petersburg** (Weinmann, 1828).

***Agaricus rufus* Pers.**

No current name.

EASTERN EUROPE: **Saint Petersburg** (Weinmann, 1836).

***Agaricus sagatus* Fr.**

No current name.

According to Parra Sánchez (2008) “*Agaricus sagatus* was abandoned early in the 20th century as it was hardly interpretable (possibly, it is an *Agrocybe* or a *Galerina* sp.”

EASTERN EUROPE: **Krasnodar Krai** (Vassiljeva, 1939); **Saint Petersburg** (Weinmann, 1828; Weinmann, 1836; Weinmann, 1837).

***Agaricus salignus* var. *alutacea* Weinm.**

No current name.

EASTERN EUROPE: **Saint Petersburg** (Weinmann, 1828; Weinmann, 1836; Weinmann, 1837).

***Agaricus salignus* var. *cinereoalba* Weinm.**

No current name.

EASTERN EUROPE: **Saint Petersburg** (Weinmann, 1828; Weinmann, 1836; Weinmann, 1837).

***Agaricus sapineus* var. *aureofulva* Weinm.**

Name absent from IF.

EASTERN EUROPE: **Leningrad Oblast** (Weinmann, 1835).

***Agaricus scabellus* Fr.**

No current name.

SIBERIA: **Krasnoyarsk Krai** (Thümen, 1878).

***Agaricus scaber* Sowerby**

No current name.

EASTERN EUROPE: **Saint Petersburg** (Weinmann, 1837).

***Agaricus semiglobatus* Alb. & Schwein.**

Name with wrong authors' citation.

EASTERN EUROPE: **Saint Petersburg** (Weinmann, 1828; Weinmann, 1837).

***Agaricus septicus* Fr.**

No current name.

EASTERN EUROPE: **Saint Petersburg** (Weinmann, 1828; Weinmann, 1836; Weinmann, 1837).

FAR EAST: **Chukotka Autonomous Okrug** (Berkeley and Curtis, 1978).

***Agaricus sericellus* Fr.**

Name with wrong authors' citation.

EASTERN EUROPE: **Saint Petersburg** (Weinmann, 1836).

***Agaricus sericeus* Weinm.**

No current name.

EASTERN EUROPE: **Leningrad Oblast** (Weinmann, 1835).

***Agaricus sobolewskii* Weinm.**

No current name.

EASTERN EUROPE: **Saint Petersburg** (Weinmann, 1836; Weinmann, 1837).

SIBERIA: **Krasnoyarsk Krai** (Thümen, 1877).

***Agaricus sordarius* Pers.**

No current name.

EASTERN EUROPE: **Saint Petersburg** (Weinmann, 1828; Weinmann, 1836; Weinmann, 1837).

***Agaricus sticticus* Fr.**

No current name.

EASTERN EUROPE: **Leningrad Oblast** (Weinmann, 1835).

***Agaricus stipatus* Pers.**

No current name.

EASTERN EUROPE: **Saint Petersburg** (Weinmann, 1828; Weinmann, 1836; Weinmann, 1837).

***Agaricus stipularis* Fr.**

No current name.

EASTERN EUROPE: **Saint Petersburg** (Weinmann, 1836; Weinmann, 1837).

***Agaricus subferrugineus* Batsch**

No current name.

EASTERN EUROPE: **Saint Petersburg** (Weinmann, 1828; Weinmann, 1836; Weinmann, 1837).

***Agaricus subzonatus* Weinm.**

No current name.

EASTERN EUROPE: **Saint Petersburg** (Weinmann, 1836).

***Agaricus tenax* Fr.**

No current name.

EASTERN EUROPE: **Saint Petersburg** (Weinmann, 1836; Weinmann, 1837).

SIBERIA: **Krasnoyarsk Krai** (Borszczow and Borszczow, 1856; Thümen, 1878).

***Agaricus tepidarius* Weinm.**

No current name.

EASTERN EUROPE: **Saint Petersburg** (Weinmann, 1824).

***Agaricus testaceocanescens* Weinm.**

No current name.

EASTERN EUROPE: **Saint Petersburg** (Weinmann, 1836).

***Agaricus testaceus* Batsch**

No current name.

SIBERIA: **Krasnoyarsk Krai** (Thümen, 1878).

***Agaricus tornatus* Fr.**

No current name.

EASTERN EUROPE: **Saint Petersburg** (Weinmann, 1828; Weinmann, 1836; Weinmann, 1837).

***Agaricus trachelinus* Fr.**

No current name.

EASTERN EUROPE: **Saint Petersburg** (Weinmann, 1828).

***Agaricus trinii* Weinm.**

No current name.

EASTERN EUROPE: **Leningrad Oblast** (Weinmann, 1836).***Agaricus trochilus* Lasch ex Fr.**

No current name.

FAR EAST: **Chukotka Autonomous Okrug** (Berkeley and Curtis, 1978).***Agaricus truncatus* Schaeff.**

No current name.

*Agaricus truncatus* Schaeff. is a missapplied name variously interpreted by different authors (Noordeloos and Kuyper, 1987).

SIBERIA: **Krasnoyarsk Krai** (Thümen, 1878).***Agaricus utilis* Weinm.**

No current name.

EASTERN EUROPE: **Saint Petersburg** (Weinmann, 1836; Weinmann, 1837).***Agaricus vaccinus* Pers.**

No current name.

FAR EAST: **Chukotka Autonomous Okrug** (Berkeley and Curtis, 1978).***Agaricus vaporariorum* Weinm.**

No current name.

EASTERN EUROPE: **Saint Petersburg** (Weinmann, 1832; Weinmann, 1836).***Agaricus variabilis* Bull.**

Name with wrong authors' citation.

EASTERN EUROPE: **Crimea** (Léveillé, 1842).***Agaricus venifer* Berk. & M.A. Curtis**

No current name.

FAR EAST: **Chukotka Autonomous Okrug** (Berkeley and Curtis, 1860; Berkeley and Curtis, 1978).***Agaricus vinosus* Bull.**

No current name.

According to Holec (2001) *Agaricus vinosus* Bull. *sensu* Weinmann (1836) (non *A. vinosus* Bull. 1721) is impossible to interpret. It is considered as doubtful species.

EASTERN EUROPE: **Saint Petersburg** (Weinmann, 1836; Weinmann, 1837).***Agaricus violaceocinereus* Pers.**

No current name.

EASTERN EUROPE: **Leningrad Oblast** (Weinmann, 1836).***Agaricus xylophilus* Weinm.**

No current name.

EASTERN EUROPE: **Leningrad Oblast** (Weinmann, 1835).***Agrocybe extensoriiformis* (I.G. Borshch.) Singer**

Name absent from IF.

SIBERIA: **Irkutsk Oblast** (Singer, 1950a).***Agrocybe pediades* var. *annulata* Singer**

Name absent from IF.

EASTERN EUROPE: **Stavropol Krai** (Singer, 1950a).

***Agrocybe praecox* var. *fulvella* Bull.**

Name absent from IF.

EASTERN EUROPE: **Karelia** (Singer, 1950a).

***Agrocybe praecox* var. *minor* Batt.**

Name absent from IF.

EASTERN EUROPE: **Karelia** (Singer, 1950a).

***Alnicola luteolofibrillosa* Kühner**

No current name.

SIBERIA: **Altai Republic** (Singer, 1939; Singer, 1950a; Singer, 1950b).

***Amanita alba* Gillet**

Name with wrong authors' citation.

EASTERN EUROPE: **Krasnodar Krai** (Kovalenko, 1980a); **Murmansk Oblast** (Mikhailovskii, 1975b; Nezdoyminogo, 1997b); **Penza Oblast** (Ivanov, 1982); **Tver Oblast** (Kurochkin, 1993).

SIBERIA: **Irkutsk Oblast** (Petrov, 1986; Muzyka, 2002).

FAR EAST: **Primorsky Krai** (Bardunov et al., 2002).

***Amanita alba* Lam.**

No current name.

EASTERN EUROPE: **Belgorod Oblast** (Psurtsseva, Belova, and Ryabusheva, 2003); **Chelyabinsk Oblast** (Stepanova and Sirko, 1977); **Kaluga Oblast** (Sionova, 2003); **Komi Republic** (Karatygin, Nezdoyminogo, Novozhilov, and Zhurbenko, 1999); **Murmansk Oblast** (Karatygin, Nezdoyminogo, Novozhilov, and Zhurbenko, 1999).

SIBERIA: **Altai Republic** (Kovalenko, 1992; Perova and Gorbunova, 2001); **Irkutsk Oblast** (Petrov, 1991; Petrov, 2008).

FAR EAST: **Primorsky Krai** (Azbukina et al., 1990).

***Amanita alba* Pers.**

No current name.

SIBERIA: **Altai Krai** (Gorbunova and Perova, 2006; Gorbunova and Chubarova, 2008; Gorbunova, Vlasenko, and Tzhubarova, 2011); **Altai Republic** (Gorbunova, 2008); **Khanty-Mansi Autonomous Okrug** (Zvyagina, Baykalova, and Gorbunova, 2007); **Novosibirsk Oblast** (Gorbunova, 2007); **Tomsk Oblast** (Agaphonova, Kutafjeva, and Gashkov, 2007).

***Amanita baccata* (Fr.) Gillet**

No current name.

FAR EAST: **Primorsky Krai** (Bau, Bulakh, and Govorova, 2011).

***Amanita coccola* (Scop.) Bertill.**

No current name.

EASTERN EUROPE: **Moscow** (Bucholtz, 1897b; Bucholtz, 1897c; Mosolov, 1906).

***Amanita excelsa* f. *pantherinoides***

Name absent from IF.

EASTERN EUROPE: **Volgograd Oblast** (Svetasheva, 2015).

***Amanita leiocephala* (DC.) Pers.**

No current name.

EASTERN EUROPE: **Smolensk Oblast** (Jaczewski, 1893; Jaczewski, 1895).

***Amanita pustulata* (Schaeff.) J. Schröt.**

Name absent from IF.

EASTERN EUROPE: **Moscow** (Bucholtz, 1897b; Bucholtz, 1897c; Mosolov, 1906).

***Amanita sayanensis* Bulyonk. & I.A. Gorbunova**

Name absent from IF.

SIBERIA: **Krasnoyarsk Krai** (Gorbunova, 2016).***Amanita strobiliformis* Gonn. & Rabenh.**

No current name.

SIBERIA: **Altai Republic** (Gorbunova, 2008).***Amanitopsis alba* (Bull.) Sergeeva**

Name absent from IF.

EASTERN EUROPE: **Arid territories** (Rebriev, Rusanov, et al., 2012).***Amanitopsis alba* Gillet**

Name absent from IF.

EASTERN EUROPE: **Astrakhan Oblast** (Pilipenko et al., 2014); **Bryansk Oblast** (Kruglikov, 2007); **Udmurt Republic** (Tychinin and Kuzmina, 2003); **Voronezh Oblast** (Agafonov, 2011; Agafonov, 2018).***Amanitopsis plumbea* var. *alba* Fr.**

Name absent from IF.

EASTERN EUROPE: **Moscow** (Bucholtz, 1897b).***Amanitopsis plumbea* var. *fulva* J. Schröt.**

Name absent from IF.

EASTERN EUROPE: **Moscow** (Bucholtz, 1897b).***Amanitopsis plumbea* var. *fulva* Schaeff.**

Name absent from IF.

EASTERN EUROPE: **Kaliningrad Oblast** (Hennings, 1895).***Amanitopsis verna* (Bull.) Vittad.**

Name absent from IF.

FAR EAST: **Primorsky Krai** (Bardunov et al., 2002).***Anellaria fimiputris* (Bull.) P. Karst.**

No current name.

EASTERN EUROPE: **Moscow Oblast** (Petroff, 1911).***Anellaria firmipes* P. Karst.**

No current name.

SIBERIA: **Buryatia** (Karsten, 1905).***Anellaria semiglobata* (Batsch) J. Schröt.**

Name absent from IF.

EASTERN EUROPE: **Moscow** (Bucholtz, 1897b; Bucholtz, 1897c; Mosolov, 1906).***Annularia baicalensis* P. Karst.**

No current name.

SIBERIA: **Baikalia** (Karsten, 1904).***Armillaria bulbosa* (Romagn.) Kile & Watling**

No current name.

According to Marxmüller (1992) *Armillaria bulbosa* (Romagn.) Kile & Watling *sensu auct.* has been rejected as misapplication.EASTERN EUROPE: **Saint Petersburg** (Zhukova, Morozova, Volobuev, and Bryantseva, 2017).

***Armillaria kuraiana* Pilát**

*Armillaria kuraiana* should have no current name as according to Volk and Burdsall Jr. (1995) description in protologue indicates affinities with *Tricholoma* or *Lentinus*, not an *Armillaria*.

No current name.

SIBERIA: **Altai Republic** (Pilát, 1934).

***Armillaria laschii* (Fr.) Gillet**

No current name.

EASTERN EUROPE: **Smolensk Oblast** (Jaczewski, 1896).

***Armillaria lutea* Gillet**

No current name.

EASTERN EUROPE: **Perm Krai** (Belkovskaya et al., 2014); **Saint Petersburg** (Morozova, Kovalenko, Rebriev, and Malysheva, 2014); **Vologda Oblast** (Kirillova, 2007; Kirillova, 2009).

SIBERIA: **Khanty-Mansi Autonomous Okrug** (Filippova and Bulyonkova, 2017a; Filippova and Bulyonkova, 2017b).

***Armillariella nigropunctata* (Secr. ex Sacc.) Singer**

No current name.

EASTERN EUROPE: **Karelia** (Singer, 1943).

***Arrhenia tenella* (Lam. & DC.) Fr.**

No current name.

SIBERIA: **Sayans** (Murashkinsky and Sieling, 1928).

***Asterophora candida* Weinm.**

According to the protologue (Weinmann, 1832) the fungus has lamellae (“lamellae subdistantes, tenues, perangustae”), hence the species could not belong to genus *Clavulinopsis* that represents clavarioid fungi.

No current name.

EASTERN EUROPE: **Saint Petersburg** (Weinmann, 1832; Weinmann, 1836; Weinmann, 1837).

***Astrosporina scabella* (P. Kumm.) J. Schröt.**

No current name.

EASTERN EUROPE: **Mordovia** (Chastukhin, 2011; Ivoilov and Bolshakov, 2011a); **Moscow** (Bucholtz, 1897b; Bucholtz, 1897c).

***Bolbitius pusillus* I.G. Borshch.**

No current name.

EASTERN EUROPE: **Saint Petersburg** (Borszczow, 1857).

***Bolbitius tener* Fr.**

Name with wrong authors' citation.

EASTERN EUROPE: **Nizhny Novgorod Oblast** (Murashkinsky, 1911).

***Boletinus lariceti* (Singer) Vassilkov**

Name absent from IF.

SIBERIA: **Tomsk Oblast** (Milovidova, 1980).

FAR EAST: **Amur Oblast** (Tomilin, 1962).

***Boletinus oxydabilis* f. *aberrans* Singer**

No current name.

SIBERIA: **Altai Republic** (Singer, 1938e); **Buryatia** (Nezdojminogo, 1970a).

***Boletinus oxydabilis* Singer**

No current name.

SIBERIA: **Altai Republic** (Singer, 1938e); **Buryatia** (Petrov, 1991); **Irkutsk Oblast** (Petrov, 1984; Petrov, 1991; Petrov, 2008); **Krasnoyarsk Krai** (Beglyanova, 1972a; Lapitskaya, 1990).

FAR EAST: **Magadan Oblast** (Nazarova, 1976; Sazanova, 2005; Sazanova, 2009a).

***Boletus auripes* Peck**

No current name.

FAR EAST: **Primorsky Krai** (Bulakh, 2008; Bogacheva et al., 2018).

***Boletus bulbosus* Schaeff.**

No current name.

EASTERN EUROPE: **Arkhangelsk Oblast** (Lebedeva, 1933); **Karelia** (Lebedeva, 1933); **Moscow** (Bucholtz, 1897a; Bucholtz, 1897b; Bucholtz, 1897c; Mosolov, 1906); **Moscow Oblast** (Heyden, 1899).

***Boletus cinnamomeus* Rostk.**

No current name.

EASTERN EUROPE: **Smolensk Oblast** (Jaczewski, 1893; Jaczewski, 1895).

***Boletus coniferus* Lebedeva**

Name absent from IF.

SIBERIA: **Sakha Republic** (Birkenhof, 1936).

***Boletus purpureus* Fr.**

No current name.

EASTERN EUROPE: **Rostov Oblast** (Rusanov et al., 2004); **Arid territories** (Rebriev, Rusanov, et al., 2012).

***Boletus purpureus* Pers.**

No current name.

EASTERN EUROPE: **Belgorod Oblast** (Bedenko, 1979a); **Crimea** (Sarkina, 2001); **Rostov Oblast** (Zmitrovich et al., 2008).

***Boletus satanoides* Smotl.**

No current name.

EASTERN EUROPE: **Krasnodar Krai** (Vaasma, Kalamees, and Raitviir, 1986); **Penza Oblast** (Ivanov, 1985).

***Boletus scaber* var. *grisea***

Name absent from IF.

EASTERN EUROPE: **North Ossetia** (Chernetskaja, 1929).

***Calathinus substriatulus* Singer**

No current name.

SIBERIA: **Altai Republic** (Singer, 1943).

***Camarophyllus alpinus* M.M. Moser**

No current name.

SIBERIA: **Krasnoyarsk Krai** (Beglyanova, 1972a).

***Camarophyllus ficoides* (Bull.) P. Karst.**

Name absent from IF.

SIBERIA: **Zabaykalsky Krai** (Karsten, 1911).

***Camarophyllus fuscescens* var. *fuscescens* (Bres.) M.M. Moser**

Name absent from IF.

EASTERN EUROPE: **Belgorod Oblast** (Bedenko, 1979a).

***Camarophyllus subviolaceus* (Peck) Singer**

Name absent from IF.

FAR EAST: **Primorsky Krai** (Vassiljeva, 1973).

***Camarophyllus uliginosus* (Hesler & A.H. Sm.) Nazarova**

Name absent from IF.

FAR EAST: **Magadan Oblast** (Nazarova, 1976).

***Cantharellus aurantiacus* var. *fuscolutescens* P. Karst.**

Name absent from IF.

EASTERN EUROPE: **Leningrad Oblast** (Thesleff, 1920).

***Cantharellus behringensis* Berk. & M.A. Curtis**

No current name.

FAR EAST: **Chukotka Autonomous Okrug** (Berkeley and Curtis, 1860; Berkeley and Curtis, 1978).

***Cantharellus parilis* Weinm.**

No current name.

EASTERN EUROPE: **Saint Petersburg** (Weinmann, 1836).

***Chroogomphus roseus* (Fr.) Fr.**

Name absent from IF.

EASTERN EUROPE: **Lipetsk Oblast** (Sarycheva, Starodubtseva, and Sapelnikova, 2017); **Voronezh Oblast** (Sarycheva, Starodubtseva, and Sapelnikova, 2017).

***Clitocybe dealbata* (Sowerby) P. Kumm.**

No current name.

EASTERN EUROPE: **Belgorod Oblast** (Bedenko, 1980); **Bryansk Oblast** (Kruglikov, 2007); **Crimea** (Sarkina, 2010b; Sarkina and Prydiuk, 2012; Sarkina, 2013; Sarkina and Mironova, 2015); **Kabardino-Balkarian Republic** (Shkhagapsoev and Krapivina, 2003; Shkhagapsoev and Krapivina, 2004); **Kaliningrad Oblast** (Dedkov, Volodina, and Gubareva, 2007; Volodina, 2007); **Kaluga Oblast** (Sionova, 2003); **Karelia** (Bondartseva et al., 2001; Predtechenskaya and Ruokolainen, 2013; Krutov et al., 2014; Predtechenskaya and Ruokolainen, 2014; Predtechenskaya, 2015; Savelev and Kikeeva, 2020); **Kirov Oblast** (Stavishenko, Luginina, Kirillov, and Egoshina, 2019); **Komi Republic** (Bobretsova, 2004; Palamarchuk, 2012; Palamarchuk, 2016a; Palamarchuk, 2016b); **Kursk Oblast** (Bedenko, 1987); **Leningrad Oblast** (Thesleff, 1920; Singer, 1943; Malysheva and Malysheva, 2005a; Zmitrovich et al., 2015); **Lipetsk Oblast** (Rtishcheva, 1999; Sarycheva, 1999; Afanasyev, Rtishcheva, and Starodubtseva, 2007; Sarycheva et al., 2009; Sarycheva, 2011; Sarycheva, 2014a; Sarycheva, 2016; Sarycheva, Starodubtseva, and Sapelnikova, 2017); **Mordovia** (Bolshakov and Ivoilov, 2012a); **Moscow Oblast** (Gorlenko, Sidorova, and Sidorova, 1989; Vishnevsky, 1998); **Orenburg Oblast** (Desyatova, 2007; Desyatova, 2008); **Penza Oblast** (Ivanov, 1983); **Perm Krai** (Perevedentseva, 2008; Belkovskaya et al., 2014; Botalov, 2017; Botalov and Perevedentseva, 2020); **Pskov Oblast** (Popov et al., 2013); **Rostov Oblast** (Vyshchepan, 1992; Morozova et al., 2008; Rusanov, Rebriev, and Bulgakov, 2018); **Ryazan Oblast** (Volosnova, 2014); **Saint Petersburg** (Morozova, Kovalenko, Rebriev, and Malysheva, 2014); **Samara Oblast** (Malysheva and Malysheva, 2004; Malysheva and Malysheva, 2007; Malysheva and Malysheva, 2008); **Tula Oblast** (Svetasheva, 2004; Svetasheva, 2008); **Tver Oblast** (Kurochkin, 1993; Mukhina, 2011a; Mukhina, 2011b; Kotkova, 2014); **Udmurt Republic** (Tychinin, 1990; Tychinin and Kuzmina, 2003); **Ulyanovsk Oblast** (Ilyukhin, 2009; Ilyukhin, 2010a); **Vologda Oblast** (Kutova, 1957); **Voronezh Oblast** (Bedenko, 1987; Rtishcheva, 1999; Afanasyev, Rtishcheva, and Starodubtseva, 2007; Sarycheva, Starodubtseva, and Sapelnikova, 2017); **Yaroslavl Oblast** (Lazareva, 1998a); **Arid territories** (Rebriev, Rusanov, et al., 2012).

SIBERIA: **Altai Krai** (Gorbunova and Perova, 2006); **Altai Republic** (Gorbunova, 1996; Gorbunova, 1997; Perova and Gorbunova, 2001; Gorbunova, 2008); **Irkutsk Oblast** (Petrov, 1984; Petrov, 1991; Muzyka, 2002; Petrov, 2008; Muzyka, 2009; Muzyka and Penzina, 2017); **Khakassia** (Zauzolkova, 2015); **Krasnoyarsk Krai** (Beglyanova, 1972a; Lapitskaya, 1993; Pavlov et al., 2007; Kosheleva and Kutafjeva, 2008b; Kosheleva, 2010); **Novosibirsk Oblast** (Perova and Gorbunova, 2001; Perova and Gorbunova, 2007); **Tomsk Oblast** (Kudashova, Gashkov, and Kutafjeva, 2013).

FAR EAST: **Magadan Oblast** (Sazanova, 2005).



***Clitocybe dothiophora* (Fr.) P. Karst.**

No current name.

EASTERN EUROPE: **Leningrad Oblast** (Thesleff, 1920).

***Clitocybe ericetorum* (Bull.) P. Karst.**

No current name.

EASTERN EUROPE: **Kaliningrad Oblast** (Dedkov, Volodina, and Gubareva, 2007); **Karachay-Cherkess Republic** (Onipchenko and Kaverina, 1989; Kalamees and Botashev, 2000); **Kursk Oblast** (Bedenko, 1987); **Moscow Oblast** (Levitskaya, 1995b; Vishnevsky, 1998; Levitskaya, 2013); **Orenburg Oblast** (Desyatova, 2008); **Perm Krai** (Perevedentseva, 2008; Botalov, 2017; Botalov and Perevedentseva, 2020); **Pskov Oblast** (Popov et al., 2013); **Samara Oblast** (Malysheva and Malysheva, 2005b; Malysheva and Malysheva, 2008); **Voronezh Oblast** (Bedenko, 1987).

SIBERIA: **Altai Republic** (Gorbunova, 2003); **Krasnoyarsk Krai** (Beglyanova, 1972a).

FAR EAST: **Primorsky Krai** (Bulakh, 1977; Azbukina et al., 1984).

***Clitocybe gallinacea* (Fr.) Lange**

Name with wrong authors' citation.

SIBERIA: **Krasnoyarsk Krai** (Beglyanova, 1972a).

***Clitocybe geotropa* var. *subinvoluta* Batsch ss. Bres.**

Name absent from IF.

SIBERIA: **Irkutsk Oblast** (Petrov, 1991; Petrov, 2008).

***Clitocybe incilis* (Fr.) Gillet**

No current name.

EASTERN EUROPE: **Kaliningrad Oblast** (Dedkov, Volodina, and Gubareva, 2007).

SIBERIA: **Altai Republic** (Singer, 1943); **Sverdlovsk Oblast** (Stepanova and Sirko, 1977).

***Clitocybe interveniens* P. Karst.**

No current name.

EASTERN EUROPE: **Leningrad Oblast** (Thesleff, 1920).

***Clitocybe obsoleta* (Batsch) QuéL.**

No current name.

EASTERN EUROPE: **Adygea** (Vaasma, Kalamees, and Raitviir, 1986); **Belgorod Oblast** (Bedenko, 1980); **Chelyabinsk Oblast** (Sirko and Stepanova, 1977; Stepanova and Sirko, 1977); **Karelia** (Krutov et al., 2014); **Leningrad Oblast** (Thesleff, 1920; Kovalenko and Morozova, 1999a; Popov et al., 2007); **Moscow Oblast** (Gorlenko, Sidorova, and Sidorova, 1989; Vishnevsky, 1998; Levitskaya, 2013); **Murmansk Oblast** (Pystina, Pavlova, and Shestakova, 1969); **Saint Petersburg** (Kovalenko and Morozova, 1999a); **Tula Oblast** (Svetasheva, 2004).

SIBERIA: **Krasnoyarsk Krai** (Beglyanova, 1972a; Zauzolkova, 2015; Zauzolkova and Gorbunova, 2016); **Tomsk Oblast** (Perova, 1972; Perova and Gorbunova, 2001; Kudashova, Gashkov, and Kutafjeva, 2013).

FAR EAST: **Chukotka Autonomous Okrug** (Sazanova, 1993); **Magadan Oblast** (Sazanova, 2005); **Primorsky Krai** (Vassiljeva, 1973; Bunkina and Nazarova, 1978; Azbukina et al., 2006).

***Clitocybe opaca* Gillet**

No current name.

EASTERN EUROPE: **Leningrad Oblast** (Thesleff, 1920).

***Clitocybe radicellata* Godey**

No current name.

EASTERN EUROPE: **Ryazan Oblast** (Volosnova, 1997); **Sverdlovsk Oblast** (Stepanova and Sirko, 1977).

SIBERIA: **Novosibirsk Oblast** (Perova and Gorbunova, 2001; Perova and Gorbunova, 2007).

***Clitocybe setiseda* (Schwein.) Sacc.**

No current name.

EASTERN EUROPE: **Karelia** (Freindling, 1949; Bondartseva et al., 2001; Krutov et al., 2014).

***Clitocybe subviscifera* P. Karst.**

No current name.

EASTERN EUROPE: **Karelia** (Freindling, 1949).

***Clitocybe tornata* (Fr.) P. Kumm.**

No current name.

EASTERN EUROPE: **Chelyabinsk Oblast** (Sirko and Stepanova, 1977; Stepanova and Sirko, 1977); **Leningrad Oblast** (Kovalenko and Morozova, 1999a; Popov et al., 2007); **Moscow Oblast** (Gorlenko, Sidorova, and Sidorova, 1989; Vishnevsky, 1998); **Penza Oblast** (Ivanov, 1983); **Tver Oblast** (Kurochkin, 1993).

SIBERIA: **Krasnoyarsk Krai** (Beglyanova, 1972a); **Tomsk Oblast** (Kudashova, Gashkov, and Vaishlya, 2016a).

***Clitocybula lacerata* (Lasch) Singer**

Name with wrong authors' citation.

FAR EAST: **Primorsky Krai** (Psurtsseva, Kiyashko, Gachkova, and Belova, 2007).

***Clypeus asterophorus* (Quél.) P. Karst.**

Name absent from IF.

EASTERN EUROPE: **Leningrad Oblast** (Thesleff, 1920).

***Clypeus scabellus* Fr.**

Name absent from IF.

EASTERN EUROPE: **Leningrad Oblast** (Thesleff, 1920).

***Collybia asema* (Bull.) P. Kumm.**

Name with wrong authors' citation.

EASTERN EUROPE: **Belgorod Oblast** (Psurtsseva, Kiyashko, Gachkova, and Belova, 2007); **Leningrad Oblast** (Psurtsseva, Kiyashko, Gachkova, and Belova, 2007).

***Collybia cirrhata* var. *typica* Maire**

Name absent from IF.

EASTERN EUROPE: **Krasnodar Krai** (Vassiljeva, 1939).

***Collybia dryophila* var. *gracilis* Weinm.**

Name absent from IF.

EASTERN EUROPE: **Leningrad Oblast** (Singer, 1943).

***Collybia fuscopurpurea* (Fr.) Quél.**

Name with wrong authors' citation.

EASTERN EUROPE: **Lipetsk Oblast** (Sarycheva, 1999).

***Collybia ingrata* (Schumach.) Quél.**

No current name.

EASTERN EUROPE: **Belgorod Oblast** (Bedenko, 1980); **Chelyabinsk Oblast** (Sirko and Stepanova, 1977; Stepanova and Sirko, 1977); **Crimea** (Dudka et al., 2004; Sarkina, 2011); **Moscow Oblast** (Gorlenko, Sidorova, and Sidorova, 1989; Vishnevsky, 1998; Levitskaya, 2013); **Penza Oblast** (Ivanov, 1999); **Tula Oblast** (Svetasheva, 2004).

***Collybia leucocephala* (Bull.) Bres.**

No current name.

EASTERN EUROPE: **Kirov Oblast** (Singer, 1943).

***Collybia macilenta* (Fr.) Gillet**

No current name.

EASTERN EUROPE: **Kaliningrad Oblast** (Dedkov, Volodina, and Gubareva, 2007; Volodina, 2007; Atayev and Volodina, 2020); **Karelia** (Krutov et al., 2014); **Komi Republic** (Palamarchuk, 2011a; Palamarchuk, 2012); **Kursk Oblast** (Baranov, 2002); **Leningrad Oblast** (Kovalenko and Morozova, 1999a; Popov et al., 2007); **Moscow Oblast**

(Vishnevsky, 1998; Levitskaya, 2013); **Saint Petersburg** (Morozova and Kovalenko, 2000; Kotkova, Morozova, and Popov, 2006); **Yaroslavl Oblast** (Lazareva, 1998a).

SIBERIA: **Buryatia** (Nezdojminogo, 1973; Petrov, 1991); **Krasnoyarsk Krai** (Beglyanova, 1972a).

***Collybia muscigena* (Schumach.) P. Karst.**

No current name.

EASTERN EUROPE: **Leningrad Oblast** (Thesleff, 1920).

***Collybia platifera* Fr.**

Name absent from IF.

EASTERN EUROPE: **Chelyabinsk Oblast** (Sirko and Stepanova, 1977).

***Collybia porrea* (Pers.) P. Kumm.**

No current name.

EASTERN EUROPE: **Moscow Oblast** (Levitskaya, 2013).

FAR EAST: **Primorsky Krai** (Bunkina and Nazarova, 1978; Nazarova, 1978; Azbukina et al., 2006; Bau, Bulakh, and Govorova, 2011).

***Collybia protracta* (Fr.) Gillet**

No current name.

EASTERN EUROPE: **Nizhny Novgorod Oblast** (Murashkinsky, 1911).

***Collybia sobolewskii* (Weinm.) P. Karst.**

No current name.

SIBERIA: **Krasnoyarsk Krai** (Kalchbrenner, 1878; Beglyanova, 1972a; Zauzolkova, 2015).

***Conocybe blattaria* (Fr.) Kühner**

No current name.

EASTERN EUROPE: **Kaliningrad Oblast** (Dedkov, Volodina, and Gubareva, 2007; Atayev and Volodina, 2020); **Karelia** (Krutov et al., 2014); **Leningrad Oblast** (Kovalenko and Morozova, 1999a; Popov et al., 2007); **Lipetsk Oblast** (Sarycheva et al., 2009; Sarycheva, 2011; Sarycheva, 2014a; Sarycheva, 2016); **Murmansk Oblast** (Pystina, Pavlova, and Shestakova, 1969); **Ryazan Oblast** (Volosnova, 2014).

SIBERIA: **Altai Republic** (Gorbunova, 2006); **Krasnoyarsk Krai** (Gorbunova, 2016); **Tomsk Oblast** (Agaphonova, Kutafjeva, and Gashkov, 2009b; Kudashova, Gashkov, and Kutafjeva, 2013; Kudashova, Gashkov, and Vaishlya, 2016b).

FAR EAST: **Jewish Autonomous Oblast** (Erofeeva, Bukharova, and Bulakh, 2019); **Primorsky Krai** (Bau, Bulakh, and Govorova, 2011).

***Conocybe leucopus* Kühner**

No current name.

EASTERN EUROPE: **Penza Oblast** (Ivanov and Nezdojminogo, 1990).

***Conocybe rabenhorstii* (Fr.) Singer**

No current name.

FAR EAST: **Khabarovsk Krai** (Singer, 1950a).

***Conocybe togularis* (Bull.) Kühner**

No current name.

Misapplied name, variously interpreted by different authors (Hausknecht, 2009).

EASTERN EUROPE: **Lipetsk Oblast** (Sarycheva et al., 2009; Sarycheva, 2011; Sarycheva, 2014a; Sarycheva, 2016).

***Coprinus aphthosus* Fr.**

No current name.

EASTERN EUROPE: **Leningrad Oblast** (Nezdojminogo, 1967); **Tatarstan** (Vassiljeva, 1977).

SIBERIA: **Khakassia** (Beglyanova, 1972a); **Krasnoyarsk Krai** (Beglyanova, 1972a); **Tomsk Oblast** (Perova and Gorbunova, 2001; Kudashova, Gashkov, and Kutafjeva, 2013).

***Coprinus digitalis* (Batsch) Fr.**

No current name.

SIBERIA: **Irkutsk Oblast** (Petrov, 1986; Petrov, 1989; Petrov, 2008); **Krasnoyarsk Krai** (Beglyanova, 1972a); **Novosibirsk Oblast** (Perova and Gorbunova, 2001; Perova and Gorbunova, 2007).

***Coprinus domesticus* Lange**

Name absent from IF.

SIBERIA: **Irkutsk Oblast** (Muzyka, 2009).

***Coprinus fimetarius* Fr.**

No current name.

EASTERN EUROPE: **Leningrad Oblast** (Thesleff, 1920); **Moscow** (Bucholtz, 1897a).

SIBERIA: **Krasnoyarsk Krai** (Thümen, 1880b); **Novosibirsk Oblast** (Nozdrenko, 1970).

FAR EAST: **Primorsky Krai** (Naoumoff, 1914).

***Coprinus fuscescens* (Schaeff.) Fr.**

No current name.

EASTERN EUROPE: **Leningrad Oblast** (Kovalenko and Morozova, 1999a; Popov et al., 2007).

***Coprinus laxus* Bres. & Schulzer**

No current name.

EASTERN EUROPE: **Karelia** (Freindling, 1949; Bondartseva et al., 2001; Krutov et al., 2014).

***Coprinus nycthemerus* Fr.**

No current name.

EASTERN EUROPE: **Leningrad Oblast** (Thesleff, 1920).

***Coprinus porcellanus* (Schaeff.) J. Schröt.**

No current name.

EASTERN EUROPE: **Arkhangelsk Oblast** (Lebedeva, 1933); **Moscow** (Bucholtz, 1897a; Bucholtz, 1897b; Bucholtz, 1897c; Mosolov, 1906).

***Coprinus sociatus* (Schumach.) Fr.**

No current name.

EASTERN EUROPE: **Tatarstan** (Sorokin, 1872).

***Coprinus squamosus* Morgan**

No current name.

FAR EAST: **Primorsky Krai** (Bulakh, 2008; Bau, Bulakh, and Govorova, 2011).

***Coprinus stercorarius* Fr.**

No current name.

EASTERN EUROPE: **Crimea** (Dudka et al., 2004); **Kabardino-Balkarian Republic** (Shkhagapsoev and Krapivina, 2004); **Lipetsk Oblast** (Alferova, 1977; Sarycheva, 1999; Sarycheva, 2011; Sarycheva, 2014a); **Perm Krai** (Stepanova and Sirko, 1977; Perevedentseva, Shilkova, and Botalov, 2011); **Stavropol Krai** (Hollós, 1902; Hollós, 1905; Filarszky, 1907).

SIBERIA: **Krasnoyarsk Krai** (Beglyanova, 1972a).

***Coprinus velatus* Quél.**

No current name.

EASTERN EUROPE: **Yaroslavl Oblast** (Lazareva, 1998a; Lazareva, 1998b).

SIBERIA: **Krasnoyarsk Krai** (Beglyanova, 1972a).

***Corticium molle* Bres.**

Name with wrong authors' citation.

SIBERIA: **Altai** (Zhukov, 1979).

***Cortinarius albutus* (Fr.) Fr.**

Name absent from IF.

EASTERN EUROPE: **Tver Oblast** (Kurochkin, 1993).

***Cortinarius angulosus* Fr.**

No current name.

EASTERN EUROPE: **Karelia** (Bulakh, Wasser, Nazarova, and Nezdjminogo, 1990).

SIBERIA: **Krasnoyarsk Krai** (Bulakh, Wasser, Nazarova, and Nezdjminogo, 1990).

FAR EAST: **Primorsky Krai** (Bulakh, Wasser, Nazarova, and Nezdjminogo, 1990).

***Cortinarius anomalus* var. *pineti* P. Karst.**

Name absent from IF.

EASTERN EUROPE: **Leningrad Oblast** (Thesleff, 1920).

***Cortinarius arenatus* (Pers.) Fr.**

No current name.

EASTERN EUROPE: **Kaliningrad Oblast** (Dedkov, Volodina, and Gubareva, 2007); **Sverdlovsk Oblast** (Marina, 2006).

***Cortinarius armillatus* f. *prunulus* P. Karst.**

Name absent from IF.

EASTERN EUROPE: **Karelia** (Freindling, 1949; Bondartseva et al., 2001; Krutov et al., 2014).

***Cortinarius aurantiacus* M.M. Moser**

No current name.

EASTERN EUROPE: **Kabardino-Balkarian Republic** (Shkhagapsoev and Krapivina, 2004); **Leningrad Oblast** (Nezdjminogo, 1996; Kovalenko and Morozova, 1999a; Popov et al., 2007); **Vologda Oblast** (Kirillova, 2007).

***Cortinarius balteatoalbus* var. *agathosmus* Rob. Henry**

Name absent from IF.

EASTERN EUROPE: **Penza Oblast** (Ivanov, 1988a; Ivanov and Durandin, 1996).

***Cortinarius calosporus* (Pers.) Gray**

Name with wrong authors' citation.

EASTERN EUROPE: **Vologda Oblast** (Kirillova, 2007).

***Cortinarius candelaris* Fr.**

No current name.

EASTERN EUROPE: **Kaliningrad Oblast** (Dedkov, Volodina, and Gubareva, 2007); **Karelia** (Freindling, 1949; Nezdjminogo, 1977; Bulakh, Wasser, Nazarova, and Nezdjminogo, 1990; Nezdjminogo, 1996; Bondartseva et al., 2001; Krutov et al., 2014); **Komi Republic** (Palamarchuk, 2012); **Leningrad Oblast** (Bulakh, Wasser, Nazarova, and Nezdjminogo, 1990; Nezdjminogo, 1996; Kovalenko and Morozova, 1999a; Fomina, 2000; Popov et al., 2007); **Moscow Oblast** (Levitskaya, 1998; Levitskaya, 2013); **Penza Oblast** (Ivanov, 1983; Ivanov and Durandin, 1996); **Perm Krai** (Perevedentseva, 2008; Botalov, 2017; Botalov and Perevedentseva, 2018); **Saint Petersburg** (Kovalenko and Morozova, 1999a; Morozova and Smirnov, 2011); **Tatarstan** (Nezdjminogo, 1977; Bulakh, Wasser, Nazarova, and Nezdjminogo, 1990; Nezdjminogo, 1996).

FAR EAST: **Primorsky Krai** (Vassiljeva, 1973; Nezdjminogo, 1977; Bunkina and Nazarova, 1978; Azbukina et al., 1984; Bulakh, Wasser, Nazarova, and Nezdjminogo, 1990; Nezdjminogo, 1996; Azbukina et al., 2006; Bau, Bulakh, and Govorova, 2011).

***Cortinarius carbunculus* H. Lindstr. & H. Markl.**

No current name.

SIBERIA: **Khanty-Mansi Autonomous Okrug** (Filippova and Bulyonkova, 2017a; Filippova and Bulyonkova, 2017b).

***Cortinarius citrinolilacinus* M.M. Moser ex M.M. Moser**

No current name.

EASTERN EUROPE: **Belgorod Oblast** (Bedenko, 1979a; Nezdjominogo, 1996).

***Cortinarius collinitus* (Pers.) Fr .**

Name with wrong authors' citation.

EASTERN EUROPE: **Arid territories** (Rebriev, Rusanov, et al., 2012).

***Cortinarius collinitus* var. *alpicola***

Name absent from IF.

EASTERN EUROPE: **Krasnodar Krai** (Vassiljeva, 1939).

***Cortinarius cyanophyllus* Rob. Henry ex M.M. Moser**

No current name.

EASTERN EUROPE: **Crimea** (Dudka et al., 2004; Sarkina and Prydiuk, 2012).

SIBERIA: **Yamalo-Nenets Autonomous Okrug** (Tarchevskaya, 1990).

***Cortinarius cypriacus* Fr.**

No current name.

EASTERN EUROPE: **Kaliningrad Oblast** (Dedkov, Volodina, and Gubareva, 2007); **Penza Oblast** (Ivanov, 1983; Ivanov and Durandin, 1996; Nezdjominogo, 1996); **Perm Krai** (Perevedentseva, 2008).

***Cortinarius decumbens* (Pers.) Fr.**

No current name.

EASTERN EUROPE: **Tatarstan** (Vassiljeva, 1977).

SIBERIA: **Krasnoyarsk Krai** (Malysheva, Malysheva, Kiyashko, et al., 2017).

***Cortinarius detonsus* (Fr.) Fr.**

No current name.

EASTERN EUROPE: **Leningrad Oblast** (Thesleff, 1920).

***Cortinarius distans* Peck**

No current name.

FAR EAST: **Primorsky Krai** (Bunkina and Nazarova, 1978; Azbukina et al., 2006; Bau, Bulakh, and Govorova, 2011).

***Cortinarius divulgatus* Britzelm.**

No current name.

EASTERN EUROPE: **Penza Oblast** (Ivanov, 1986).

***Cortinarius dolabratus* Fr.**

No current name.

EASTERN EUROPE: **Leningrad Oblast** (Malysheva, Malysheva, Shchepin, and Novozhilov, 2018); **Sverdlovsk Oblast** (Marina, 2006).

SIBERIA: **Khakassia** (Zauzolkova, 2015; Zauzolkova and Gorbunova, 2016); **Khanty-Mansi Autonomous Okrug** (Filippova, Bulyonkova, and Lapshina, 2015; Filippova and Bulyonkova, 2017a; Filippova and Bulyonkova, 2017b); **Krasnoyarsk Krai** (Zauzolkova, 2015).

***Cortinarius fasciatus* Fr.**

No current name.

EASTERN EUROPE: **Kaliningrad Oblast** (Dedkov, Volodina, and Gubareva, 2007; Volodina, 2007); **Karelia** (Bondartseva et al., 2001; Krutov et al., 2014); **Leningrad Oblast** (Stolyarskaya, 1993; Kovalenko and Morozova, 1999a; Fomina, 2000; Fomina, 2001; Morozova, 2007; Popov et al., 2007); **Mordovia** (Kuznetsov, 1960; Ivoilov and Bolshakov, 2011a); **Murmansk Oblast** (Bulakh, Wasser, Nazarova, and Nezdjominogo, 1990; Nezdjominogo, 1996); **Perm Krai** (Perevedentseva, 2008; Botalov, 2017); **Samara Oblast** (Malysheva and Malysheva, 2007; Malysheva and

Malysheva, 2008); **Sverdlovsk Oblast** (Marina, 2006); **Tver Oblast** (Kurochkin, 1993); **Ulyanovsk Oblast** (Ilyukhin, 2010a; Ilyukhin, 2010b); **Yaroslavl Oblast** (Bulakh, Wasser, Nazarova, and Nezdjminogo, 1990; Nezdjminogo, 1996; Lazareva, 1998a; Lazareva, 2002).

SIBERIA: **Buryatia** (Nezdjminogo, 1973; Nezdjminogo, 1977; Petrov, 1991); **Krasnoyarsk Krai** (Nezdjminogo, 1977; Kosheleva and Kutafjeva, 2008a).

FAR EAST: **Magadan Oblast** (Nazarova, 1976; Nezdjminogo, 1977; Bulakh, Wasser, Nazarova, and Nezdjminogo, 1990; Nezdjminogo, 1996; Sazanova, 2005; Sazanova, 2009a); **Primorsky Krai** (Vassiljeva, 1973; Nezdjminogo, 1977; Bunkina and Nazarova, 1978; Bulakh, Wasser, Nazarova, and Nezdjminogo, 1990; Nezdjminogo, 1996; Azbukina et al., 2006; Bau, Bulakh, and Govorova, 2011).

***Cortinarius fnitimus* Velen.**

Name with wrong authors' citation.

EASTERN EUROPE: **Tatarstan** (Vassiljeva, 1977).

***Cortinarius firmus* Fr.**

No current name.

EASTERN EUROPE: **Leningrad Oblast** (Nezdjminogo, 1996; Kovalenko and Morozova, 1999a; Fomina, 2000; Popov et al., 2007); **Mordovia** (Ivoilov and Bolshakov, 2011a; Bolshakov and Ivoilov, 2012b; Silaeva, 2017); **Penza Oblast** (Nezdjminogo, 1996); **Tula Oblast** (Svetasheva, 2004; Svetasheva, 2005a; Svetasheva, 2005b; Shcherbakov, 2010); **Vologda Oblast** (Kirillova, 2007); **Yaroslavl Oblast** (Nezdjminogo, 1996; Lazareva, 1998a; Lazareva, 2002).

***Cortinarius fulvo-ochrascens* Rob. Henry**

No current name.

EASTERN EUROPE: **Kabardino-Balkarian Republic** (Shkhagapsoev and Krapivina, 2004); **Leningrad Oblast** (Bulakh, Wasser, Nazarova, and Nezdjminogo, 1990; Nezdjminogo, 1996; Kovalenko and Morozova, 1999a; Fomina, 2000; Popov et al., 2007).

SIBERIA: **Irkutsk Oblast** (Nezdjminogo, 1996); **Krasnoyarsk Krai** (Nezdjminogo, 1976a; Nezdjminogo, 1976b; Bulakh, Wasser, Nazarova, and Nezdjminogo, 1990; Nezdjminogo, 1996).

FAR EAST: **Khabarovsk Krai** (Bulakh, Wasser, Nazarova, and Nezdjminogo, 1990; Nezdjminogo, 1996; Bau, Bulakh, and Govorova, 2011).

***Cortinarius fulvo-ochrascens* var. *macrosporus* A.I. Ivanov**

No current name.

EASTERN EUROPE: **Penza Oblast** (Ivanov, 1988c; Ivanov and Durandin, 1996).

***Cortinarius fusco-peronatus* Kühner**

No current name.

FAR EAST: **Amur Oblast** (Bulakh, Wasser, Nazarova, and Nezdjminogo, 1990; Nezdjminogo, 1996); **Primorsky Krai** (Bulakh, Wasser, Nazarova, and Nezdjminogo, 1990; Nezdjminogo, 1996; Bau, Bulakh, and Govorova, 2011).

***Cortinarius glaucocanus* (Schaeff.) Fr.**

Name absent from IF.

FAR EAST: **Amur Oblast** (Azbukina et al., 1998).

***Cortinarius gossypinus* H. Lindstr.**

No current name.

EASTERN EUROPE: **Komi Republic** (Palamarchuk, 2011b; Palamarchuk, 2016a; Palamarchuk, 2016b).

***Cortinarius grallipes* Fr.**

No current name.

EASTERN EUROPE: **Karelia** (Krutov et al., 2014); **Rostov Oblast** (Rusanov, Rebriev, and Bulgakov, 2018).

***Cortinarius haematochelis* (Bull.) Fr.**

No current name.

EASTERN EUROPE: **Karelia** (Freindling, 1949; Bondartseva et al., 2001; Krutov et al., 2014); **Leningrad Oblast** (Nezdjminogo, 1996; Kovalenko and Morozova, 1999a; Popov et al., 2007); **Perm Krai** (Perevedentseva, 2008;

Belkovskaya et al., 2014); **Vologda Oblast** (Kirillova, 2007); **Yaroslavl Oblast** (Nezdojminogo, 1996; Lazareva, 1998a; Lazareva, 2002).

SIBERIA: **Krasnoyarsk Krai** (Nezdojminogo, 1976a; Nezdojminogo, 1996).

***Cortinarius hemitrichus f. sphagnorum***

Name absent from IF.

EASTERN EUROPE: **Karelia** (Freindling, 1949).

***Cortinarius holophaeus J.E. Lange***

No current name.

EASTERN EUROPE: **Karelia** (Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; Nezdojminogo, 1996); **Lipetsk Oblast** (Sarycheva et al., 2009; Sarycheva, 2016); **Perm Krai** (Botalov, Perevedentseva, and Denisov, 2015; Botalov, 2017).

FAR EAST: **Primorsky Krai** (Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; Nezdojminogo, 1996).

***Cortinarius insignis Britzelm.***

No current name.

EASTERN EUROPE: **Karelia** (Singer, 1937; Freindling, 1949; Bondartseva et al., 2001; Krutov et al., 2014).

***Cortinarius intentus Fr. f. minor***

Name absent from IF.

EASTERN EUROPE: **Krasnodar Krai** (Vassiljeva, 1939).

***Cortinarius jubarinus Fr.***

No current name.

EASTERN EUROPE: **Karelia** (Nezdojminogo, 1996; Krutov et al., 2014); **Komi Republic** (Palamarchuk (Bobretsova), 2009; Palamarchuk, 2012); **Leningrad Oblast** (Thesleff, 1920; Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; Stolyarskaya, 1993; Nezdojminogo, 1996; Kovalenko and Morozova, 1999a; Fomina, 2000; Fomina, 2001; Popov et al., 2007; Zmitrovich et al., 2015); **Lipetsk Oblast** (Sarycheva et al., 2009; Sarycheva, 2014a); **Moscow Oblast** (Levitskaya, 1995c; Levitskaya, 2013); **Perm Krai** (Perevedentseva, 2008; Botalov, 2017; Botalov and Perevedentseva, 2018); **Sverdlovsk Oblast** (Marina, 2006); **Tula Oblast** (Svetasheva, 2003; Svetasheva, 2004).

SIBERIA: **Irkutsk Oblast** (Petrov, Nezdojminogo, and Bulakh, 1987; Petrov, 1991; Petrov, 2008); **Krasnoyarsk Krai** (Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; Nezdojminogo, 1996).

FAR EAST: **Khabarovsk Krai** (Azbukina et al., 1986; Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; Bau, Bulakh, and Govorova, 2011).

***Cortinarius lanatus M.M. Moser***

No current name.

EASTERN EUROPE: **Leningrad Oblast** (Nezdojminogo, 1996; Kovalenko and Morozova, 1999a; Popov et al., 2007).

***Cortinarius leucopus (Bull.) Fr.***

No current name.

EASTERN EUROPE: **Kaliningrad Oblast** (Volodina, 2007); **Karelia** (Bondartseva et al., 2001; Krutov et al., 2014); **Leningrad Oblast** (Thesleff, 1920; Kovalenko and Morozova, 1999a; Popov et al., 2007; Zmitrovich et al., 2015); **Perm Krai** (Botalov, 2017; Botalov and Perevedentseva, 2018; Botalov, Perevedentseva, and Shishigin, 2020); **Saint Petersburg** (Morozova and Smirnov, 2011); **Samara Oblast** (Malysheva and Malysheva, 2008); **Yaroslavl Oblast** (Nezdojminogo, 1996; Lazareva, 1998a; Lazareva, 2002).

SIBERIA: **Irkutsk Oblast** (Petrov, Nezdojminogo, and Bulakh, 1987; Petrov, 1991; Nezdojminogo, 1996; Petrov, 2008); **Krasnoyarsk Krai** (Thümen, 1878; Beglyanova, 1972a; Nezdojminogo, 1977; Zauzolkova, 2015).

***Cortinarius licinipes Fr.***

No current name.

EASTERN EUROPE: **Krasnodar Krai** (Vassiljeva, 1939); **Leningrad Oblast** (Nezdojminogo, 1996; Kovalenko and Morozova, 1999a; Fomina, 2000; Popov et al., 2007); **Samara Oblast** (Malysheva and Malysheva, 2008); **Tatarstan** (Vassiljeva, 1977); **Tula Oblast** (Svetasheva, 2004; Svetasheva, 2005a).



***Cortinarius melanotus* Kalchbr.**

No current name.

EASTERN EUROPE: **Karachay-Cherkess Republic** (Malysheva and Svetasheva, 2011; Onipchenko et al., 2013); **Krasnodar Krai** (Kiyashko, 2011).

***Cortinarius microcyclus* Fr.**

No current name.

SIBERIA: **Irkutsk Oblast** (Kutafjeva, 1984).

***Cortinarius nanceiensis* Maire var. *percomius* Henry**

Name absent from IF.

SIBERIA: **Buryatia** (Petrov, 1991); **Irkutsk Oblast** (Petrov, 1991; Petrov, 2008).

***Cortinarius nigricans* (Velen.) Singer**

Name absent from IF.

EASTERN EUROPE: **Arkhangelsk Oblast** (Singer, 1937).

SIBERIA: **Krasnoyarsk Krai** (Vassilkov, 1967); **Sakha Republic** (Vassilkov, 1967).

***Cortinarius ochrophyllus* Fr.**

No current name.

EASTERN EUROPE: **Karelia** (Krutov et al., 2014); **Leningrad Oblast** (Kovalenko and Morozova, 1999a; Fomina, 2000; Fomina, 2001; Popov et al., 2007); **Sverdlovsk Oblast** (Marina, 2006); **Tver Oblast** (Kurochkin, 1993).

SIBERIA: **Khanty-Mansi Autonomous Okrug** (Filippova and Bulyonkova, 2017a; Filippova and Bulyonkova, 2017b).

***Cortinarius opimus* Fr.**

No current name.

EASTERN EUROPE: **Tatarstan** (Vassiljeva, 1977).

***Cortinarius pansa* (Fr.) Sacc.**

No current name.

EASTERN EUROPE: **Penza Oblast** (Ivanov, 1988c; Ivanov and Durandin, 1996; Nezdjominogo, 1996; Ivanov, 2013a).

***Cortinarius parevernus* Rob. Henry**

No current name.

EASTERN EUROPE: **Komi Republic** (Palamarchuk, 2012).

SIBERIA: **Irkutsk Oblast** (Kutafjeva, 1984; Nezdjominogo, 1996).

***Cortinarius pateriformis* Fr.**

No current name.

EASTERN EUROPE: **Tatarstan** (Vassiljeva, 1977).

***Cortinarius penicillatus* Fr.**

No current name.

EASTERN EUROPE: **Karelia** (Freindling, 1949; Bondartseva et al., 2001; Krutov et al., 2014).

***Cortinarius periscelis* Fr.**

No current name.

EASTERN EUROPE: **Chelyabinsk Oblast** (Sirko and Stepanova, 1977).

***Cortinarius phrygianus* Fr.**

No current name.

EASTERN EUROPE: **Perm Krai** (Perevedentseva, 2008; Botalov, 2017).

SIBERIA: **Khanty-Mansi Autonomous Okrug** (Filippova and Bulyonkova, 2017a; Filippova and Bulyonkova, 2017b).

***Cortinarius plumiger* Fr.**

No current name.

FAR EAST: **Magadan Oblast** (Nazarova, 1976).

***Cortinarius privignus* (Fr.) Fr.**

No current name.

EASTERN EUROPE: **Karelia** (Nezdojminogo, 1996); **Komi Republic** (Bobretsova, 2004; Palamarchuk, 2012); **Leningrad Oblast** (Kovalenko and Morozova, 1999a; Morozova and Kovalenko, 2000; Popov et al., 2007; Kalinina, 2018); **Penza Oblast** (Ivanov, 1983; Ivanov and Durandin, 1996); **Perm Krai** (Perevedentseva, 2008; Belkovskaya et al., 2014; Botalov, 2017); **Sverdlovsk Oblast** (Marina, 2006); **Tatarstan** (Vassiljeva, 1977; Nezdojminogo, 1996); **Tula Oblast** (Svetasheva, 2004; Svetasheva, 2005a); **Yaroslavl Oblast** (Nezdojminogo, 1996; Lazareva, 1998a; Lazareva, 2002).

SIBERIA: **Irkutsk Oblast** (Petrov, Nezdojminogo, and Bulakh, 1987; Petrov, 1991; Petrov, 2008).

***Cortinarius purpurascens* var. *largusoides* Rob. Henry**

Name with wrong authors' citation.

EASTERN EUROPE: **Penza Oblast** (Ivanov, 1988c).

***Cortinarius reediae* (Berk.) Berk.**

No current name.

EASTERN EUROPE: **Karachay-Cherkess Republic** (Vassiljeva, 1939).

***Cortinarius rheubarbarinus* Rob. Henry**

No current name.

EASTERN EUROPE: **Penza Oblast** (Ivanov, 1983).

***Cortinarius riculatus* Fr.**

No current name.

EASTERN EUROPE: **Leningrad Oblast** (Thesleff, 1920).

***Cortinarius saniosus* f. *paludosus* P. Karst.**

Name absent from IF.

EASTERN EUROPE: **Karelia** (Freindling, 1949; Bondartseva et al., 2001; Krutov et al., 2014).

***Cortinarius saturninus* var. *bresadolae* M.M. Moser ex Bon**

No current name.

EASTERN EUROPE: **Penza Oblast** (Ivanov and Nezdojminogo, 1990; Ivanov and Durandin, 1996).

FAR EAST: **Primorsky Krai** (Azbukina et al., 1990; Bardunov et al., 2002).

***Cortinarius sciophyllus* Fr.**

No current name.

EASTERN EUROPE: **Tver Oblast** (Chastukhin, 1948b; Chastukhin and Nikolaevskaya, 1969; Mukhina, 2011a; Kotkova, 2014).

***Cortinarius spadicellus* Brandrud**

No current name.

EASTERN EUROPE: **Perm Krai** (Perevedentseva, 2008).

***Cortinarius spadiceus* Fr.**

No current name.

EASTERN EUROPE: **Belgorod Oblast** (Bedenko, 1979a; Nezdojminogo, 1996); **Perm Krai** (Belkovskaya et al., 2014).

SIBERIA: **Altai Republic** (Gorbunova, 2001a); **Novosibirsk Oblast** (Perova and Gorbunova, 2001; Perova and Gorbunova, 2007); **Tomsk Oblast** (Nezdojminogo, 1996; Perova and Gorbunova, 2001; Kudashova, Gashkov, and Kutafjeva, 2013).

***Cortinarius stemmatus* Fr.**

No current name.

EASTERN EUROPE: **Karelia** (Krutov et al., 2014); **Komi Republic** (Palamarchuk, 2012); **Leningrad Oblast** (Nezdojminogo, 1978b; Nezdojminogo, 1996; Kovalenko and Morozova, 1999a; Fomina, 2000; Fomina, 2001; Morozova, 2007; Popov et al., 2007; Zmitrovich et al., 2015); **Moscow Oblast** (Levitskaya, 1995c; Levitskaya, 2013); **Perm Krai** (Perevedentseva, 2008; Belkovskaya et al., 2014); **Pskov Oblast** (Kolmakov and Popov, 2005; Popov et al., 2013); **Saint Petersburg** (Kotkova, Morozova, and Popov, 2005); **Tver Oblast** (Nezdojminogo, 1978b; Kurochkin, 1993; Nezdojminogo, 1996; Mukhina, 2011a; Kotkova, 2014); **Vologda Oblast** (Kirillova, 2007).

***Cortinarius stenosporius* Singer**

Name absent from IF.

EASTERN EUROPE: **Karelia** (Freindling, 1949; Bondartseva et al., 2001; Krutov et al., 2014).

***Cortinarius subannulatus* Jul. Schäff. & M.M. Moser**

No current name.

EASTERN EUROPE: **Penza Oblast** (Ivanov, 1983; Ivanov and Durandin, 1996; Nezdojminogo, 1996).

***Cortinarius subferrugineus* (Batsch) Fr.**

No current name.

EASTERN EUROPE: **Crimea** (Zerova, 1962; Dudka et al., 2004; Sarkina, 2011); **Krasnodar Krai** (Kovalenko, 1980a; Kovalenko, 1980b; Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; Nezdojminogo, 1996); **Leningrad Oblast** (Thesleff, 1920; Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; Nezdojminogo, 1996; Kovalenko and Morozova, 1999a; Popov et al., 2007).

SIBERIA: **Altai Republic** (Gorbunova, 2001b; Perova and Gorbunova, 2001); **Irkutsk Oblast** (Kutafjeva, 1984; Petrov, Nezdojminogo, and Bulakh, 1987; Petrov, 1991; Nezdojminogo, 1996; Petrov, 2008); **Krasnoyarsk Krai** (Beglyanova, 1972a; Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; Nezdojminogo, 1996; Kosheleva and Kutafjeva, 2008a).

FAR EAST: **Primorsky Krai** (Vassiljeva, 1973; Bunkina and Nazarova, 1978; Azbukina et al., 1984; Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; Nezdojminogo, 1996; Azbukina et al., 2006; Bau, Bulakh, and Govorova, 2011).

***Cortinarius subglutinosus* P. Karst.**

No current name.

EASTERN EUROPE: **Leningrad Oblast** (Thesleff, 1920).

***Cortinarius traganus* var. *odoratus* M.M. Moser**

No current name.

EASTERN EUROPE: **Leningrad Oblast** (Kalamees and Kovalenko, 1984; Kovalenko and Morozova, 1999a; Popov et al., 2007).

***Cortinarius trivialis* var. *squamosipes* Rob. Henry**

Name absent from IF.

EASTERN EUROPE: **Kirov Oblast** (Kirillov, 2011; Kirillov, Perevedentseva, and Egoshina, 2011); **Leningrad Oblast** (Stolyarskaya, 1993; Kovalenko and Morozova, 1999a; Popov et al., 2007); **Perm Krai** (Perevedentseva, 2008).

***Cortinarius velenovskyi* Rob. Henry**

No current name.

EASTERN EUROPE: **Karelia** (Bondartseva et al., 2001; Krutov et al., 2014); **Leningrad Oblast** (Nezdojminogo, 1996; Kovalenko and Morozova, 1999a; Morozova, 2007; Popov et al., 2007); **Perm Krai** (Perevedentseva, 2008; Belkovskaya et al., 2014).

***Cortinarius vespertinus* (Fr.) Fr.**

No current name.

EASTERN EUROPE: **Karelia** (Krutov et al., 2014); **Leningrad Oblast** (Kovalenko and Morozova, 1999a; Tzvelev, 2000; Popov et al., 2007; Zmitrovich et al., 2015; Geltman et al., 2018); **Lipetsk Oblast** (Sarycheva et al., 2009);

Shcherbakov, 2014; Sarycheva, 2016); **Penza Oblast** (Ivanov, 1988a; Ivanov and Durandin, 1996; Nezdojminogo, 1996); **Perm Krai** (Botalov, Perevedentseva, and Denisov, 2015; Botalov, 2017).

SIBERIA: **Irkutsk Oblast** (Kutafjeva, 1984; Nezdojminogo, 1996); **Khanty-Mansi Autonomous Okrug** (Filippova, 2009).

***Cortinarius violaceocinereus* (Pers.) Fr.**

No current name.

EASTERN EUROPE: **Crimea** (Sarkina, 2010b); **Kaliningrad Oblast** (Dedkov, Volodina, and Gubareva, 2007); **Krasnodar Krai** (Kovalenko, 1980a; Kovalenko, 1980b; Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; Nezdojminogo, 1996; Litvinskaya, 2007); **Leningrad Oblast** (Kovalenko and Morozova, 1999a; Popov et al., 2007); **Moscow** (Bucholtz, 1897a; Bucholtz, 1897b; Bucholtz, 1897c; Mosolov, 1906).

FAR EAST: **Amur Oblast** (Taranina, 2005); **Jewish Autonomous Oblast** (Erofeeva, Bukharova, and Bulakh, 2019); **Khabarovsk Krai** (Bulakh, 2013; Bogacheva, Bulakh, Bukharova, and Egorova, 2015; Erofeeva and Bulakh, 2015a); **Primorsky Krai** (Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; Nezdojminogo, 1996).

***Cortiniopsis lacrimabunda* J. Schröt.**

No current name.

EASTERN EUROPE: **Moscow** (Bucholtz, 1897b; Bucholtz, 1897c).

***Crepidotus cheimonophilus* (Berk. & Broome) Sacc.**

No current name.

EASTERN EUROPE: **Kaliningrad Oblast** (Dedkov, Volodina, and Gubareva, 2007).

***Crepidotus dishonestus* P. Karst.**

No current name.

EASTERN EUROPE: **Krasnodar Krai** (Vassiljeva, 1939); **Leningrad Oblast** (Zmitrovich, 2003); **Moscow Oblast** (Levitskaya, 2013).

SIBERIA: **Krasnoyarsk Krai** (Beglyanova, 1972a); **Tomsk Oblast** (Agaphonova, Kutafjeva, and Gashkov, 2009a; Kudashova, Gashkov, and Kutafjeva, 2013).

***Crepidotus scalaris* (Fr.) Sacc.**

No current name.

EASTERN EUROPE: **Karelia** (Singer, 1938b; Freindling, 1949; Bondartseva et al., 2001).

***Crepidotus scalaris* var. *caucasicus* Sing.**

Name absent from IF.

EASTERN EUROPE: **Adygea** (Vassiljeva, 1939); **Krasnodar Krai** (Vassiljeva, 1939).

***Crepidotus sessilis* Sacc.**

No current name.

EASTERN EUROPE: **Smolensk Oblast** (Jaczewski, 1896).

***Cricunopus flavidus* var. *sibiricus* P. Karst.**

No current name.

SIBERIA: **Zabaykalsky Krai** (Karsten, 1911).

***Cynnopus granulatus* Fr.**

Name absent from IF.

EASTERN EUROPE: **Murmansk Oblast** (Pystina, Pavlova, and Shestakova, 1969).

***Cystoderma kuehneri* Singer**

No current name.

EASTERN EUROPE: **Saint Petersburg** (Singer, 1943).

***Deconica bullacea* (Bull.) Sacc.**

No current name.

EASTERN EUROPE: **Leningrad Oblast** (Thesleff, 1920).***Deconica nuciseda* (Fr.) Sm. f. *major***

Name absent from IF.

EASTERN EUROPE: **Adygea** (Vassiljeva, 1939).***Derminus applanatus* (Pers.) J. Schröt.**

Name absent from IF.

EASTERN EUROPE: **Moscow** (Bucholtz, 1897b; Bucholtz, 1897c; Mosolov, 1906).***Derminus pediades* Fr.**

Name absent from IF.

EASTERN EUROPE: **Moscow** (Bucholtz, 1897b; Bucholtz, 1897c).***Derminus sessilis* (Bull.) J. Schröt.**

No current name.

EASTERN EUROPE: **Moscow** (Bucholtz, 1897b; Bucholtz, 1897c; Mosolov, 1906).***Dermocybe spilomea* (Fr.) Ricken**

Name absent from IF.

SIBERIA: **Krasnoyarsk Krai** (Beglyanova, 1972a).***Dothmiopus variabilis* (Pers.) Pat. var. *sphaerosporus***

Name absent from IF.

EASTERN EUROPE: **Krasnodar Krai** (Vassiljeva, 1939).***Entoloma ardosiacum* (Bull.) Quél.**

No current name.

EASTERN EUROPE: **Leningrad Oblast** (Thesleff, 1920).***Entoloma griseorubellum* (Lasch) A.N. Petrov**

Name with wrong authors' citation.

SIBERIA: **Irkutsk Oblast** (Petrov, 1986).***Entoloma helodes* Fr.**

Name absent from IF.

EASTERN EUROPE: **Kaliningrad Oblast** (Neuhoff, 1922).***Entoloma hydrogrammus* (Bull.) J. Schröt.**

Name absent from IF.

EASTERN EUROPE: **Tver Oblast** (Chastukhin, 1948b).***Entoloma majale* (Fr.) P. Karst.**

No current name.

EASTERN EUROPE: **Leningrad Oblast** (Thesleff, 1920).***Entoloma pluteoides* (Fr.) P. Karst.**

No current name.

EASTERN EUROPE: **Krasnodar Krai** (Vassiljeva, 1939).***Entoloma proletarius* (Fr.) Quél.**

No current name.

EASTERN EUROPE: **Perm Krai** (Perevedentseva, 2008).SIBERIA: **Altai Republic** (Perova and Gorbunova, 2001).

***Entoloma undulatum* (Fr.) Quél.**

Name absent from IF.

EASTERN EUROPE: **Penza Oblast** (Ivanov, 1999).

***Entoloma violaceoserrulatum* Noordel.**

No current name.

FAR EAST: **Primorsky Krai** (Noordeloos and Morozova, 2010).

***Flammula flavida* (Schaeff.) P. Kumm.**

No current name.

According to Jacobsson (1986) and Holec (2001) *Pholiota alnicola* (Fr.) Singer and *Ph. flavida* (Schaeff.) Singer are considered to be identical, but it was proposed to reject the name *Ph. flavida* because it has been variously interpreted.

EASTERN EUROPE: **Leningrad Oblast** (Thesleff, 1920).

SIBERIA: **Krasnoyarsk Krai** (Kalchbrenner, 1878); **Zabaykalsky Krai** (Karsten, 1906).

***Flammula lenticeps* Singer**

No current name.

EASTERN EUROPE: **Karelia** (Singer, 1945; Freindling, 1949; Singer, 1950a; Bondartseva et al., 2001).

***Flammula maackiae* Singer**

No current name.

FAR EAST: **Primorsky Krai** (Singer, 1945).

***Fulvidula braendlei* (Peck) Lj.N. Vassiljeva**

Name absent from IF.

EASTERN EUROPE: **Northern Caucasus** (Vassiljeva, 1939).

***Fulvidula rubecula* (Banning & Peck) Singer**

Name absent from IF.

EASTERN EUROPE: **Krasnodar Krai** (Vassiljeva, 1939).

***Galera minima* P. Karst.**

No current name.

EASTERN EUROPE: **Bashkortostan** (Karsten, 1905).

***Galera pygmaeoaffinis* Ricken**

Name absent from IF.

EASTERN EUROPE: **Kabardino-Balkarian Republic** (Singer, 1929).

***Galera sparteae* (Fr.) P. Kumm.**

No current name.

EASTERN EUROPE: **Leningrad Oblast** (Thesleff, 1920).

***Galera tenera* P. Karst.**

Name absent from IF.

EASTERN EUROPE: **Stavropol Krai** (Lobik, 1927).

***Galerina josserandii* Kühner**

No current name.

EASTERN EUROPE: **Komi Republic** (Palamarchuk (Bobretsova), 2009; Palamarchuk, 2012); **Novgorod Oblast** (Kovalenko, Morozova, Nezdojminogo, and Popov, 2005; Popov et al., 2013).

SIBERIA: **Novosibirsk Oblast** (Perova and Gorbunova, 2001).

FAR EAST: **Primorsky Krai** (Bardunov et al., 2002; Azbukina et al., 2006).

***Galerina josserandii* var. *pargoloviana* Singer**

Name absent from IF.

EASTERN EUROPE: **Leningrad Oblast** (Nezdojminogo, 1996; Kovalenko and Morozova, 1999a; Popov et al., 2007); **Penza Oblast** (Nezdojminogo, 1996).***Galerina pseudocamerina* Singer**

No current name.

SIBERIA: **Altai Republic** (Gorbunova, 1996; Gorbunova, 1997); **Novosibirsk Oblast** (Perova and Gorbunova, 2007).FAR EAST: **Primorsky Krai** (Vassiljeva, 1973; Bunkina and Nazarova, 1978; Azbukina et al., 1984; Azbukina et al., 1990).***Galerina pseudocamerina* var. *pargoloviana* Singer**

No current name.

EASTERN EUROPE: **Saint Petersburg** (Smith and Singer, 1964).***Galerina pumila* var. *vexans* (A.H. Sm. & Singer) Nezdojm.**

Name absent from IF.

EASTERN EUROPE: **Leningrad Oblast** (Nezdojminogo, 1996; Kovalenko and Morozova, 1999a; Popov et al., 2007); **Sverdlovsk Oblast** (Marina, 2006); **Vologda Oblast** (Kirillova, 2007).SIBERIA: **Irkutsk Oblast** (Nezdojminogo, 1996).***Galerina tenera* (Fr.) Quél.**

Name absent from IF.

EASTERN EUROPE: **Moscow** (Burova, 1968).***Gomphidius viscidus* var. *rutilus* Schaeff.**

Name absent from IF.

EASTERN EUROPE: **Crimea** (Zerova, 1962).***Gomphus roseus* (Fr.) Weinm.**

No current name.

EASTERN EUROPE: **Saint Petersburg** (Weinmann, 1828).***Gomphus rutilus* (Fr.) Weinm.**

No current name.

EASTERN EUROPE: **Saint Petersburg** (Weinmann, 1828).***Gymnopilus subsphaerosporus* (Joss.) Kühner & Romagn.**

No current name.

EASTERN EUROPE: **Perm Krai** (Botalov, 2015; Botalov, 2017).FAR EAST: **Primorsky Krai** (Vassiljeva, 1972; Vassiljeva, 1973; Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; Nezdojminogo, 1996).***Gyrodon mikhnoi* P. Karst.**

No current name.

SIBERIA: **Zabaykalsky Krai** (Karsten, 1911).***Hebeloma claviceps* (Fr.) Quél.**

No current name.

EASTERN EUROPE: **Karelia** (Krutov et al., 2014); **Leningrad Oblast** (Kovalenko and Morozova, 1999a; Popov et al., 2007); **Murmansk Oblast** (Pystina, Pavlova, and Shestakova, 1969; Nezdojminogo, 1996); **Perm Krai** (Nezdojminogo, 1996; Perevedentseva, 2008; Perevedentseva and Shishigin, 2015; Botalov, 2017; Botalov and Perevedentseva, 2018).SIBERIA: **Buryatia** (Nezdojminogo, 1996); **Tomsk Oblast** (Kudashova, Gashkov, and Kutafjeva, 2013).

***Hebeloma ericetorum* P.D. Orton**

Name absent from IF.

SIBERIA: **Krasnoyarsk Krai** (Stepanova and Tomilin, 1973).

***Hebeloma fastibile* (Pers.) P. Kumm.**

No current name.

EASTERN EUROPE: **Adygea** (Vassiljeva, 1939); **Belgorod Oblast** (Bedenko, 1979a); **Karelia** (Freindling, 1949; Bondartseva et al., 2001; Krutov et al., 2014); **Krasnodar Krai** (Vassiljeva, 1939); **Leningrad Oblast** (Thesleff, 1920; Kovalenko and Morozova, 1999a; Popov et al., 2007); **Murmansk Oblast** (Nezdojminogo, 1996; Karatygin, Nezdojminogo, Novozhilov, and Zhurbenko, 1999); **Ryazan Oblast** (Volosnova, 2005; Volosnova, 2014); **Saint Petersburg** (Morozova, Kovalenko, Rebriev, and Malysheva, 2014); **Saratov Oblast** (Kazakevich and Prisyazhnyuk, 1932); **Tatarstan** (Vassiljeva, 1977; Nezdojminogo, 1996); **Tula Oblast** (Svetasheva, 2003; Svetasheva, 2004); **Tver Oblast** (Chastukhin, 1948b; Chastukhin and Nikolaevskaya, 1969; Kurochkin, 1993; Kotkova, 2014); **Udmurt Republic** (Tychinin and Kuzmina, 2003).

SIBERIA: **Irkutsk Oblast** (Kutafjeva, 1984; Astapenko, 1990b; Nezdojminogo, 1996); **Khakassia** (Beglyanova, 1972a; Zauzolkova, 2015); **Krasnoyarsk Krai** (Perova, 1970; Beglyanova, 1972a; Nezdojminogo, 1996); **Kurgan Oblast** (Stepanova and Sirko, 1977); **Novosibirsk Oblast** (Perova and Gorbunova, 2001; Perova and Gorbunova, 2007).

***Hebeloma fusipes* Bres.**

No current name.

EASTERN EUROPE: **Crimea** (Dudka et al., 2004); **Kaliningrad Oblast** (Dedkov, Volodina, and Gubareva, 2007); **Murmansk Oblast** (Mikhailovskii, 1975b; Nezdojminogo, 1996; Karatygin, Nezdojminogo, Novozhilov, and Zhurbenko, 1999).

***Hebeloma remyi* Bruchet**

No current name.

EASTERN EUROPE: **Arkhangelsk Oblast** (Ezhov, Gavrilov, and Zmitrovich, 2014; Zmitrovich and Ezhov, 2015; Ezhov, Zmitrovich, and Ershov, 2016; Shiryaev, Zmitrovich, and Ezhov, 2018).

SIBERIA: **Krasnoyarsk Krai** (Nezdojminogo and Zhurbenko, 1996; Nezdojminogo, 1997a; Karatygin, Nezdojminogo, Novozhilov, and Zhurbenko, 1999).

***Hebeloma sinapizans* (Fr.) Sacc.**

Name with wrong authors' citation.

EASTERN EUROPE: **Arid territories** (Rebriev, Rusanov, et al., 2012).

***Hebeloma subsaponaceum* P. Karst.**

No current name.

EASTERN EUROPE: **Karelia** (Krutov et al., 2014); **Leningrad Oblast** (Stolyarskaya, 1993; Kovalenko and Morozova, 1999a; Popov et al., 2007; Zmitrovich et al., 2015); **Murmansk Oblast** (Nezdojminogo, 1996; Nezdojminogo, 1997b; Karatygin, Nezdojminogo, Novozhilov, and Zhurbenko, 1999); **Penza Oblast** (Nezdojminogo, 1996); **Ulyanovsk Oblast** (Ilyukhin, 2009; Ilyukhin, 2010a); **Yamalo-Nenets Autonomous Okrug** (Nezdojminogo, 1996; Karatygin, Nezdojminogo, Novozhilov, and Zhurbenko, 1999).

SIBERIA: **Buryatia** (Nezdojminogo, 1996).

***Hebeloma testaceum* QuéL.**

No current name.

EASTERN EUROPE: **Adygea** (Kovalenko, 1980b); **Belgorod Oblast** (Bedenko, 1980; Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; Nezdojminogo, 1996); **Kaliningrad Oblast** (Dedkov, Volodina, and Gubareva, 2007; Volodina, 2007); **Karelia** (Nezdojminogo, 1996; Krutov et al., 2014); **Krasnodar Krai** (Kovalenko, 1980a; Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; Nezdojminogo, 1996); **Leningrad Oblast** (Kovalenko and Morozova, 1999a; Fomina, 2000; Morozova, 2007; Popov et al., 2007; Zmitrovich et al., 2015); **Lipetsk Oblast** (Sarycheva et al., 2009; Sarycheva, 2014a; Shcherbakov, 2014; Sarycheva, 2016); **Moscow Oblast** (Levitskaya, 2006; Levitskaya, 2013); **Orenburg Oblast** (Korshikova, 2005; Desyatova, 2008); **Perm Krai** (Perevedentseva, 2008); **Pskov Oblast**



(Kolmakov and Popov, 2005; Popov et al., 2013); **Sverdlovsk Oblast** (Marina, 2006); **Tatarstan** (Vassiljeva, 1977); **Tula Oblast** (Svetasheva, 2004; Svetasheva, 2005a); **Yaroslavl Oblast** (Lazareva, 1998a; Lazareva, 2002).

SIBERIA: **Krasnoyarsk Krai** (Beglyanova, 1972a; Bulakh, Wasser, Nazarova, and Nezdoyminogo, 1990; Nezdoyminogo, 1996; Zauzolkova, 2015); **Novosibirsk Oblast** (Nozdrenko, 1970; Zaytseva, 1971; Perova and Gorbunova, 2001); **Tomsk Oblast** (Perova and Gorbunova, 2001; Kudashova, Gashkov, and Kutafjeva, 2013; Vaishlya et al., 2017).

FAR EAST: **Amur Oblast** (Bulakh, Wasser, Nazarova, and Nezdoyminogo, 1990; Nezdoyminogo, 1996; Azbukina et al., 1998); **Jewish Autonomous Oblast** (Bulakh, Govorova, Nazarova, and Vassiljeva, 2007; Bau, Bulakh, and Govorova, 2011); **Khabarovsk Krai** (Azbukina et al., 1986; Azbukina et al., 1989; Bulakh, Wasser, Nazarova, and Nezdoyminogo, 1990; Bau, Bulakh, and Govorova, 2011; Bulakh, 2013; Bogacheva, Bulakh, Bukharova, and Egorova, 2015; Erofeeva and Bulakh, 2015a); **Primorsky Krai** (Vassiljeva, 1973; Bunkina and Nazarova, 1978; Azbukina et al., 1984; Bulakh, Wasser, Nazarova, and Nezdoyminogo, 1990; Nezdoyminogo, 1996; Azbukina et al., 2006; Bau, Bulakh, and Govorova, 2011).

***Hebeloma truncatum* (Schaeff.) P. Kumm.**

No current name.

According to Vesterholt (2005) *Hebeloma truncatum* (Schaeff.) P. Kumm. *sensu auct.* is a missapplied name for *Hebeloma theobrominum* Quad.

EASTERN EUROPE: **Chelyabinsk Oblast** (Sirko and Stepanova, 1977; Stepanova and Sirko, 1977; Bulakh, Wasser, Nazarova, and Nezdoyminogo, 1990; Nezdoyminogo, 1996); **Leningrad Oblast** (Kovalenko and Morozova, 1999a; Popov et al., 2007); **Murmansk Oblast** (Nezdoyminogo, 1996); **Perm Krai** (Bulakh, Wasser, Nazarova, and Nezdoyminogo, 1990; Nezdoyminogo, 1996; Perevedentseva, 2008; Botalov, 2017); **Ryazan Oblast** (Volosnova, 1997); **Sverdlovsk Oblast** (Bulakh, Wasser, Nazarova, and Nezdoyminogo, 1990; Nezdoyminogo, 1996; Marina, 2006); **Tula Oblast** (Svetasheva, 2003; Svetasheva, 2004); **Vologda Oblast** (Kutova, 1957).

SIBERIA: **Altai Republic** (Nezdoyminogo, 1996); **Krasnoyarsk Krai** (Beglyanova, 1972a; Bulakh, Wasser, Nazarova, and Nezdoyminogo, 1990; Nezdoyminogo, 1996); **Novosibirsk Oblast** (Perova and Gorbunova, 2001; Perova and Gorbunova, 2007); **Tyumen Oblast** (Nezdoyminogo, 1996); **Yamalo-Nenets Autonomous Okrug** (Tarchevskaya, 1990).

FAR EAST: **Amur Oblast** (Bulakh, Wasser, Nazarova, and Nezdoyminogo, 1990); **Primorsky Krai** (Bulakh, Wasser, Nazarova, and Nezdoyminogo, 1990; Nezdoyminogo, 1996; Bau, Bulakh, and Govorova, 2011); **Sakhalin Oblast** (Bulakh, Wasser, Nazarova, and Nezdoyminogo, 1990; Nezdoyminogo, 1996).

***Hemimycena camptophylla* (Berk.) Singer**

Name absent from IF.

SIBERIA: **Altai Republic** (Singer, 1943).

***Hemimycena floridula* (Fr.) Singer**

Name absent from IF.

SIBERIA: **Altai Republic** (Singer, 1943).

***Hemimycena mauretanic* var. *microcephala* Kühner**

Name absent from IF.

EASTERN EUROPE: **Leningrad Oblast** (Malysheva and Morozova, 2009); **Sverdlovsk Oblast** (Marina, 2006).

***Hemimycena olida* (Bres.) Singer**

Name absent from IF.

SIBERIA: **Altai Republic** (Singer, 1943).

***Hemimycena postii* (Fr.) Singer**

Name absent from IF.

EASTERN EUROPE: **Leningrad Oblast** (Singer, 1943).

***Hemimycena subalpina* (Höhn.) Singer**

Name absent from IF.

EASTERN EUROPE: **Leningrad Oblast** (Singer, 1943).

***Hexajuga prunulus* (Scop.) Fayod**

Name absent from IF.

EASTERN EUROPE: **Adygea** (Vassiljeva, 1939); **Karelia** (Freindling, 1949).

***Hydrocybe privigna* Fr.**

Name absent from IF.

EASTERN EUROPE: **Kaliningrad Oblast** (Neuhoff, 1922).

***Hygrocybe conica* subsp. *nigrescens* (Quél) Maire**

Name absent from IF.

EASTERN EUROPE: **Karachay-Cherkess Republic** (Vassiljeva, 1939); **Krasnodar Krai** (Vassiljeva, 1939).

***Hygrocybe crocea* (Quél.) Singer**

No current name.

SIBERIA: **Altai Republic** (Gorbunova, 1997).

FAR EAST: **Khabarovsk Krai** (Azbukina et al., 1986); **Primorsky Krai** (Vassiljeva, 1972; Vassiljeva, 1973; Bulakh, 1977; Bunkina and Nazarova, 1978; Azbukina et al., 2006).

***Hygrocybe ficoides* (Bull. & Vent.) J. Schröt.**

No current name.

EASTERN EUROPE: **Moscow** (Bucholtz, 1897a; Bucholtz, 1897b; Bucholtz, 1897c; Mosolov, 1906).

***Hygrophorus bresadolae* Quél.**

No current name.

EASTERN EUROPE: **Leningrad Oblast** (Thesleff, 1920).

***Hygrophorus calophyllus* P. Karst.**

No current name.

SIBERIA: **Irkutsk Oblast** (Kutafjeva, 1983; Kovalenko, 1989; Astapenko, 1990b; Kovalenko, 1995); **Khanty-Mansi Autonomous Okrug** (Zvyagina and Baykalova, 2017).

FAR EAST: **Magadan Oblast** (Rebriev, Bulakh, Sazanova, and Shiryaev, 2020).

***Hygrophorus ericeus* (Bull.) J. Schröt.**

Name absent from IF.

EASTERN EUROPE: **Moscow** (Bucholtz, 1897a; Bucholtz, 1897b; Bucholtz, 1897c; Mosolov, 1906).

***Hygrophorus flavodiscus* Frost**

No current name.

SIBERIA: **Irkutsk Oblast** (Kovalenko, 1989; Kovalenko, 1995); **Tomsk Oblast** (Kudashova, Gashkov, and Vaishlya, 2016a; Vaishlya et al., 2017).

***Hygrophorus fuscoalbus* Fr.**

No current name.

EASTERN EUROPE: **Voronezh Oblast** (Bedenko, 1985).

SIBERIA: **Tomsk Oblast** (Perova, 1972; Perova and Gorbunova, 2001).

***Hygrophorus gliocyclus* Fr.**

No current name.

EASTERN EUROPE: **Crimea** (Sarkina, 2001; Dudka et al., 2004; Sarkina, 2010b; Sarkina, 2011; Sarkina and Prydiuk, 2012; Sarkina, 2013); **Kursk Oblast** (Bedenko, 1985; Kovalenko, 1989; Kovalenko, 1995).

SIBERIA: **Irkutsk Oblast** (Kutafjeva, 1983; Kovalenko, 1989; Kutafjeva and Astapenko, 1989; Petrov, 1989; Astapenko, 1990b; Kovalenko, 1995; Petrov, 2008); **Krasnoyarsk Krai** (Perova, 1970; Beglyanova, 1972a; Beglyanova, 1972b; Kovalenko, 1989; Kovalenko, 1995; Krom and Kapitonov, 2019); **Sakha Republic** (Kovalenko, 1989; Kovalenko, 1995); **Tomsk Oblast** (Kudashova, Gashkov, and Kutafjeva, 2013; Vaishlya et al., 2017).

FAR EAST: **Khabarovsk Krai** (Kovalenko, 1995); **Primorsky Krai** (Azbukina et al., 1984; Kovalenko, 1989; Kovalenko, 1995).

***Hygrophorus leucophaeus* (Fr.) Gill.**

Name with wrong authors' citation.

FAR EAST: **Primorsky Krai** (Vassiljeva, 1973; Bunkina and Nazarova, 1978).

***Hygrophorus leucophaeus* (Scop.) Fr.**

No current name.

EASTERN EUROPE: **Crimea** (Zerova, 1962; Sarkina, 2001; Dudka et al., 2004; Sarkina, 2011); **Karelia** (Krutov et al., 2014); **Kursk Oblast** (Bedenko, 1985); **Murmansk Oblast** (Pystina, Pavlova, and Shestakova, 1969).

FAR EAST: **Primorsky Krai** (Vassiljeva, 1972; Azbukina et al., 2006).

***Hygrophorus lividoalbus* Fr.**

No current name.

EASTERN EUROPE: **Leningrad Oblast** (Thesleff, 1920).

***Hygrophorus melizeus* (Fr.) Fr.**

No current name.

EASTERN EUROPE: **Komi Republic** (Palamarchuk (Bobretsova), 2009; Palamarchuk, 2012; Palamarchuk and Kirillov, 2018a); **Leningrad Oblast** (Kovalenko and Morozova, 1999a; Popov et al., 2007); **Penza Oblast** (Ivanov, 1986).

SIBERIA: **Buryatia** (Kovalenko, 1989; Petrov, 1991; Kovalenko, 1995); **Irkutsk Oblast** (Kutafjeva and Astapenko, 1987; Kovalenko, 1989; Petrov, 1991; Kovalenko, 1995; Petrov, 2008); **Khanty-Mansi Autonomous Okrug** (Zvyagina and Baykalova, 2017); **Krasnoyarsk Krai** (Beglyanova, 1972a; Kovalenko, 1989; Kovalenko, 1995); **Tomsk Oblast** (Kovalenko, 1989; Kovalenko, 1995; Kudashova, Gashkov, and Kutafjeva, 2013).

FAR EAST: **Chukotka Autonomous Okrug** (Karatygin, Nezdojminogo, Novozhilov, and Zhurbenko, 1999); **Primorsky Krai** (Kovalenko, 1989; Kovalenko, 1995).

***Hygrophorus olivaceonitens* Singer**

No current name.

EASTERN EUROPE: **Tatarstan** (Vassiljeva, 1977).

***Hygrophorus purpurascens* (Alb. & Schwein.) Fr.**

No current name.

EASTERN EUROPE: **Kursk Oblast** (Bedenko, 1985; Kovalenko, 1989; Kovalenko, 1995); **Leningrad Oblast** (Kovalenko and Morozova, 1999a; Popov et al., 2007); **Sverdlovsk Oblast** (Stepanova and Sirko, 1977; Kovalenko, 1989; Kovalenko, 1995).

SIBERIA: **Krasnoyarsk Krai** (Krom and Kapitonov, 2019).

FAR EAST: **Amur Oblast** (Kochunova and Erofeeva, 2017); **Primorsky Krai** (Vassiljeva, 1972; Vassiljeva, 1973; Kovalenko, 1989; Kovalenko, 1995).

***Hygrophorus queletii* Bres.**

No current name.

SIBERIA: **Altai Republic** (Gorbunova, 2019); **Irkutsk Oblast** (Kutafjeva and Astapenko, 1988; Kovalenko, 1989; Astapenko, 1990b; Kovalenko, 1995; Gorbunova and Stepantsova, 2015); **Krasnoyarsk Krai** (Kovalenko, 1989; Kovalenko, 1995); **Tyva Republic** (Kovalenko, 1989; Kovalenko, 1995).

FAR EAST: **Amur Oblast** (Kovalenko, 1995); **Jewish Autonomous Oblast** (Bulakh, Govorova, Nazarova, and Vassiljeva, 2007; Bau, Bulakh, and Govorova, 2011); **Khabarovsk Krai** (Kovalenko, 1989; Kovalenko, 1995); **Magadan Oblast** (Sazanova, 2009a); **Sakhalin Oblast** (Vassiljeva and Nazarova, 1972; Kovalenko, 1989; Kovalenko, 1995).

***Hygrophorus velutinus* I.G. Borshch.**

No current name.

EASTERN EUROPE: **Saint Petersburg** (Borszczow, 1857).

***Hypholoma anomalum* (Peck) Singer**

Name with wrong authors' citation.

EASTERN EUROPE: **Karelia** (Bondartseva et al., 2001).

***Hypholoma myosotis* (Fr.) M. Lange var. *lapponicum***

Name absent from IF.

EASTERN EUROPE: **Ryazan Oblast** (Volosnova, 2014).

***Hypholoma myosotis* (Lash.) Mos.**

Name with wrong authors' citation.

FAR EAST: **Chukotka Autonomous Okrug** (Sazanova, 1993).

***Hypholoma stipatum* (Pers.) J. Schröt.**

No current name.

EASTERN EUROPE: **Moscow** (Bucholtz, 1897b; Bucholtz, 1897c; Mosolov, 1906).

***Hypholoma sublateritium* (Schaeff.) Fr.**

Name with wrong authors' citation.

EASTERN EUROPE: **Tver Oblast** (Chastukhin, 1948b).

***Hypholoma sublateritium* var. *perplexum* (Peck) Kauffman**

Name absent from IF.

EASTERN EUROPE: **Krasnodar Krai** (Kovalenko, 1980a; Kovalenko, 1980b).

***Hyporhodium umbrosus* J. Schröt.**

Name absent from IF.

EASTERN EUROPE: **Moscow** (Mosolov, 1906).

***Hyporhodium hydrogrammus* (Bull.) J. Schröt.**

Name absent from IF.

EASTERN EUROPE: **Moscow** (Bucholtz, 1897b; Bucholtz, 1897c; Mosolov, 1906).

***Inocybe abjecta* P. Karst.**

No current name.

EASTERN EUROPE: **Komi Republic** (Palamarchuk, 2016a; Palamarchuk, 2016b); **Krasnodar Krai** (Vassiljeva, 1939; Nezdjominogo, 1996); **Northern Caucasus** (Nezdjominogo, 1993b).

SIBERIA: **Irkutsk Oblast** (Petrov, 1991; Nezdjominogo, 1993b; Nezdjominogo, 1996; Petrov, 2008); **Krasnoyarsk Krai** (Beglyanova, 1972a; Nezdjominogo, 1993b; Nezdjominogo, 1996; Nezdjominogo, 1997a; Karatygin, Nezdjominogo, Novozhilov, and Zhurbenko, 1999; Gorbunova, 2016); **Sakha Republic** (Nezdjominogo, 1993b; Nezdjominogo, 1996; Karatygin, Nezdjominogo, Novozhilov, and Zhurbenko, 1999; Nezdjominogo, 2003).

***Inocybe aemula* (Britzelm.) Sacc.**

No current name.

EASTERN EUROPE: **Krasnodar Krai** (Vassiljeva, 1939).

***Inocybe capucina* (Fr.) P. Karst.**

No current name.

EASTERN EUROPE: **Belgorod Oblast** (Bedenko, 1980).

***Inocybe cicatricata* Ellis & Everh.**

No current name.

EASTERN EUROPE: **Komi Republic** (Nezdjominogo, 1996); **Perm Krai** (Nezdjominogo, 1996; Perevedentseva, Mukhutdinov, and Kuznetsova, 2005; Perevedentseva, 2008; Botalov, 2017).

FAR EAST: **Amur Oblast** (Bulakh, Wasser, Nazarova, and Nezdjominogo, 1990; Nezdjominogo, 1996); **Jewish Autonomous Oblast** (Erofeeva, Bukharova, and Bulakh, 2019); **Primorsky Krai** (Vassiljeva, 1973; Bulakh et al., 2016).

***Inocybe cucullata* C. Martín**

No current name.

SIBERIA: **Krasnoyarsk Krai** (Beglyanova, 1972a).

***Inocybe debilipes* P. Karst.**

No current name.

EASTERN EUROPE: **Leningrad Oblast** (Thesleff, 1920).

***Inocybe deglubens* (Fr.) Gillet**

No current name.

EASTERN EUROPE: **Lipetsk Oblast** (Alferova, 1977).

FAR EAST: **Khabarovsk Krai** (Azbukina et al., 1986); **Primorsky Krai** (Vassiljeva, 1973; Azbukina et al., 1984).

***Inocybe descissa* (Fr.) Quél.**

No current name.

EASTERN EUROPE: **Crimea** (Sarkina, 2001); **Karachay-Cherkess Republic** (Vassiljeva, 1939); **Krasnodar Krai** (Vassiljeva, 1939); **Leningrad Oblast** (Nezdojminogo, 1967); **Mordovia** (Chastukhin, 1948a; Chastukhin and Nikolaevskaya, 1969; Chastukhin, 2011; Ivoilov and Bolshakov, 2011a); **Moscow** (Bucholtz, 1897b; Bucholtz, 1897c; Mosolov, 1906; Burova, 1968); **Murmansk Oblast** (Pystina, Pavlova, and Shestakova, 1969); **Tatarstan** (Vassiljeva, 1977).

SIBERIA: **Buryatia** (Nezdojminogo, 1973; Petrov, 1991); **Krasnoyarsk Krai** (Beglyanova, 1972a).

FAR EAST: **Primorsky Krai** (Vassiljeva, 1973; Bunkina and Nazarova, 1978); **Sakhalin Oblast** (Vassiljeva and Nazarova, 1972).

***Inocybe descissa* f. *aurivenia* Fr.**

Name absent from IF.

EASTERN EUROPE: **Karelia** (Freindling, 1949).

***Inocybe eutheles* var. *dollfusii* Singer**

No current name.

EASTERN EUROPE: **Karelia** (Singer, 1938b; Freindling, 1949).

***Inocybe fastibilis* P. Karst.**

Name absent from IF.

EASTERN EUROPE: **Moscow** (Bucholtz, 1897b; Bucholtz, 1897c; Mosolov, 1906).

***Inocybe fibrosoides* Kuehner & Bours var. *trivialis* J. Lange**

Name absent from IF.

EASTERN EUROPE: **Moscow Oblast** (Levitskaya, 2013).

***Inocybe geophylla* f. *lateritia* Weinm.**

Name absent from IF.

SIBERIA: **Novosibirsk Oblast** (Perova, 1977).

***Inocybe geophylla* var. *lateritia* Weinm.**

Name with wrong authors' citation.

EASTERN EUROPE: **Krasnodar Krai** (Kovalenko, 1980a).

***Inocybe giacomii* J. Favre**

No current name.

EASTERN EUROPE: **Komi Republic** (Nezdojminogo, 1993b; Nezdojminogo, 1996; Karatygin, Nezdojminogo, Novozhilov, and Zhurbenko, 1999; Palamarchuk, 2016a; Palamarchuk, 2016b).

SIBERIA: **Altai Republic** (Kalamees, 2008; Gorbunova, 2019); **Krasnoyarsk Krai** (Nezdojminogo, 1993b; Nezdojminogo and Zhurbenko, 1996; Nezdojminogo, 1996; Nezdojminogo, 1997a; Karatygin, Nezdojminogo, Novozhilov, and Zhurbenko, 1999; Gorbunova, 2016); **Sakha Republic** (Nezdojminogo, 2003).

FAR EAST: **Chukotka Autonomous Okrug** (Nezdojminogo, 1993b; Nezdojminogo, 1996; Karatygin, Nezdojminogo, Novozhilov, and Zhurbenko, 1999).

***Inocybe longipes* Kauffman**

No current name.

FAR EAST: **Primorsky Krai** (Vassiljeva, 1973; Bulakh et al., 2016).

***Inocybe lucifuga* (Fr.) P. Kumm.**

No current name.

EASTERN EUROPE: **Lipetsk Oblast** (Alferova, 1977); **Moscow Oblast** (Gorlenko, Sidorova, and Sidorova, 1989); **Murmansk Oblast** (Pystina, Pavlova, and Shestakova, 1969).

SIBERIA: **Altai Republic** (Zhukov, 1979); **Khakassia** (Beglyanova, 1972a); **Yamalo-Nenets Autonomous Okrug** (Tarchevskaya, 1990).

FAR EAST: **Khabarovsk Krai** (Azbukina et al., 1986); **Primorsky Krai** (Vassiljeva, 1973; Bunkina and Nazarova, 1978; Azbukina et al., 1990).

***Inocybe mundula* (J. Favre) E. Horak**

No current name.

EASTERN EUROPE: **Murmansk Oblast** (Nezdojminogo, 1993b; Nezdojminogo, 1996; Nezdojminogo, 1997b; Karatygin, Nezdojminogo, Novozhilov, and Zhurbenko, 1999).

SIBERIA: **Buryatia** (Nezdojminogo, 1993b; Nezdojminogo, 1996); **Krasnoyarsk Krai** (Vassilkov, 1971b, [as *Inocybe oreina* J. Favre, redet. in Nezdojminogo, 1993b]; Nezdojminogo, 1993b; Nezdojminogo, 1996; Karatygin, Nezdojminogo, Novozhilov, and Zhurbenko, 1999).

FAR EAST: **Chukotka Autonomous Okrug** (Nezdojminogo, 1993b; Nezdojminogo, 1996; Karatygin, Nezdojminogo, Novozhilov, and Zhurbenko, 1999).

***Inocybe nasuta* (Velen.) Singer**

Name absent from IF.

EASTERN EUROPE: **Tatarstan** (Vassiljeva, 1977).

***Inocybe obscura* Gillet**

No current name.

EASTERN EUROPE: **Krasnodar Krai** (Vassiljeva, 1939); **Leningrad Oblast** (Thesleff, 1920); **Samara Oblast** (Malysheva and Malysheva, 2005b; Malysheva and Malysheva, 2008); **Tatarstan** (Vassiljeva, 1977); **Arid territories** (Rebriev, Rusanov, et al., 2012).

SIBERIA: **Khakassia** (Beglyanova, 1972a; Zauzolkova, 2015); **Krasnoyarsk Krai** (Beglyanova, 1972a).

FAR EAST: **Primorsky Krai** (Vassiljeva, 1973; Bunkina and Nazarova, 1978).

***Inocybe pallidipes* Ellis & Everh.**

No current name.

SIBERIA: **Buryatia** (Nezdojminogo, 1973; Petrov, 1991); **Irkutsk Oblast** (Kutafjeva, 1984); **Krasnoyarsk Krai** (Beglyanova, 1972a).

***Inocybe phaeocephala* (Bull.) Sacc.**

No current name.

SIBERIA: **Khakassia** (Zauzolkova, 2015).

***Inocybe phaeocephala* Fr.**

Name with wrong authors' citation.

SIBERIA: **Khakassia** (Beglyanova, 1972a).

***Inocybe plumosa* (Bolton) Quél.**

No current name.

EASTERN EUROPE: **Leningrad Oblast** (Thesleff, 1920).

***Inocybe praetermissa* P. Karst.**

No current name.

EASTERN EUROPE: **Leningrad Oblast** (Thesleff, 1920).

***Inocybe praetervisa* Quél.**

No current name (for reidentification).

SIBERIA: **Krasnoyarsk Krai** (Vassilkov, 1971b).

***Inocybe salicis* Kühner**

No current name.

EASTERN EUROPE: **Karachay-Cherkess Republic** (Onipchenko and Kaverina, 1989; Kalamees and Botashev, 2000); **Komi Republic** (Bulakh, Wasser, Nazarova, and Nezdjominogo, 1990; Palamarchuk, 2016a; Palamarchuk, 2016b); **Penza Oblast** (Ivanov and Nezdjominogo, 1990; Nezdjominogo, 1996); **Pskov Oblast** (Popov et al., 2013); **Vologda Oblast** (Kirillova, 2007).

FAR EAST: **Chukotka Autonomous Okrug** (Bulakh, Wasser, Nazarova, and Nezdjominogo, 1990); **Khabarovsk Krai** (Erofeeva and Bulakh, 2015a); **Primorsky Krai** (Bulakh, Wasser, Nazarova, and Nezdjominogo, 1990).

***Inocybe scabella* (Fr.) Sacc.**

Name with wrong authors' citation.

EASTERN EUROPE: **Saint Petersburg** (Morozova, Kovalenko, Rebriev, and Malysheva, 2014).

***Inocybe scabella* P. Kumm.**

No current name.

EASTERN EUROPE: **Adygea** (Vaasma, Kalamees, and Raitviir, 1986); **Mordovia** (Chastukhin, 1948a); **Moscow** (Mosolov, 1906).

***Inocybe scabra* (Fr.) Kumm.**

Name with wrong authors' citation.

SIBERIA: **Krasnoyarsk Krai** (Beglyanova, 1972a).

***Inocybe squamosa* Lebedeva**

Name absent from IF.

SIBERIA: **Sakha Republic** (Birkenhof, 1936).

***Inocybe tomentella* Sacc.**

No current name.

EASTERN EUROPE: **Stavropol Krai** (Lebedeva, 1930); **Arid territories** (Rebriev, Rusanov, et al., 2012).

***Inocybe transitoria* (Britzelm.) Sacc.**

No current name.

EASTERN EUROPE: **Sverdlovsk Oblast** (Marina, 2006).

***Inocybe trechispora* (Berk.) P. Karst.**

No current name.

EASTERN EUROPE: **Murmansk Oblast** (Bulakh, Wasser, Nazarova, and Nezdjominogo, 1990); **Perm Krai** (Bulakh, Wasser, Nazarova, and Nezdjominogo, 1990); **Tatarstan** (Bulakh, Wasser, Nazarova, and Nezdjominogo, 1990); **Vologda Oblast** (Kutova, 1957; Bulakh, Wasser, Nazarova, and Nezdjominogo, 1990); **Yaroslavl Oblast** (Bulakh, Wasser, Nazarova, and Nezdjominogo, 1990).

SIBERIA: **Krasnoyarsk Krai** (Perova, 1970; Bulakh, Wasser, Nazarova, and Nezdjominogo, 1990); **Tomsk Oblast** (Perova, 1972).

FAR EAST: **Khabarovsk Krai** (Azbukina et al., 1986); **Primorsky Krai** (Vassiljeva, 1973; Bulakh, Wasser, Nazarova, and Nezdjominogo, 1990; Azbukina et al., 2006); **Sakhalin Oblast** (Bulakh, Wasser, Nazarova, and Nezdjominogo, 1990).

***Inocybe trechispora* Quél.**

Name with wrong authors' citation.

FAR EAST: **Primorsky Krai** (Azbukina et al., 1984).

***Ixocomus abietinus* Lj.N. Vassiljeva**

No current name.

FAR EAST: **Primorsky Krai** (Vassiljeva, 1959).

***Ixocomus amarellus* (Quél.) E.-J. Gilbert**

No current name.

EASTERN EUROPE: **Krasnodar Krai** (Vassiljeva, 1939).

***Ixocomus australiuralensis* Vassilkov**

The species is treated as doubtful by Klofac (2013).

No current name.

EASTERN EUROPE: **Bashkortostan** (Vassilkov, 1955b).

***Krombholzia nivea* (Opat.) E.-J. Gilbert**

No current name.

FAR EAST: **Primorsky Krai** (Vassiljeva, 1956).

***Krombholzia nivea* f. *major* Singer**

Name absent from IF.

EASTERN EUROPE: **Tatarstan** (Singer, 1942).

***Krombholzia scabra* subsp. *nivea* (Fr.) Konrad**

Name absent from IF.

EASTERN EUROPE: **Karelia** (Singer, 1942); **Murmansk Oblast** (Singer, 1942); **Pskov Oblast** (Singer, 1942).

***Krombholzia scabra* subsp. *rotundifoliae* Singer**

Name absent from IF.

SIBERIA: **Altai Republic** (Singer, 1942).

***Krombholzia scabra* var. *nivea* Fr.**

Name absent from IF.

EASTERN EUROPE: **Karelia** (Freindling, 1949).

***Krombholzia scabra* var. *niveus* Opat.**

Name absent from IF.

EASTERN EUROPE: **Murmansk Oblast** (Pystina, Pavlova, and Shestakova, 1969).

***Krombholzia scabra* var. *roseofracta* Singer**

No current name.

EASTERN EUROPE: **Leningrad Oblast** (Vassilkov, 1956b); **Mari El Republic** (Vassilkov, 1956b); **Murmansk Oblast** (Vassilkov, 1956b); **Saint Petersburg** (Singer, 1942); **Tatarstan** (Singer, 1942).

FAR EAST: **Chukotka Autonomous Okrug** (Vassilkov, 1956b); **Primorsky Krai** (Vassilkov, 1956b).

***Krombholzia scabra* var. *subnivea* Singer**

Name absent from IF.

EASTERN EUROPE: **Karelia** (Freindling, 1949).

***Krombholzia tessellata* (E.-J. Gilbert) Maire**

Name absent from IF.

EASTERN EUROPE: **Karachay-Cherkess Republic** (Vassiljeva, 1939).

***Krombholzia versipellis* (Fr.) P. Karst.**

Name absent from IF.

EASTERN EUROPE: **Leningrad Oblast** (Thesleff, 1920).

SIBERIA: **Zabaykalsky Krai** (Karsten, 1911).



***Krombholzia versipellis* var. *nivea* (Fr.) P. Karst.**

Name absent from IF.

EASTERN EUROPE: **Leningrad Oblast** (Thesleff, 1920).***Laccaria laccata* var. *ochropurpurea* (Berk.) Singer**

Name absent from IF.

EASTERN EUROPE: **Krasnodar Krai** (Vassiljeva, 1939); **Murmansk Oblast** (Singer, 1943).***Laccaria laccata* var. *perpusilla* Rabenh.**

Name absent from IF.

EASTERN EUROPE: **Leningrad Oblast** (Thesleff, 1920).***Laccaria laccata* var. *rufocarnea* (Batsch ex Fr.) Singer**

Name absent from IF.

EASTERN EUROPE: **Tatarstan** (Singer, 1943).***Laccaria laccata* var. *tortilis* (Bolton) Fr.**

Name absent from IF.

EASTERN EUROPE: **Krasnodar Krai** (Vassiljeva, 1939).***Lactarius alpigenes* Kühner**

No current name.

SIBERIA: **Irkutsk Oblast** (Petrov, 1991; Petrov, 2008; Gaykova and Popov, 2010; Trofimova, Popov, and Merkacheva, 2020).FAR EAST: **Kamchatka Krai** (Kalamees and Vaasma, 1981).***Lactarius bresadolanus* Singer**

No current name.

FAR EAST: **Primorsky Krai** (Vassiljeva, 1973; Bunkina and Nazarova, 1978; Bulakh, 1986; Azbukina et al., 2006).***Lactarius fascinans* (Fr.) Fr.**

No current name.

EASTERN EUROPE: **Krasnodar Krai** (Kovalenko, 1980a; Kovalenko, 1980b); **Leningrad Oblast** (Thesleff, 1920); **Yamalo-Nenets Autonomous Okrug** (Stepanova and Sirko, 1977).***Lactarius griseus* Peck**

No current name.

EASTERN EUROPE: **Karachay-Cherkess Republic** (Vassiljeva, 1939); **Yamalo-Nenets Autonomous Okrug** (Stepanova and Sirko, 1977).SIBERIA: **Altai Republic** (Singer, 1942).FAR EAST: **Jewish Autonomous Oblast** (Bulakh, Govorova, Nazarova, and Vassiljeva, 2007; Bau, Bulakh, and Govorova, 2011); **Khabarovsk Krai** (Bulakh, 1986; Bulakh, Wasser, Nazarova, and Nezdjminogo, 1990; Bau, Bulakh, and Govorova, 2011); **Primorsky Krai** (Bulakh, 1986; Bulakh, Wasser, Nazarova, and Nezdjminogo, 1990).***Lactarius piperatus* (Scop.) Fr.**

Name with wrong authors' citation.

EASTERN EUROPE: **Rostov Oblast** (Rusanov et al., 2004).***Lactarius theiogalus* (Bull.) Gray**

No current name.

EASTERN EUROPE: **Belgorod Oblast** (Bedenko, 1980; Bulakh, Wasser, Nazarova, and Nezdjminogo, 1990); **Kaliningrad Oblast** (Bulakh, Wasser, Nazarova, and Nezdjminogo, 1990; Dedkov, Volodina, and Gubareva, 2007; Volodina, 2007); **Karelia** (Kovalenko, Morozova, Fomina, and Särkisilta, 1998); **Kirov Oblast** (Bulakh, Wasser, Nazarova, and Nezdjminogo, 1990); **Leningrad Oblast** (Kalamees and Kovalenko, 1984; Bulakh, Wasser, Nazarova, and Nezdjminogo, 1990; Kovalenko and Morozova, 1999a; Fomina, 2000; Fomina, 2001; Popov et al.,

2007); **Moscow Oblast** (Gorlenko, Sidorova, and Sidorova, 1989; Levitskaya, 1995a; Vishnevsky and Sidorova, 1997; Levitskaya, 2013); **Penza Oblast** (Ivanov, 1983; Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990); **Perm Krai** (Perevedentseva and Shishigin, 2014; Perevedentseva and Shishigin, 2015; Botalov, 2017; Botalov and Perevedentseva, 2018; Botalov, Perevedentseva, and Shishigin, 2020); **Ryazan Oblast** (Volosnova, 1997); **Saint Petersburg** (Kovalenko and Morozova, 1999a); **Sverdlovsk Oblast** (Marina, 2006); **Tula Oblast** (Svetasheva, 2001; Svetasheva, 2004); **Tver Oblast** (Mukhina, 2011b); **Udmurt Republic** (Tychinin and Kuzmina, 2003); **Yaroslavl Oblast** (Lazareva, 1997; Lazareva, 1998a).

SIBERIA: **Irkutsk Oblast** (Petrov, Nezdojminogo, and Bulakh, 1987; Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; Petrov, 2008); **Krasnoyarsk Krai** (Nezdojminogo, 1976a; Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990); **Tomsk Oblast** (Kosheleva and Kutafjeva, 2004; Kudashova, Gashkov, and Kutafjeva, 2013).

FAR EAST: **Amur Oblast** (Bulakh, 1986; Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; Azbukina et al., 1998); **Jewish Autonomous Oblast** (Erofeeva, Bukharova, and Bulakh, 2019); **Khabarovsk Krai** (Bulakh, 1986; Azbukina et al., 1989; Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; Bau, Bulakh, and Govorova, 2011); **Primorsky Krai** (Bulakh, 1986; Azbukina et al., 1990; Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; Bardunov et al., 2002; Azbukina et al., 2006; Bau, Bulakh, Zhuang, and Li, 2007; Bau, Bulakh, and Govorova, 2011).

***Lactarius theiogalus* (Fr.) Fr.**

Name with wrong authors' citation.

FAR EAST: **Primorsky Krai** (Vassiljeva, 1972; Vassiljeva, 1973; Bunkina and Nazarova, 1978; Azbukina et al., 1984).

***Lactarius theiogalus* (Scop.) Fr.**

Name with wrong authors' citation.

EASTERN EUROPE: **Perm Krai** (Shkaraba, Perevedentseva, and Moshkina, 1990).

***Lactarius utilis* (Weinm.) Fr.**

No current name.

EASTERN EUROPE: **Karachay-Cherkess Republic** (Kalamees and Botashev, 2000); **Karelia** (Kovalenko, Morozova, Fomina, and Särkisilta, 1998; Krutov et al., 2014); **Komi Republic** (Palamarchuk, 2012; Palamarchuk, 2016a; Palamarchuk, 2016b); **Leningrad Oblast** (Kovalenko and Morozova, 1999a; Morozova, 2007; Popov et al., 2007; Zmitrovich et al., 2015); **Novgorod Oblast** (Morozova, 2012; Popov et al., 2013); **Perm Krai** (Perevedentseva, 2008); **Sverdlovsk Oblast** (Marina, 2006); **Tula Oblast** (Svetasheva, 2004); **Vologda Oblast** (Kirillova, 2007).

SIBERIA: **Irkutsk Oblast** (Gorbunova and Stepanitsova, 2015); **Khanty-Mansi Autonomous Okrug** (Filippova and Bulyonkova, 2017a; Filippova and Bulyonkova, 2017b; Zvyagina and Baykalova, 2017); **Krasnoyarsk Krai** (Krom and Kapitonov, 2019).

***Leccinum scabrum* f. *chioneum* (Fr.) Mikhailovskii**

Name absent from IF.

EASTERN EUROPE: **Murmansk Oblast** (Mikhailovskii, 1975b).

***Leccinum scabrum* f. *chioneum* (Fr.) Skirg.**

Name absent from IF.

EASTERN EUROPE: **Bryansk Oblast** (Kruglikov, 2007); **Saratov Oblast** (Nagumanov, 2015).

SIBERIA: **Tomsk Oblast** (Milovidova, 1980).

***Leccinum scabrum* f. *melaneum* (Smotl.) Skirg.**

Name absent from IF.

EASTERN EUROPE: **Bryansk Oblast** (Kruglikov, 2007); **Kaluga Oblast** (Sionova, 2003); **Ulyanovsk Oblast** (Artemyeva, Maslennikov, and Korepov, 2015).

SIBERIA: **Irkutsk Oblast** (Kutafjeva, 1982).

***Leccinum scabrum* f. *oxydabile* (Singer) Skirg.**

Name absent from IF.

EASTERN EUROPE: **Bryansk Oblast** (Kruglikov, 2007).

***Leccinum versipelle* var. *percandidum* (Vassilkov) Noordel.**

Name absent from IF.

SIBERIA: **Krasnoyarsk Krai** (Krom and Kapitonov, 2019).***Lentinus celaris* Jacz.**

Name absent from IF.

EASTERN EUROPE: **Smolensk Oblast** (Jaczewski, 1896).***Lentinus echinopus* Lév.**

No current name.

FAR EAST: **Amur Oblast** (Kochunova, 2016).***Lentinus lepideus* var. *monstrosa***

Name absent from IF.

EASTERN EUROPE: **Murmansk Oblast** (Karsten, 1866).***Lepiota cristata* (Alb. & Schwein.) Quel.**

Name with wrong authors' citation.

EASTERN EUROPE: **Rostov Oblast** (Rusanov et al., 2004).***Lepiota hapalopoda* (Kalchbr.) P. Karst.**

No current name.

SIBERIA: **Krasnoyarsk Krai** (Kalchbrenner, 1878; Beglyanova, 1972a; Zauzolkova, 2015); **Sakha Republic** (Birkenhof, 1936).***Lepiota scobinella* (Fr.) Gillet**

No current name.

EASTERN EUROPE: **Moscow Oblast** (Levitskaya, 1995c); **Penza Oblast** (Ivanov, 1988a); **Rostov Oblast** (Rusanov, Rebriev, and Bulgakov, 2018); **Arid territories** (Rebriev, Rusanov, et al., 2012).FAR EAST: **Primorsky Krai** (Wasser, 1980; Bardunov et al., 2002).***Lepista nimbata* (Batsch) Courtec.**

No current name.

SIBERIA: **Irkutsk Oblast** (Petrov, 2013).***Leptonia placida* Fr. var. *subplacida* (Murr.)**

Name absent from IF.

EASTERN EUROPE: **Krasnodar Krai** (Vassiljeva, 1939).***Limacium caprinum* (Scop.) Fayod**

Name absent from IF.

EASTERN EUROPE: **Karelia** (Freindling, 1949).***Limacium leucophaeum* (Scop.) Ricken**

No current name.

EASTERN EUROPE: **Krasnodar Krai** (Vassiljeva, 1939).***Limacium olivaceonitens* Singer**

No current name.

EASTERN EUROPE: **Tatarstan** (Singer, 1943).***Limacium vitellum* (Alb. & Schwein.) J. Schröt.**

No current name.

EASTERN EUROPE: **Moscow** (Bucholtz, 1897b; Bucholtz, 1897c; Mosolov, 1906).

***Lyophyllum conradii* (P. Karst.) Singer**

Name absent from IF.

EASTERN EUROPE: **Karelia** (Freindling, 1949).***Lyophyllum elixum* (Fr.) Singer**

Name absent from IF.

EASTERN EUROPE: **Mordovia** (Kuznetsov, 1960; Ivoilov and Bolshakov, 2011a).***Lyophyllum goniospermum* (Bres.) Konrad & Maubl.**

Name absent from IF.

EASTERN EUROPE: **Crimea** (Sarkina, 2011).***Lyophyllum macrosporum* Singer**

No current name.

SIBERIA: **Krasnoyarsk Krai** (Krom and Kapitonov, 2019).

FAR EAST: **Khabarovsk Krai** (Azbukina et al., 1986; Bau, Bulakh, and Govorova, 2011; Erofeeva and Bulakh, 2015a); **Primorsky Krai** (Azbukina et al., 1984; Azbukina et al., 1990; Bardunov et al., 2002; Kalamees, 2004; Azbukina et al., 2006; Bau, Bulakh, and Govorova, 2011; Bulakh et al., 2016).

***Lyophyllum metachroum* (Fr.) Singer**

Name absent from IF.

EASTERN EUROPE: **Krasnodar Krai** (Vassiljeva, 1939).***Lyophyllum orbiforme* (Fr.) Singer**

Name absent from IF.

EASTERN EUROPE: **Mordovia** (Kuznetsov, 1960; Ivoilov and Bolshakov, 2011a).***Macrolepiota badhamii* (Berk. & Broome) Locq.**

Name absent from IF.

FAR EAST: **Primorsky Krai** (Vassiljeva, 1973; Bunkina and Nazarova, 1978).***Macrolepiota konradii* (Fr.) Sacc.**

Name with wrong authors' citation.

FAR EAST: **Sakhalin Oblast** (Vassiljeva and Nazarova, 1972).***Marasmius alliatus* (Schaeff.) J. Schröt.**

No current name.

EASTERN EUROPE: **Kaliningrad Oblast** (Hennings, 1895); **Mordovia** (Chastukhin, 1948a; Chastukhin, 2011; Ivoilov and Bolshakov, 2011a); **Moscow** (Bucholtz, 1897a; Bucholtz, 1897b; Bucholtz, 1897c; Mosolov, 1906).

***Marasmius alpinus* Singer**

No current name.

EASTERN EUROPE: **Krasnodar Krai** (Singer, 1937; Vassiljeva, 1939).***Marasmius amadelphus* var. *insignis* Fr.**

Name absent from IF.

EASTERN EUROPE: **Krasnodar Krai** (Vassiljeva, 1939).***Marasmius bulliardii* var. *acicola* Quél.**

Name absent from IF.

EASTERN EUROPE: **Kaliningrad Oblast** (Volodina, 2007).***Marasmius calopus* (Pers.) Fr.**

No current name.

EASTERN EUROPE: **Murmansk Oblast** (Pystina, Pavlova, and Shestakova, 1969).

SIBERIA: **Altai Krai** (Singer, 1943); **Altai Republic** (Singer, 1939); **Kemerovo Oblast** (Zhukov, 1980); **Novosibirsk Oblast** (Zhukov, 1980).

***Marasmius cremoriceps* Berk. & M.A. Curtis**

No current name.

FAR EAST: **Khabarovsk Krai** (Berkeley and Curtis, 1978).***Marasmius dryophilus* Lj.N. Vassiljeva**

No current name.

FAR EAST: **Primorsky Krai** (Vassiljeva, 1973; Bunkina and Nazarova, 1978).***Marasmius glabaris* Fr.**

Name absent from IF.

EASTERN EUROPE: **North Ossetia** (Chernetskaja, 1929).***Marasmius ingratus* (Schumach.) Quél.**

No current name.

EASTERN EUROPE: **Crimea** (Zerova, 1962).***Marasmius porreus* (Pers.) Fr.**

No current name.

EASTERN EUROPE: **Krasnodar Krai** (Siemaszko, 1923); **Leningrad Oblast** (Kovalenko and Morozova, 1999a; Popov et al., 2007).***Marasmius pseudoepiphylloides* Singer**

Name absent from IF.

EASTERN EUROPE: **Tatarstan** (Vassiljeva, 1977).***Marasmius siccus* (Schwein.) Fr.**

No current name.

EASTERN EUROPE: **Belgorod Oblast** (Bedenko, 1980; Nikolayev, 1986); **Karachay-Cherkess Republic** (Kalamees and Botashev, 2000); **Kirov Oblast** (Kirillov, 2011; Kirillov, Perevedentseva, and Egoshina, 2011); **Komi Republic** (Palamarchuk and Kirillov, 2018a); **Mordovia** (Ivoilov and Bolshakov, 2011a); **Moscow Oblast** (Levitskaya, 1995c; Vishnevsky, 1998; Levitskaya, 2013); **Novgorod Oblast** (Kovalenko, Morozova, Nezdoyminogo, and Popov, 2005; Psurtseva, Kiyashko, Gachkova, and Belova, 2007; Arslanov, 2012; Popov et al., 2013); **Orenburg Oblast** (Korshikova, 2006; Desyatova, 2007; Desyatova, 2008); **Penza Oblast** (Ivanov, 1983); **Perm Krai** (Perevedentseva, 2008); **Pskov Oblast** (Popov et al., 2013); **Ryazan Oblast** (Volosnova, 1997; Volosnova, 2014); **Samara Oblast** (Malysheva and Malysheva, 2004; Malysheva and Malysheva, 2008); **Sverdlovsk Oblast** (Marina, 2006); **Udmurt Republic** (Kapitonov, 2008); **Ulyanovsk Oblast** (Ilyukhin, 2010a); **Yaroslavl Oblast** (Lazareva, 1998a).

SIBERIA: **Altai Krai** (Gorbunova, 2018a); **Altai Republic** (Kovalenko, 1992; Gorbunova, 1997; Gorbunova, 2001b; Perova and Gorbunova, 2001); **Buryatia** (Nezdoyminogo, 1970a; Penzina and Petrov, 1994); **Irkutsk Oblast** (Kutafjeva, 1983; Petrov, 1984; Petrov, 1989; Bardunov et al., 2005; Petrov, 2008; Muzyka and Penzina, 2017); **Khakassia** (Zauzolkova, 2015); **Khanty-Mansi Autonomous Okrug** (Zvyagina, 2008; Shepeleva et al., 2014; Filippova, Bulyonkova, and Lapshina, 2015); **Krasnoyarsk Krai** (Nezdoyminogo, 1982a; Kutafjeva and Kosheleva, 2005; Pavlov et al., 2007; Kosheleva and Kutafjeva, 2008a; Malysheva, Malysheva, Kiyashko, et al., 2017; Krom and Kapitonov, 2019); **Novosibirsk Oblast** (Gorbunova, 2007; Perova and Gorbunova, 2007; Koropachinskiy and Banaev, 2014); **Tomsk Oblast** (Kosheleva and Kutafjeva, 2004; Agaphonova, Kutafjeva, and Gashkov, 2007; Agaphonova, Kutafjeva, and Gashkov, 2009b; Kudashova, Gashkov, and Kutafjeva, 2013).

FAR EAST: **Amur Oblast** (Nazarova, 1986; Azbukina et al., 1998; Bulakh, Govorova, and Taranina, 2003; Taranina, 2005); **Jewish Autonomous Oblast** (Bulakh, Govorova, Nazarova, and Vassiljeva, 2007; Bau, Bulakh, and Govorova, 2011; Bogacheva et al., 2018); **Kamchatka Krai** (Kalamees and Vaasma, 1981); **Khabarovsk Krai** (Azbukina et al., 1986; Bau, Bulakh, Zhuang, and Li, 2007; Bulakh, Vassiljeva, and Erofeeva, 2010; Bau, Bulakh, and Govorova, 2011; Erofeeva and Bulakh, 2015a; Bogacheva et al., 2018); **Magadan Oblast** (Nazarova, 1976; Sazanova, 2005; Sazanova, 2009a; Sazanova, 2011); **Primorsky Krai** (Vassiljeva, 1972; Vassiljeva, 1973; Bunkina and Nazarova, 1978; Azbukina et al., 1984; Azbukina et al., 1990; Bardunov et al., 2002; Azbukina et al., 2006; Bau, Bulakh, Zhuang, and Li, 2007; Bau, Bulakh, and Govorova, 2011; Bulakh et al., 2016; Bogacheva et al., 2018; Bogacheva, Bulakh, Bukharova, and Egorova, 2020); **Sakhalin Oblast** (Vassiljeva and Nazarova, 1972).

***Marasmius squamula* (Batsch) J. Schröt.**

Name absent from IF.

EASTERN EUROPE: **Moscow** (Bucholtz, 1897c; Mosolov, 1906).

***Mycena alcalina* (Fr.) P. Kumm.**

No current name.

EASTERN EUROPE: **Adygea** (Vaasma, Kalamees, and Raitviir, 1986); **Bashkortostan** (Stepanova and Sirko, 1977); **Belgorod Oblast** (Bedenko, 1979a); **Chelyabinsk Oblast** (Sirko and Stepanova, 1977; Stepanova and Sirko, 1977; Psurtseva, Kiyashko, Gachkova, and Belova, 2007); **Crimea** (Dudka et al., 2004); **Kabardino-Balkarian Republic** (Shkhagapsoev and Krapivina, 2004); **Kaluga Oblast** (Sionova, 2003); **Karachay-Cherkess Republic** (Hollós, 1902; Hollós, 1905; Filarszky, 1907); **Krasnodar Krai** (Vassiljeva, 1939; Kovalenko, 1980a; Kovalenko, 1980b; Vaasma, Kalamees, and Raitviir, 1986); **Leningrad Oblast** (Thesleff, 1920; Nezdoinog, 1967); **Moscow** (Burova, 1968; Burova, 1971); **Moscow Oblast** (Gorlenko, Sidorova, and Sidorova, 1989; Levitskaya, 1995b; Vishnevsky, 1998); **Murmansk Oblast** (Pystina, Pavlova, and Shestakova, 1969); **Orenburg Oblast** (Korshikova, 2006; Desyatova, 2008); **Penza Oblast** (Ivanov, 1981a; Ivanov, 1981b); **Ryazan Oblast** (Volosnova, 1997); **Sverdlovsk Oblast** (Stepanova and Sirko, 1977); **Tatarstan** (Vassiljeva, 1977); **Tula Oblast** (Svetasheva, 2001); **Tver Oblast** (Kurochkin, 1993); **Udmurt Republic** (Tychinin and Kuzmina, 2003); **Yamalo-Nenets Autonomous Okrug** (Kazanthseva, 1970; Stepanova and Sirko, 1977); **Yaroslavl Oblast** (Lazareva, 1998a); **Arid territories** (Rebriev, Rusanov, et al., 2012).

SIBERIA: **Altai Krai** (Gorbunova and Perova, 2006; Gorbunova and Chubarova, 2008; Gorbunova, Vlasenko, and Tzhubarova, 2011); **Altai Republic** (Singer, 1943; Gorbunova, 1996; Gorbunova, 1997); **Buryatia** (Nezdoinog, 1970a); **Irkutsk Oblast** (Petrov, 1984; Kutafjeva and Astapenko, 1987; Petrov, 1989; Astapenko, 1990a; Petrov, 2008); **Khakassia** (Beglyanova, 1972a); **Krasnoyarsk Krai** (Beglyanova, 1972a; Nezdoinog, 1976a; Lapitskaya, 1993; Pavlov et al., 2007; Kosheleva and Kutafjeva, 2008b; Kosheleva, 2010; Kryuchkova and Yaskova, 2017); **Novosibirsk Oblast** (Gorbunova, 2007; Perova and Gorbunova, 2007); **Sverdlovsk Oblast** (Stepanova and Sirko, 1977); **Tomsk Oblast** (Perova, 1972; Agaphonova, Kutafjeva, and Gashkov, 2007; Kudashova, Gashkov, and Kutafjeva, 2013); **Yamalo-Nenets Autonomous Okrug** (Tarchevskaya, 1990); **Zabaykalsky Krai** (Karsten, 1911).

FAR EAST: **Amur Oblast** (Nazarova, 1986); **Khabarovsk Krai** (Azbukina et al., 1986; Azbukina et al., 1989); **Magadan Oblast** (Nazarova, 1976; Sazanova, 2005; Sazanova, 2009a; Sazanova, 2016); **Primorsky Krai** (Vassiljeva, 1973; Bunkina and Nazarova, 1978; Azbukina et al., 1984; Azbukina et al., 1990; Bardunov et al., 2002); **Sakhalin Oblast** (Vassiljeva and Nazarova, 1972).

***Mycena atroalba* (Bolton) P. Karst.**

No current name.

EASTERN EUROPE: **Karachay-Cherkess Republic** (Vassiljeva, 1939); **Krasnodar Krai** (Vassiljeva, 1939); **Tatarstan** (Vassiljeva, 1977).

SIBERIA: **Altai Republic** (Singer, 1943); **Khanty-Mansi Autonomous Okrug** (Zvyagina and Baykalova, 2017); **Krasnoyarsk Krai** (Nezdoinog, 1982a).

***Mycena atromarginata* (Fr. ex Lasch) P. Kumm.**

No current name.

EASTERN EUROPE: **Chelyabinsk Oblast** (Sirko and Stepanova, 1977; Stepanova and Sirko, 1977).

SIBERIA: **Yamalo-Nenets Autonomous Okrug** (Tarchevskaya, 1990).

***Mycena avenacea* (Lasch) Kühner**

Name with wrong authors' citation.

FAR EAST: **Amur Oblast** (Azbukina et al., 1998).

***Mycena caesiolivida* Bres.**

No current name.

SIBERIA: **Altai Republic** (Singer, 1943).

***Mycena californiensis* (Berk. & M.A. Curtis) Sacc.**

No current name.

FAR EAST: **Primorsky Krai** (Bau, Bulakh, and Govorova, 2011).

***Mycena canescens* (Fr.) Quél.**

Name with wrong authors' citation.

EASTERN EUROPE: **Moscow** (Burova, 1971).

***Mycena capillaris* P. Karst.**

No current name.

EASTERN EUROPE: **Bashkortostan** (Karsten, 1905).

***Mycena citrinomarginata* var. *sulphurea* (Velen.) M.M. Moser**

Name absent from IF.

EASTERN EUROPE: **Chelyabinsk Oblast** (Sirko and Stepanova, 1977; Stepanova and Sirko, 1977).

***Mycena debilis* (Fr.) Quél.**

No current name.

EASTERN EUROPE: **Leningrad Oblast** (Thesleff, 1920); **Penza Oblast** (Ivanov, 1999); **Udmurt Republic** (Tychinin and Kuzmina, 2003); **Voronezh Oblast** (Chastukhin, 1952; Chastukhin and Nikolaevskaya, 1953).

SIBERIA: **Krasnoyarsk Krai** (Beglyanova, 1972a; Zauzolkova, 2015); **Tomsk Oblast** (Perova and Gorbunova, 2001; Kudashova, Gashkov, and Kutafjeva, 2013).

***Mycena echinipes* (Lasch) Quél.**

No current name.

FAR EAST: **Amur Oblast** (Azbukina et al., 1998).

***Mycena elegans* Lange**

Name with wrong authors' citation.

EASTERN EUROPE: **Smolensk Oblast** (Burova, 1969).

***Mycena elegans* Quél.**

Name with wrong authors' citation.

EASTERN EUROPE: **Saratov Oblast** (Lebedeva, 1927).

***Mycena excisa* (Lasch) P. Kumm.**

No current name.

EASTERN EUROPE: **Leningrad Oblast** (Nezdojminogo, 1967); **Mordovia** (Chastukhin, 1948a; Chastukhin, 2011; Ivoilov and Bolshakov, 2011a); **Perm Krai** (Perevedentseva, 2008; Belkovskaya et al., 2014).

SIBERIA: **Irkutsk Oblast** (Petrov, 1984; Petrov, 1989; Petrov, 1991).

***Mycena fimicola* P. Karst.**

No current name.

EASTERN EUROPE: **Leningrad Oblast** (Thesleff, 1920).

***Mycena flavoalba* (Bull.) Kumm.**

Name with wrong authors' citation.

EASTERN EUROPE: **Adygea** (Psurtseva, Kiyashko, Gachkova, and Belova, 2007); **Novgorod Oblast** (Psurtseva, Kiyashko, Gachkova, and Belova, 2007).

***Mycena galericulata* f. *bispora***

Name absent from IF.

EASTERN EUROPE: **Krasnodar Krai** (Vassiljeva, 1939).

***Mycena galericulata* f. *taxi* Sing.**

Name absent from IF.

EASTERN EUROPE: **Krasnodar Krai** (Vassiljeva, 1939).

***Mycena galericulata* var. *ligniaria* Velen.**

Name absent from IF.

SIBERIA: **Altai Republic** (Singer, 1943).***Mycena hyalocystis* Singer**

Name absent from IF.

SIBERIA: **Altai Republic** (Singer, 1943).***Mycena juncicola* (Fr.) Gillet**

No current name.

EASTERN EUROPE: **Sverdlovsk Oblast** (Marina, 2006).***Mycena laevigata* Gillet**

No current name.

EASTERN EUROPE: **Adygea** (Vaasma, Kalamees, and Raitviir, 1986); **Belgorod Oblast** (Bedenko, 1980); **Kaliningrad Oblast** (Dedkov, Volodina, and Gubareva, 2007; Volodina, 2007; Atayev and Volodina, 2020); **Karelia** (Freindling, 1949; Bondartseva et al., 2001; Krutov et al., 2014); **Kirov Oblast** (Kirillov and Luginina, 2011; Kirillov, 2011; Kirillov, Perevedentseva, and Egoshina, 2011); **Komi Republic** (Bobretsova, 2004; Palamarchuk, 2012; Palamarchuk, 2016a; Palamarchuk, 2016b; Palamarchuk and Kirillov, 2017; Palamarchuk, 2017); **Kursk Oblast** (Baranov, 2002); **Leningrad Oblast** (Thesleff, 1920; Kovalenko and Morozova, 1999a; Popov et al., 2007; Zmitrovich et al., 2015); **Mordovia** (Chastukhin, 1948a; Chastukhin and Nikolaevskaya, 1969); **Perm Krai** (Perevedentseva, 2008; Belkovskaya et al., 2014; Botalov, 2017); **Sverdlovsk Oblast** (Marina, 2006); **Tatarstan** (Vassiljeva, 1977); **Tver Oblast** (Chastukhin, 1948b; Chastukhin and Nikolaevskaya, 1969; Mukhina, 2011a; Kotkova, 2014); **Vologda Oblast** (Kirillova, 2007; Kirillova, 2009).

SIBERIA: **Altai Krai** (Gorbunova and Chubarova, 2008; Gorbunova, Vlasenko, and Tzhubarova, 2011); **Altai Republic** (Singer, 1943; Gorbunova, 1996; Gorbunova, 1997; Gorbunova, 2001a; Perova and Gorbunova, 2001; Gorbunova, 2008; Gorbunova, 2010); **Buryatia** (Nezdojminogo, 1970a; Penzina and Petrov, 1994); **Irkutsk Oblast** (Kutafjeva, 1983; Petrov, 1984; Kutafjeva and Astapenko, 1989; Petrov, 1989; Astapenko, 1990a; Muzyka, 2002; Bardunov et al., 2005; Petrov, 2008); **Kemerovo Oblast** (Perova and Gorbunova, 2001); **Khakassia** (Beglyanova, 1972a); **Khanty-Mansi Autonomous Okrug** (Zvyagina, 2008; Shepeleva et al., 2014; Filippova, Bulyonkova, and Lapshina, 2015; Zvyagina and Vasina, 2015; Filippova and Bulyonkova, 2017a; Filippova and Bulyonkova, 2017b; Zvyagina and Baykalova, 2017); **Krasnoyarsk Krai** (Beglyanova, 1972a; Beglyanova, 1972c; Nezdojminogo, 1976a; Lapitskaya, 1993; Kosheleva and Kutafjeva, 2008a; Kosheleva and Kutafjeva, 2008b; Zauzolkova, 2012; Zauzolkova, 2015; Gorbunova, 2016; Malysheva, Malysheva, Kiyashko, et al., 2017; Krom and Kapitonov, 2019); **Novosibirsk Oblast** (Perova and Gorbunova, 2001; Perova and Gorbunova, 2007); **Tomsk Oblast** (Perova, 1972; Perova and Gorbunova, 2001; Kosheleva and Kutafjeva, 2004; Agaphonova, Kutafjeva, and Gashkov, 2007; Kudashova, Gashkov, and Kutafjeva, 2013); **Zabaykalsky Krai** (Karsten, 1906).

FAR EAST: **Amur Oblast** (Nazarova, 1986; Azbukina et al., 1998; Kochunova, 2016); **Jewish Autonomous Oblast** (Bulakh, Govorova, Nazarova, and Vassiljeva, 2007; Bau, Bulakh, and Govorova, 2011); **Khabarovsk Krai** (Azbukina et al., 1986; Azbukina et al., 1989; Bulakh, Vassiljeva, and Erofeeva, 2010; Bau, Bulakh, and Govorova, 2011; Bulakh, 2013; Bogacheva, Bulakh, Bukharova, and Egorova, 2015; Erofeeva and Bulakh, 2015a); **Magadan Oblast** (Nazarova, 1976; Sazanova, 2005; Sazanova, 2009a; Sazanova, 2011); **Primorsky Krai** (Vassiljeva, 1972; Vassiljeva, 1973; Bunkina and Nazarova, 1978; Azbukina et al., 1984; Azbukina et al., 1990; Bardunov et al., 2002; Azbukina et al., 2006; Bau, Bulakh, and Govorova, 2011; Bulakh et al., 2016; Bogacheva, Bulakh, Bukharova, and Egorova, 2020).

***Mycena luteoalba* (Bolton) Gray**

No current name.

EASTERN EUROPE: **Kaliningrad Oblast** (Hennings, 1895).***Mycena peltata* (Fr.) Gillet**

No current name.

EASTERN EUROPE: **Kaliningrad Oblast** (Dedkov, Volodina, and Gubareva, 2007).***Mycena permixta* (Britzelm.) Sacc.**

No current name.

EASTERN EUROPE: **Karelia** (Singer, 1937; Singer, 1938b); **Leningrad Oblast** (Singer, 1937; Singer, 1938b; Nezdojminogo, 1967; Chastukhin and Nikolaevskaya, 1969); **Tatarstan** (Vassiljeva, 1977).



***Mycena plumbea* P. Karst.**

No current name.

EASTERN EUROPE: **Krasnodar Krai** (Kovalenko, 1980b).***Mycena psammicola* (Berk. & Broome) Sacc.**

No current name.

EASTERN EUROPE: **Perm Krai** (Perevedentseva, 2008; Perevedentseva and Shishigin, 2014; Botalov, 2017; Botalov and Perevedentseva, 2020).***Mycena pseudogalericulata* J.E. Lange**

No current name.

EASTERN EUROPE: **Krasnodar Krai** (Vassiljeva, 1939).***Mycena rosea* (Bull.) Sacc. et Dalla Costa**

Name with wrong authors' citation.

EASTERN EUROPE: **Crimea** (Dudka et al., 2004; Sarkina, 2010b).***Mycena stannea* (Fr.) Quél.**

No current name.

EASTERN EUROPE: **Mordovia** (Chastukhin, 1948a; Chastukhin, 2011; Ivoilov and Bolshakov, 2011a).***Mycena sudora* (Fr.) Gillet**

No current name.

EASTERN EUROPE: **Kaliningrad Oblast** (Dedkov, Volodina, and Gubareva, 2007); **Krasnodar Krai** (Vassiljeva, 1939).***Mycena supina* (Fr.) P. Kumm.**

No current name.

EASTERN EUROPE: **Mordovia** (Chastukhin, 1948a; Chastukhin and Nikolaevskaya, 1969; Chastukhin, 2011; Ivoilov and Bolshakov, 2011a).SIBERIA: **Kemerovo Oblast** (Perova and Gorbunova, 2001); **Novosibirsk Oblast** (Perova and Gorbunova, 2001; Perova and Gorbunova, 2007).FAR EAST: **Khabarovsk Krai** (Azbukina et al., 1986).***Myxocollybia platycystis* Singer**

No current name.

SIBERIA: **Altai Republic** (Singer, 1943).***Naematoloma anomalum* (Peck) Singer**

Name with wrong authors' citation.

EASTERN EUROPE: **Karelia** (Freindling, 1949).***Naematoloma lateritium* (Schaeff.) P. Karst.**

Name absent from IF.

EASTERN EUROPE: **Leningrad Oblast** (Thesleff, 1920).***Naematoloma sublateritium* var. *subsolitarium* Fr.**

Name absent from IF.

EASTERN EUROPE: **Adygea** (Vassiljeva, 1939).***Naucoria alnetorum* (Maire) Kühner & Romagn.**

No current name.

EASTERN EUROPE: **Karelia** (Krutov et al., 2014); **Leningrad Oblast** (Popov et al., 2007); **Penza Oblast** (Ivanov, 1983; Nezdojminogo, 1996); **Saint Petersburg** (Kotkova, Morozova, and Popov, 2007); **Tula Oblast** (Svetasheva, 2004; Svetasheva, 2005a); **Arid territories** (Rebriev, Rusanov, et al., 2012).

SIBERIA: **Irkutsk Oblast** (Petrov, Nezdoininogo, and Bulakh, 1987; Petrov, 1991; Nezdoininogo, 1996; Petrov, 2008).

FAR EAST: **Jewish Autonomous Oblast** (Bau, Bulakh, and Govorova, 2011).

***Naucoria limbata* Quél.**

No current name.

EASTERN EUROPE: **Leningrad Oblast** (Thesleff, 1920).

***Naucoria luteolofibrillosa* (Kühner) Kühner & Romagn.**

No current name.

EASTERN EUROPE: **Komi Republic** (Palamarchuk, 2020a; Palamarchuk, 2020b); **Penza Oblast** (Ivanov, 1985; Bulakh, Wasser, Nazarova, and Nezdoininogo, 1990; Nezdoininogo, 1996).

SIBERIA: **Altai Republic** (Bulakh, Wasser, Nazarova, and Nezdoininogo, 1990; Nezdoininogo, 1996); **Irkutsk Oblast** (Petrov, Nezdoininogo, and Bulakh, 1987; Petrov, 1989; Bulakh, Wasser, Nazarova, and Nezdoininogo, 1990; Petrov, 1991; Nezdoininogo, 1996; Petrov, 2008).

FAR EAST: **Jewish Autonomous Oblast** (Bulakh, Govorova, Nazarova, and Vassiljeva, 2007; Bau, Bulakh, and Govorova, 2011); **Magadan Oblast** (Bulakh, Wasser, Nazarova, and Nezdoininogo, 1990; Nezdoininogo, 1996; Sazanova, 2009a; Sazanova, 2011); **Primorsky Krai** (Bau, Bulakh, and Govorova, 2011).

***Naucoria pannosa* (Fr.) Sacc.**

No current name.

EASTERN EUROPE: **Voronezh Oblast** (Chastukhin and Nikolaevskaya, 1953; Chastukhin and Nikolaevskaya, 1969).

***Naucoria pumila* Pers.**

Name absent from IF.

EASTERN EUROPE: **Saratov Oblast** (Kazakevich and Prisyazhnyuk, 1932).

***Naucoria tenax* (Fr.) Gillet**

No current name.

EASTERN EUROPE: **Leningrad Oblast** (Thesleff, 1920).

***Nolanea paludosa* Velen.**

No current name.

EASTERN EUROPE: **Murmansk Oblast** (Mikhailovskii, 1975a; Mikhailovskii, 1975b).

***Nolanea venosa* Bres.**

No current name.

EASTERN EUROPE: **Murmansk Oblast** (Mikhailovskii, 1975a; Mikhailovskii, 1975b).

***Octojuga passeckeriana* (Pilát) Singer**

Name absent from IF.

EASTERN EUROPE: **Saint Petersburg** (Singer, 1942).

***Omphalia gracillima* (Weinm.) Quél.**

No current name.

EASTERN EUROPE: **Kaliningrad Oblast** (Dedkov, Volodina, and Gubareva, 2007); **Moscow** (Hennings, 1905); **Saratov Oblast** (Lebedeva, 1927).

***Omphalia scyphiformis* (Fr.) Quél.**

No current name.

EASTERN EUROPE: **Crimea** (Zerova, 1962).

***Omphalina gracillima* (Weinm.) Quél.**

No current name.

EASTERN EUROPE: **Lipetsk Oblast** (Sarycheva et al., 2009; Sarycheva, 2011; Sarycheva, 2014a; Sarycheva, 2016).

***Omphalina scyphiformis* (Fr.) Quél.**

No current name.

EASTERN EUROPE: **Crimea** (Sarkina, 2001; Dudka et al., 2004; Sarkina, 2011); **Lipetsk Oblast** (Sarycheva et al., 2009; Sarycheva, 2011; Sarycheva, 2014a); **Murmansk Oblast** (Pystina, Pavlova, and Shestakova, 1969).

SIBERIA: **Krasnoyarsk Krai** (Beglyanova, 1972a).

***Omphalina stellata* J.E. Lange**

Name with wrong authors' citation.

FAR EAST: **Amur Oblast** (Azbukina et al., 1998).

***Omphalina striipilea* (Fr.) P.D. Orton**

Name absent from IF.

FAR EAST: **Primorsky Krai** (Vassiljeva, 1973).

***Ossicaulis lachnopus* (Fr.) Contu**

No current name.

EASTERN EUROPE: **Tatarstan** (Potapov, 2015b); **Udmurt Republic** (Kapitonov, 2013).

SIBERIA: **Krasnoyarsk Krai** (Malysheva, Malysheva, Kiyashko, et al., 2017; Krom and Kapitonov, 2019).

***Oudemansiella prunulus* (Fr.) P. Kumm.**

Name absent from IF.

EASTERN EUROPE: **Chechen Republic** (Taysumov, Krapivina, and Kushalieva, 2016); **Kabardino-Balkarian Republic** (Shkhagapsoev and Krapivina, 2004).

***Panaeolus fimiputris* (Bull.) Quél.**

No current name.

EASTERN EUROPE: **Kaliningrad Oblast** (Dedkov, Volodina, and Gubareva, 2007); **Karachay-Cherkess Republic** (Kalamees and Botashev, 2000); **Karelia** (Bondartseva et al., 2001); **Leningrad Oblast** (Morozova, 2007; Popov et al., 2007); **Yamalo-Nenets Autonomous Okrug** (Karatygin, Nezdoininogo, Novozhilov, and Zhurbenko, 1999).

SIBERIA: **Krasnoyarsk Krai** (Nezdoininogo, 1994; Karatygin, Nezdoininogo, Novozhilov, and Zhurbenko, 1999); **Sakha Republic** (Karatygin, Nezdoininogo, Novozhilov, and Zhurbenko, 1999); **Tomsk Oblast** (Kudashova, Gashkov, and Kutafjeva, 2013).

FAR EAST: **Kamchatka Krai** (Psurtseva, Kiyashko, Gachkova, and Belova, 2007); **Magadan Oblast** (Sazanova, 2005).

***Panaeolus spadiceus* L.**

Name absent from IF.

EASTERN EUROPE: **Stavropol Krai** (Lobik, 1927).

***Panus echinopus* (Lév.) Singer**

Name absent from IF.

FAR EAST: **Amur Oblast** (Gordienko, Petrova, and Tarasov, 1981); **Primorsky Krai** (Vassiljeva, 1973; Bunkina and Nazarova, 1978).

***Paxillus filamentosus* (Scop.) Fr.**

No current name.

EASTERN EUROPE: **Adygea** (Vaasma, Kalamees, and Raitviir, 1986); **Belgorod Oblast** (Bedenko, 1980); **Crimea** (Sarkina, 2020a); **Karachay-Cherkess Republic** (Kalamees and Botashev, 2000); **Karelia** (Kovalenko, Morozova, Fomina, and Särkisilta, 1998; Krutov et al., 2014); **Krasnodar Krai** (Kovalenko, 1980a; Kovalenko, 1980b); **Leningrad Oblast** (Kovalenko and Morozova, 1999a; Morozova, 2007; Popov et al., 2007); **Orenburg Oblast** (Korshikova, 2005; Desyatova, 2008); **Pskov Oblast** (Popov, 2001a; Popov et al., 2013); **Saint Petersburg** (Morozova and Smirnov, 2011; Morozova et al., 2020); **Samara Oblast** (Malysheva and Malysheva, 2008); **Ulyanovsk Oblast** (Ilyukhin, 2010a).

SIBERIA: **Krasnoyarsk Krai** (Malysheva, Malysheva, Kiyashko, et al., 2017).

***Paxillus sordarius* (Pers.) Fr.**

No current name.

SIBERIA: **Krasnoyarsk Krai** (Thümen, 1880a).

***Phlegmacium alboviolaceum* Fr.**

Name absent from IF.

EASTERN EUROPE: **Murmansk Oblast** (Pystina, Pavlova, and Shestakova, 1969).

SIBERIA: **Tomsk Oblast** (Milovidova, 1980).

***Phlegmacium bolare* Fr.**

Name absent from IF.

EASTERN EUROPE: **Chelyabinsk Oblast** (Sirko and Stepanova, 1977).

***Phlegmacium triumphans* (Fr.) Ricken**

Name absent from IF.

SIBERIA: **Tomsk Oblast** (Milovidova, 1980).

***Pholiota filamentosa* Schaeff. ex Fr.**

No current name.

SIBERIA: **Krasnoyarsk Krai** (Kalchbrenner, 1878).

***Pholiota flammuloides* M.M. Moser**

No current name.

EASTERN EUROPE: **Perm Krai** (Shkaraba, Perevedentseva, and Moshkina, 1990; Perevedentseva, 2008).

SIBERIA: **Kurgan Oblast** (Mukhin, 1993).

***Pholiota flavida* (Schaeff.) Singer**

No current name.

According to Jacobsson (1986) and Holec (2001) *Pholiota alnicola* (Fr.) Singer and *Ph. flavida* (Schaeff.) Singer are considered to be identical, but it was proposed to reject the name *Ph. flavida* because it has been variously interpreted.

EASTERN EUROPE: **Belgorod Oblast** (Psurtseva, Belova, and Ryabusheva, 2003; Psurtseva, Kiyashko, Gachkova, and Belova, 2007); **Leningrad Oblast** (Kovalenko and Morozova, 1999a; Popov et al., 2007); **Perm Krai** (Perevedentseva, 2008); **Sverdlovsk Oblast** (Stepanova and Sirko, 1977; Marina, 2006); **Tatarstan** (Vassiljeva, 1977).

SIBERIA: **Buryatia** (Nezdojminogo, 1973; Petrov, 1991); **Khanty-Mansi Autonomous Okrug** (Zvyagina, Baykalova, and Gorbunova, 2007); **Novosibirsk Oblast** (Perova and Gorbunova, 2001; Perova and Gorbunova, 2007); **Tomsk Oblast** (Kosheleva and Kutafjeva, 2004; Agaphonova, Kutafjeva, and Gashkov, 2007; Kudashova, Gashkov, and Kutafjeva, 2013).

FAR EAST: **Magadan Oblast** (Sazanova, 2009a; Sazanova and Golodnova, 2015).

***Pholiota kolaensis* (P. Karst.) Sacc.**

No current name.

EASTERN EUROPE: **Murmansk Oblast** (Karsten, 1889).

***Pholiota microspora* (Berk.) Sacc.**

No current name.

FAR EAST: **Primorsky Krai** (Bulakh and Maslov, 2016).

***Pholiota paxillus* (Fr.) Gillet**

No current name.

EASTERN EUROPE: **North Ossetia** (Chernetskaja, 1929); **Perm Krai** (Naoumoff, 1915).

***Pholiota subsquarrosa* (Fr.) Sacc.**

No current name.

EASTERN EUROPE: **Krasnodar Krai** (Vassiljeva, 1939).

SIBERIA: **Irkutsk Oblast** (Petrov, 1986; Petrov, 1989; Petrov, 1991; Petrov, 2008).

FAR EAST: **Magadan Oblast** (Sazanova, 2005).

***Pholiota togularis* (Bull.) P. Kumm.**

No current name.

Misapplied name, variously interpreted by different authors (Hausknecht, 2009).

EASTERN EUROPE: **Leningrad Oblast** (Thesleff, 1920).

SIBERIA: **Novosibirsk Oblast** (Nozdrenko, 1970).

***Phliotina appendiculata* var. *macrospora* Kühner**

Name absent from IF.

EASTERN EUROPE: **Leningrad Oblast** (Singer, 1950a); **Tatarstan** (Singer, 1950a).

***Phliotina blattaria* (Fr.) Fayod**

No current name.

EASTERN EUROPE: **Krasnodar Krai** (Vaasma, Kalamees, and Raitviir, 1986).

SIBERIA: **Altai Krai** (Gorbunova and Perova, 2006); **Altai Republic** (Gorbunova, 2001b; Perova and Gorbunova, 2001); **Buryatia** (Nezdojminogo, 1970a; Petrov, 1991); **Krasnoyarsk Krai** (Beglyanova, 1972a).

FAR EAST: **Primorsky Krai** (Vassiljeva, 1973; Bunkina and Nazarova, 1978; Azbukina et al., 2006); **Sakhalin Oblast** (Bulakh, Govorova, and Bogatov, 1999).

***Phliotina fibrillosipes* (Watling) Singer**

Name absent from IF.

FAR EAST: **Primorsky Krai** (Kovalenko and Nezdojminogo, 1989).

***Phliotina filaris* var. *ochracea* Singer**

Name absent from IF.

EASTERN EUROPE: **Saint Petersburg** (Singer, 1950a).

SIBERIA: **Altai Republic** (Singer, 1950a).

***Phliotina togularis* (Bull.) Fayod**

No current name.

Misapplied name, variously interpreted by different authors (Hausknecht, 2009).

EASTERN EUROPE: **Moscow** (Burova, 1968).

SIBERIA: **Altai Republic** (Singer, 1950a; Gorbunova, 1997; Gorbunova, 2001b; Perova and Gorbunova, 2001); **Krasnoyarsk Krai** (Beglyanova, 1972a; Kutafjeva and Kosheleva, 2005).

FAR EAST: **Primorsky Krai** (Vassiljeva, 1973; Bunkina and Nazarova, 1978; Azbukina et al., 1984).

***Phyllotus furvellus* P. Karst.**

No current name.

EASTERN EUROPE: **Leningrad Oblast** (Thesleff, 1920).

***Phyllotus nidulans* (Pers.) P. Karst.**

Name absent from IF.

EASTERN EUROPE: **Leningrad Oblast** (Thesleff, 1920).

***Pilosace phoenix* (Fr.) Sacc.**

No current name.

EASTERN EUROPE: **Smolensk Oblast** (Jaczewski, 1896).

***Pleurotellus septicus* (Fr.) Konrad & Maubl.**

No current name.

SIBERIA: **Altai** (Zhukov, 1979).

***Pleurotus conchnatus* Berk. & M.A. Curtis**

Name absent from IF.

SIBERIA: **Irkutsk Oblast** (Muzyka, 2009).

***Pleurotus cornucopioides* (Klotzsch) Gillet**

Name with wrong authors' citation.

EASTERN EUROPE: **Adygea** (Vassiljeva, 1939); **Krasnodar Krai** (Vassiljeva, 1939).

***Pleurotus limpidus* (Fr.) P. Karst.**

No current name.

EASTERN EUROPE: **Kaliningrad Oblast** (Dedkov, Volodina, and Gubareva, 2007).

FAR EAST: **Primorsky Krai** (Azbukina et al., 1984).

***Pleurotus ostreatus* (Jacq.) Fr. var. *minor***

Name absent from IF.

EASTERN EUROPE: **Karachay-Cherkess Republic** (Vassiljeva, 1939); **Krasnodar Krai** (Vassiljeva, 1939).

***Pleurotus ostreatus* var. *salignus* (Pers.) Konrad & Maubl.**

Name absent from IF.

EASTERN EUROPE: **Lipetsk Oblast** (Sarycheva, 1999).

***Pleurotus pantoleucus* (Fr.) Sacc.**

No current name.

EASTERN EUROPE: **Moscow** (Hennings, 1905).

SIBERIA: **Krasnoyarsk Krai** (Kalchbrenner, 1878; Saccardo, 1896; Beglyanova, 1972a); **Tomsk Oblast** (Agaphonova, Kutafjeva, and Gashkov, 2009a; Kudashova, Gashkov, and Kutafjeva, 2013; Kudashova, Gashkov, and Vaishlya, 2016b).

***Pleurotus parthenopejus* (Comes) Sacc.**

No current name.

EASTERN EUROPE: **Voronezh Oblast** (Singer, 1938b); **Eastern Europe** (Singer, 1943).

***Pleurotus pulvinatus* (Pers.) Gillet**

No current name.

SIBERIA: **Krasnoyarsk Krai** (Kalchbrenner, 1878).

***Pleurotus saliceti* P. Karst.**

Name absent from IF.

SIBERIA: **Zabaykalsky Krai** (Karsten, 1911).

***Pleurotus septicus* (Fr.) P. Kumm.**

No current name.

EASTERN EUROPE: **Kaliningrad Oblast** (Dedkov, Volodina, and Gubareva, 2007); **Karelia** (Krutov et al., 2014); **Yamalo-Nenets Autonomous Okrug** (Kazantseva, 1966).

***Pluteus atricapillus* (Secr.) Sing.**

Name with wrong authors' citation.

EASTERN EUROPE: **Tver Oblast** (Kurochkin, 1993).

***Pluteus chrysophlebius* (Berk. & M.A. Curtis) Sacc.**

No current name.

SIBERIA: **Krasnoyarsk Krai** (Malysheva, Malysheva, and Justo, 2016; Krom and Kapitonov, 2019).

***Pluteus eugraptus* (Berk. & Broome) Sacc.**

No current name.

EASTERN EUROPE: **Saint Petersburg** (Singer, 1938b; Singer, 1943).

***Pluteus fayodii* Damblon, Darimont & Lambinon**

No current name.

EASTERN EUROPE: **Chechen Republic** (Taysumov, Krapivina, and Kushalieva, 2016).

***Pluteus godeyi* Gillet**

No current name.

EASTERN EUROPE: **Crimea** (Dudka et al., 2004; Sarkina, 2011; Sarkina and Mironova, 2015).

FAR EAST: **Magadan Oblast** (Sazanova, 2005; Sazanova, 2009a; Sazanova, 2011).

***Pluteus magnus* McClatchie**

No current name.

SIBERIA: **Tomsk Oblast** (Kudashova, Gashkov, and Kutafjeva, 2013; Kudashova, Gashkov, and Vaishlya, 2016b).

***Pluteus murinus* var. *major* Singer**

Name absent from IF.

EASTERN EUROPE: **Krasnodar Krai** (Vassiljeva, 1939).

***Pluteus nanus* f. *chrysophaeus* (Schaeff.) Singer**

Name absent from IF.

EASTERN EUROPE: **Krasnodar Krai** (Vassiljeva, 1939).

***Pluteus phlebophorus* Cooke**

No current name.

SIBERIA: **Tomsk Oblast** (Kudashova, Gashkov, and Kutafjeva, 2013).

***Pluteus umbrinellus* (Sommerf.) Gillet**

No current name.

EASTERN EUROPE: **Leningrad Oblast** (Singer, 1943).

***Pluteus umbrinellus* Fr.**

Name with wrong authors' citation.

EASTERN EUROPE: **Tatarstan** (Vassiljeva, 1977).

***Psalliota pratensis* Quél.**

No current name.

EASTERN EUROPE: **Chelyabinsk Oblast** (Aleksandrovskaya and Lobanova, 1968); **Stavropol Krai** (Lobik, 1927).

***Psalliota viridula* (Schaeff.) J. Schröt.**

Name absent from IF.

EASTERN EUROPE: **Moscow** (Bucholtz, 1897c; Mosolov, 1906).

***Psalliota viridula* J. Schröt.**

Name absent from IF.

EASTERN EUROPE: **Moscow** (Bucholtz, 1897b).

***Psathyra albidocinerea* (Britzelm.) Singer**

Name absent from IF.

EASTERN EUROPE: **Krasnodar Krai** (Vassiljeva, 1939).

***Psathyra coprophyla* (Bull.) Quél.**

Name absent from IF.

EASTERN EUROPE: **Karelia** (Freindling, 1949).

***Psathyra coriaria* (Panizzi) Singer**

No current name.

EASTERN EUROPE: **Saint Petersburg** (Singer, 1938b).

***Psathyra pallens* P. Karst.**

No current name.

EASTERN EUROPE: **Saratov Oblast** (Kazakevich and Prisyazhnyuk, 1932).

***Psathyrella coronata* (Quél.) M.M. Moser**

No current name.

EASTERN EUROPE: **Udmurt Republic** (Tychinin and Kuzmina, 2003).

SIBERIA: **Novosibirsk Oblast** (Perova, 1977; Perova and Gorbunova, 2001).

***Psathyrella fibrillosa* (Fr.) Singer**

Name with wrong authors' citation.

SIBERIA: **Khakassia** (Beglyanova, 1972a).

FAR EAST: **Primorsky Krai** (Vassiljeva, 1973).

***Psathyrella fulvipes* (Mont.) Sacc.**

No current name.

EASTERN EUROPE: **Stavropol Krai** (Lobik, 1927).

***Psathyrella hydrophila* (Fr.) Singer**

Name with wrong authors' citation.

FAR EAST: **Primorsky Krai** (Bunkina and Nazarova, 1978).

***Psathyrella sacchariolens* Enderle**

No current name.

EASTERN EUROPE: **Ulyanovsk Oblast** (Ilyukhin, 2010a; Ilyukhin, 2010b).

***Psathyrella vinosofulva* var. *utriformis* Kits van Wav.**

Name absent from IF.

EASTERN EUROPE: **Yaroslavl Oblast** (Lazareva, 1998b).

***Pseudohygrocybe reidii* (Kühner) Kovalenko**

Name absent from IF.

EASTERN EUROPE: **Sverdlovsk Oblast** (Marina, 2006).

***Psilocybe atrobrunnea* (Lasch) Gillet**

No current name.

EASTERN EUROPE: **Kaliningrad Oblast** (Neuhoff, 1922; Dedkov, Volodina, and Gubareva, 2007); **Karelia** (Krutov et al., 2014); **Leningrad Oblast** (Stolyarskaya, 1993; Kovalenko and Morozova, 1999a; Popov et al., 2007; Zmitrovich et al., 2015); **Mordovia** (Chastukhin, 1948a; Kuznetsov, 1960; Chastukhin and Nikolaevskaya, 1969; Chastukhin, 2011; Ivoilov and Bolshakov, 2011a); **Moscow Oblast** (Levitskaya, 1995a; Levitskaya, 2013); **Saint Petersburg** (Kovalenko and Morozova, 1999a); **Tatarstan** (Vassiljeva, 1977); **Tula Oblast** (Svetasheva, 2004; Svetasheva, 2005b); **Vologda Oblast** (Kirillova, 2006; Kirillova, 2007).

FAR EAST: **Magadan Oblast** (Sazanova, 2005; Sazanova, 2009a).

***Psilocybe bullacea* (Bull.) P. Kumm.**

No current name.

EASTERN EUROPE: **Leningrad Oblast** (Kovalenko and Morozova, 1999a; Popov et al., 2007); **Lipetsk Oblast** (Sarycheva, 2014a); **Sverdlovsk Oblast** (Marina, 2006).

***Psilocybe callosa* (Fr.) Gillet**

No current name.

EASTERN EUROPE: **Leningrad Oblast** (Thesleff, 1920); **Smolensk Oblast** (Jaczewski, 1896); **Yamalo-Nenets Autonomous Okrug** (Kazantseva, 1966; Stepanova and Sirko, 1977).

SIBERIA: **Krasnoyarsk Krai** (Kalchbrenner, 1878; Beglyanova, 1972a; Zauzolkova, 2015); **Tomsk Oblast** (Kudashova, Gashkov, and Kutafjeva, 2013).

***Psilocybe cinnamomea***

Name absent from IF.

EASTERN EUROPE: **Kaliningrad Oblast** (Dedkov, Volodina, and Gubareva, 2007).



***Psilocybe dichroa* (P. Karst.) Sacc.**

No current name.

EASTERN EUROPE: **Leningrad Oblast** (Thesleff, 1920).

***Psilocybe discordabilis* (Britzelm.) Sacc.**

No current name.

EASTERN EUROPE: **Krasnodar Krai** (Vassiljeva, 1939); **Tatarstan** (Vassiljeva, 1977).

***Psilocybe paupera* Singer**

No current name.

EASTERN EUROPE: **Ryazan Oblast** (Volosnova, 1997); **Udmurt Republic** (Tychinin and Kuzmina, 2003).

FAR EAST: **Khabarovsk Krai** (Bau, Bulakh, and Govorova, 2011); **Primorsky Krai** (Bau, Bulakh, and Govorova, 2011).

***Psilocybe spadicea* (Fr.) Quél.**

Name with wrong authors' citation.

EASTERN EUROPE: **Bryansk Oblast** (Kruglikov, 2007).

***Rhodocybe truncata* (Schaeff.) Singer**

No current name.

*Rhodocybe truncata* (Schaeff.) Singer is based on a missapplied name *Agaricus truncatus sensu* Quélet (1880) and is replaced by *Rhodocybe gemina* (Paulet) Kuyper & Noordel. (Noordeloos and Kuyper, 1987).

EASTERN EUROPE: **Penza Oblast** (Ivanov, 1999); **Arid territories** (Rebriev, Rusanov, et al., 2012).

SIBERIA: **Krasnoyarsk Krai** (Beglyanova, 1972a; Zauzolkova, 2015); **Tomsk Oblast** (Vaishlya et al., 2017).

***Rhodophyllus griseorubidus* Kühner**

No current name.

FAR EAST: **Amur Oblast** (Azbukina et al., 1998).

***Rhodophyllus junceus* (Fr.) Quél.**

Name absent from IF.

EASTERN EUROPE: **Moscow** (Burova, 1968).

FAR EAST: **Primorsky Krai** (Vassiljeva, 1973; Azbukina et al., 1984).

***Rhodophyllus nefrens* (Fr.) Quél.**

No current name.

EASTERN EUROPE: **Chelyabinsk Oblast** (Stepanova and Sirko, 1977).

***Rhodophyllus proletarius* (Fr.) Quél.**

No current name.

EASTERN EUROPE: **Leningrad Oblast** (Nezdojminogo, 1967); **Tatarstan** (Vassiljeva, 1977).

SIBERIA: **Altai Republic** (Gorbunova, 2001b).

***Rhodophyllus radiatus* J.E. Lange**

No current name.

The species is not mentioned in any current taxonomy revisions and monographs (Noordeloos, 1992, 2004, Knudsen & Vesterholt 2012). According to Moser (1978) it is a disputable synonym of *Rhodophyllus subradiatus* Kühner & Romagn. ( $\equiv$  *Entoloma subradiatum* (Kühner & Romagn.) M.M. Moser).

EASTERN EUROPE: **Tatarstan** (Vassiljeva, 1977).

SIBERIA: **Krasnoyarsk Krai** (Beglyanova, 1972a; Beglyanova, 1972c).

FAR EAST: **Primorsky Krai** (Vassiljeva, 1973).

***Rhodosporus prunulus* (Scop.) J. Schröt.**

Name absent from IF.

EASTERN EUROPE: **Moscow** (Bucholtz, 1897b, 1897c; Mosolov, 1906).

***Rhodosporus umbrosus* J. Schröt.**

Name absent from IF.

EASTERN EUROPE: **Moscow** (Bucholtz, 1897b, 1897c).

***Russula aeruginea* sensu Cooke**

Name with wrong authors' citation.

SIBERIA: **Irkutsk Oblast** (Muzyka and Penzina, 2017).

***Russula albida* Peck**

No current name.

SIBERIA: **Krasnoyarsk Krai** (Lapitskaya, 1993).

FAR EAST: **Primorsky Krai** (Vassiljeva, 1972; Vassiljeva, 1973).

***Russula basifurcata* Peck**

No current name.

EASTERN EUROPE: **Belgorod Oblast** (Bedenko, 1979a).

SIBERIA: **Irkutsk Oblast** (Astapenko and Kutafjeva, 1990; Astapenko, 1990b).

***Russula bresadolae* Schulzer**

No current name.

EASTERN EUROPE: **Krasnodar Krai** (Shumkova, Krivorotov, and Gayday, 2018).

***Russula bresadoliana* Singer**

Name absent from IF.

EASTERN EUROPE: **Kabardino-Balkarian Republic** (Singer, 1938a).

***Russula deliciosa* Fr.**

Name with wrong authors' citation.

EASTERN EUROPE: **Moscow** (Bucholtz, 1897c; Mosolov, 1906).

***Russula deliciosa* J. Schröt.**

No current name.

EASTERN EUROPE: **Moscow** (Bucholtz, 1897b).

***Russula depallens* Fr.**

No current name.

EASTERN EUROPE: **Kaliningrad Oblast** (Hennings, 1895); **Karelia** (Bondartseva et al., 2001; Krutov et al., 2014); **Komi Republic** (Karatygin, Nezdjminogo, Novozhilov, and Zhurbenko, 1999); **Moscow Oblast** (Levitskaya, 1995a; Levitskaya, 2013); **Murmansk Oblast** (Nezdjminogo, 1997b; Karatygin, Nezdjminogo, Novozhilov, and Zhurbenko, 1999); **Perm Krai** (Perevedentseva, 2008; Perevedentseva and Shilkova, 2010; Botalov, 2017); **Pskov Oblast** (Kovalenko, Kolmakov, Morozova, and Popov, 2003; Popov et al., 2013); **Saint Petersburg** (Morozova and Smirnov, 2011; Morozova et al., 2020); **Sverdlovsk Oblast** (Marina, 2006); **Tula Oblast** (Svetasheva, 2004); **Ulyanovsk Oblast** (Ilyukhin, 2009; Ilyukhin, 2010a); **Vologda Oblast** (Kirillova, 2005; Kirillova and Podolskaya, 2012); **Yamalo-Nenets Autonomous Okrug** (Karatygin, Nezdjminogo, Novozhilov, and Zhurbenko, 1999; Nezdjminogo, 2001).

SIBERIA: **Khanty-Mansi Autonomous Okrug** (Filippova and Bulyonkova, 2017a; Filippova and Bulyonkova, 2017b); **Krasnoyarsk Krai** (Karatygin, Nezdjminogo, Novozhilov, and Zhurbenko, 1999); **Yamalo-Nenets Autonomous Okrug** (Karatygin, Nezdjminogo, Novozhilov, and Zhurbenko, 1999).

FAR EAST: **Chukotka Autonomous Okrug** (Karatygin, Nezdjminogo, Novozhilov, and Zhurbenko, 1999).

***Russula fallax* (Fr. Ep.) Sacc.**

Name with wrong authors' citation.

EASTERN EUROPE: **Northern Caucasus** (Singer, 1938a).

***Russula fallax* (Fr.) Britzelm.**

Name with wrong authors' citation.

EASTERN EUROPE: **Tatarstan** (Vassiljeva, 1977).

***Russula fragilis* f. *emeticella* s.f. *pinetorum* Singer**

Name absent from IF.

EASTERN EUROPE: **Karelia** (Freindling, 1949; Bondartseva et al., 2001; Krutov et al., 2014).***Russula fragilis* var. *alba***

Name absent from IF.

EASTERN EUROPE: **Moscow** (Bucholtz, 1897b).***Russula fragilis* var. *emeticella* Singer**

Name absent from IF.

EASTERN EUROPE: **Murmansk Oblast** (Pystina, Pavlova, and Shestakova, 1969).***Russula furcata* (Fr.) Fr.**

Name with wrong authors' citation.

EASTERN EUROPE: **Kaluga Oblast** (Sionova, 2003).SIBERIA: **Irkutsk Oblast** (Kutafjeva, 1984); **Krasnoyarsk Krai** (Beglyanova, 1972a).FAR EAST: **Primorsky Krai** (Vassiljeva, 1972; Vassiljeva, 1973; Bunkina and Nazarova, 1978).***Russula furcata* (J.F. Gmel.) Fr.**

Name with wrong authors' citation.

EASTERN EUROPE: **Karachay-Cherkess Republic** (Onipchenko and Kaverina, 1989).***Russula fusca* Quél.**

No current name.

FAR EAST: **Sakhalin Oblast** (Vassiljeva and Nazarova, 1972).***Russula integra* var. *lilacina***

Name absent from IF.

EASTERN EUROPE: **Moscow** (Bucholtz, 1897b).***Russula lutea* (Huds.) Fr. var. *typica* Singer**

Name absent from IF.

EASTERN EUROPE: **Northern Caucasus** (Singer, 1938a).***Russula mollis* Quél.**

No current name.

SIBERIA: **Irkutsk Oblast** (Kutafjeva and Astapenko, 1987; Astapenko, 1990b).***Russula nauseosa* var. *elegans* (Bres.) Singer**

Name absent from IF.

EASTERN EUROPE: **Kabardino-Balkarian Republic** (Singer, 1929).***Russula olivaceoviolascens* Gillet**

No current name.

EASTERN EUROPE: **Vologda Oblast** (Kirillova, 2005; Kirillova, 2007; Kirillova and Podolskaya, 2012).***Russula olivascens* (Pers.: Schwein.) ss. Bres.**

Name with wrong authors' citation.

SIBERIA: **Altai Republic** (Gorbunova, 2008).***Russula olivascens* Pers.**

Name with wrong authors' citation.

SIBERIA: **Altai Republic** (Singer, 1942).

***Russula punctata* Krombh.**

No current name.

EASTERN EUROPE: **Karachay-Cherkess Republic** (Vassiljeva, 1939); **Krasnodar Krai** (Vassiljeva, 1939); **Tatarstan** (Vassiljeva, 1977); **Northern Caucasus** (Singer, 1938a).

SIBERIA: **Altai Republic** (Singer, 1938a).

FAR EAST: **Primorsky Krai** (Vassiljeva, 1972; Vassiljeva, 1973; Shalapugina, 1976; Bunkina and Nazarova, 1978; Azbukina et al., 1984); **Sakhalin Oblast** (Vassiljeva and Nazarova, 1972).

***Russula rosacea* Fr.**

Name with wrong authors' citation.

EASTERN EUROPE: **Northern Caucasus** (Singer, 1938a).

SIBERIA: **Altai Republic** (Singer, 1938a).

***Russula rubra* (Krombh.) Bres.**

Name with wrong authors' citation.

EASTERN EUROPE: **Moscow Oblast** (Vishnevsky and Sidorova, 1997).

***Russula rubra* Cooke**

Name absent from IF.

EASTERN EUROPE: **Tula Oblast** (Svetasheva et al., 2017).

***Russula rubra* Krombh.**

Name with wrong authors' citation.

EASTERN EUROPE: **Chelyabinsk Oblast** (Stepanova and Sirko, 1977); **Lipetsk Oblast** (Rtishcheva, 1999; Afanasyev, Rtishcheva, and Starodubtseva, 2007); **Tver Oblast** (Kurochkin, 1993); **Voronezh Oblast** (Afanasyev, Rtishcheva, and Starodubtseva, 2007; Rtishcheva, 1999).

SIBERIA: **Yamalo-Nenets Autonomous Okrug** (Tarchevskaya, 1990).

***Russula serotina* f. *minor* Singer**

No current name.

EASTERN EUROPE: **Krasnodar Krai** (Vassiljeva, 1939; Singer, 1941).

***Russula serotina* Quél.**

No current name.

EASTERN EUROPE: **Karelia** (Freindling, 1949; Bondartseva et al., 2001; Krutov et al., 2014); **Krasnodar Krai** (Vassiljeva, 1939); **Northern Caucasus** (Singer, 1938a).

SIBERIA: **Altai Republic** (Singer, 1938a); **Khakassia** (Singer, 1936a).

***Russula simillima* Peck**

No current name.

EASTERN EUROPE: **Adygea** (Vassiljeva, 1939).

FAR EAST: **Primorsky Krai** (Azbukina et al., 1984).

***Russula smaragdina* Quél.**

No current name.

EASTERN EUROPE: **Belgorod Oblast** (Bedenko, 1979a; Bedenko, 1979b); **Kirov Oblast** (Kirillov, 2011; Kirillov, Perevedentseva, and Egoshina, 2011).

***Russula subcompacta* Britzelm.**

No current name.

EASTERN EUROPE: **Krasnodar Krai** (Vassiljeva, 1939); **Northern Caucasus** (Singer, 1938a).

FAR EAST: **Primorsky Krai** (Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; Azbukina et al., 2006; Bau, Bulakh, and Govorova, 2011); **Sakhalin Oblast** (Vassiljeva and Nazarova, 1972; Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990).

***Russula uncialis* Peck**

No current name.

FAR EAST: **Primorsky Krai** (Vassiljeva, 1972; Vassiljeva, 1973).***Russula versatilis* Romagn.**

No current name.

EASTERN EUROPE: **Kaliningrad Oblast** (Atayev and Volodina, 2020); **Saint Petersburg** (Zhukova, Morozova, Volobuev, and Bryantseva, 2017).***Russula vesca* f. *romellii* Singer**

Name absent from IF.

EASTERN EUROPE: **Krasnodar Krai** (Vassiljeva, 1939).***Russula xerampelina* (Schaeff.) Fr. var. *typica***

Name absent from IF.

EASTERN EUROPE: **Northern Caucasus** (Singer, 1938a).***Russulina integra* (L.) J. Schröt.**

Name absent from IF.

EASTERN EUROPE: **Moscow** (Bucholtz, 1897a; Bucholtz, 1897c; Mosolov, 1906).***Russulina lutea* (Huds.) J. Schröt.**

Name absent from IF.

EASTERN EUROPE: **Moscow** (Bucholtz, 1897a; Bucholtz, 1897c; Mosolov, 1906).***Russulina xerampelina* (Schaeff.) J. Schröt.**

Name absent from IF.

EASTERN EUROPE: **Moscow** (Bucholtz, 1897c; Mosolov, 1906).***Sarcomyxa mitis* (Pers.) Zmitr.**

Name absent from IF.

EASTERN EUROPE: **Leningrad Oblast** (Zmitrovich, Malysheva, Malysheva, and Spirin, 2004); **Saint Petersburg** (Zmitrovich, Malysheva, Malysheva, and Spirin, 2004).***Sarcomyxa serotina* var. *flaccida* J.E. Lange**

Name absent from IF.

EASTERN EUROPE: **Leningrad Oblast** (Zmitrovich, Malysheva, Malysheva, and Spirin, 2004).***Scytinotopsis langei* (Pilát) Singer**

Name absent from IF.

EASTERN EUROPE: **Leningrad Oblast** (Singer, 1943).***Scytinotopsis leucochrius* (Britzelm.) Singer**

Name absent from IF.

EASTERN EUROPE: **Krasnodar Krai** (Vassiljeva, 1939).***Strobilomyces birkenhoffii* Lebedeva**

Name absent from IF.

SIBERIA: **Sakha Republic** (Birkenhof, 1936).***Stropharia bulbosa* S. Imai**

No current name.

FAR EAST: **Primorsky Krai** (Vassiljeva, 1972; Vassiljeva, 1973).

***Stropharia semilanceata* Fr.**

Name absent from IF.

EASTERN EUROPE: **Leningrad Oblast** (Thesleff, 1920).

***Suillus abietinus* (Lj.N. Vassiljeva) Lj.N. Vassiljeva**

No current name.

SIBERIA: **Tomsk Oblast** (Milovidova, 1980).

FAR EAST: **Amur Oblast** (Azbukina et al., 1998); **Khabarovsk Krai** (Azbukina et al., 1989); **Primorsky Krai** (Vassiljeva, 1972; Vassiljeva, 1973; Bulakh et al., 2016).

***Suillus aeruginascens* var. *subspectabilis* (Vassilkov) A.N. Petrov**

Name absent from IF.

SIBERIA: **Buryatia** (Penzina and Petrov, 1994); **Irkutsk Oblast** (Petrov, 1991; Petrov, 2008; Trofimova, Popov, and Merkacheva, 2020).

FAR EAST: **Magadan Oblast** (Sazanova, 2005).

***Suillus australiuralensis* Vassilkov**

Name absent from IF.

EASTERN EUROPE: **Bashkortostan** (Stepanova and Sirko, 1977).

***Suillus plorans* var. *cembra* (Stud.-Steinh.) Singer**

Name absent from IF.

FAR EAST: **Magadan Oblast** (Sazanova, 2005).

***Suillus punctipes* f. *cyanescens* Nezdobjm.**

Name absent from IF.

SIBERIA: **Buryatia** (Petrov, 1991); **Irkutsk Oblast** (Petrov, 1984; Petrov, 1991; Petrov, 2008).

***Tricholoma cartilagineum* Fr.**

Name with wrong authors' citation.

EASTERN EUROPE: **Voronezh Oblast** (Chastukhin and Nikolaevskaya, 1953).

***Tricholoma holoianthinum* (Kalchbr.) P. Karst.**

No current name.

SIBERIA: **Krasnoyarsk Krai** (Kalchbrenner, 1878).

***Tricholoma hordum* (Fr.) Quél.**

No current name.

SIBERIA: **Irkutsk Oblast** (Petrov, 1984; Petrov, 1991; Petrov, 2008).

***Tricholoma inodermeum* (Fr.) Sacc.**

No current name.

SIBERIA: **Irkutsk Oblast** (Astapenko, 1990b).

***Tricholoma linctum* P. Karst.**

No current name.

EASTERN EUROPE: **Leningrad Oblast** (Thesleff, 1920).

***Tricholoma malicorius* Fr.**

Name absent from IF.

EASTERN EUROPE: **Kabardino-Balkarian Republic** (Krapivina et al., 2020).

***Tricholoma maluvium* (Battarra ex Fr.) Sacc.**

No current name.

EASTERN EUROPE: **Belgorod Oblast** (Bedenko, 1980).

***Tricholoma pessundatum* var. *stans* Fr.**

Name absent from IF.

EASTERN EUROPE: **Leningrad Oblast** (Thesleff, 1920).***Tricholoma quinquepartitum* Gillet**

No current name.

SIBERIA: **Krasnoyarsk Krai** (Beglyanova, 1972a; Zauzolkova, 2015).***Tricholoma spermaticum* (Fr.) Gillet**

No current name.

FAR EAST: **Khabarovsk Krai** (Bau, Bulakh, and Govorova, 2011).***Tricholoma ustaloides* (Scop.) Quél.**

Name with wrong authors' citation.

EASTERN EUROPE: **Pskov Oblast** (Popov et al., 2013).***Tricholomopsis intermedia* Singer**

Name absent from IF.

SIBERIA: **Altai Republic** (Singer, 1943).***Tubaria pellucida* (Bull.) Sacc.**

No current name.

EASTERN EUROPE: **Belgorod Oblast** (Bedenko, 1980); **Karelia** (Freindling, 1949; Singer, 1950a; Bondartseva et al., 2001); **Krasnodar Krai** (Vassiljeva, 1939); **Leningrad Oblast** (Kovalenko and Morozova, 1999a; Popov et al., 2007); **Lipetsk Oblast** (Sarycheva et al., 2009; Sarycheva, 2014a; Sarycheva, 2016); **Moscow Oblast** (Levitskaya, 1995c; Levitskaya, 2013); **Pskov Oblast** (Popov et al., 2013); **Tatarstan** (Vassiljeva, 1977); **Tver Oblast** (Kurochkin, 1993); **Udmurt Republic** (Tychinin and Kuzmina, 2003); **Arid territories** (Rebriev, Rusanov, et al., 2012).

SIBERIA: **Altai Republic** (Singer, 1950a); **Irkutsk Oblast** (Petrov, 1991; Petrov, 2008).

FAR EAST: **Khabarovsk Krai** (Bulakh, 2013; Bogacheva, Bulakh, Bukharova, and Egorova, 2015); **Primorsky Krai** (Bunkina and Nazarova, 1978; Azbukina et al., 2006; Bau, Bulakh, and Govorova, 2011).

***Tubaria pellucida* (Fr.) Gillet**

Name with wrong authors' citation.

SIBERIA: **Irkutsk Oblast** (Petrov, 1986).***Tubiporus scaber* Bull.**

Name absent from IF.

EASTERN EUROPE: **Kaliningrad Oblast** (Neuhoff, 1922).***Volvariella pusilla* (Pers.) Singer var. *biloba* J. Lodge**

Name absent from IF.

SIBERIA: **Krasnoyarsk Krai** (Beglyanova, 1972a).***Volvariella pusilla* (Pers.) Singer var. *biloba* Massee**

Name absent from IF.

EASTERN EUROPE: **Lipetsk Oblast** (Sarycheva, 2016).***Xerocomus badiorufus* (R. Heim) Bon**

No current name.

*Xerocomus badiorufus* (R. Heim) Bon is based on *Boletus badiorufus* R. Heim. nom. inval. According to Ladurner and Simonini (2003), the latter is apparently doubtful taxon, hence it should have no current name.

EASTERN EUROPE: **Yaroslavl Oblast** (Lazareva, 1998a; Lazareva, 1998b).

*Xerocomus rubellus* Quél.

No current name.

EASTERN EUROPE: **Arkhangelsk Oblast** (Ezhov, Ershov, Ruokolainen, and Zmitrovich, 2011; Ezhov, 2014); **Belgorod Oblast** (Bedenko, 1979a); **Bryansk Oblast** (Kruglikov, 2007); **Kaliningrad Oblast** (Dedkov, Volodina, and Gubareva, 2007); **Kaluga Oblast** (Sionova, 2003); **Krasnodar Krai** (Kovalenko, 1980a; Kovalenko, 1980b); **Lipetsk Oblast** (Sarycheva, 2014a); **Moscow Oblast** (Levitskaya, 1995b; Levitskaya, 2013); **North Ossetia** (Nikolayev, 2001); **Novgorod Oblast** (Kovalenko, Morozova, Nezdjominogo, and Popov, 2005; Popov et al., 2013); **Orenburg Oblast** (Desyatova, 2008); **Penza Oblast** (Ivanov, 1981a); **Perm Krai** (Perevedentseva, 2008; Shepel', 2008); **Pskov Oblast** (Popov et al., 2013); **Rostov Oblast** (Rusanov et al., 2004; Zmitrovich et al., 2008); **Ryazan Oblast** (Volosnova, 1997); **Tatarstan** (Vassiljeva, 1977); **Tula Oblast** (Svetasheva, 2004; Svetasheva, 2013); **Tver Oblast** (Kurochkin, 1993); **Udmurt Republic** (Tychinin and Kuzmina, 2003); **Voronezh Oblast** (Agafonov, 2011; Selochnik, 2015; Agafonov, 2018).

SIBERIA: **Tomsk Oblast** (Milovidova, 1980).

FAR EAST: **Khabarovsk Krai** (Vassiljeva, 1956; Azbukina et al., 1986; Azbukina et al., 1989); **Primorsky Krai** (Vassiljeva, 1956; Vassiljeva, 1972; Vassiljeva, 1973; Azbukina et al., 1990; Bardunov et al., 2002).

*Xerocomus variegatus* (Sw.) Kuntze

Name absent from IF.

EASTERN EUROPE: **Murmansk Oblast** (Pystina, Pavlova, and Shestakova, 1969).

SIBERIA: **Altai Republic** (Perova and Gorbunova, 2001); **Novosibirsk Oblast** (Perova and Gorbunova, 2001); **Tomsk Oblast** (Perova and Gorbunova, 2001).

*Xerocomus variegatus* (Sw.) Quél.

Name absent from IF.

EASTERN EUROPE: **Karelia** (Freindling, 1949).



## Appendix C.

### List of accepted current names of agaricoid and boletoid fungi that are reported from only one Russian region — “unique” for this region

#### EASTERN EUROPE

##### Adygea:

*Cortinarius arcuatorum* Rob. Henry (Sopina, 2000; Sopina, 2001a; Zamotajlov, Sirotyuk (Kuvaeva), Akatova, and Lipka, 2012).

*Cortinarius saporatus* Britzelm. (Sopina, 2000; Sopina, 2001a; Zamotajlov, Sirotyuk (Kuvaeva), Akatova, and Lipka, 2012).

*Cystoderma caucasicum* Singer (Smith and Singer, 1945; Zamotajlov, Sirotyuk (Kuvaeva), Akatova, and Lipka, 2012).

*Entoloma huijsmanii* Noordel. (Sopina, 2004b).

*Entoloma xanthochroum* (P.D. Orton) Noordel. (Sopina, 2004b).

*Galerina wellsiae* A.H. Sm. (Sopina, 2000; Sopina, 2001a).

*Hemimycena crispata* (Kühner) Singer (Kiyashko, 2009).

*Inocybe amblyospora* Kühner (Vaasma, Kalamees, and Raitviir, 1986).

*Inocybe terrifera* Kühner (Vaasma, Kalamees, and Raitviir, 1986).

*Lactarius rostratus* Heilm.-Claus. (Sopina, 2004a).

*Lactarius rubrocinctus* Fr. (Sopina, 2004a).

*Marasmius epirhododendron* Kalamees (Vaasma, Kalamees, and Raitviir, 1986; Kalamees, 1989; Zamotajlov, Sirotyuk (Kuvaeva), Akatova, and Lipka, 2012).

*Marasmius fagi* (Kalamees) Kalamees (Vaasma, Kalamees, and Raitviir, 1986; Kalamees, 1989).

*Marasmius hudsonii* (Pers.) Fr. (Vaasma, Kalamees, and Raitviir, 1986; Psurtseva, Kiyashko, Gachkova, and Belova, 2007; Zamotajlov, Sirotyuk (Kuvaeva), Akatova, and Lipka, 2012).

*Marasmius rhododendrorum* Kalamees (Vaasma, Kalamees, and Raitviir, 1986; Kalamees, 1989; Kummer, 2007; Zamotajlov, Sirotyuk (Kuvaeva), Akatova, and Lipka, 2012).

*Marasmius rubi* Kalamees (Vaasma, Kalamees, and Raitviir, 1986; Kalamees, 1989).

*Mycena pseudolaevigata* Kalamees (Vaasma, Kalamees, and Raitviir, 1986; Kalamees, 1989; Zamotajlov, Sirotyuk (Kuvaeva), Akatova, and Lipka, 2012).

*Mycena pseudomaculata* (Kalamees) Kalamees (Vaasma, Kalamees, and Raitviir, 1986; Kalamees, 1989).

*Russula puellula* Ebbesen, F.H. Møller & Jul. Schäff. (Sopina, 2004a).

*Russula rutila* Romagn. (Sopina, 2004a).

##### Arkhangelsk Oblast:

*Clitopilus jaczewskii* Lebedeva (Lebedeva, 1933).

*Galerina subclavata* Kühner (Shiryaev, Zmitrovich, and Ezhov, 2018).

##### Astrakhan Oblast:

*Agaricus gennadii* (Chatin & Boud.) P.D. Orton (Rebriev, Aleksandrova, et al., 2012; Ivanov, 2018).

*Coprinellus sassii* (M. Lange & A.H. Sm.) Redhead, Vilgalys & Moncalvo (Rebriev, Aleksandrova, et al., 2012).

##### Bashkortostan:

*Inocybe minuta* P. Karst. (Karsten, 1905).

*Psilocybe tuberosa* P. Karst. (Karsten, 1904).

##### Belgorod Oblast:

*Agrocybe insignis* Singer (Bedenko, 1979a; Bedenko, 1979b).

*Coprinopsis saccharomyces* (P.D. Orton) P. Roux & Guy García (Bedenko, 1979a; Bedenko, 1979b).

*Gymnopilus satur* Kühner (Bedenko, 1979a; Bedenko, 1979b).

*Gymnopus hybridus* (Kühner & Romagn.) Antonín & Noordel. (Psurtseva, Belova, and Ryabusheva, 2003; Psurtseva, Kiyashko, Gachkova, and Belova, 2007).

*Phylloporus rhodoxanthus* (Schwein.) Bres. (Bedenko, 1979a).

*Russula purpurascens* Bres. (Bedenko, 1980).

**Chelyabinsk Oblast:**

*Lepista tomentosa* M.M. Moser (Psurtseva, Kiyashko, Gachkova, and Belova, 2007).

*Mycena atrovirens* Rea (Sirko and Stepanova, 1977).

*Russula amarissima* Romagn. & E.-J. Gilbert (Sirko and Stepanova, 1977; Stepanova and Sirko, 1977).

*Tricholoma ramentaceum* (Bull. ex Pers.) Ricken (Sirko and Stepanova, 1977; Stepanova and Sirko, 1977).

**Crimea:**

*Arrhenia lilacinicolor* (Bon) P.-A. Moreau & Courtec. (Sarkina and Stavishenko, 2019).

*Calocybe favrei* (R. Haller Aar. & R. Haller Suhr) Bon (Moser, 1993; Sarkina, 2001; Dudka et al., 2004; Sarkina, 2011).

*Coprinopsis mitrispora* (Bohus) L. Nagy, Vágvölgyi & Papp (Sarkina, 2011).

*Cortinarius depallens* (M.M. Moser) Bidaud, Moëgne-Loec. & Reumaux (Sarkina and Mironova, 2015).

*Crepidotus sinuosus* Hesler & A.H. Sm. (Moser, 1993; Sarkina, 2001; Dudka et al., 2004; Sarkina, 2011).

*Cystoagaricus hirtosquamulosus* (Peck) Örstadius & E. Larss. (Dudka et al., 2004; Sarkina, 2011).

*Hymenopellis rubrobrunnescens* (Redhead, Ginns & Shoemaker) R.H. Petersen (Sarkina and Stavishenko, 2019).

*Inocybe furfurea* Kühner (Dudka et al., 2004).

*Inocybe tigrina* R. Heim (Sarkina and Stavishenko, 2019).

*Lepiota ignivolvata* Bousset & Joss. ex Joss. (Dudka et al., 2004; Sarkina, 2011).

*Omphalina offuciata* (Fr.) Bon (Zerova, 1962; Sarkina, 2001; Dudka et al., 2004; Sarkina, 2010b; Sarkina, 2011).

*Paraxerula caussei* (Maire) R.H. Petersen (Moser, 1993; Sarkina, 2001; Dudka et al., 2004; Sarkina, 2011).

*Pholiota lutaria* (Maire) Kuyper & Tjall.-Beuk. (Dudka et al., 2004; Sarkina, 2010b).

*Pleurotus nebrodensis* (Inzenga) Quél. (Yena and Fateryga, 2015).

*Psathyrella laevisissima* (Romagn.) Singer (Dudka et al., 2004).

*Pseudoclitopilus salmonifolius* (M.M. Moser & Lamoure) Vizzini & Contu (Moser, 1993; Sarkina, 2001; Dudka et al., 2004; Sarkina, 2011).

*Resupinatus kavinae* (Pilát) M.M. Moser (Dudka et al., 2004; Sarkina, 2011).

*Russula rubroalba* (Singer) Romagn. (Sarkina, 2020a).

*Tricholoma bresadolatum* Cléménçon (Moser, 1993; Sarkina, 2001; Dudka et al., 2004; Sarkina, 2011).

*Volvariella cinerascens* (Bres.) M.M. Moser (Sarkina, 2001; Dudka et al., 2004; Sarkina and Prydiuk, 2012).

**Kabardino-Balkarian Republic:**

*Cortinarius crassus* Fr. (Shkhagapsoev and Krapivina, 2004).

*Cortinarius hyginus* (M.M. Moser) M.M. Moser (Shkhagapsoev and Krapivina, 2004).

*Cortinarius occidentalis* A.H. Sm. (Shkhagapsoev and Krapivina, 2004).

*Flammulina ononidis* Arnolds (Krapivina et al., 2020).

*Galerina semilanceata* (Peck) A.H. Sm. & Singer (Singer, 1931; Shkhagapsoev and Krapivina, 2004).

*Hydropus omphaliiformis* (Kühner) Honrubia (Krapivina et al., 2020).

**Kaliningrad Oblast:**

*Aureoboletus projectellus* (Murrill) Halling (Wrzosek et al., 2017).

*Cortinarius obtusobrunneus* Rob. Henry (Atayev and Volodina, 2020).

*Delicatula cuspidata* (Quél.) Cejp (Dedkov, Volodina, and Gubareva, 2007).

*Entoloma kervernii* (De Guern.) M.M. Moser (Dedkov, Volodina, and Gubareva, 2007).

*Gymnopus oreadoides* (Pass.) Antonín & Noordel. (Atayev and Volodina, 2020).

*Hebeloma cylindrosporum* Romagn. (Volodina, 2007; Atayev and Volodina, 2020).

*Hebeloma dunense* L. Corb. & R. Heim (Dedkov, Volodina, and Gubareva, 2007; Volodina, 2007; Dedkov and Grishanov, 2010).

*Lactarius hortensis* Velen. (Atayev and Volodina, 2020).

*Leucopaxillus lentus* (H. Post) Singer (Singer, 1943).

*Mycena tubarioides* (Maire) Kühner (Volodina, 2007).

*Mycopan scabripes* (Murrill) Redhead, Moncalvo & Vilgalys (Dedkov, Volodina, and Gubareva, 2007; Atayev and Volodina, 2020).

*Pleurotus pometi* (Fr.) Quél. (Neuhoff, 1922).

*Pleurotus pubescens* Peck (Hennings, 1895; Dedkov, Volodina, and Gubareva, 2007).

**Karachay-Cherkess Republic:**

*Entoloma corvinum* (Kühner) Noordel. (Onipchenko and Kaverina, 1989; Kalamees and Botashev, 2000; Onipchenko et al., 2013).

*Entoloma erhardii* Noordel., Dima, Svetash., Læssøe & Kehlet (Crous, Carnegie, et al., 2019).

*Gerronema nitriolens* (J. Favre) Cléménçon (Malysheva and Svetasheva, 2011).

*Hydropus semimarginellus* Singer (Malysheva and Svetasheva, 2011).

*Phaeocollybia cidaris* (Fr.) Romagn. (Hollós, 1902; Hollós, 1905; Filarszky, 1907).

*Pluteus griseobrunneus* Murrill (Vassiljeva, 1939).

*Pluteus primus* Bonnard (Justo et al., 2014).

*Psathyrella umbrina* Kits van Wav. (Malysheva and Svetasheva, 2011; Onipchenko et al., 2013).

**Karelia:**

*Agrocybe karelica* Singer (Singer, 1941; Freindling, 1949; Singer, 1950a; Bondartseva et al., 2001; Krutov et al., 2014).

*Clitocybe nana* (Masse) Sacc. & Trotter (Singer, 1938b; Freindling, 1949; Bondartseva et al., 2001; Krutov et al., 2014).

*Clitocybe pellucida* Velen. (Freindling, 1949; Bondartseva et al., 2001; Krutov et al., 2014).

*Cortinarius blandulus* Britzelm. (Freindling, 1949; Bondartseva et al., 2001; Krutov et al., 2014).

*Cortinarius kivaczensis* Singer (Freindling, 1949; Bondartseva et al., 2001; Krutov et al., 2014).

*Cortinarius meinhardii* Bon (Savelev and Kikeeva, 2018).

*Cortinarius velutinellus* Singer (Freindling, 1949; Bondartseva et al., 2001; Krutov et al., 2014).

*Entoloma parvocarpum* Tkalčec & Mešić (Freindling, 1949).

*Entoloma squamatum* Hesler (Freindling, 1949; Bondartseva et al., 2001; Krutov et al., 2014).

*Entoloma subcaelestinum* (Singer) Singer (Freindling, 1949; Bondartseva et al., 2001; Krutov et al., 2014).

*Hebeloma aberrans* Singer (Freindling, 1949; Bondartseva et al., 2001; Krutov et al., 2014).

*Hygrocybe lepida* Arnolds (Bondartseva et al., 2001).

*Hygrophorus subviscifer* (P. Karst.) Harmaja (Bondartseva et al., 2001; Krutov et al., 2014).

*Inocybe carelica* Singer (Singer, 1938b; Freindling, 1949; Krutov et al., 2014).

*Inocybe radiata* Peck (Singer, 1938b; Freindling, 1949; Bondartseva et al., 2001; Krutov et al., 2014).

*Leccinum pulchrum* Lannoy & Estadès (Kovalenko, Morozova, Fomina, and Särkisilta, 1998).

*Omphalina telmatiaea* (Berk. & Cooke) Singer (Singer, 1943; Freindling, 1949; Bondartseva et al., 2001; Krutov et al., 2014).

*Pholiota aberrans* A.H. Sm. & Hesler (Krutov et al., 2014).

*Pholiota freindlingiae* (Singer) Singer (Singer, 1936d; Bondartseva et al., 2001).

*Russula longipes* (Singer) Moënné-Locc. & Reumaux (Freindling, 1949; Bondartseva et al., 2001; Krutov et al., 2014).

*Russula robertii* J. Blum (Bondartseva et al., 2001; Krutov et al., 2014).

*Xeromphalina amara* E. Horak & J. Peter (Krutov et al., 2014).

**Komi Republic:**

*Amanita arctica* Bas, Knudsen & T. Borgen (Palamarchuk, 2016a; Palamarchuk, 2016b).

*Coprinellus sclerocystidiosus* (M. Lange & A.H. Sm.) Vilgalys, Hopple & Jacq. Johnson (Palamarchuk, 2016a).

*Cortinarius bayeri* (Velen.) Moënné-Locc. & Reumaux (Palamarchuk and Kirillov, 2017).

*Cortinarius carabus* Kytöv., Niskanen & Liimat. (Palamarchuk and Kirillov, 2017).

*Cortinarius emunctus* Fr. (Palamarchuk and Kirillov, 2018b).

*Cortinarius fennoscandicus* Bendiksen, K. Bendiksen & Brandrud (Palamarchuk, 2016a).

*Galerina karstenii* A.H. Sm. & Singer (Palamarchuk, 2016a; Palamarchuk, 2016b).

*Hebeloma subconcolor* Bruchet (Palamarchuk, 2020b).

*Hohenbuehelia abietina* Singer & Kuthan (Palamarchuk, 2016a; Palamarchuk, 2016b).

*Hygrophorus inocybiformis* A.H. Sm. (Palamarchuk and Kirillov, 2016; Palamarchuk, 2016a; Palamarchuk, 2016b; Dyogteva, 2019; Palamarchuk et al., 2019).

*Infundibulicybe dryadum* (Bon) Harmaja (Palamarchuk, 2016a; Palamarchuk, 2016b).

*Infundibulicybe gigas* (Harmaja) Harmaja (Palamarchuk, 2020b).

*Inocybe argenteolutea* Vauras (Palamarchuk, 2016a; Palamarchuk, 2016b).

*Inocybe nematoloma* Joss. (Palamarchuk and Kirillov, 2018b).

*Inocybe rennyi* (Berk. & Broome) Sacc. (Palamarchuk, 2016a; Palamarchuk, 2016b).

*Inosperma subhirsutum* (Kühner) Matheny & Esteve-Rav. (Palamarchuk, 2016a; Palamarchuk, 2016b).

*Lactarius pilatii* Z. Schaef. (Palamarchuk and Kirillov, 2018b).

*Lepista subconnexa* (Murrill) Harmaja (Palamarchuk, 2016a; Palamarchuk, 2016b).

*Mythicomycetes corneipes* (Fr.) Redhead & A.H. Sm. (Taskaev, 2009; Palamarchuk, 2011a; Palamarchuk, 2012; Dyogteva, 2019).

*Pholiota abietis* A.H. Sm. & Hesler (Palamarchuk (Bobretsova), 2009; Palamarchuk, 2012).

*Russula pascua* (F.H. Møller & Jul. Schäff.) Kühner (Palamarchuk, 2016a; Palamarchuk, 2016b).

*Russula septentrionalis* Singer (Singer, 1936c).

### **Krasnodar Krai:**

*Boletus subclavatosporus* Snell (Kovalenko, 1980a; Kovalenko, 1980b).

*Callistosporium heimii* (Singer) Singer (Singer, 1937; Vassiljeva, 1939).

*Conocybe cryptocystis* (G.F. Atk.) Singer (Vaasma, Kalamees, and Raitviir, 1986).

*Conocybe halophila* Singer (Malysheva, 2018).

*Cortinarius flavovirens* Rob. Henry (Nezdojminogo, 1996; Litvinskaya, 2007).

*Cortinarius hinnuloides* Rob. Henry (Kovalenko, 1980a; Kovalenko, 1980b).

*Cortinarius olivellus* Rob. Henry (Kovalenko, 1980a; Kovalenko, 1980b).

*Entoloma platyphylloides* (Romagn.) Largent (Kovalenko, 1980a; Kovalenko, 1980b).

*Entoloma sarcitum* (Fr.) Noordel. (Vassiljeva, 1939).

*Entoloma silvae-frondosae* Dima, O.V. Morozova, Noordel., Brandrud & Krisai (Crous, Luangsa-ard, et al., 2018).

*Galerina pruinatipes* A.H. Sm. (Kiyashko, 2011).

*Gloiocephala caucasica* (Singer) Singer (Singer, 1937; Vassiljeva, 1939; Singer, 1943).

*Gymnopilus luteoviridis* Thiers (Shumkova, Krivorotov, and Gayday, 2018).

*Hygrophorus unicolor* Gröger (Sopina, 2001a).

*Inocybe caucasica* Singer (Singer, 1937; Vassiljeva, 1939).

*Inocybe corrubescens* Singer (Vassiljeva, 1939).

*Inocybe cylindrocystis* G.F. Atk. (Vassiljeva, 1939).

*Inocybe dunensis* P.D. Orton (Kiyashko, 2011).

*Lactarius ruginosus* Romagn. (Kovalenko, 1980a; Kovalenko, 1980b).

*Leucocoprinus minutulus* Singer (Vassiljeva, 1939; Singer, 1941).

*Lyophyllum transforme* (Sacc.) Singer (Vaasma, Kalamees, and Raitviir, 1986; Kalamees, 2004).

*Marasmius buxicola* Kalamees (Vaasma, Kalamees, and Raitviir, 1986; Kalamees, 1989).

*Marasmius carpophilus* Singer (Singer, 1937; Vassiljeva, 1939).

*Mycena alni* Kalamees (Vaasma, Kalamees, and Raitviir, 1986; Kalamees, 1989).

*Naematoloma micans* (Fr.) Singer (Singer, 1937; Vassiljeva, 1939).

*Pholiota semiimbricata* (Singer) Singer (Singer, 1937; Vassiljeva, 1939).

*Phylloporus pelletieri* (Lév.) Qué. (Kiyashko, 2009).

*Pluteus kovalenkoi* E.F. Malysheva (Justo et al., 2014).

*Russula cristulisporea* Singer (Vassiljeva, 1939; Singer, 1941).

*Russula fragrantissima* Romagn. (Kovalenko, 1980a; Kovalenko, 1980b).

*Suillellus causicus* (Singer ex Alessio) Blanco-Dios (Vaasma, Kalamees, and Raitviir, 1986).

*Xerocomus chostensis* Vassilkov (Vassilkov, 1955b).

### **Leningrad Oblast:**

*Bolbitius compactus* Thesleff (Thesleff, 1920).

*Clitopilus vilis* (Fr.) Sacc. (Thesleff, 1920).

*Conocybe mexicana* (Murrill) Watling (Malysheva, 2018).

*Coprinopsis poliommalla* (Romagn.) Doveri, Granito & Lunghini (Kovalenko and Morozova, 1999a; Morozova, 1999; Popov et al., 2007).

*Cortinarius amurceus* Fr. (Morozova, 2002; Popov et al., 2007).

*Cortinarius anfractus* Fr. (Thesleff, 1920).

*Cortinarius arquatus* (Alb. & Schwein.) Fr. (Nezdojminogo, 1996; Kovalenko and Morozova, 1999a; Fomina, 2000; Popov et al., 2007).

*Cortinarius fusco-olivaceus* (Weinm.) Moëne-Locc. & Reumaux (Weinmann, 1836).

- Cortinarius microspermus* J.E. Lange (Malysheva, Malysheva, Shchepin, and Novozhilov, 2018).  
*Cortinarius neofurvolaeus* Kytöv., Niskanen, Liimat. & H. Lindstr. (Malysheva, Malysheva, Shchepin, and Novozhilov, 2018).  
*Cortinarius poecilopus* Rob. Henry (Thesleff, 1920).  
*Cortinarius subfloccopus* Kytöv., Niskanen & Liimat. (Malysheva, Malysheva, Shchepin, and Novozhilov, 2018).  
*Crepidotus alveolus* (Lasch) P. Kumm. (Thesleff, 1920).  
*Entoloma aethiops* (Scop.) G. Stev. (Thesleff, 1920; Kovalenko and Morozova, 1999a; Popov et al., 2007).  
*Entoloma lactarioides* Noordel. & Liiv (Kovalenko and Morozova, 1999a; Tzvelev, 2000; Popov et al., 2007; Geltman et al., 2018).  
*Entoloma querquedula* (Romagn.) Noordel. (Kovalenko and Morozova, 1999a; Morozova, 1999; Morozova and Kovalenko, 2000; Tzvelev, 2000; Popov et al., 2007; Geltman et al., 2018).  
*Entoloma serpens* Kokkonen (Morozova and Kovalenko, 2000; Kalinina, 2018).  
*Entoloma ventricosum* Arnolds & Noordel. (Morozova, 2007; Popov et al., 2007).  
*Hemimycena globulifera* E.F. Malysheva & O.V. Morozova (Malysheva and Morozova, 2009).  
*Hemimycena stirriispora* E.F. Malysheva & O.V. Morozova (Malysheva and Morozova, 2009).  
*Hemimycena subimmaculata* (Murrill) Elborne & Læssøe (Malysheva and Morozova, 2009).  
*Hodophilus subfuscescens* (A.H. Sm. & Hesler) Adamčík, Birkebak & Looney (Popov et al., 2007).  
*Hohenbuehelia leightonii* (Berk.) Watling ex Courtec. & P. Roux (Zmitrovich, Malysheva, Malysheva, and Spirin, 2004; Morozova, 2007; Popov et al., 2007).  
*Inocybe xantholeuca* Kuyper (Kovalenko and Morozova, 1999a; Popov et al., 2007).  
*Marasmiellus clusilis* (Sacc.) D.A. Reid (Thesleff, 1920; Singer, 1943).  
*Mycena laevigatoides* Maas Geest. (Morozova, 2007; Popov et al., 2007).  
*Mycena tenuispinosa* J. Favre (Song et al., 2019).  
*Mycena xantholeuca* Kühner (Song et al., 2019).  
*Mycenella salicina* (Velen.) Singer (Malysheva and Morozova, 2005; Popov et al., 2007).  
*Omphalina grisea* (Fr.) Quél. (Thesleff, 1920).  
*Pholiota aurantiaca* Thesleff (Thesleff, 1920).  
*Pleurotellus dictyorhizus* (DC.) Kühner (Thesleff, 1920; Kovalenko and Morozova, 1999a; Popov et al., 2007).  
*Russula ochracea* Fr. (Morozova and Kovalenko, 2000; Popov et al., 2007; Kalinina, 2018).  
*Tephrocybe coracina* (Fr.) M.M. Moser (Thesleff, 1920; Kovalenko and Morozova, 1999a; Popov et al., 2007).  
*Tricholoma phoeniceum* (P. Karst.) Singer (Singer, 1943).

#### **Lipetsk Oblast:**

- Agaricus silvicolae-similis* Bohus & Locsmándi (Shcherbakov, 2014).  
*Hohenbuehelia silvana* (Sacc.) O.K. Mill. (Sarycheva et al., 2009).  
*Paxillus validus* C. Hahn (Sarycheva et al., 2009; Shcherbakov, 2014).  
*Psathyrella badiophylla* (Romagn.) Bon (Sarycheva et al., 2009; Sarycheva, 2016).

#### **Mordovia:**

- Clitocybe pinophila* (Peck) Sacc. (Ivoilov and Bolshakov, 2011a).  
*Clitocybula tilieti* (Singer) Singer (Singer, 1943; Antonín, 2004; Antonín et al., 2019).  
*Gymnopus benoistii* (Boud.) Antonín & Noordel. (Chastukhin, 1948a; Chastukhin, 2011; Ivoilov and Bolshakov, 2011a).  
*Russula lateritia* Quél. (Chastukhin, 1948a; Chastukhin and Nikolaevskaya, 1969; Chastukhin, 2011; Ivoilov and Bolshakov, 2011b).

#### **Moscow:**

- Clitopilus pinsitus* (Fr.) Joss. (Weinmann, 1836).  
*Hygrocybe flammaea* (Scop.) Murrill (Bucholtz, 1897b; Bucholtz, 1897c; Mosolov, 1906).  
*Lactifluus oedematopus* (Scop.) Kuntze (Bucholtz, 1897a).  
*Marasmius michailowskoensis* Henn. (Mosolov, 1906).  
*Panellus pubescens* Z.S. Bi (Bucholtz, 1897a).  
*Pleurotus michailowskojensis* (Henn.) Pilát (Hennings, 1904; Hennings, 1905; Mosolov, 1906).  
*Stropharia viridula* (Schaeff.) Morgan (Hennings, 1905).  
*Tricholoma striatum* (Schaeff.) Quél. (Hennings, 1905; Mosolov, 1906).

**Moscow Oblast:**

- Agaricus menieri* Bon (Levitskaya, 1995c; Levitskaya, 2013).  
*Callistosporium pinicola* Arnolds (Voronina et al., 2012; Voronina et al., 2014).  
*Entoloma noordeloosii* Hauskn. (Voronina et al., 2014).  
*Gerhardtia borealis* (Fr.) Contu & A. Ortega (Malysheva, Malysheva, Voronina, and Kovalenko, 2018).  
*Hebeloma syrjense* (P. Karst.) P. Karst. (Levitskaya, 1995c; Levitskaya, 2013).  
*Hodophilus phaeoxanthus* (Romagn.) Adamčík & Jančovič. (Levitskaya, 1995b; Levitskaya, 2013).  
*Inocybe goniopusio* Stangl (Levitskaya, 1998; Levitskaya, 2013).  
*Lentinus crinitus* (L.) Fr. (Malysheva, Malysheva, Voronina, et al., 2017; Malysheva, Malysheva, Voronina, and Kovalenko, 2018).  
*Lepiota ochraceofulva* P.D. Orton (Voronina et al., 2014).  
*Lepista ovispora* (J.E. Lange) Gulden (Gorlenko, Sidorova, and Sidorova, 1989; Levitskaya, 1998; Vishnevsky, 1998; Levitskaya, 2013).  
*Lepista vernicosa* (Fr.) Bon (Vishnevsky, 1998).  
*Lyophyllum oldae* (Svrček) Cléménçon (Levitskaya, 1998).  
*Mycena belliarum* (Johnst.) P.D. Orton (Vishnevsky, 1998).  
*Mycena diosma* Krieglst. & Schwöbel (Vishnevsky, 1998).  
*Mycena rapiolens* J. Favre (Levitskaya, 2013).  
*Mycena xanthopoda* (Dennis) Dennis (Vishnevsky, 1998).  
*Pholiota henningsii* (Bres.) P.D. Orton (Levitskaya, 1998; Levitskaya, 2013).  
*Pogonoloma spinulosum* (Kühner & Romagn.) Sánchez-García (Vishnevsky, 1998).  
*Psathyrella microcystis* A.H. Sm. (Levitskaya, 1995c).  
*Russula amoenata* Britzelm. (Vishnevsky and Sidorova, 1997).  
*Tubaria trigonophylla* (Lasch) Fayod (Levitskaya, 1995c; Levitskaya, 2013).

**Murmansk Oblast:**

- Amanita hyperborea* (P. Karst.) Fayod (Karsten, 1866; Karsten, 1876; Karsten, 1889; Nezdoininogo, 1997b; Karatygin, Nezdoininogo, Novozhilov, and Zhurbenko, 1999).  
*Clitocybe smaragdina* (Berk.) H.E. Bigelow & A.H. Sm. (Nezdoininogo, 1997b; Karatygin, Nezdoininogo, Novozhilov, and Zhurbenko, 1999).  
*Coprinellus plagioporus* (Romagn.) Redhead, Vilgalys & Moncalvo (Mikhailovskii, 1975a).  
*Cortinarius levipileus* J. Favre (Mikhailovskii, 1975a).  
*Entoloma anthracinum* (J. Favre) Noordel. (Nezdoininogo, 1997b; Karatygin, Nezdoininogo, Novozhilov, and Zhurbenko, 1999).  
*Entoloma griseoluridum* (Kühner) M.M. Moser (Mikhailovskii, 1975a).  
*Entoloma langei* Noordel. & T. Borgen (Nezdoininogo, 1997b; Karatygin, Nezdoininogo, Novozhilov, and Zhurbenko, 1999).  
*Entoloma roseum* (Longyear) Hesler (Mikhailovskii, 1975a).  
*Galerina subbadipes* Huijsman (Mikhailovskii, 1975a).  
*Hygrocybe riparia* Kreisel (Mikhailovskii, 1975a; Mikhailovskii, 1975b).  
*Marasmius fissipes* (Maire) Singer ex Laskibar, Arrilaga & Bon (Mikhailovskii, 1975a).  
*Omphalina pseudomuralis* Lamoure (Karatygin, Nezdoininogo, Novozhilov, and Zhurbenko, 1999).

**Nenets Autonomous Okrug:**

- Protostrongyaria arctica* (Kytöv.) Redhead (Kytövuori, 1999).

**North Ossetia**

- Pleurotus craspedius* (Fr.) Gillet (Chernetskaja, 1929).

**Novgorod Oblast:**

- Clitocybe truncicola* (Peck) Sacc. (Kovalenko, Morozova, Nezdoininogo, and Popov, 2005; Popov et al., 2013).  
*Conocybe farinacea* Watling (Malysheva, Malysheva, and Zmitrovich, 2006; Malysheva, Malysheva, and Zmitrovich, 2007; Malysheva, 2018).  
*Entoloma atromarginatum* (Romagn. & J. Favre) Zschiesch. (Morozova, Popov, and Fedosova, 2014).  
*Entoloma nausiosme* Noordel. (Morozova, Popov, and Fedosova, 2014).

*Entoloma sodale* Kühner & Romagn. ex Noordel. (Morozova, 2012; Popov et al., 2013).

*Galerina ampullaceocystis* P.D. Orton (Kovalenko, Morozova, Nezdoyminogo, and Popov, 2005; Popov et al., 2013).

*Inocybe vulpinella* Bruyl. (Kovalenko, Morozova, Nezdoyminogo, and Popov, 2005; Popov et al., 2013).

*Mycena albidolilacea* Kühner & Maire (Song et al., 2019).

*Pseudobaeospora pyrifer* Bas & L.G. Krieglst. (Morozova and Popov, 2013; Morozova, Popov, and Fedosova, 2014).

#### **Orenburg Oblast:**

*Coprinellus deminutus* (Enderle) Valade (Shiryaeva and Kalmykova, 2020).

*Coprinellus pallidissimus* (Romagn.) P. Roux, Guy García & S. Roux (Desyatova, 2008).

*Coprinopsis idae* (Uljé) La Chiusa & Boffelli (Desyatova, 2008).

*Hemimycena pseudogibba* (Valla) Antonín & Noordel. (Desyatova, 2007; Desyatova, 2008).

*Parasola lilatincta* (Bender & Uljé) Redhead, Vilgalys & Hopple (Desyatova, 2008).

*Pholiotina aporos* (Kits van Wav.) Cléménçon (Desyatova, 2007; Desyatova, 2008).

*Psathyrella almerensis* Kits van Wav. (Desyatova, 2008).

*Psathyrella pseudogordonii* Kits van Wav. (Desyatova, 2008).

#### **Oryol Oblast:**

*Cortinarius borealis* Bidaud (Radygina, Derzhavina, and Tsutsupa, 2014).

#### **Penza Oblast:**

*Coprinellus amphithallus* (M. Lange & A.H. Sm.) Redhead, Vilgalys & Moncalvo (Ivanov and Nezdoyminogo, 1990).

*Coprinellus pellucidus* (P. Karst.) Redhead, Vilgalys & Moncalvo (Ivanov, 1983).

*Coprinellus subdisseminatus* (M. Lange) Redhead, Vilgalys & Moncalvo (Ivanov and Nezdoyminogo, 1990).

*Cortinarius aremoricus* Rob. Henry (Ivanov, 1988c; Ivanov and Durandin, 1996).

*Cortinarius argenteolilacinus* M.M. Moser (Ivanov, 1983; Ivanov and Durandin, 1996; Nezdoyminogo, 1996; Ivanov, 2013a).

*Cortinarius caesiocortinatus* Jul. Schäff. (Ivanov, 1983; Ivanov and Durandin, 1996; Nezdoyminogo, 1996; Ivanov, 2013a).

*Cortinarius diosmus* Kühner (Ivanov, 1983; Ivanov and Durandin, 1996).

*Cortinarius magicus* Eichhorn (Ivanov and Durandin, 1996; Nezdoyminogo, 1996).

*Cortinarius odoratus* (Joguet ex M.M. Moser) M.M. Moser (Ivanov, 1988a; Ivanov, 1988c; Ivanov and Durandin, 1996; Nezdoyminogo, 1996; Ivanov, 2013a).

*Cortinarius saturatus* J.E. Lange (Ivanov, 1983; Ivanov and Durandin, 1996; Ivanov, 2019).

*Cortinarius semivestitus* M.M. Moser (Ivanov and Durandin, 1996; Nezdoyminogo, 1996).

*Cortinarius xanthocephaloides* A.I. Ivanov (Ivanov, 1988c; Ivanov and Durandin, 1996).

*Hebeloma sarcophyllum* (Peck) Sacc. (Nezdoyminogo, 1996; Ivanov, 1999).

*Hygrophorus dichrous* Kühner & Romagn. (Ivanov, 1982).

*Inocybe abietis* Kühner (Ivanov and Nezdoyminogo, 1990).

*Inocybe aurea* Huijsman (Ivanov and Nezdoyminogo, 1990; Nezdoyminogo, 1996).

*Inocybe lutescens* Velen. (Ivanov, 1982).

*Lepiota hymenoderma* D.A. Reid (Ivanov, 1989).

*Lepiota pallida* Locq. ex Bon & Candusso (Ivanov, 1999).

*Leucoagaricus cinereolilacinus* (Barbier) Bon & Boiffard (Ivanov, 1988a).

*Mycena luteovariegata* Harder & Læssøe (Ivanov, 1999).

*Mycena miserior* Huijsman (Ivanov, 1999).

*Panaeolus leucophanes* (Berk. & Broome) Sacc. (Ivanov, 1992).

*Panaeolus uliginosus* Jul. Schäff. (Ivanov, 1992).

*Psathyrella pellucidipes* (Romagn.) M.M. Moser (Ivanov, 1986).

#### **Perm Krai:**

*Clitocybe cacabus* (Fr.) Gillet (Perevedentseva, 2008).

*Cortinarius paleaceus* Fr. (Perevedentseva, 2008).

*Cortinarius rigidipes* M.M. Moser (Perevedentseva and Shishigin, 2014).

*Cortinarius xantho-ochraceus* P.D. Orton (Perevedentseva, 2008; Botalov, 2017).  
*Entoloma chloropolium* (Fr.) M.M. Moser (Perevedentseva, 2008).  
*Entoloma engadinum* (E. Horak) Noordel. (Perevedentseva, 2008; Botalov, 2017).  
*Entoloma venosum* Gillet (Perevedentseva, 2008).  
*Galerina vexans* A.H. Sm. & Singer (Perevedentseva, 2008).  
*Hemimycena angustispora* (P.D. Orton) Singer (Perevedentseva, 2008; Belkovskaya et al., 2014).  
*Laccaria lateritia* Malençon (Perevedentseva, 2008).  
*Lepiota clypeolarioides* Rea (Perevedentseva, 2008; Belkovskaya et al., 2014).  
*Melanoleuca subpulverulenta* (Pers.) Singer (Perevedentseva, 2008).  
*Mycena atropapillata* Kühner & Maire (Perevedentseva, 2008; Perevedentseva and Shishigin, 2014).  
*Pholiota muricella* (Fr.) Bon (Perevedentseva, 2008).  
*Psathyrella rigidipes* (Peck) A.H. Sm. (Perevedentseva, 2008).  
*Psilocybe medullosa* (Bres.) Borov. (Botalov, 2017; Botalov, Perevedentseva, and Shishigin, 2020).  
*Tephroclype impexa* (P. Karst.) M.M. Moser (Perevedentseva, 2008; Belkovskaya et al., 2014).

#### **Pskov Oblast:**

*Entoloma cuniculorum* Arnolds & Noordel. (Popov et al., 2013).  
*Entoloma exile* (Fr.) Hesler (Morozova et al., 2015).  
*Entoloma glaucobasis* Huijsman ex Noordel. (Morozova et al., 2015).  
*Galerina caulocystidiata* Arnolds (Kalinina, Bolshakov, and Bulyonkova, 2020).  
*Gymnopus kauffmanii* (Halling) Halling (Kovalenko and Morozova, 1999b).  
*Hohenbuehelia approximans* (Peck) Singer (Kovalenko and Morozova, 1999b).  
*Pseudobaeospora celluloderma* Bas (Kalinina, Bolshakov, and Bulyonkova, 2020).

#### **Rostov Oblast:**

*Agaricus amanitiformis* Wasser (Fedyaeva, 2014; Rusanov, Rebriev, and Bulgakov, 2018).  
*Agaricus bernardiiiformis* Bohus (Vyshchepan, 1992; Fedyaeva, 2014; Rusanov, Rebriev, and Bulgakov, 2018).  
*Agaricus macrosporoides* Bohus (Vyshchepan, 1992; Fedyaeva, 2014).  
*Coprinopsis cardiaspora* (Bender) Voto (Morozova et al., 2008).  
*Entoloma cinereo-opacum* (Noordel.) Vila, Català & Noordel. (Morozova et al., 2008).  
*Entoloma vindobonense* Noordel. & Hauskn. (Rebriev, 2018).  
*Hemimycena candida* (Bres.) Singer (Morozova et al., 2008; Malysheva and Morozova, 2009).  
*Leratiomyces laetissimus* (Hauskn. & Singer) Borov., J. Stříbrný, Noordel., Gryndler & Oborník (Morozova et al., 2008).  
*Leucoagaricus bohusii* (Wasser) Bon (Vyshchepan, 1992).  
*Melanoleuca candida* Singer (Rusanov, Rebriev, and Bulgakov, 2018).  
*Melanoleuca paedida* (Fr.) Kühner & Maire (Rusanov, Rebriev, and Bulgakov, 2018).  
*Saproamanita codinae* (Maire) Redhead, Vizzini, Drehmel & Contu (Fedyaeva, 2014).

#### **Ryazan Oblast:**

*Conocybe bulbifera* (Kauffman) Romagn. (Volosnova, 1997).  
*Conocybe dunensis* T.J. Wallace (Volosnova, 2005).  
*Entoloma occultipigmentatum* Arnolds & Noordel. (Malysheva and Volosnova, 2008; Volosnova, 2014).  
*Entoloma scabiosum* (Fr.) Quél. (Malysheva and Volosnova, 2008; Volosnova, 2014).  
*Entoloma velenovskyi* Noordel. (Malysheva and Volosnova, 2008; Volosnova, 2014).  
*Pholiota pudica* (Bull.) Gillet (Volosnova, 2005).  
*Psathyrella praecox* A.H. Sm. (Volosnova, 2014).  
*Psathyrella rostellata* Örstadius (Volosnova, 2014).  
*Pseudosperma curreyi* (Berk.) Matheny & Esteve-Rav. (Volosnova, 1997).  
*Psilocybe cyanescens* Wakef. (Volosnova, 2014).

#### **Saint Petersburg:**

*Clitocybe icmadophila* (Fr.) H.E. Bigelow (Weinmann, 1836; Weinmann, 1837).  
*Clitopilus piperitus* (G. Stev.) Noordel. & Co-David (Dudka, Malysheva, Malysheva, and Zhukova, 2018).  
*Coprinus rostrupianus* E.C. Hansen (Singer, 1938b).



- Cortinarius coruscans* (Fr.) Fr. (Weinmann, 1836; Weinmann, 1837).  
*Cortinarius gigasporus* Singer (Singer, 1938b).  
*Cortinarius inaequalis* (Weinm.) Reumaux (Weinmann, 1836).  
*Cortinarius inhoneustus* (Weinm.) Moëgne-Locc. & Reumaux (Weinmann, 1836).  
*Cortinarius riederi* (Weinm.) Fr. (Weinmann, 1836).  
*Cortinarius spurcus* (Weinm.) Moëgne-Locc. & Reumaux (Weinmann, 1836).  
*Crinipellis siparunae* Singer (Singer, 1943).  
*Descolea recedens* (Sacc.) Singer (Singer, 1950a).  
*Entoloma griseorugulosum* Noordel. & Fern. Sas. (Morozova, Kovalenko, Rebriev, and Malysheva, 2014).  
*Entoloma linkii* (Fr.) Noordel. (Weinmann, 1836).  
*Entoloma tiliae* Brandrud, O.V. Morozova, Dima, Bendiksen & Noordel. (Morozova, Kovalenko, Rebriev, and Malysheva, 2014; Zhukova, Morozova, Volobuev, and Bryantseva, 2017; Crous, Luangsa-ard, et al., 2018).  
*Galerina helvoliceps* (Berk. & M.A. Curtis) Singer (Smith and Singer, 1964).  
*Galerina tenuissima* (Gillet) Singer (Weinmann, 1836).  
*Hemimycena pithya* (Pers.) Dörfelt (Weinmann, 1828; Weinmann, 1836; Weinmann, 1837).  
*Hygrocybe leporina* (Fr.) P.D. Orton & Watling (Borszczow, 1857).  
*Inocybe squarrosoamethystina* Singer (Singer, 1938b).  
*Lactarius jecorinus* (Fr.) Fr. (Weinmann, 1836; Weinmann, 1837).  
*Lepiota mesomorpha* (Bull.) Gillet (Weinmann, 1828; Weinmann, 1836; Weinmann, 1837).  
*Leucocoprinus melanoloma* (Singer) Singer (Singer, 1938b; Singer, 1943).  
*Melanoleuca curtipes* (Fr.) Bon (Weinmann, 1828; Weinmann, 1836; Weinmann, 1837).  
*Melanoleuca rasilis* (Fr.) Singer (Morozova et al., 2020).  
*Mycena chlorinosma* Singer (Singer, 1937).  
*Mycenella cyatheae* (Singer) Singer (Singer, 1936d; Singer, 1938b; Malysheva and Morozova, 2005).  
*Psathyrella muricellata* (Singer) Singer (Singer, 1938b).  
*Psathyrella torpens* (Fr.) Konrad & Maubl. (Weinmann, 1828; Weinmann, 1836).  
*Pseudohiatula cyatheae* Singer (Singer, 1936d; Singer, 1938b; Singer, 1943).  
*Psilocybe nuciseda* (Fr.) Henn. (Weinmann, 1828; Weinmann, 1836; Weinmann, 1837).  
*Russula chamaeleon* Singer (Singer, 1937; Singer, 1942).  
*Tricholoma amplum* (Pers.) Rea (Weinmann, 1828).  
*Tricholoma tumidum* (Pers.) P. Karst. (Weinmann, 1828; Weinmann, 1836; Weinmann, 1837).  
*Tubaria segestria* (Fr.) Boud. (Weinmann, 1828; Weinmann, 1836; Weinmann, 1837).  
*Xerocomellus fennicus* (Harmaja) Šutara (Morozova et al., 2020).

### Samara Oblast:

- Agaricus perturbans* E. Ludw. & W. Pohl (Malysheva and Malysheva, 2005b; Malysheva and Malysheva, 2008; Ivanov, 2018).  
*Bolbitius pallidus* E.F. Malysheva & Svetash. (Malysheva, Malysheva, and Svetasheva, 2015; Malysheva, 2018).  
*Clitocybe fuscusquamula* J.E. Lange (Malysheva and Malysheva, 2008).  
*Clitocybe houghtonii* (W. Phillips) Dennis (Malysheva and Malysheva, 2008; Morozova and Popov, 2008).  
*Conocybe confundens* E.F. Malysheva (Malysheva, 2017; Malysheva, 2018).  
*Conocybe viridibrunnescens* E. Ludw. (Malysheva, 2018).  
*Coprinopsis pannuicoides* (J.E. Lange) Örstadius & E. Larss. (Malysheva and Malysheva, 2004; Malysheva and Malysheva, 2008).  
*Coprinopsis xantholepis* (P.D. Orton) Redhead, Vilgalys & Moncalvo (Malysheva and Malysheva, 2006; Malysheva and Malysheva, 2008).  
*Entoloma farinasprellum* Arnolds (Malysheva and Malysheva, 2007; Malysheva and Malysheva, 2008).  
*Entoloma moserianum* Noordel. (Malysheva and Malysheva, 2008).  
*Flammulaster delicatuloides* (Kühner) Watling (Malysheva and Malysheva, 2008).  
*Marasmius ventalloi* Singer (Malysheva and Malysheva, 2006; Malysheva and Malysheva, 2007; Malysheva and Malysheva, 2008).  
*Pholiotina hadrocystis* (Kits van Wav.) Courtec. (Malysheva and Malysheva, 2008; Malysheva, 2018).  
*Psathyrella pervelata* Kits van Wav. (Malysheva and Malysheva, 2008).  
*Psathyrella phaseolispora* Arnolds (Malysheva and Malysheva, 2007; Malysheva and Malysheva, 2008).  
*Rhodocybe lignicola* Singer (Malysheva and Malysheva, 2008).

**Saratov Oblast:**

*Cortinarius cedretorum* Maire (Nezdojminogo, 1996).

**Sevastopol:**

*Amanita proxima* Dumée (Sarkina, 2020c).

*Butyriboletus pseudoregius* (Heinr. Huber) D. Arora & J.L. Frank (Sarkina, 2020c).

*Lyophyllum rhopalopodium* Cléménçon (Sarkina, 2020c).

**Smolensk Oblast:**

*Galerina aquatilis* (Fr.) S. Lundell (Jaczewski, 1898).

**Stavropol Krai:**

*Agaricus pampeanus* Speg. (Ivanov, 2018).

*Collybia pusilla* Lebedeva (Lebedeva, 1930).

*Conocybe olivaceopileata* E.F. Malysheva (Malysheva, 2017; Malysheva, 2018).

**Sverdlovsk Oblast:**

*Coprinopsis sclerotiger* (Watling) Redhead, Vilgalys & Moncalvo (Marina, 2006).

*Cortinarius ectypus* J. Favre (Marina, 2006).

*Cortinarius pseudoglaucopus* (Jul. Schäff. ex M.M. Moser) Quadr. (Marina, 2006).

*Cortinarius trossingenensis* Melot (Marina, 2006).

*Entoloma anatinum* (Lasch) Donk (Marina, 2006).

*Entoloma coelestinum* (Fr.) Hesler (Marina, 2006; Morozova, Noordeloos, and Vila, 2014; Korytin, 2018).

*Entoloma plebeioides* (Schulzer) Noordel. (Marina, 2006).

*Fayodia bisphaerigera* (J.E. Lange) Singer (Marina, 2006).

*Hygrocybe citrinovirens* (J.E. Lange) Jul. Schäff. (Marina, 2006).

*Hygrophorus persicolor* Ricek (Marina, 2006).

*Psathyrella artemisiae* (Pass.) Konrad & Maubl. (Marina, 2006).

*Psathyrella hirta* Peck (Marina, 2006).

**Tatarstan:**

*Cortinarius atkinsonianus* Kauffman (Vassiljeva, 1977).

*Cortinarius nasutus* (Velen.) G. Garnier (Vassiljeva, 1977).

*Entoloma callichroum* E. Horak & Noordel. (Potapov, 2015b; Nazirov, Gorshkov, Ivanov, and Rogova, 2016; Potapov, 2016b).

*Entoloma clandestinum* (Fr.) Noordel. (Vassiljeva, 1977).

*Entoloma inutile* (Britzelm.) Noordel. (Vassiljeva, 1977).

*Entoloma pseudoparasiticum* Noordel. (Potapov, 2015d; Nazirov, Gorshkov, Ivanov, and Rogova, 2016).

*Galerina emmetensis* A.H. Sm. & Singer (Nezdojminogo, 1985; Nezdojminogo, 1996).

*Mycena incongruens* (Britzelm.) Sacc. & Traverso (Singer, 1943).

*Phaeomarasmium tataricus* Singer (Singer, 1945; Singer, 1950a; Vassiljeva, 1977).

*Pluteus insidiosus* Vellinga & Schreurs (Potapov, 2015b; Potapov, 2015d; Nazirov, Gorshkov, Ivanov, and Rogova, 2016).

*Pluteus keissleri* Singer (Vassiljeva, 1977).

*Russula ferreri* Singer (Vassiljeva, 1977).

**Tula Oblast:**

*Conocybe monikae* Hauskn. (Malysheva, 2018).

*Cortinarius alcalinophilus* Rob. Henry (Svetasheva, 2004; Svetasheva, 2005a; Svetasheva, 2005b; Shcherbakov, 2010; Svetasheva, Sheremetyeva, and Lakomov, 2019).

*Entoloma melanochroum* Noordel. (Shcherbakov, 2010).

*Entoloma subradiatum* (Kühner & Romagn.) M.M. Moser (Svetasheva, 2004).

*Entoloma transvenosum* Noordel. (Svetasheva, 2004; Svetasheva, 2005b; Shcherbakov, 2010).

*Hebeloma cavipes* Huijsman (Svetasheva, 2004; Svetasheva, 2005a; Svetasheva, 2005b).

*Mycena pilosella* Maas Geest. (Svetasheva, 2004; Shcherbakov, 2010).

*Psathyrella dicrani* (A.E. Jansen) Kits van Wav. (Svetasheva, 2004; Shcherbakov, 2010).

*Russula transiens* (Singer) Romagn. (Svetasheva, 2004).

*Tubaria praestans* (Romagn.) M.M. Moser (Svetasheva, 2004; Shcherbakov, 2010).

#### **Tver Oblast:**

*Cortinarius caesiocanescens* M.M. Moser (Kurochkin, 1993; Nezdoinog, 1996; Mukhina, 2011a; Kotkova, 2014).

*Cortinarius illibatus* Fr. (Kurochkin, 1993).

*Entoloma kruticianum* O.V. Morozova, M.Y. Dyakov, E.S. Popov & A.V. Alexandrova (Crous et al., 2016).

*Flammula pinicola* (Jacobsson) Noordel. (Morozova, Aleksandrova, Popov, and Malysheva, 2016).

*Omphalina sphagnophila* (Peck) H.E. Bigelow (Mukhina, 2011a; Mukhina, 2011b).

#### **Udmurt Republic:**

*Crepidotus stenocystis* Pouzar (Kapitonov, 2013).

*Hortiboletus bubalinus* (Oolbekk. & Duin) L. Albert & Dima (Kapitonov, 2013).

*Tricholomopsis sulfureoides* (Peck) Singer (Kapitonov, 2013).

#### **Ulyanovsk Oblast:**

*Melanoleuca leucophylloides* (Bon) Bon (Ilyukhin, 2010a).

#### **Volgograd Oblast:**

*Agaricus phaeolepidotus* F.H. Møller (Dudka and Vedeneyev, 2014).

*Clitocybe anisata* Velen. (Burova and Nezdoinog, 1982).

*Conocybe nigrodiscalis* Hauskn. & Krisai (Rebriev, Popov, Pridyuk, and Svetasheva, 2014; Svetasheva, Popov, Rebriev, and Pridyuk, 2014).

*Coprinellus saccharinus* (Romagn.) P. Roux, Guy García & Dumas (Stauchan and Vedeneyev, 2015).

*Entoloma iodolens* Arnolds & Noordel. (Svetasheva, 2015).

*Entoloma korhonenii* Noordel. (Rebriev, Popov, Pridyuk, and Svetasheva, 2014; Svetasheva, Popov, Rebriev, and Pridyuk, 2014).

*Inocybe olida* Maire (Burova and Nezdoinog, 1980; Burova and Nezdoinog, 1982).

*Leucoagaricus brunneocingulatus* (P.D. Orton) Bon (Rebriev, Popov, Pridyuk, and Svetasheva, 2014; Rebriev, Popov, and Svetasheva, 2015; Svetasheva, 2015).

*Leucoagaricus croceovelutinus* (Bon & Boiffard) Bon (Rebriev, Popov, Pridyuk, and Svetasheva, 2014; Rebriev, Popov, and Svetasheva, 2015; Svetasheva, 2015).

*Leucoagaricus menieri* (Sacc.) Singer (Svetasheva, 2015).

*Leucoagaricus purpureolilacinus* Huijsman (Rebriev, Popov, and Svetasheva, 2015; Svetasheva, 2015).

*Leucoagaricus roseilividus* (Murrill) E. Ludw. (Rebriev, Popov, and Svetasheva, 2015; Svetasheva, 2015).

*Leucoagaricus subvolvatus* (Malençon & Bertault) Bon (Svetasheva, 2015).

*Leucocoprinus ianthinus* (Sacc.) P. Mohr (Rebriev, Popov, Pridyuk, and Svetasheva, 2014; Rebriev, Popov, and Svetasheva, 2015; Svetasheva, 2015).

*Suillellus adonis* (Pöder & H. Ladurner) Vizzini, Simonini & Gelardi (Svetasheva, 2015).

*Suillellus comptus* (Simonini) Vizzini, Simonini & Gelardi (Svetasheva, 2015).

#### **Vologda Oblast:**

*Arrhenia gerardiana* (Peck) Elborne (Kirillova, 2007; Kirillova, 2009).

*Cystoderma lilacipes* Harmaja (Kirillova, 2006; Kirillova, 2007).

*Gerronema xanthophyllum* (Bres.) Norvell, Redhead & Ammirati (Kirillova, 2007).

*Hemimycena cryptomeriae* Noordel. & Antonín (Kirillova, 2012).

*Hemimycena nitriolens* (Valla) Antonín & Noordel. (Kirillova, 2012).

*Lactarius syringinus* Z. Schaeff. (Kirillova, 2007).

#### **Voronezh Oblast:**

*Stropharia mammillata* Sacc. (Chastukhin and Nikolaevskaya, 1953).

**Yamalo-Nenets Autonomous Okrug:**

*Conocybe uralensis* Hauskn., Knudsen & Mukhin (Hausknecht, Kalamees, Knudsen, and Mukhin, 2009; Malysheva, 2018).

*Hygrocybe biminata* Kühner (Borgen and Ohenoja, 2013).

*Lactarius lapponicus* Harmaja (Knudsen and Mukhin, 1998).

*Lactarius robertianus* Bon (Knudsen and Mukhin, 1998).

*Lepiota dryadicola* Kühner (Peintner, 1998; Karatygin, Nezdoyminogo, Novozhilov, and Zhurbenko, 1999; Nezdoyminogo, 2001).

*Pluteus alniphilus* Deparis (Justo et al., 2014).

*Tubaria pseudoconspersa* Romagn. (Kazantseva, 1972; Stepanova and Sirko, 1977).

**Yaroslavl Oblast:**

*Conocybe spiculoides* Kühner & Watling (Lazareva, 1998a; Lazareva, 1998b).

*Tubaria pallidispota* J.E. Lange (Lazareva, 1998a; Lazareva, 1998b).

**SIBERIA****Altai Krai:**

*Deconica flocculosa* (Bas & Noordel.) Noordel. (Gorbunova, 2018a).

*Laccaria amethysteo-occidentalis* G.M. Muell. (Gorbunova and Chubarova, 2008).

*Rhodocollybia lentinoides* (Peck) Halling (Gorbunova and Chubarova, 2008; Gorbunova, Vlasenko, and Tzhubarova, 2011).

*Russula dryadicola* R. Fellner & Landa (Gorbunova, 2018a).

**Altai Republic:**

*Agrocybe acericola* (Peck) Singer (Gorbunova, 2008).

*Agrocybe coprophila* Singer (Singer, 1945; Singer, 1950a).

*Calocybe vasilievae* (Singer) Singer (Singer, 1941; Singer, 1943).

*Clitocybe acicola* Singer (Singer, 1943; Singer, 1990).

*Clitocybe albocinerea* Rea (Singer, 1943).

*Clitocybe bresadoliano-affinis* Singer (Singer, 1943).

*Clitocybe calcarea* Velen. (Singer, 1943).

*Clitocybe hyacinthina* Singer (Singer, 1943).

*Clitocybe laricicola* Singer (Singer, 1943; Harmaja, 1969).

*Clitocybe lixivia* (Fr.) Singer (Singer, 1943).

*Clitocybe steppicola* Singer (Singer, 1943).

*Clitocybe subhygrophana* Singer (Singer, 1943).

*Clitocybe subsquamulosa* Singer (Singer, 1943).

*Conocybe ammophila* M. Lange (Hausknecht, Kalamees, Knudsen, and Mukhin, 2009; Malysheva, 2018).

*Cortinarius adustorimosus* Rob. Henry (Brandrud et al., 2019).

*Cortinarius boreicyanites* Kytöv., Liimat., Niskanen & A.F.S. Taylor (Brandrud et al., 2019).

*Cortinarius circinans* Rob. Henry (Brandrud et al., 2019).

*Cortinarius croceocristallinus* Rob. Henry (Brandrud et al., 2019).

*Cortinarius nodosiporus* Kytöv., Niskanen & Liimat. (Brandrud et al., 2019).

*Cortinarius privignipallens* Kytöv., Niskanen & Liimat. (Brandrud et al., 2019).

*Cortinarius pseudofallax* Carteret (Brandrud et al., 2019).

*Cortinarius roseocastaneus* Niskanen, Liimat. & Kytöv. (Brandrud et al., 2019).

*Cortinarius subheterocyclus* Liimat., Niskanen & Kytöv. (Brandrud et al., 2019).

*Galerina glacialis* Singer (Singer, 1945; Singer, 1950a; Smith and Singer, 1964; Nezdoyminogo, 1996).

*Galerina larigna* Singer (Singer, 1945; Singer, 1950a; Smith and Singer, 1964; Nezdoyminogo, 1996).

*Gymnopilus janthinosa* (Singer) Singer (Singer, 1945; Vassilkov, 1956a).

*Gymnopus alpicola* (Bon & Ballarà) Esteve-Rav., V. González, Arenal & E. Horak (Gorbunova, 2019).

*Hemimycena depauperata* Singer (Singer, 1943).

*Hemimycena pseudoconidiophora* Singer (Singer, 1938c; Singer, 1943).

*Humidicutis czuica* (Singer) Singer (Singer, 1943).

- Infundibulicybe altaica* (Singer) Harmaja (Singer, 1943; Harmaja, 1969).  
*Inocybe castanea* Peck (Gorbunova, 2019).  
*Inocybe griseoscabrosa* (Peck) Earle (Gorbunova, 2019).  
*Laccaria striatula* (Peck) Peck (Singer, 1943).  
*Lepiota amyloidea* Singer (Singer, 1943).  
*Lepiota farinolens* Bon & G. Rioussset (Gorbunova, 2020).  
*Marasmiellus epibryus* (Singer) Singer (Singer, 1943).  
*Marasmius minutissimus* Peck (Singer, 1943).  
*Marasmius sibiricus* Singer (Singer, 1943).  
*Mycena chrysocorypha* Singer (Singer, 1938c; Singer, 1943).  
*Mycena drepanocladi* (Singer) Singer (Singer, 1943).  
*Mycena herbarum* Singer (Singer, 1943).  
*Mycena jacobii* Maire (Singer, 1943).  
*Mycena kuehneri* Singer (Singer, 1943).  
*Mycena murina* (Murrill) Murrill (Singer, 1943).  
*Mycena subinamyloidea* Singer (Singer, 1943).  
*Mycena sudorella* Singer (Singer, 1943).  
*Mycena vasilievae* Singer (Singer, 1943).  
*Pholiotina altaica* Singer (Singer, 1945; Singer, 1950a; Singer, 1950b; Hausknecht, Kalamees, Knudsen, and Mukhin, 2009; Malysheva, 2018).  
*Pholiotina procera* Singer (Singer, 1945; Singer, 1950a; Singer, 1950b; Hausknecht, Kalamees, Knudsen, and Mukhin, 2009; Malysheva, 2018).  
*Pseudobaeospora oligophylla* (Singer) Singer (Singer, 1938c).  
*Russula melzeriana* (Singer) Reumaux & Frund (Singer, 1938a).  
*Russula pyrenaica* J. Blum ex Singer (Singer, 1938a).  
*Squamanita paradoxa* (A.H. Sm. & Singer) Bas (Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990).  
*Suillus aurihymenius* X.F. Shi & P.G. Liu (Bolshakov et al., 2020).  
*Suillus cembrae* (Singer) Singer (Singer, 1938d).  
*Tricholoma altaicum* Singer (Singer, 1943).  
*Tricholoma fusisporum* Singer (Singer, 1943).  
*Tricholoma odorum* Peck (Gorbunova, 2019).  
*Xeromphalina mesopora* Singer (Singer, 1938c).

#### **Buryatia:**

- Cortinarius aureifolius* Peck (Nezdojminogo, 1970a; Petrov, 1991).  
*Cortinarius balteatotomentosus* Rob. Henry (Petrov, 1991).  
*Cortinarius mussivus* (Fr.) Melot (Petrov, 1991).  
*Entoloma sericeonitens* (P.D. Orton) Noordel. (Petrov, 1991).  
*Galerina pseudotundrae* Kühner (Nezdojminogo, 1996).  
*Inocybe alpigenes* (E. Horak) Bon (Nezdojminogo and Petrov, 1999).  
*Inocybe monochroa* J. Favre (Nezdojminogo and Petrov, 1999).  
*Inocybe rupestris* J. Favre (Nezdojminogo and Petrov, 1999).  
*Mycena calochroa* Nezdojm. (Nezdojminogo, 1970b; Nezdojminogo, 1973).  
*Pholiota veris* A.H. Sm. & Hesler (Nezdojminogo, 1973; Petrov, 1991).

#### **Irkutsk Oblast:**

- Amanita pantherinoides* (Murrill) Murrill (Petrov, 1986; Petrov, 1991; Muzyka, 2002; Bardunov et al., 2005; Petrov, 2008; Trofimova, Popov, and Merkacheva, 2020).  
*Amanita praelongispora* (Murrill) Murrill (Petrov, 1986).  
*Cortinarius aureofulvus* M.M. Moser (Astapenko, 1990b; Nezdojminogo, 1996).  
*Cortinarius purpureoluteus* Lamoure (Petrov, 1991; Nezdojminogo, 1996; Petrov, 2008).  
*Cortinarius rufoallutus* Rob. Henry ex Bidaud & Reumaux (Petrov, Nezdojminogo, and Bulakh, 1987; Petrov, 1991; Petrov, 2008).  
*Inocybe tarda* Kühner (Kutafjeva and Astapenko, 1988).  
*Leccinum leucopodium* (Pers.) Dörfelt & G. Berg (Heklau and Dörfelt, 2017).

*Lentinellus pilatii* Herink (Petrov, 1991; Petrov, 2008).

*Pleuroflammula flammea* (Murrill) Singer (Petrov, 1986; Petrov, 1989; Petrov, 1991; Gaykova and Popov, 2010; Trofimova, Popov, and Merkacheva, 2020).

*Psathyrella phegophila* Romagn. (Gorbunova and Stepantsova, 2015).

*Romagnesiella clavus* (Romagn.) Contu, Matheny, P.-A. Moreau, Vizzini & A. de Haan (Petrov, 1991; Nezdjominogo, 1996).

#### **Khakassia:**

*Clitocybe lituus* (Fr.) Métrod (Zauzolkova and Gorbunova, 2013; Zauzolkova, 2015).

*Conocybe tetrasporoides* Hauskn. (Gorbunova and Majnagasheva, 2013).

*Cortinarius barbatus* (Batsch) Melot (Zauzolkova, 2015; Zauzolkova and Gorbunova, 2016).

*Cortinarius odhinnii* Melot (Zauzolkova, 2015; Zauzolkova and Gorbunova, 2016).

*Cortinarius pini* Brandrud (Zauzolkova and Gorbunova, 2013; Zauzolkova, 2015).

*Cortinarius turmalis* Fr. (Zauzolkova and Gorbunova, 2013; Zauzolkova, 2015).

*Cystoderma simulatum* P.D. Orton (Zauzolkova and Gorbunova, 2013; Zauzolkova, 2015).

*Hebeloma aestivale* Vesterh. (Zauzolkova, 2015; Zauzolkova and Gorbunova, 2016).

*Inocybe moelleri* Eyssart. & A. Delannoy (Zauzolkova and Gorbunova, 2013; Zauzolkova, 2015).

*Leucopaxillus compactus* (P. Karst.) Neuhoff (Zauzolkova and Gorbunova, 2013; Zauzolkova, 2015).

*Panaeolus cinctulus* (Bolton) Sacc. (Gorbunova and Majnagasheva, 2013).

*Psathyrella flexispora* T.J. Wallace & P.D. Orton (Gorbunova and Majnagasheva, 2013).

*Russula crassotunicata* Singer (Zauzolkova and Gorbunova, 2013; Zauzolkova, 2015).

#### **Khanty-Mansi Autonomous Okrug:**

*Amanita islandica* Melot (Filippova, Bulyonkova, and Lapshina, 2015).

*Clitocybe diosma* Einhell. (Filippova and Bulyonkova, 2017a; Filippova and Bulyonkova, 2017b).

*Clitocybe fennica* Harmaja (Zvyagina and Baykalova, 2017).

*Clitocybe globispora* Harmaja (Filippova and Bulyonkova, 2017a; Filippova and Bulyonkova, 2017b).

*Cortinarius aurantiomarginatus* Jul. Schäff. ex M.M. Moser (Filippova and Bulyonkova, 2017a; Filippova and Bulyonkova, 2017b).

*Cortinarius cicindela* Kytöv., Niskanen & Liimat. (Filippova and Bulyonkova, 2017a; Filippova and Bulyonkova, 2017b).

*Cortinarius craticius* Fr. (Filippova and Bulyonkova, 2017a; Filippova and Bulyonkova, 2017b).

*Cortinarius fusisporus* Kühner (Filippova and Bulyonkova, 2017a; Filippova and Bulyonkova, 2017b).

*Cortinarius solis-occasus* Melot (Filippova, Bulyonkova, and Lapshina, 2015).

*Crepidotus versutus* Peck (Filippova, Bulyonkova, and Lapshina, 2015).

*Entoloma allospermum* Noordel. (Filippova and Bulyonkova, 2017a; Filippova and Bulyonkova, 2017b).

*Entoloma fuscomarginatum* P.D. Orton (Vasin and Vasina, 2013; Filippova and Thormann, 2014; Filippova, 2014; Filippova, Mourgues, and Philippe, 2014; Zvyagina and Baykalova, 2017).

*Entoloma philocistus* Hauskn. & Noordel. (Zvyagina and Baykalova, 2017).

*Flammulina elastica* (Sacc.) Redhead & R.H. Petersen (Filippova and Bulyonkova, 2017a; Filippova and Bulyonkova, 2017b).

*Galerina cephalotricha* Kühner (Zvyagina and Baykalova, 2012; Filippova and Bulyonkova, 2017a; Filippova and Bulyonkova, 2017b).

*Galerina uncialis* (Britzelm.) Kühner (Zvyagina, 2008).

*Gamundia hygrocycoides* (Lonati) Bon (Filippova and Bulyonkova, 2017a; Filippova and Bulyonkova, 2017b).

*Gymnopus inodorus* (Pat.) Antonín & Noordel. (Filippova and Bulyonkova, 2017a; Filippova and Bulyonkova, 2017b).

*Inocybe subnudipes* Kühner (Filippova and Bulyonkova, 2017a; Filippova and Bulyonkova, 2017b).

*Inocybe urceolycystis* Stangl & Vauras (Filippova and Bulyonkova, 2017a; Filippova and Bulyonkova, 2017b).

*Kauffmania larga* (Kauffman) Örstadius & E. Larss. (Filippova and Bulyonkova, 2017a; Filippova and Bulyonkova, 2017b).

*Lactarius auriolla* Kytöv. (Filippova and Bulyonkova, 2017a; Filippova and Bulyonkova, 2017b).

*Lactarius leonis* Kytöv. (Filippova and Bulyonkova, 2017a; Filippova and Bulyonkova, 2017b).

*Melanoleuca microcephala* (P. Karst.) Singer (Zvyagina and Baykalova, 2017).

*Mycena fragillima* A.H. Sm. (Filippova and Bulyonkova, 2017a; Filippova and Bulyonkova, 2017b).

*Mycena tristis* Maas Geest. (Filippova and Bulyonkova, 2017a; Filippova and Bulyonkova, 2017b).  
*Notholepista subzonalis* (Peck) Vizzini & Contu (Zvyagina and Baykalova, 2017).  
*Rhodocollybia giselae* Neville & Antonín (Zvyagina and Baykalova, 2017).  
*Russula atroglauca* Einhell. (Filippova and Bulyonkova, 2017a; Filippova and Bulyonkova, 2017b).  
*Russula raoultii* Qué. (Filippova, Bulyonkova, and Lapshina, 2015).  
*Russula rivulicola* Ruots. & Vauras (Filippova and Bulyonkova, 2017a; Filippova and Bulyonkova, 2017b).  
*Russula sapinea* Sarnari (Filippova and Bulyonkova, 2017a; Filippova and Bulyonkova, 2017b).  
*Suillus lakei* (Murrill) A.H. Sm. & Thiers (Zvyagina, Baykalova, and Gorbunova, 2007).  
*Tricholoma bryogenum* Mort. Chr., Heilm.-Claus. & Vauras (Zvyagina and Baykalova, 2017).  
*Tricholoma olivaceotinctum* Heilm.-Claus. & Mort. Chr. (Filippova, Bulyonkova, and Lapshina, 2015; Zvyagina and Baykalova, 2017).  
*Tricholoma viridilutescens* M.M. Moser (Filippova, Bulyonkova, and Lapshina, 2015; Filippova and Bulyonkova, 2017a; Filippova and Bulyonkova, 2017b).

### **Krasnoyarsk Krai:**

*Agaricus fuscofibrillosus* (F.H. Møller) Pilát (Beglyanova, 1972a; Wasser, 1980).  
*Amanita novinupta* Tulloss & J. Lindgr. (Krom and Kapitonov, 2019).  
*Conocybe incerta* E.F. Malysheva (Malysheva, 2017; Malysheva, Malysheva, Kiyashko, et al., 2017; Malysheva, 2018).  
*Coprinopsis echinospora* (Buller) Redhead, Vilgalys & Moncalvo (Zauzolkova, 2015; Zauzolkova and Gorbunova, 2016).  
*Cortinarius cupreorufus* Brandrud (Krom and Kapitonov, 2019).  
*Cortinarius galerinoides* Lamoure (Nezdojminogo, 1997a).  
*Cortinarius gausapatius* J. Favre (Karatygin, Nezdojminogo, Novozhilov, and Zhurbenko, 1999).  
*Cortinarius glaphurus* Chevassut & Rob. Henry (Krom and Kapitonov, 2019).  
*Cortinarius niveoglobosus* H. Lindstr. (Krom and Kapitonov, 2019).  
*Cortinarius subscaurus* (M.M. Moser) M.M. Moser (Nezdojminogo, 1976a; Nezdojminogo, 1976b; Nezdojminogo, 1996).  
*Cortinarius tenebricus* J. Favre (Nezdojminogo, 1993a; Nezdojminogo and Zhurbenko, 1996; Nezdojminogo, 1997a; Karatygin, Nezdojminogo, Novozhilov, and Zhurbenko, 1999).  
*Cystoderma intermedium* Harmaja (Krom and Kapitonov, 2019).  
*Cystolepiota pusilla* Nezdojm. (Nezdojminogo, 1981; Nezdojminogo, 1982a).  
*Entoloma borgenii* Noordel. (Nezdojminogo and Zhurbenko, 1996; Nezdojminogo, 1997a; Karatygin, Nezdojminogo, Novozhilov, and Zhurbenko, 1999).  
*Entoloma saussetiense* Eyssart. & Noordel. (Krom and Kapitonov, 2019).  
*Flammulina populicola* Redhead & R.H. Petersen (Krom and Kapitonov, 2019).  
*Galerina praticola* (F.H. Møller) P.D. Orton (Beglyanova, 1972a).  
*Galerina similis* Kühner (Zauzolkova, 2015; Zauzolkova and Gorbunova, 2016).  
*Hebeloma minus* Bruchet (Nezdojminogo, 1994; Karatygin, Nezdojminogo, Novozhilov, and Zhurbenko, 1999).  
*Hebeloma theobrominum* Quadr. (Krom and Kapitonov, 2019).  
*Hemimycena ochrogaleata* (J. Favre) M.M. Moser (Gorbunova, 2016).  
*Homophron camptopodum* (Sacc.) Örstadius & E. Larss. (Krom and Kapitonov, 2019).  
*Inocybe favrei* Bon (Nezdojminogo, 2003; Gorbunova, 2016).  
*Inocybe hypophaea* Furrer-Ziogas (Beglyanova, 1972a).  
*Inocybe luteipes* J. Favre (Vassilkov, 1971b; Nezdojminogo, 1993b; Karatygin, Nezdojminogo, Novozhilov, and Zhurbenko, 1999).  
*Inocybe squarrosa* Rea (Karatygin, Nezdojminogo, Novozhilov, and Zhurbenko, 1999).  
*Lactarius kauffmanii* Hesler & A.H. Sm. (Krom and Kapitonov, 2019; Krom, Ageev, Bulyonkova, and Morozova, 2019).  
*Lepiota psalion* Huijser & Vellinga (Malysheva, Malysheva, Kiyashko, et al., 2017).  
*Lyophyllum capniocephalum* (Bull.) Kühner (Kutafjeva and Polenok, 2005).  
*Mallocybe fulvipes* (Kühner) Matheny & Esteve-Rav. (Gorbunova, 2016).  
*Mallocybe substraminipes* (Kühner) Matheny & Esteve-Rav. (Malysheva, Malysheva, Kiyashko, et al., 2017).  
*Mycena pseudoinclinata* A.H. Sm. (Malysheva, Malysheva, Kiyashko, et al., 2017).  
*Mycena sepia* J.E. Lange (Beglyanova, 1972c).

- Phloeomana clavata* (Peck) Redhead (Gorbunova, 2016).  
*Pholiota aurivelloides* Overh. (Malysheva, Malysheva, Kiyashko, et al., 2017).  
*Pholiota brunnescens* A.H. Sm. & Hesler (Kryuchkova, Agafonova, Kutafjeva, and Andreeva, 2013).  
*Pholiotina longistipitata* E.F. Malysheva & Kiyashko (Crous et al., 2017; Malysheva, Malysheva, Kiyashko, et al., 2017; Malysheva, 2018).  
*Pluteus rugosidiscus* Murrill (Malysheva, Malysheva, and Justo, 2016; Malysheva, Malysheva, Kiyashko, et al., 2017).  
*Psilocybe semistriata* (Peck) Guzmán (Nezdojminogo and Kuvaev, 1993; Nezdojminogo, 1994; Nezdojminogo and Zhurbenko, 1996; Nezdojminogo, 1997a; Karatygin, Nezdojminogo, Novozhilov, and Zhurbenko, 1999).  
*Rhodocollybia badiialba* (Murrill) Lennox (Krom and Kapitonov, 2019).  
*Ripartites albidoincarnatus* (Britzelm.) Konrad & Maubl. (Beglyanova, 1972b).  
*Russula felleicolor* Bon & Jamoni (Gorbunova, 2016).  
*Saproamanita nana* (Singer) Redhead, Vizzini, Drehmel & Contu (Kutafjeva, Agafonova, and Kryuchkova, 2010).  
*Suillus neoalbidipes* M.E. Palm & E.L. Stewart (Zauzolkova, 2015; Zauzolkova and Gorbunova, 2016).  
*Tephroclype fusispora* (Hora) M.M. Moser (Vassilkov, 1971b; Beglyanova, 1972a).  
*Tricholoma roseoacervum* A. Riva (Malysheva, Malysheva, Kiyashko, et al., 2017).  
*Volvoluteus michiganensis* (A.H. Sm.) Justo & Minnis (Krom and Kapitonov, 2019; Krom, Ageev, Bulyonkova, and Morozova, 2019).

#### **Novosibirsk Oblast:**

- Clitopilus geminus* (Paulet) Noordel. & Co-David (Koropachinskiy and Banaev, 2014).  
*Coprinellus callinus* (M. Lange & A.H. Sm.) Vilgalys, Hopple & Jacq. Johnson (Koropachinskiy and Banaev, 2014).  
*Coprinopsis episcopalis* (P.D. Orton) Redhead, Vilgalys & Moncalvo (Koropachinskiy and Banaev, 2014).  
*Cortinarius barbarorum* Bidaud, Moëgne-Locc. & Reumaux (Glupov and Shaulo, 2018).  
*Cortinarius paracephalixus* Bohus (Koropachinskiy and Banaev, 2014).  
*Cortinarius variiformis* Malençon (Koropachinskiy and Banaev, 2014).  
*Entoloma lanicum* (Romagn.) Noordel. (Perova and Gorbunova, 2001; Perova and Gorbunova, 2007).  
*Paxillus vernalis* Watling (Koropachinskiy and Banaev, 2014).  
*Pluteus hibbettii* Justo, E.F. Malysheva & Bulyonk. (Justo et al., 2014).  
*Rhodophana stangliana* (Bresinsky & Pfaff) Vizzini (Koropachinskiy and Banaev, 2014).

#### **Sakha Republic:**

- Clitocybe karsteniana* Lebedeva (Lebedjeva, 1924).  
*Conocybe graminis* Hauskn. (Hausknecht, Kalamees, Knudsen, and Mukhin, 2009; Malysheva, 2018).  
*Conocybe leporina* (Velen.) Singer (Hausknecht, Kalamees, Knudsen, and Mukhin, 2009; Malysheva, 2018).  
*Cortinarius armenicorius* Soop & Brandrud (Brandrud et al., 2014).  
*Cortinarius pallidirimosus* Kytöv., Liimat. & Niskanen (Liimatainen et al., 2014).  
*Cortinarius rusticellus* J. Favre (Karatygin, Nezdojminogo, Novozhilov, and Zhurbenko, 1999; Nezdojminogo, 2003).  
*Cortinarius scotoides* J. Favre (Nezdojminogo, 2003).  
*Cortinarius subtilior* J. Favre (Nezdojminogo, 1993a; Karatygin, Nezdojminogo, Novozhilov, and Zhurbenko, 1999).  
*Cortinarius vitiosus* (M.M. Moser) Niskanen, Kytöv., Liimat. & S. Laine (Niskanen, Liimatainen, Ammirati, and Hughes, 2013).  
*Gomphidium borealis* O.K. Mill., Aime & Peintner (Miller Jr., Aime, Camacho, and Peintner, 2002).  
*Inocybe rufuloides* Bon (Nezdojminogo, 2003).  
*Inosperma geraniodorum* (J. Favre) Matheny & Esteve-Rav. (Nezdojminogo, 2003).  
*Lepista pseudoectypa* (M. Lange) Gulden (Nezdojminogo, 1997a; Karatygin, Nezdojminogo, Novozhilov, and Zhurbenko, 1999).  
*Mallocybe gymnocarpa* (Kühner) Matheny & Esteve-Rav. (Nezdojminogo, 2003).  
*Mallocybe squamosoannulata* (J. Favre) Matheny & Esteve-Rav. (Nezdojminogo, 2003).  
*Mallocybe umbrinofusca* (Kühner) Matheny & Esteve-Rav. (Nezdojminogo, 2003).  
*Omphalina rivulicola* (J. Favre) Lamoure (Karatygin, Nezdojminogo, Novozhilov, and Zhurbenko, 1999; Nezdojminogo, 2003).



**Tomsk Oblast:**

- Calocybe graveolens* (Pers.) Singer (Kudashova, Gashkov, and Vaishlya, 2016a).  
*Chlorophyllum abruptibulbum* (R. Heim) Vellinga (Kudashova, Gashkov, and Kutafjeva, 2013; Kudashova, Gashkov, and Vaishlya, 2016b).  
*Cortinarius ferrugineovelatus* Kytöv., Liimat. & Niskanen (Vaishlya et al., 2017).  
*Cortinarius hercynicus* (Pers.) M.M. Moser (Kudashova, Gashkov, and Vaishlya, 2016a; Kudashova, Gashkov, and Vaishlya, 2016b; Vaishlya et al., 2017).  
*Cortinarius olidus* J.E. Lange (Perova, 1972; Kudashova, Gashkov, and Kutafjeva, 2013).  
*Entoloma proterum* Noordel. & Wölfel (Vaishlya et al., 2017).  
*Fayodia bisphaerigerella* (M. Lange) M. Lange & Sivertsen (Kudashova, Gashkov, and Vaishlya, 2016a).  
*Gymnopus contrarius* (Peck) Halling (Kudashova, Gashkov, and Vaishlya, 2016a).  
*Lactarius subindigo* Verbeke & E. Horak (Vaishlya et al., 2017).  
*Lentinus sibiricus* Pilát (Pilát, 1935).  
*Lepiota micropholis* (Berk. & Broome) Sacc. (Kudashova, Gashkov, and Vaishlya, 2016a).  
*Lepista fasciculata* Harmaja (Kudashova, Gashkov, and Kutafjeva, 2013).  
*Lyophyllum caeruleescens* Cléménçon ex Kibby (Kudashova, Gashkov, and Kutafjeva, 2013; Kudashova, Gashkov, and Vaishlya, 2016b).  
*Marasmiellus pseudogracilis* (Kühner & Maire) Singer (Perova, 1972; Perova and Gorbunova, 2001; Kudashova, Gashkov, and Kutafjeva, 2013).  
*Melanoleuca kavinae* (Pilát & Veselý) Singer (Agaphonova, Kutafjeva, and Gashkov, 2007; Agaphonova, Kutafjeva, and Gashkov, 2009b; Kudashova, Gashkov, and Kutafjeva, 2013; Kudashova, Gashkov, and Vaishlya, 2016b).  
*Pholiota kodiakensis* A.H. Sm. & Hesler (Kryuchkova, Agafonova, Kutafjeva, and Andreeva, 2013; Kudashova, Gashkov, and Kutafjeva, 2013; Kudashova, Gashkov, and Vaishlya, 2016b).  
*Pholiota stratosa* A.H. Sm. & Hesler (Kudashova, Gashkov, and Kutafjeva, 2013; Kudashova, Gashkov, and Vaishlya, 2016b).  
*Pholiota terrestris* Overh. (Kudashova, Gashkov, and Vaishlya, 2016a; Kudashova, Gashkov, and Vaishlya, 2016b).  
*Porpoloma elytroides* (Scop.) Singer (Perova, 1972; Kudashova, Gashkov, and Kutafjeva, 2013).  
*Russula brevipes* Peck (Kudashova, Gashkov, and Kutafjeva, 2013; Kudashova, Gashkov, and Vaishlya, 2016b; Vaishlya et al., 2017).  
*Suillus abietinus* Pantidou & Watling (Kudashova, Gashkov, and Kutafjeva, 2013).  
*Suillus brunnescens* A.H. Sm. & Thiers (Kudashova, Gashkov, and Kutafjeva, 2013; Vaishlya et al., 2017).  
*Tephrocybe fuscipes* P.D. Orton (Kudashova, Gashkov, and Kutafjeva, 2013).  
*Xerula pseudoradicata* (M.M. Moser) Contu (Agaphonova, Kutafjeva, and Gashkov, 2007; Agaphonova, Kutafjeva, and Gashkov, 2009b; Kudashova, Gashkov, and Kutafjeva, 2013).

**Tyumen Oblast:**

- Crepidotus tobolensis* Kapitonov, Biketova & Zmitr. (Crous, Carnegie, et al., 2019).  
*Volvariella paludosa* Kapitonov & E.F. Malysheva (Crous et al., 2020).

**Tyva Republic:**

- Russula alpigenes* (Bon) Bon (Gorbunova, 2015).

## FAR EAST

**Amur Oblast:**

- Austroboletus tristis* (Pat. & C.F. Baker) Wolfe (Tomilin, 1962).  
*Pholiota rigidipes* Peck (Pilát, 1934).  
*Pholiotina vestita* (Fr.) Singer (Azbukina et al., 1998).

**Chukotka Autonomous Okrug:**

- Clitocybe festivoides* Lamoure (Karatygin, Nezdoyminogo, Novozhilov, and Zhurbenko, 1999).  
*Cortinarius inops* J. Favre (Karatygin, Nezdoyminogo, Novozhilov, and Zhurbenko, 1999).  
*Cortinarius stenospermus* Lamoure (Karatygin, Nezdoyminogo, Novozhilov, and Zhurbenko, 1999).  
*Mallochybe peronata* (J. Favre) Matheny & Esteve-Rav. (Nezdoyminogo, 1993b; Nezdoyminogo, 1997a; Karatygin, Nezdoyminogo, Novozhilov, and Zhurbenko, 1999).

**Jewish Autonomous Oblast:**

*Panellus pusillus* (Pers. ex Lév.) Burds. & O.K. Mill. (Bulakh, Govorova, Nazarova, and Vassiljeva, 2007).

*Resinomycena japonica* Redhead & Nagas. (Bau, Bulakh, Zhuang, and Li, 2007; Bau, Bulakh, and Govorova, 2011).

*Tephroclybe mephitica* (Fr.) M.M. Moser (Bulakh, Govorova, Nazarova, and Vassiljeva, 2007; Bau, Bulakh, and Govorova, 2011).

**Kamchatka Krai:**

*Cortinarius americanus* A.H. Sm. (Moser, 2001).

*Inosperma fastigiellum* (G.F. Atk.) Matheny & Esteve-Rav. (Peintner and Horak, 2002).

*Marasmiellus boreoorientalis* Kiyashko (Haelewaters et al., 2020).

*Pseudosperma xanthocephalum* (P.D. Orton) Matheny & Esteve-Rav. (Peintner and Horak, 2002).

**Khabarovsk Krai:**

*Agaricus brunneolus* (J.E. Lange) Pilát (Azbukina et al., 1986).

*Conocybe magnispora* (Murrill) Singer (Hausknecht, Kalamees, Knudsen, and Mukhin, 2009; Malysheva, 2018).

*Conocybe pinetorum* Watling, Esteve-Rav. & G. Moreno (Malysheva, 2018).

*Cortinarius livor* Fr. (Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; Bau, Bulakh, and Govorova, 2011).

*Cortinarius violascens* A. Blytt (Azbukina et al., 1986).

*Crepidotus albissimus* Murrill (Azbukina et al., 1986).

*Crepidotus parvulus* Murrill (Azbukina et al., 1986).

*Cymatellopsis ilmiana* Parmasto (Parmasto, 1984).

*Cystolepiota pseudogranulosa* (Berk. & Broome) Pegler (Bau, Bulakh, Zhuang, and Li, 2007; Bau, Bulakh, and Govorova, 2011).

*Entoloma atrum* (Hongo) Hongo (Bau, Bulakh, and Govorova, 2011).

*Entoloma sarcopus* Nagas. & Hongo (Bau, Bulakh, Zhuang, and Li, 2007; Bau, Bulakh, and Govorova, 2011).

*Gloiocephala menieri* (Boud.) Singer (Azbukina et al., 1986; Bau, Bulakh, and Govorova, 2011).

*Mycena subcucullata* A.H. Sm. (Azbukina et al., 1986).

*Pholiota langei* Singer (Singer, 1945).

*Pleurotus phellodendri* (Singer) Singer (Singer, 1943).

**Magadan Oblast:**

*Boletinus grisellus* Peck (Vassilkov, 1952a; Sazanova, 2005; Sazanova, 2009a).

*Crepidotus occidentalis* Hesler & A.H. Sm. (Sazanova, 2009a; Sazanova, 2009b; Sazanova, 2011).

*Entoloma caliginosum* (Romagn. & J. Favre) Bon & Courtec. (Sazanova, 2009a).

*Entoloma minimum* (Velen.) Noordel. (Sazanova and Golodnova, 2015; Sazanova, 2015).

*Hydropus paradoxus* M.M. Moser (Sazanova, 2009a; Sazanova, 2009b; Sazanova, 2011).

*Mycena monticola* A.H. Sm. (Nazarova, 1976; Sazanova, 2005; Sazanova, 2009a).

*Suillus albidipes* (Peck) Singer (Vassilkov, 1971a; Sazanova, 2005; Sazanova, 2009a).

*Suillus subaureus* (Peck) Snell (Vassilkov, 1971a; Sazanova, 2005; Sazanova, 2009a).

**Primorsky Krai:**

*Agaricus subrutilescens* (Kauffman) Hotson & D.E. Stuntz (Bulakh et al., 2016).

*Amanita agglutinata* (Berk. & M.A. Curtis) Lloyd (Vassiljeva, 1972; Vassiljeva, 1973; Bunkina and Nazarova, 1978; Azbukina et al., 2006).

*Amanita cokeri* E.-J. Gilbert & Kühner ex E.-J. Gilbert (Bogacheva et al., 2018).

*Amanita cothurnata* G.F. Atk. (Bunkina and Nazarova, 1978; Azbukina et al., 2006; Bau, Bulakh, and Govorova, 2011; Bulakh et al., 2016).

*Amanita farinosa* Schwein. (Malysheva, Kiyashko, and Kovalenko, 2014).

*Amanita longistriata* S. Imai (Malysheva, Kiyashko, and Kovalenko, 2014; Bulakh et al., 2016).

*Amanita pallidorosea* P. Zhang & Zhu L. Yang (Malysheva, Kiyashko, and Kovalenko, 2014; Bulakh et al., 2016).

*Amanita pulchella* S. Imai (Bulakh et al., 2016).

*Amanita sichotensis* E.F. Malysheva & Kovalenko (Malysheva and Kovalenko, 2015; Bulakh et al., 2016).

*Amanita volvata* (Peck) Lloyd (Bogacheva, Bulakh, Bukharova, and Egorova, 2020).

*Austroboletus gracilis* (Peck) Wolfe (Vassiljeva, 1956; Vassiljeva, 1972; Vassiljeva, 1973; Bunkina and Nazarova, 1978; Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; Azbukina et al., 2006; Kozhevnikov, 2008; Bau, Bulakh, and Govorova, 2011).

*Austroboletus subflavidus* (Murrill) Wolfe (Vassiljeva, 1972; Vassiljeva, 1973; Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; Kozhevnikov, 2008).

*Baorangia alexandri* Svetash., Simonini & Vizzini (Crous, Wingfield, et al., 2018).

*Baorangia bicolor* (Kuntze) G. Wu, Halling & Zhu L. Yang (Bulakh et al., 2016; Bogacheva et al., 2018; Bogacheva, Bulakh, Bukharova, and Egorova, 2020).

*Bolbitius bisporus* E.F. Malysheva (Malysheva, Malysheva, and Svetasheva, 2015; Bulakh et al., 2016; Malysheva, 2018).

*Boletinellus merulioides* (Schwein.) Murrill (Vassiljeva, 1956; Vassiljeva, 1973).

*Boletus hiratsukae* Nagas. (Fedosova and Kovalenko, 2014).

*Boletus luridellus* (Murrill) Murrill (Vassiljeva, 1956; Vassiljeva, 1972; Vassiljeva, 1973).

*Boletus tomentososquamulosus* Lj.N. Vassiljeva (Vassiljeva, 1959; Vassiljeva, 1973; Bunkina and Nazarova, 1978; Azbukina et al., 2006; Bau, Bulakh, and Govorova, 2011).

*Boletus vassilkovii* M.M. Nazarova (Nazarova, 1967).

*Campanella boninensis* (S. Ito & S. Imai) Parmasto (Azbukina et al., 1984; Bau, Bulakh, and Govorova, 2011).

*Chiua virens* (W.F. Chiu) Y.C. Li & Zhu L. Yang (Bulakh, 2008; Bogacheva et al., 2018).

*Chlorophyllum molybdites* (G. Mey.) Masee (Wasser and Zakordonets, 1986; Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; Bulakh et al., 2016).

*Collybia velutinopunctata* Lj.N. Vassiljeva (Vassiljeva, 1973; Bunkina and Nazarova, 1978; Azbukina et al., 1990; Bardunov et al., 2002; Azbukina et al., 2006; Kozhevnikov, 2008; Bau, Bulakh, and Govorova, 2011).

*Conocybe alkovii* E.F. Malysheva (Malysheva, 2012; Malysheva, 2018).

*Conocybe coniferarum* E.F. Malysheva (Malysheva, 2017; Malysheva, 2018).

*Conocybe intrusa* (Peck) Singer (Bulakh, 2008; Malysheva, 2018).

*Conocybe mandshurica* E.F. Malysheva (Malysheva, 2012; Malysheva, 2018).

*Conocybe praticola* E.F. Malysheva (Malysheva, 2017; Malysheva, 2018).

*Conocybe rugispora* E.F. Malysheva (Malysheva, 2012; Malysheva, 2018).

*Conocybe villosella* E.F. Malysheva (Malysheva, 2012; Malysheva, 2018).

*Conocybe zeylanica* (Petch) Boedijn (Malysheva, 2018).

*Coprinopsis melanthina* (Fr.) Örstadius & E. Larss. (Bardunov et al., 2002; Azbukina et al., 2006; Bau, Bulakh, and Govorova, 2011).

*Coprinopsis phlyctidospora* (Romagn.) Redhead, Vilgalys & Moncalvo (Bulakh, 2008; Bau, Bulakh, and Govorova, 2011).

*Cortinarius aggregatus* Kauffman (Vassiljeva, 1973).

*Cortinarius boudieri* Rob. Henry (Azbukina et al., 1984; Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; Nezdojminogo, 1996; Bau, Bulakh, and Govorova, 2011).

*Cortinarius ferrugineogriseus* Peck (Vassiljeva, 1972; Vassiljeva, 1973).

*Cortinarius montanus* Kauffman (Vassiljeva, 1973).

*Cortinarius psammocephalus* (Bull.) Fr. (Vassiljeva, 1973).

*Crepidotus betulae* Murrill (Azbukina et al., 1984; Bau, Bulakh, and Govorova, 2011).

*Crepidotus citrinus* Petch (Bau, Bulakh, and Govorova, 2011).

*Crepidotus croceotinctus* Peck (Bau, Bulakh, and Govorova, 2011; Bogacheva et al., 2018).

*Crepidotus hygrophanus* Murrill (Bulakh, 1977; Azbukina et al., 1984; Azbukina et al., 2006).

*Crepidotus kauffmanii* Hesler & A.H. Sm. (Azbukina et al., 2006; Bau, Bulakh, and Govorova, 2011).

*Crepidotus latifolius* Peck (Azbukina et al., 2006; Bau, Bulakh, and Govorova, 2011).

*Crepidotus paxilloides* Singer (Vassiljeva, 1973; Bunkina and Nazarova, 1978).

*Crepidotus quitensis* Pat. (Vassiljeva, 1973; Bunkina and Nazarova, 1978).

*Crinipellis excentrica* (Pat. & Gaillard) Pat. ex Singer (Vassiljeva, 1972; Vassiljeva, 1973).

*Crinipellis setipes* (Peck) Singer (Vassiljeva, 1972; Vassiljeva, 1973; Nazarova, 1978; Bau, Bulakh, and Govorova, 2011).

*Cruentomyces kedrovayae* R.H. Petersen, Kovalenko & O.V. Morozova (Petersen et al., 2008).

*Cryptomarasmius aucubae* (Neda) T.S. Jenkinson & Desjardin (Kiyashko et al., 2014; Bulakh et al., 2016).

*Cuphophyllum flavipes* (Britzelm.) Bon (Kovalenko, 1989; Kovalenko, 1995).

*Cyptotrama asprata* (Berk.) Redhead & Ginns (Bulakh, 2008).

*Cystolepiota hetieriana* (Locq.) Bresinsky & H. Haas (Vassiljeva, 1973; Bunkina and Nazarova, 1978; Azbukina et al., 2006; Bau, Bulakh, and Govorova, 2011).

*Entoloma angustispermum* Noordel. & O.V. Morozova (Noordeloos and Morozova, 2010).

*Entoloma aranense* F. Caball. & Vila (Bulakh et al., 2016).

*Entoloma bulakhae* O.V. Morozova & Noordel. (Morozova, Noordeloos, Popov, and Alexandrova, 2018).

*Entoloma caesiellum* Noordel. & Wölfel (Noordeloos and Morozova, 2010).

*Entoloma ekaterinae* O.V. Morozova, Noordel., K. Nara, Dima & Brandrud (Crous, Carnegie, et al., 2019).

*Entoloma eugenei* Noordel. & O.V. Morozova (Noordeloos and Morozova, 2010; Morozova, Noordeloos, and Vila, 2014).

*Entoloma fuscogrisellum* (Peck) Blanco-Dios (Nazarova, 1978).

*Entoloma gomerense* Wölfel & Noordel. (Noordeloos and Morozova, 2010).

*Entoloma kedrovense* Noordel. & O.V. Morozova (Noordeloos and Morozova, 2010).

*Entoloma murrayi* (Berk. & M.A. Curtis) Sacc. & P. Syd. (Vassiljeva, 1972; Vassiljeva, 1973).

*Entoloma parasericellum* Corner & E. Horak (Noordeloos and Morozova, 2010).

*Entoloma parasiticum* (Quél.) Kreisel (Vassiljeva, 1973; Bunkina and Nazarova, 1978; Azbukina et al., 2006; Bau, Bulakh, and Govorova, 2011).

*Entoloma quadratum* (Berk. & M.A. Curtis) E. Horak (Kozhevnikov, 2008; Noordeloos and Morozova, 2010; Bau, Bulakh, and Govorova, 2011; Morozova, Noordeloos, and Vila, 2014; Bogacheva et al., 2018; Morozova, Noordeloos, Popov, and Alexandrova, 2018).

*Entoloma roseoflavum* Noordel. & O.V. Morozova (Noordeloos and Morozova, 2010).

*Entoloma salmoneum* (Peck) Sacc. (Vassiljeva, 1972; Vassiljeva, 1973).

*Entoloma stylophorum* (Berk. & Broome) Sacc. (Bulakh et al., 2016).

*Entoloma subcaesiellum* Noordel. & O.V. Morozova (Noordeloos and Morozova, 2010).

*Favolaschia pegleri* Parmasto (Parmasto, 1999).

*Gloiocephala caricis* (P. Karst.) Bas (Bulakh and Govorova, 2000).

*Gymnopilus aeruginosus* (Peck) Singer (Vassiljeva, 1973; Bunkina and Nazarova, 1978; Bau, Bulakh, Zhuang, and Li, 2007; Bau, Bulakh, and Govorova, 2011).

*Gymnopilus pulchrifolius* (Peck) Murrill (Bulakh, Wasser, Nazarova, and Nezdoinog, 1990; Bau, Bulakh, and Govorova, 2011).

*Hemimycena nivea* (Quél.) Singer (Naoumoff, 1914).

*Hydropus nigrita* (Berk. & M.A. Curtis) Singer (Azbukina et al., 1984).

*Hygrophorus testaceus* Lj.N. Vassiljeva (Vassiljeva, 1972; Vassiljeva, 1973; Kovalenko, 1989; Kovalenko, 1995).

*Hymenopellis rugosoceps* (G.F. Atk.) R.H. Petersen (Bardunov et al., 2002; Azbukina et al., 2006).

*Hymenopellis vinocontusa* (R.H. Petersen & Nagas.) R.H. Petersen (Petersen and Nagasawa, 2005; Bau, Bulakh, and Govorova, 2011; Bogacheva et al., 2018).

*Inocybe confusa* P. Karst. (Vassiljeva, 1973).

*Inocybe excoriata* Peck (Vassiljeva, 1973; Bunkina and Nazarova, 1978).

*Inocybe ochracea* Stangl (Azbukina et al., 1990).

*Inocybe pseudoumbrina* Stangl (Bulakh, Wasser, Nazarova, and Nezdoinog, 1990; Bulakh et al., 2016).

*Inocybe ravaensis* Kalamees & Shchukin (Azbukina et al., 1990; Bulakh, Wasser, Nazarova, and Nezdoinog, 1990).

*Inocybe subochracea* (Peck) Earle (Vassiljeva, 1973; Bulakh, 1977; Bunkina and Nazarova, 1978; Azbukina et al., 1984).

*Inocybe ventricosa* G.F. Atk. (Nezdoinog, 1996).

*Lactarius grandisporus* Lj.N. Vassiljeva (Vassiljeva, 1950; Vassiljeva, 1972; Vassiljeva, 1973; Bulakh, Wasser, Nazarova, and Nezdoinog, 1990; Azbukina et al., 2006; Kozhevnikov, 2008; Bau, Bulakh, and Govorova, 2011; Bogacheva et al., 2018; Bogacheva, Bulakh, Bukharova, and Egorova, 2020).

*Lactarius hygrophoroides* Berk. & M.A. Curtis (Vassiljeva, 1972; Vassiljeva, 1973; Bulakh, 1986; Bulakh, Wasser, Nazarova, and Nezdoinog, 1990; Kozhevnikov, 2008; Bogacheva et al., 2018).

*Lactarius luculentus* Burl. (Malysheva et al., 2016).

*Lactarius subplinthogalus* Coker (Bulakh, 1986; Bulakh, Wasser, Nazarova, and Nezdoinog, 1990; Bogacheva et al., 2018).

*Lactarius violaceomarginatus* Lj.N. Vassiljeva (Vassiljeva, 1950; Vassiljeva, 1972; Vassiljeva, 1973; Bunkina and Nazarova, 1978).

*Lactifluus luteolus* (Peck) Verbeken (Bulakh, 1986; Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; Kozhevnikov, 2008; Bogacheva et al., 2018).

*Lepiota apatelia* Vellinga & Huijser (Bulakh et al., 2016).

*Lepiota lepida* Guinb. & M. Bodin (Bulakh et al., 2016).

*Lepiota neophana* Morgan (Vassiljeva, 1973; Bunkina and Nazarova, 1978; Azbukina et al., 2006; Bau, Bulakh, and Govorova, 2011).

*Leucoagaricus coerulescens* (Peck) J.F. Liang, Zhu L. Yang & J. Xu (Bulakh et al., 2016).

*Leucoagaricus georginae* (W.G. Sm.) Candusso (Vassiljeva, 1972; Vassiljeva, 1973; Bunkina and Nazarova, 1978; Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; Azbukina et al., 2006; Bau, Bulakh, and Govorova, 2011).

*Leucoagaricus proximus* E.F. Malysheva, Svetash. & Bulakh (Malysheva, Svetasheva, and Bulakh, 2013).

*Leucoagaricus serenus* (Fr.) Bon & Boiffard (Vassiljeva, 1973; Bunkina and Nazarova, 1978; Wasser, 1980; Azbukina et al., 1990; Bardunov et al., 2002; Azbukina et al., 2006; Bau, Bulakh, and Govorova, 2011; Bulakh et al., 2016; Bogacheva, Bulakh, Bukharova, and Egorova, 2020).

*Leucoagaricus vassiljevae* E.F. Malysheva, Svetash. & Bulakh (Malysheva, Svetasheva, and Bulakh, 2013; Bulakh et al., 2016).

*Lyophyllum amygdaloporum* Kalamees (Kalamees, 2004).

*Lyophyllum pallidum* Cléménçon & A.H. Sm. (Kalamees, 2004).

*Lyophyllum sykosporum* Hongo & Cléménçon (Kalamees, 2004).

*Marasmius aurantioferrugineus* Hongo (Bulakh and Govorova, 2000; Kozhevnikov, 2008).

*Marasmius insolitus* Kiyashko & E.F. Malysheva (Kiyashko et al., 2014; Bogacheva, Bulakh, Bukharova, and Egorova, 2020).

*Marasmius macrocystidiosus* Kiyashko & E.F. Malysheva (Kiyashko et al., 2014; Bulakh et al., 2016; Bogacheva, Bulakh, Bukharova, and Egorova, 2020).

*Marasmius ochroleucus* Desjardin & E. Horak (Kiyashko et al., 2014).

*Megacollybia clitocyboidea* R.H. Petersen, Takehashi & Nagas. (Hughes et al., 2007).

*Mucidula brunneomarginata* (Lj.N. Vassiljeva) R.H. Petersen (Vassiljeva, 1950; Vassiljeva, 1972; Vassiljeva, 1973; Shalupugina, 1976; Bulakh, 1977; Bunkina and Nazarova, 1978; Azbukina et al., 1984; Azbukina et al., 1990; Bardunov et al., 2002; Azbukina et al., 2006; Kozhevnikov, 2008; Bau, Bulakh, and Govorova, 2011; Bulakh et al., 2016; Bogacheva, Bulakh, Bukharova, and Egorova, 2020).

*Mycena detrusa* Maas Geest. & E. Horak (Bulakh et al., 2016).

*Mycena dryopteriphila* Lj.N. Vassiljeva & M.M. Nazarova (Vassiljeva, 1972; Vassiljeva, 1973; Bulakh, 1977; Bunkina and Nazarova, 1978; Nazarova, 1978; Azbukina et al., 1984; Azbukina et al., 1990; Bardunov et al., 2002; Azbukina et al., 2006; Bau, Bulakh, and Govorova, 2011).

*Mycena egregia* Maas Geest. (Bulakh, 2007; Bau, Bulakh, and Govorova, 2011).

*Mycena lammiensis* Harmaja (Bulakh and Govorova, 2000).

*Mycena leaiana* (Berk.) Sacc. (Vassiljeva, 1973; Bunkina and Nazarova, 1978; Azbukina et al., 2006; Bau, Bulakh, and Govorova, 2011).

*Omphalotus guepiniiformis* (Berk.) Neda (Vassiljeva, 1973; Bunkina and Nazarova, 1978; Kovalenko and Nezdojminogo, 1989; Azbukina et al., 2006; Psurtseva, Kiyashko, Gachkova, and Belova, 2007; Bau, Bulakh, and Govorova, 2011).

*Omphalotus illudens* (Schwein.) Bresinsky & Besl (Bau, Bulakh, and Govorova, 2011).

*Panellus rupicola* (Masse) Singer (Vassiljeva, 1973; Bunkina and Nazarova, 1978; Azbukina et al., 2006; Bau, Bulakh, and Govorova, 2011).

*Phaeomarasmius rimulincola* (Rabenh.) Scherff. (Bulakh and Govorova, 2000).

*Phaeotellus roseolus* (Quél.) E. Horak (Bau, Bulakh, Zhuang, and Li, 2007).

*Pholiota fulvosquamosa* Peck (Vassiljeva, 1973; Azbukina et al., 1990; Psurtseva, Kiyashko, Gachkova, and Belova, 2007).

*Pholiotina utricystidiata* Enderle & H.-J. Hübner (Malysheva, 2018).

*Pleuroflammula subsulphurea* (A.H. Sm. & Hesler) E. Horak (Bau, Bulakh, and Govorova, 2011).

*Pluteus albotomentosus* E.F. Malysheva & Malysheva (Crous et al., 2014).

*Pluteus americanus* (P. Banerjee & Sundb.) Justo, E.F. Malysheva & Minnis (Justo et al., 2014).

*Pluteus eos* Justo & E.F. Malysheva (Justo et al., 2014).

*Pluteus extremiorientalis* E.F. Malysheva & Malysheva (Crous et al., 2014).

*Pluteus liliputianus* E.F. Malysheva & Malysheva (Crous, Wingfield, et al., 2019).

*Pluteus luteus* (Redhead & B. Liu) Redhead (Bau, Bulakh, Zhuang, and Li, 2007; Bau, Bulakh, and Govorova, 2011).

*Pluteus sepiicolor* E.F. Malysheva (Justo et al., 2014; Bulakh et al., 2016).

*Pluteus shikae* Justo & E.F. Malysheva (Justo et al., 2014; Bulakh et al., 2016).

*Pluteus spurius* E.F. Malysheva & Malysheva (Crous, Wingfield, et al., 2019).

*Ponticulomyces kedrovayae* R.H. Petersen (Ushijima, Nagasawa, Suhara, and Maekawa, 2012).

*Psathyrella alboalutacea* A.H. Sm. (Vassiljeva, 1973).

*Pseudobaeospora defibulata* Singer (Vassiljeva, 1973).

*Pseudosperma sororium* (Kauffman) Matheny & Esteve-Rav. (Malysheva et al., 2016).

*Pseudosperma umbrinellum* (Bres.) Matheny & Esteve-Rav. (Vassiljeva, 1973).

*Pseudosperma vinosistipitatum* (Grund & D.E. Stuntz) Matheny & Esteve-Rav. (Nezdojminogo, 1996).

*Pulveroboletus ravenelii* (Berk. & M.A. Curtis) Murrill (Vassiljeva, 1973; Kozhevnikov, 2008; Bulakh et al., 2016; Bogacheva et al., 2018; Bogacheva, Bulakh, Bukharova, and Egorova, 2020).

*Retiboletus griseus* (Frost) Manfr. Binder & Bresinsky (Bulakh, 2008; Bau, Bulakh, and Govorova, 2011; Bulakh et al., 2016; Bogacheva et al., 2018).

*Retiboletus ornatipes* (Peck) Manfr. Binder & Bresinsky (Bogacheva et al., 2018).

*Retiboletus retipes* (Berk. & M.A. Curtis) Manfr. Binder & Bresinsky (Vassiljeva, 1956; Vassiljeva, 1972; Vassiljeva, 1973; Kozhevnikov, 2008).

*Roridomyces lamprosporus* (Corner) Rexer (Bulakh, 2007; Bau, Bulakh, and Govorova, 2011; Bogacheva et al., 2018).

*Rugiboletus extremiorientalis* (Lj.N. Vassiljeva) G. Wu & Zhu L. Yang (Vassiljeva, 1950; Vassiljeva, 1956; Vassiljeva, 1972; Vassiljeva, 1973; Azbukina et al., 1990; Bardunov et al., 2002; Azbukina et al., 2006; Kozhevnikov, 2008; Bau, Bulakh, and Govorova, 2011; Gladkova and Sibirina, 2017; Bogacheva et al., 2018; Bogacheva, Bulakh, Bukharova, and Egorova, 2020).

*Russula bella* Hongo (Bulakh, 1989; Azbukina et al., 1990; Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990).

*Russula flavida* Frost ex Peck (Bulakh, 1989; Azbukina et al., 1990; Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; Bardunov et al., 2002; Kozhevnikov, 2008; Bogacheva et al., 2018).

*Russula floccosa* Lj.N. Vassiljeva (Vassiljeva, 1950; Vassiljeva, 1972; Vassiljeva, 1973).

*Russula heterospora* Beardslee (Azbukina et al., 1990; Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; Bardunov et al., 2002).

*Russula integriformis* Sarnari (Malysheva et al., 2016).

*Russula mariae* Peck (Bardunov et al., 2002; Bulakh et al., 2016; Bogacheva et al., 2018; Bogacheva, Bulakh, Bukharova, and Egorova, 2020).

*Russula polychroma* Singer ex Hora (Azbukina et al., 1984).

*Russula pulverulenta* Peck (Bulakh, 1987; Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; Kozhevnikov, 2008).

*Russula punctipes* Singer (Vassiljeva, 1973; Bunkina and Nazarova, 1978; Azbukina et al., 1990; Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; Bardunov et al., 2002; Azbukina et al., 2006; Bau, Bulakh, and Govorova, 2011).

*Russula vassilievae* Bulach (Bulakh, 1987; Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990).

*Russula ventricosipes* Peck (Bulakh, 1989; Bulakh, Wasser, Nazarova, and Nezdojminogo, 1990; Bulakh et al., 2016).

*Russula vinosobrunnea* (Bres.) Romagn. (Azbukina et al., 2006; Bau, Bulakh, and Govorova, 2011).

*Suillus tomentosus* Singer (Malysheva et al., 2014; Malysheva et al., 2016).

*Tetrapyrgos nigripes* (Fr.) E. Horak (Bulakh, 2003; Bau, Bulakh, and Govorova, 2011).

*Tricholosporum cossonianum* (Maire) P.-A. Moreau & Contu (Vassiljeva, 1973; Bunkina and Nazarova, 1978; Azbukina et al., 2006; Bau, Bulakh, and Govorova, 2011).

*Tricholosporum goniospermum* (Bres.) Guzmán ex T.J. Baroni (Vassiljeva, 1973; Bunkina and Nazarova, 1978; Azbukina et al., 2006; Bau, Bulakh, and Govorova, 2011).

*Tylopilus alboater* (Schwein.) Murrill (Bulakh, 2008; Bogacheva et al., 2018; Bogacheva, Bulakh, Bukharova, and Egorova, 2020).

*Tylopilus balloui* (Peck) Singer (Vassiljeva, 1956).

*Tylopilus peralbidus* (Snell & Beardslee) Murrill (Vassiljeva, 1956; Vassiljeva, 1972; Vassiljeva, 1973; Kozhevnikov, 2008).

*Tylopilus plumbeoviolaceus* (Snell & E.A. Dick) Snell & E.A. Dick (Vassiljeva, 1972; Vassiljeva, 1973; Kozhevnikov, 2008; Bogacheva et al., 2018).

*Tylopilus rubrobrunneus* Mazzer & A.H. Sm. (Bogacheva et al., 2018; Bogacheva, Bulakh, Bukharova, and Egorova, 2020).

*Tylopilus violatinctus* T.J. Baroni & Both (Bogacheva et al., 2018).

**Sakhalin Oblast:**

*Clitocybe subhirta* Peck (Singer, 1943).

*Entoloma babingtonii* (A. Bloxam) Hesler (Bulakh, Govorova, and Bogatov, 1999).

*Favolaschia sachalinensis* Parmasto ex Singer (Parmasto, 1974).

*Hygrophorus pacificus* A.H. Sm. & Hesler (Vassiljeva and Nazarova, 1972).

*Hymenopellis amygdaliformis* (Zhu L. Yang & M. Zang) R.H. Petersen (Petersen and Nagasawa, 2005; Bulakh, 2019).

*Hymenopellis japonica* (Dörfelt) R.H. Petersen (Bulakh, 2019).

*Inocybe maculipes* J. Favre (Kobayashi and Terashima, 2014).

*Inocybe taxocystis* (J. Favre & E. Horak) Senn-Irlet (Kobayashi and Terashima, 2014).

*Lyophyllum admissum* (Britzelm.) Consiglio & Contu (Vassiljeva and Nazarova, 1972).

*Marasmiellus alliiodorus* (Mont.) Singer (Bulakh, 2003).

*Mycena carolinensis* A.H. Sm. & Hesler (Bulakh, 2007).

*Tetrapyrgos subdendrophora* (Redhead) E. Horak (Bulakh, 2003).

## Appendix D. Study history of agaricoid and boletoid fungi in Russia

The history of agaricoid and boletoid study in Russia was reviewed on the base of all the papers used for the checklist preparation. In addition, we used a number of overviews, listed below: “The study of pileate fungi in the USSR” by Boris P. Vassilkov (1953) covering the history of pileate fungi research up to 1950, and containing a nearly complete bibliography of earlier works; a detailed synopsis of mycological research in Russia, including Siberia, by XVIII century German and Russian scholars, presented by Heike Heklau and Heinrich Dörfelt (2007); a historical overview of mycological research in Russia compiled by Arthur A. Jaczewski (1933); bibliographies of mycological research for specific territories and protected areas (Nukhimovskaya and Kovalenko, 2001; Mukhin, 2008); and a number of sources on the history of botanical and mycological studies (Levitskaya, 1995d; Morozova, 1999; Potapov, 2015c; Shiryayeva, 2015b; Volobuev and Bolshakov, 2016; Filippova et al., 2017b; Kurochkin and Medvedev, 2017; Bogacheva, 2018).

Research history can be tentatively divided into four periods — the preliminary, or non-scientific period; the early period, starting from the establishment of the Russian Academy of Sciences in 1724; the classical period, beginning with works of Johann A. Weinmann; and the modern period, beginning with the studies of Lidia A. Lebedeva on agaricoid fungi.

The *preliminary* period is characterized by accumulation of knowledge on economically important fungi (mostly edible ones). No scientific papers of this period exist, however, some information can be found in various manuscripts, monastery revenue books and income-expense registries, the “Domostroy” (the classical set of household rules and instructions popular in Russian society), several books dealing with medicinal and culinary properties of fungi and book by British doctor Samuel Collins who was a personal physician to Alexis I of Russia in 1656–1666 (Vassilkov, 1953).

The *early* period began when the Academy of Sciences was established (1724), and inventory studies were organized. Numerous expeditions of mostly foreign scholars to remote areas of Russia aimed to reveal their natural richness, including plants in the broadest sense. These studies resulted in several botanical checklists, including some data on fungi. Information on pileate fungi can be found in reports on the results of academic expeditions (Vassilkov, 1953; Heklau and Dörfelt, 2007, 2017):

- expedition to Constantinople and Southern Russia by Johann Christian Buxbaum (1724–1726);
- Great Northern Expedition (1733–1743) through Siberia to Kamchatka by Georg Wilhelm Steller and Stepan P. Krasheninnikov;
- transcontinental Academic expeditions across Russia (1768–1774) by Peter Simon Pallas, Johann Gottlieb Georgi, and Johan Peter Falk, as well as the expedition to Caucasus by Johann Anton Güldenstädt.

S. P. Krasheninnikov also reported the first data on pileate fungi of the Northwestern part of European Russia, later published by David de Gorter in 1761 (Vassilkov, 1953).

By the beginning of the XIX century, such expeditions mostly ceased, and scholars focused on local studies: Christian Friedrich Stephan, Heinrich von Martius, Carl Ludwig Goldbach — on the Moscow Oblast; Grigory F. Sobolevsky — on the vicinities of St. Petersburg (Northwestern part of European Russia); Alexey F. Fortunatov — on the Vologda Oblast (Bucholtz, 1897a; Jaczewski, 1933; Vassilkov, 1953).

In many cases, data on fungi were quite scarce and could be hardly interpreted due various reasons (such as use of vernacular names, polynomial names instead of binomials, short or absent comments, etc.). Therefore, localities mentioned in the publications of this period are hardly interpretable in terms of modern administrative regions, they are often quite inaccurate. Several of the works mentioned above were included in the first all-Russian synopsis of fungi by J. A. Weinmann (1836, see below). Thus, these works are mainly of historical interest, and we did not include data from such publications into the checklist.

The classical period began with works of Johann A. Weinmann, the “founding father” of the Russian mycology, as he was the first botanist to contribute substantially to mycological studies in the Russian Empire. He was the first Russian scholar to follow *Systema Mycologicum* proposed by Fries (1821–1832), the most reputable mycological resource of the time. Therefore, we are able to interpret the fungal names given in his papers with sufficient confidence. His first mycological studies were focused on new fungal species described from St. Petersburg (Weinmann, 1824, 1832, 1835), and on compiling the checklist of fungi found near St. Petersburg (Weinmann, 1828, 1837).

His fruitful work resulted in the publication of “Hymeno- et Gastero-Mycetes hucusque in imperio Rossico observatos” (1836), summarizing all known data on macromycetes of the Russian Empire. About 80 taxa of agaricoid fungi listed in his works were described as new to science by the author himself. Hence, the works of Weinmann represent the de facto beginning of mycological research in Russia.



Joseph-Henri L veill , who took part in Anatoly N. Demidov’s expedition to Southern Russia in 1837, conducted botanical studies in Crimea, and noted a number of fungi, too. He described one new agaricoid species (L veill , 1842).

During the Siberian expedition of 1843–1844 led by Dr. Alexander Th. von Middendorff, Ilja G. Borszczow revealed a number of agaricoid fungi on the Taymyr peninsula (Krasnoyarsk Krai) and the coast of the Sea of Okhotsk (Khabarovsk Krai), including several new species (Borszczow and Borszczow, 1856). In 1857, he described some new species from the vicinity of St. Petersburg (Borszczow, 1857). Also, he compiled unpublished summary “Mycologia Petropolitana”, representing a list of about 200 species described and illustrated (Jaczewski, 1933; Vassilkov, 1953).

In the second half of the XIX century due to the emergence and rapid development of plant pathology, fleshy fungi remained “opportunistic” study objects. Only a few sources on the diversity and geography of agaricoid fungi can be found among the publications by foreign and local researchers during this period. During the U.S. North Pacific Exploring Expedition (1853–1856) botanist Charles Wright visited what is now the Chukotka Autonomous Okrug close to the Bering Strait and Kamchatka, and James Small collected some material in the north of what is now the Khabarovsk Krai. Their collections were revised by Miles J. Berkley and Moses A. Curtis (Berkeley and Curtis, 1860, 1978; Parmasto, 1983).

Petter A. Karsten took part in a Finnish expedition to the western part of Kola Peninsula in 1861 (Sennikov and Kozhin, 2018); five years later the results were prepared for publication (Karsten, 1866). Later, he included the material in two other papers (Karsten, 1876, 1889). Furthermore, he published a review titled “Rysslands, Finlands och den Skandinaviska half ns Hattsvampar” (Karsten, 1879, 1882). Unfortunately, there are no references to Russian published sources and no precise localities indicated for the species revealed during this survey. This paper is essentially a follow-up work, summarizing all data on fungi of the Russian Empire and mostly based on Weinmann (1836).

Some scattered data on agaricoid fungi were provided by prominent Russian and foreign mycologists, whose research was aimed mostly at ontogenesis, taxonomy and plant pathology: Paul Hennings (1895) and Johannes Abromeit (1895) — for the Kaliningrad Oblast; Arthur A. Jaczewski (1893, 1895, 1896, 1898) — the Smolensk Oblast; Fedor V. Bucholtz (1897c, 1897a, 1897b) and K. K. Heyden (1899) — Moscow and the Moscow Oblast; Nikolai V. Sorokin (1872) — Tatarstan. Nikolay M. Martianoff actively collected fungi in the vicinity of the Minusinsk (Krasnoyarsk Krai, Southern Siberia) and sent specimens to Felix von Th men, Karl Kalchbrenner, and Pier A. Saccardo. Thereafter, these species were published in works of the above-mentioned researchers in different Russian and foreign journals (Th men, 1877, 1878, 1880a, 1880b, 1882; Kalchbrenner, 1878; Saccardo, 1889, 1896).

During the first two decades of the XX century, extensive mycofloristic studies were performed by numerous experts. However, emphasis was made on plant pathogens, and agaricoid fungi continued to remain in the shadow of higher plants and pathogenic fungi. Here, we list papers which contain some data on agaricoid and boletoid fungi. Arthur Thesleff (1920) — the modern Leningrad Oblast, Pavel F. Elenev (1904) — the Smolensk Oblast; Vladimir A. Tranzschel (1901) — the Tver Oblast, Paul Hennings (1903, 1904, 1905), N. A. Mosolov (1906), J. P. Petrov (1910, 1911) — Moscow and the Moscow Oblast, Konstantin E. Murashkin (1911) — the Nizhny Novgorod Oblast; Ladislaus Hollos (1902, 1905) and Ferd Filarszky (1907) — Northern Caucasus; Petter A. Karsten (1904, 1905) and Nikolay A. Naumov (1915) — the Urals; Petter A. Karsten (1906, 1911) — Zabaykalsky Krai; Nikolay A. Naumov (1914) — Primorsky Krai.

Just like Martianoff a century earlier, Nikolay Y. Shestunov, an amateur naturalist, accumulated extensive collections of fungi in the broad sense (predominantly in the Caucasus and the Far East), but the data was not published. Several specimens of agaricoid fungi are stored in Mycological Herbarium of Botanical Institute (LE) and were used recently by Dr. Ekaterina F. Malysheva in her recent monograph on the family Bolbitiaceae (Malysheva, 2018). Apparently, the majority of specimens of pileate fungi collected by local researchers in the XVIII–XIX centuries were lost.

In 1908–1909, “Illustrated Keys to the Fungi of the Middle Russia” by Ekaterina P. Sheremeteva (edited by Fedor V. Bucholtz) was published. Essentially, it is an adapted translation of P. Hennings’ “Hymenomycetinae” in Engler’s “Die nat rlichen Pflanzenfamilien” (Hennings, 1900). It contains keys and descriptions of species supplemented with illustrations and notes on their distribution. In 1913, the second edition of Jaczewski’s “Keys to the Fungi” saw light. According to Vassilkov (1953), this book can be considered as a “full, but not critical review” of Russian fungi.

The modern period began in the 1920’s, when agaricoid fungi were established as an independent object of study: Lidia A. Lebedeva started a study of pileate fungi under the instruction of Alexandr A. Elenkin (Vassilkov, 1953).

Further we provide brief biographical notes on the first mycologists who focused on agaricoid and boletoid fungi in the USSR.

Lidia A. Lebedeva (1871–1950), a plant pathologist, studied under Vladimir L. Komarov. She started research on agaricoid fungi with mycophoenological observations in the Botanical Garden in Leningrad, in 1922–1926. Later, she visited Arkhangelsk Oblast (Lebedeva, 1933), Tver Oblast, Saratov Oblast (Lebedeva, 1927), Stavropol Krai (Lebedeva, 1930) and Altay; the collected material along with the existing data was used for a summary, which included general information on agaricoid fungi, a key, and a list of species, accompanied by descriptions and localities (Lebedeva, 1949). This work can be considered as the first country-scale checklist of pileate (mostly agaricoid and boletoid) fungi list. Nevertheless, the book was heavily criticized by Boris P. Vassilkov (Vassilkov, 1952b).

Rolf Singer (1906–1990), one of the most prominent XX century mycologists worked at the Komarov Botanical Institute in 1934–1941 (Mueller, 1995). He made several expeditions to the Caucasus, Altai Mountains, Karelia (Singer, 1929, 1931, 1943; Freindling, 1949), the material collected was used in his numerous works on taxonomy (Mueller, Wu, Ginns, and Redhead, 1997). The dissertation, which Singer defended while working in Leningrad (Singer, 1936b, 1942, 1943), became the basis for the monumental “The Agaricales in Modern Taxonomy” (Singer, 1951, 1962b, 1975, 1986).

Ljubov N. Vassileva (1901–1985) studied under Andrey Ya. Gordyagin at Kazan University. In 1937, she accompanied Rolf Singer in his Altay expedition; later, she spent several years studying pileate fungi in the Kavkazskiy Nature Reserve (Vassiljeva, 1939). Thereafter, she worked in the Volzhsko-Kamskiy Nature Reserve in Tatarstan (Vassiljeva, 1977). In 1944, Ljubov Nikolayevna moved to the Far East. In 1949 she founded the Laboratory of Lower Plants in the Far Eastern branch of the Academy of Sciences of the USSR, which became the first regional mycological center in the country (Bogacheva, 2018).

Boris P. Vassilkov (1906–1980) also studied under Andrey Ya. Gordyagin at Kazan University. Initially his interests considered economically important edible fungi of Mary El (diversity of edible species, their productivity and its prediction, search for appropriate localities to organize state points for trade with mushroom pickers, mapping of the most fruitful places etc.). Also, he has summarized study history of this group and performed extensive work to collect all possible published and manuscript sources dealing with pileate fungi (Vassilkov, 1953). Therefore, he made a review on pileate fungi distribution in USSR (Vassilkov, 1955a) without full list of fungi and precise localities. Boris Pavlovich has studied his own specimens from various regions of USSR (Mariyskaya ASSR, Khibiny, Caucasus, vicinities of the Baikal Lake, Chukotka and others) as well as ones sent from distant territories by other experts and amateurs.

The modern period can be tentatively divided into three phases. The first phase (1920’s through 1960’s) can be characterized by a relatively small number of mycologists interested in “agarics and boleti”; subsequently, papers focusing on pileate fungi were quite rare. During this phase, a very important study of the role of fungi in ecosystems was performed (summarized in Chastukhin and Nikolaevskaya, 1969). During the next thirty years (until the 1990’s), research focused mainly on the ecology of fungi (Burova, 1986). The numbers of mycologists increased, and several regional mycological centers appeared – in Perm (Lidia G. Perevedentseva), Penza (Alexander I. Ivanov), Novosibirsk (Nina V. Perova), Krasnoyarsk (Matilda I. Beglyanova, Natalja P. Kutafjeva), and Irkutsk (Alexander I. Petrov). Older mycological laboratories in Leningrad (Boris P. Vassilkov, Emma L. Nezdoyminogo, Alexander E. Kovalenko) and Vladivostok (Ljubov N. Vassileva, Margarita N. Nazarova, Eugenia M. Bulakh) successfully continued their work. Since the 1990’s, researchers from all over the country worked in various regions of Russia, and the diversity of agaricoid fungi became a popular subject for PhD theses (Kurochkin, 1993; Lazareva, 1998a; Stolyarskaya, 1998; Gorbunova, 1999; Fomina, 2000; Botashev, 2001; Morozova, 2001; Sopina, 2001b; Krapivina, 2004; Svetasheva, 2004; Kolmakov, 2005a; Palamarchuk, 2005; Kirillova, 2007; Kochunova, 2007; Malysheva, 2007; Sazanova, 2007; Volodina, 2007; Desyatova, 2008; Mukhutdinov, 2008; Ilyukhin, 2010a; Kirillov, 2011; Filippova, 2015; Shilkova, 2015; Zauzolkova, 2015; Botalov, 2017). Due to numerous papers and PhD theses overall knowledge of agaricoid fungi increased significantly.

To organize the massive amount of publications on fungi occurring in Russia, considering its vast territory, we decided to split them geographically: Eastern Europe (including Northern Caucasus and the Urals), Siberia (Western, Southern and Eastern parts) and the Far East. We accepted the eastern edge of the Urals – the isoline at 200 m. a.s.l. — as the geographical border between Europe and Asia, meaning that it does not match any administrative borders. We enumerated regions from north and west to south and east, and references in chronological order. It is necessary to point out that the following review is based mostly on mycofloristical papers, as they contribute significantly to the knowledge of agaricoid fungi diversity. A plethora of publications dealing with various aspects of ecology and taxonomy of agaricoid fungi are predominantly omitted here.

## EASTERN EUROPE

### *Northern part of European Russia*

**Murmansk Oblast:** scattered data on fungi of the arctic part of the region can be found in a number of papers (Vanin, 1928; Singer, 1950b; Vassilkov, 1956b, 1967); later, information was summarized in “Fungi of the Russian Arctic” (Karatygin, Nezdojminogo, Novozhilov, and Zhurbenko, 1999). In 1964 and 1965, Tatiana V. Pavlova with colleagues worked in the Kandalakshskiy Nature Reserve. They inventoried various groups of fungi, including agaricoid fungi (Pystina, Pavlova, and Shestakova, 1969). Later, in the 1970’s, Leonur V. Mikhailovsky studied the mycobiota of agaricoid fungi of the Khibiny mountains (Mikhailovskii, 1974, 1975b, 1975a). Data on several species collected in the Kandalakshskiy and Laplandskiy Nature Reserves were published too (Berlina, 2005; Kalamees and Raitviir, 2006).

**Karelia:** during the Olonetsk scientific expedition (1920–1922), Vsevolod P. Savich collected specimens of various fungi, including agaricoid fungi (Lebedeva, 1933). Later, in 1934–1936 and 1946–1947, Maria V. Freindling surveyed the Kivach Nature Reserve, and Rolf Singer also examined this material (Freindling, 1949). In 1975–1978, Nina P. Czerepanova with colleagues surveyed the fungi of the Sredniy island in the Kandalakshsky Gulf of the White Sea (Czerepanova, Perfiljeva, and Tobias, 1982). In 1995–1996, Alexander E. Kovalenko with colleagues studied the agaricoid fungi of the Valaam island (Kovalenko, Morozova, Fomina, and Särkisilta, 1998). In 2001, an annotated checklist of fungi of the Kivach Nature Reserve was published (Bondartseva et al., 2001). Long-term studies of ectomycorrhizal agaricoid fungi ecology were carried out beginning from 1959 by Vladimir I. Shubin with colleagues; eventually, the accumulated data were summarized in the monograph (Krutov et al., 2014). In 2011–2012, Olga O. Predtechenskaya and Anna V. Ruokolainen studied agaricoid fungi occurring in early succession stages of forest communities following clear-cutting (Predtechenskaya and Ruokolainen, 2013); some studies were carried out in the Vodlozerskiy National Park (Predtechenskaya and Ruokolainen, 2014) and Kostomukshskiy Nature Reserve (Predtechenskaya, 2015). In 2009–2018, Leonid A. Savelev and Anastasia V. Kikeeva studied the mycobiota of the city of Petrozavodsk (Savelev and Kikeeva, 2018, 2020).

**Arkhangelsk Oblast:** during the Olonetsk scientific expedition (1920–1922), Lidiya A. Lebedeva collected specimens of various fungi, including agaricoid fungi (Lebedeva, 1933). Data from the second half of the XX century mostly trace back to the arctic territories of the region and are scattered across numerous papers (Vassilkov, 1967; Nezdojminogo, 1982b, 1996, 2002), in 1999, the existing information was summarized in “Fungi of the Russian Arctic” (Karatygin, Nezdojminogo, Novozhilov, and Zhurbenko, 1999). A few checklists of agaricoid fungi were published recently (Ezhov, Ershov, Ruokolainen, and Zmitrovich, 2011; Ezhov, 2013; Ezhov, Gavrilo, and Zmitrovich, 2014). To our knowledge, there have been no systematic studies on the diversity of agaricoid fungi.

**Nenets Autonomous Okrug:** we found data on agaricoid fungi only in four sources: (Karatygin, Nezdojminogo, Novozhilov, and Zhurbenko, 1999; Kytövuori, 1999; Matveyeva, 2006, 2020).

**St. Petersburg and Leningrad Oblast:** a comprehensive summary of agaricoid fungi research published before 1999 can be found in Morozova (1999). Here, we briefly cover the key mycofloristic papers published in more recent years. In 1982, participants of a mycological conference in Kirishi collected a number of macromycetes during a foray; the list was published two years later (Kalamees and Kovalenko, 1984). In the 1990’s, Marina V. Stolyarskaya began systematic studies of agaricoid fungi of the Nizhne-Svirskiy Nature Reserve (Stolyarskaya, 1989, 1998). Later, in 1996–1998, Elizaveta A. Fomina studied ectomycorrhizal fungi of the same area (Fomina, 2000, 2001). The results of these long-term investigations were summarized in the monograph “Mycobiota of Nizhne-Svirskiy Nature Reserve” (Zmitrovich et al., 2015). Also numerous papers concerning agaricoid fungi diversity of protected area of both St. Petersburg and Leningrad Oblast were published (Kotkova, Morozova, and Popov, 2005, 2006, 2007; Morozova, 2007; Morozova and Smirnov, 2011; Morozova et al., 2020). In 1996 Olga V. Morozova began her research (Morozova, 1999, 2001, 2002; Morozova and Kovalenko, 2000). Since 2018 Lyudmila B. Kalinina has been studying the agaricoid fungi diversity of the region (Kalinina, 2018).

**Vologda Oblast:** in 1950, 1953 and 1956, the botanist Tamara N. Kutova collected material in Darvinskiy Nature Reserve (Kutova, 1957). More than 50 years later, in 2003–2006, Olga S. Shiryayeva (Kirillova) surveyed the Russkiy Sever National Park (Kirillova, 2006, 2007, 2009, 2012; Kirillova and Podolskaya, 2012).

**Kaliningrad Oblast:** Eugen Gramberg wrote a report on rare species of the region (Gramberg, 1923). The paper represents the first significant checklist, summarizing previous works by Abromeit, Hennings, Gramberg, and Neuhoff. Later, agaricoid fungi research continued only in 1998, with the work of Aleksandra A. Volodina and colleagues (Volodina, 2007) and a checklist of fungi based on all available sources was compiled (Dedkov, Volodina, and Gubareva, 2007). During 2004–2019, Atayev and Volodina surveyed the diversity of fleshy fungi in the Immanuel Kant Baltic Federal University Botanical Garden; the results were published recently (Atayev and Volodina, 2020).

**Pskov Oblast:** Alexander E. Kovalenko and Olga V. Morozova began systematic studies of agaricoid fungi in 1994 (Kovalenko and Morozova, 1999b). Later, researchers concentrated mostly on the Sebezhskiy National Park (Popov, 2001a; Kovalenko, Kolmakov, Morozova, and Popov, 2003; Kolmakov and Popov, 2005). Pavel Yu. Kolmakov and Evgeny S. Popov contributed significantly to the knowledge on the diversity of agaricoid fungi; the data were summarized in “Mycobiota of the Belarus-Valday Lakeland” (Popov et al., 2013). In 2019–2020, Lyudmila B. Kalinina studied the agaricoid fungi of the Polistovskiy Nature Reserve; data on new records were published recently (Kalinina, Bolshakov, and Bulyonkova, 2020).

**Novgorod Oblast:** the first scattered data on agaricoid fungi appear in a handful of papers (Rusakov, 1968; Kovalenko and Morozova, 1999b). Systematic studies of the diversity of agaricoid basidiomycetes began in the 2000's. A joint team of researchers from Russia (O.V. Morozova, A.E. Kovalenko and others) and the USA (R.H. Petersen and R. Halling) surveyed the Valdaiskiy National Park in 2001–2003 (Kovalenko, Morozova, Nezdojminogo, and Popov, 2005). In 2005, Ekaterina F. Malysheva continued these studies (Malysheva, Malysheva, and Zmitrovich, 2006, 2007). Later, Salavat N. Arslanov, Olga V. Morozova and Lyudmila B. Kalinina explored the diversity of agaricoid fungi in the region (Arslanov, 2012, 2014; Morozova, 2012; Morozova, Popov, and Fedosova, 2014; Baklan, 2015; Svetasheva et al., 2017; Kalinina, 2019; Bolshakov et al., 2020).

**Tver Oblast:** in the 1930–1940's, Vladimir Ya. Chastukhin worked in the Tsentralno-Lesnoy Nature Reserve (Chastukhin and Nikolaevskaya, 1969). In 1979, Sergey A. Kurochkin began to study agaricoid fungi in the region (Kurochkin, 1993, 2005, 2015). Later he surveyed the macromycetes of the Tver' city (Kurochkin and Medvedev, 2015; Kurochkin, 2016). During 2007–2010, Yulia G. Mukhina studied agaricoid fungi of the Tsentralno-Lesnoy Nature Reserve (Mukhina and Garibova, 2010; Mukhina, 2011a, 2011b); in 2014, an annotated list of fungi of the Reserve was published (Kotkova, 2014). In 2015, Olga V. Morozova surveyed the southwestern part of the region, discovering a number of species new for the region (Morozova, Aleksandrova, Popov, and Malysheva, 2016).

**Yaroslavl Oblast:** in 1994 Olga L. Lazareva began the study of agaricoid fungi of the region, including the Pereslavl'skiy National Park (Lazareva, 1997, 1998a, 1998b, 2002).

**Kostroma Oblast:** almost all available data on agaricoid fungi of the region can be found in just two papers (Burova, 1982; Veremyeva, 1986)..

**Kirov Oblast:** in 2000–2009, Dmitry V. Kirillov studied the agaricoid fungi of the region, resulting in a checklist of basidiomycetes of the Kirov oblast (Kirillov, 2011). From 2010 through 2017, researchers inventoried the macromycetes of the protected area “Bylina” (Stavishenko, Luginina, Kirillov, and Egoshina, 2019).

**Udmurt Republic:** in 1982, studies of agaricoid fungi of Udmurt were performed (Tychinin, 1990). Preliminary list of macromycetes was published later (Tychinin and Kuzmina, 2003). Since 2000 Vladimir I. Kapitonov has been studying the macromycetes of the region (Kapitonov, 2008, 2013).

#### *Central part of European Russia*

**Smolensk Oblast:** during the XX century, Lidiya G. Burova was the only mycologist to work in the region (Burova, 1969).

**Kaluga Oblast:** Marina N. Sionova studied biota of agaricoid fungi of Kaluzhskiye Zaseki Nature Reserve and Ugra National Park (Sionova, 2003, 2006, 2012).

**Moscow and Moscow Oblast:** in the 1960's, Lidiya G. Burova carried out ecological research in the region (Burova, 1968, 1971). Beginning from 1964, mycologists of the Moscow State University have been surveying the territory of the Zvenigorod Biological Station (Gorlenko, Sidorova, and Sidorova, 1989; Voronina et al., 2012, 2014). In the 1990's, Galina Ye. Levitskaya began to work in the Tsentralno-Lesnoy Nature Reserve (Levitskaya, 1995d, 1998, 2006, 2013). In 1993–1997, Mikhail V. Vishnevsky did a number of surveys (Vishnevsky and Sidorova, 1997; Vishnevsky, 1998).

**Tula Oblast:** since 2000, Tatyana Yu. Svetasheva has been studying the agaricoid fungi diversity of Tula Oblast (Svetasheva, 2001, 2003, 2004, 2005a, 2013, 2013).

**Ryazan Oblast:** beginning from 1987, Lyudmila F. Volosnova has been studying the pileate fungi of the Okskiy Nature Reserve (Volosnova, 1997, 2005, 2014; Malysheva and Volosnova, 2008).

**Vladimir Oblast:** there have been no studies to focus specifically on fungi in the region; a checklist of macromycetes and myxomycetes of the protected area Sudogodsky was published as a conference paper (Mishulin, Blinov, and Gushchina, 2018).

**Ivanovo Oblast:** data on agaricoid fungi can be found in papers by Ksenia P. Alyavdina (Alyavdina, 1928, 1949); we were unable to find any published studies focusing on fungi in the region.

**Nizhny Novgorod Oblast:** no published research on the fungi of the region exists, with the exception of some minor data in the regional Red List (Okhupkin, 2005; Chkalov, 2017).

**Mari El Republic:** until 2000, only scattered data appeared in a number of papers (Vassilkov, 1956b; Wasser, 1980; Ivanov, 1988b). In 2000–2001, Vladimir P. Prokhorov inventoried the fungi of the Bolshaya Kokshaga Nature Reserve (Prokhorov, 2007).

**Chuvash Republic:** in 1998, minor data on macromycetes of Prisurskiy Nature Reserve was obtained by Vadim G. Marfin (Marfin, 2001). Later, data on several species found in Chavash Varmane National Park was published (Vladimirova and Potapov, 2018).

**Tatarstan:** a detailed history of mycological research of the Tatarstan can be found in summary by Kim O. Potapov (2015c). In 1938–1940, Ljubov N. Vassiljeva studied mycobiota on the territory of modern of Raifa site of Volzsko-Kamskiy Nature Reserve, Tatarstan. Results of this work were published almost 40 years later (Vassiljeva, 1977). Since 2000, Kim O. Potapov has been studying macromycetes of the region, paying special attention to Nizhnyaya Kama National Park and Volzhsko-Kamskiy Nature Reserve (Potapov, Galejev, and Zhukov, 2013; Potapov, 2015b, 2016b).

**Mordovia:** in 1936–1939, Nikolay I. Kuznetsov did a phytocoenological survey of the Mordovskiy Nature Reserve; his collections included a number of agaricoid fungi that were identified by Rolf Singer. The resulting checklists were compiled as scientific reports; 20 years later, Olga Ya. Zinger prepared this material for publication (Kuznetsov, 1960). In 1941–1944, Vladimir Ya. Chastukhin worked in the Mordovskiy Nature Reserve (Chastukhin and Nikolaevskaya, 1969; Chastukhin, 2011). Since 2009, Alexander V. Ivoilov and Sergej Yu. Bolshakov have been studying the diversity of macromycetes of Mordovia, with an emphasis on the Mordovsky State Nature Reserve (Ivoilov and Bolshakov, 2011a, 2011b; Bolshakov and Ivoilov, 2012a; Bolshakov, 2015).

**Penza Oblast:** since 1980, Alexander I. Ivanov has been studying agaricoid fungi of the region (Ivanov, 1981a, 1982, 1983, 1985, 1986, 1988a, 1989; Ivanov and Nezdojminogo, 1990; Ivanov, 1992; Ivanov and Durandin, 1996; Ivanov, 2019), including an inventorying survey in the Privolzhskaya Lesostep' Nature Reserve (Ivanov, 1999).

**Ulyanovsk Oblast:** in the late 2000's, Evgeniy V. Ilyukhin collected material that was later summarized in his PhD thesis (Ilyukhin, 2009, 2010; Ilyukhin, 2010).

**Samara Oblast:** since 1999, Ekaterina F. Malysheva has been studying the biota of agaricoid fungi on the territory of the Zhigulevskiy Nature Reserve and Samarskaya Luka National park (Malysheva and Malysheva, 2004, 2005b, 2006; Malysheva, 2007; Malysheva and Malysheva, 2007, 2008).

**Bryansk Oblast:** in 2001–2007, Sergey A. Kruglikov studied the diversity of fleshy fungi of the Bryansky Les Nature Reserve (Kruglikov, 2007); to our knowledge, no other publications focusing on agaricoid fungi in the region exist.

**Oryol Oblast:** no studies focusing on agaricoid fungi have been published, however, some data is available in a handful of papers (Volobuev and Tsutsupa, 2009; Radygina, Derzhavina, and Tsutsupa, 2014; Bolshakov et al., 2020).

**Lipetsk Oblast:** Valentina N. Alferova collected material in the Galichya Gora Nature Reserve in 1969–1973 (Alferova, 1977). In 1990, Lyudmila A. Sarycheva began to study the macromycetes of the region, including the territories of the Galichya Gora and Voronezhskiy Nature Reserves (Sarycheva, 1999; Sarycheva et al., 2009; Sarycheva, 2011, 2014a, 2016; Sarycheva, Starodubtseva, and Sapelnikova, 2017).

**Kursk Oblast:** in 1970–1978, V. P. Ryabova and O. S. Ignatenko surveyed the diversity of fleshy fungi in the Tsentralno-Chernozemny Nature Reserve (Ryabova and Ignatenko, 1981). Later, macromycetes of the territory were studied by Elvira P. Bedenko (Bedenko, 1985, 1987). Also, some data on agaricoid fungi can be found in the works of N. G. Baranov, who collected specimens in the 1990's, and Valentina P. Soshnina, who has been working since 1996 (Soshnina, 2001, 2005, 2013, 2014, 2017; Baranov, 2002).

**Belgorod Oblast:** in 1934–1941, Ivan E. Brezhnev studied wood-inhabiting fungi of the “Les na Vorskle” site of the Belgorod's Nature Reserve, mentioning species of agaricoid fungi (Brezhnev, 1950). In 1976–1977, Elvira P. Bedenko studied macromycetes in the Belgorod Oblast (Bedenko, 1979a, 1980). Data on the mycobiota of “Les na Vorskle” can also be found in several papers (Ryabova and Ignatenko, 1981; Nikolayev, 1986; Soshnina, 1995; Psurtseva, Belova, and Ryabusheva, 2003).

**Voronezh Oblast:** the first data on the diversity of agaricoid fungi of the Voronezhskiy Nature Reserve and protected area “Kamennaya Step” can be found in the works of Vladimir Ya. Chastukhin (summarized in Chastukhin and Nikolaevskaya, 1969). In the 1980's, Elvira P. Bedenko also studied the macromycetes of Voronezh Oblast (Bedenko, 1985, 1987). Since 1985, Antonina I. Rtischeva worked in Voronezhskiy Nature Reserve (Rtischeva, 1999). Later, the existing knowledge was expanded with new material collected by Antonina I. Rtischeva, Artyom A. Afanasyev and Elena A. Starodubtseva (Afanasyev, Rtischeva, and Starodubtseva, 2007). Ten years later, an updated and corrected list of macromycetes of the Reserve was published (Sarycheva, Starodubtseva, and Sapelnikova, 2017). In 2015, a monograph on the current state of the oak forest of the Tellerman Experimental Forestry of the Institute of Forest Science, RAS, was published, with some data on agaricoid fungi (Selochnik, 2015).

**Tambov Oblast:** there have been no surveys focused on agaricoid fungi; information is available only from the regional Red List (Elenevskiy, 2002; Konakov et al., 2019).

**Saratov Oblast:** in 1927, Lidia A. Levedeva studied the mycobiota of the vicinities of Saratov (Lebedeva, 1927); later, in 1950–1980, Olga N. Komirnaya studied plant pathogens, but her published research includes some data on agaricoid fungi as well (Komirnaya, 1952, 1970, 1975, 1975).

#### *Southern part of European Russia*

**Rostov Oblast:** in 1980–1989, Sergey L. Vyshepan studied the macromycetes of the region's steppes (Vyshchepan, 1992). In 1997–2000 and in 2003, Yury A. Rebriev studied macromycetes in the northern part of the region (Rusanov et al., 2004). In 2006, a mycological workshop was held in Vyoshenskaya; as a result, an annotated list of macromycetes was published (Morozova et al., 2008; Zmitrovich et al., 2008). Since 1980, Rusanov and Vyshepan, and later, in 2000–2014, Rebriev with colleagues studied the mycobiota of the South Federal University Botanical garden; the results of their work were summarized recently (Rusanov, Rebriev, and Bulgakov, 2018).

**Volgograd Oblast:** in 1978, Lidia G. Burova conducted a mycocoenological survey in planted forest stands of the Dzhanybeck station in the Volgograd Oblast (Burova and Nezdoyminogo, 1980; Burova, 1982). Beginning from 2012, students of the Volgograd Pedagogical University conducted inventory studies of a number of regional protected areas (Dudka and Vedeneyev, 2014, 2015). Some results of mycological surveys of the Volga-Akhtuba floodplain, carried out in 2012–2014, were published by Tatiana Yu. Svetasheva (2015).

**Kalmykia:** information on three species is provided in Red Data Book (Baktasheva, 2014).

**Astrakhan Oblast:** in 2008–2010, surveys focused on fungi were carried out in the Bogdino-Baskunchakskiy Nature Reserve (Rebriev, Aleksandrova, et al., 2012).

Also, in 2008–2010, a team of researchers carried out a study on the mycobiota of arid territories of the southwestern part of Russia (Rebriev, Rusanov, et al., 2012). Material was collected in the Rostov Oblast (near Rostov, Vyoshenskaya and several other localities), Volgograd Oblast (a number of regional protected areas), Astrakhan Oblast (Bogdino-Baskunchakskiy Nature Reserve and around Astrakhan), Krasnodar Krai (Taman peninsula), Stavropol Krai (vicinities of Stavropol) and Kalmykia (Chyornye Zemli Nature Reserve and other localities). Unfortunately, no exact localities or even administrative regions are provided in the checklist.

**Crimea and Sevastopol:** the first more or less significant contribution to the knowledge of Crimean pileate fungi was made by Maria Ya. Zerova (Zerova, 1962). In 1992, Meinhard Moser, a prominent mycologist, visited the Crimean Mountains and published a checklist of noteworthy species a year later (Moser, 1993). In the 1990's, Irina S. Sarkina began to study pileate fungi (Sarkina, 2001; Sarkina, Prydiuk, and Heluta, 2003; Dudka et al., 2004; Sarkina, 2006, 2010b, 2014b, 2020c). Inventory studies of the Crimean National Park (Sarkina, 2011), Yaltinsky Gorno-Prirodny Nature Reserve (Sarkina and Prydiuk, 2012), and Karadagskiy Nature Reserve (Sarkina and Mironova, 2015) were conducted, too. In 1980, Vladimir P. Isikov began his studies of wood-inhabiting fungi, with an emphasis on pathogenic species; several agaricoid species are mentioned in his publications (Isikov, 2003, 2020).

#### *Northern Caucasus*

**Krasnodar Krai and Adygea:** in 1935–1936, Ljubov N. Vassiljeva performed mycobiota inventory studies in Kavkazskiy Nature Reserve (Vassiljeva, 1939), Rolf Singer also worked with this material (Singer, 1937, 1938a, 1941, 1943). In 1977–1979, Alexander E. Kovalenko studied the diversity of agaricoid fungi in North-Western Caucasus (Kovalenko, 1979a, 1980b, 1980a). In the 1980's, Mall Vaasma with colleagues explored the territory of Kavkazskiy Nature Reserve and as a result they summarized all existing data (Vaasma, Kalamees, and Raitviir, 1986). Since 1994, Anna A. Kiyashko (Sopina) continued studies on agaricoid fungi diversity of mountain forests of the Belaya River basin (Sopina, 2000, 2001a, 2001b, 2004a, 2004b; Kiyashko, 2011).

**Stavropol Krai:** in 1925, Lidia A. Levedeva studied the mycobiota of steppe communities in the vicinity of the Sengileevskoye lake (Lebedeva, 1930). Later no special studies of fungi in the region were conducted (except some data obtained during the study of the mycobiota of arid zones, without usable geographical attributes; see Rebriev et al. (2012)).

**Karachay-Cherkess Republic:** the earliest data on agaricoid fungi can be found in the already mentioned publication by Vassiljeva (Vassiljeva, 1939). In the 1980's, Vladimir G. Onipchenko and E. N. Kaverina studied the macromycetes of Teberdinskiy Nature Reserve (Onipchenko and Kaverina, 1989). In 1996–1999, Kuulo Kalamees and Rustam S.-M. Botashev explored mycobiota in the same reserve (Kalamees and Botashev, 2000). In 2009, mycological expedition to the Teberda took place (Malysheva, 2011a; Malysheva and Svetasheva, 2011).

**Kabardino-Balkarian Republic:** in 1928–1929, Rolf Singer visited Central Caucasus, including what is now the Prielbrusye National Park and Kabardino-Balkarskiy Nature Reserve (Singer, 1929, 1931, 1937, 1938a). In 1999,

Elena A. Krapivina started research of the diversity of agaricoid fungi in the region (Shkhagapsoev and Krapivina, 2003, 2004).

**North Ossetia:** in 1924–1926, Zinaida S. Chernetskaja conducted plant pathology surveys of forests; several species of agaricoid fungi are mentioned in her work published afterwards (Chernetskaja, 1929). In 1997–2000, I. A. Nikolaev studied the diversity of macromycetes in the northern part of the republic (Nikolayev, 2001).

**Ingushetia:** no studies of agaricoid fungi have been published.

**Chechen Republic:** data on macromycetes of the Republic, including agaricoid fungi, can be found in the works of Musa A. Taysumov with colleagues (Taysumov, Krapivina, Umarov, and Astamirova, 2012; Taysumov, Krapivina, and Kushaliev, 2016).

**Dagestan:** there have been no surveys focused on agaricoid fungi; information is available only from the regional Red List (Magomedov, 2020).

### *The Urals*

Results of long-term studies (mainly since the 1950's till 1973; but earlier studies were also considered) of agaricoid fungi of the Urals were summarized by Neonila T. Stepanova and Alevtina V. Sirko (Stepanova and Sirko, 1977). The work contains data on the mycobiota of the Yamalo-Nenets Autonomous Okrug, Perm Krai, Sverdlovsk and Chelyabinsk Oblasts, and Bashkortostan.

**Yamalo-Nenets Autonomous Okrug (western part):** in the 1960's, Lidiya K. Kazantseva studied the mycobiota of the Polar Urals (Kazantseva, 1966, 1970, 1972). In 1990 and 1992, during the first stage of the First Russian-Scandinavian Trans-Siberian Mycological Expedition, and in 1996 during the Fifth International Symposium on Arctic and Alpine Mycology, Victor A. Mukhin and Henning Knudsen collected specimens of agaricoid fungi (Knudsen and Mukhin, 1998). Emma L. Nezdoyminogo revised the collected materials together with Boris P. Vassilkov in 1962, along with specimens collected by S. I. Sandomirskaja, Stepan G. Shijatov and Irina Yu. Kirtsideli. She also summarized all published data on agaricoid fungi of the Polar Urals alpine tundra in an overview (Nezdoyminogo, 2001).

**Komi Republic:** the first data on agaricoid basidiomycetes were obtained by researchers from the Botanical Institute of the Academy of Sciences of the USSR, who carried out stationary studies of forest-tundra vegetation in the northeast of the Komi Republic in the early 1960's. These studies resulted in the paper by Boris P. Vassilkov (1970). Later, these data were included in the summary "Fungi of the Russian Arctic" (Nezdoyminogo, 1997a; Karatygin, Nezdoyminogo, Novozhilov, and Zhurbenko, 1999). In 2000, Marina A. Palamarchuk (Bobretsova) started a systematic study of agaricoid fungi in the Komi Republic, including the Pechoro-Ilychskiy Nature Reserve (Bobretsova, 2004; Palamarchuk (Bobretsova), 2009; Palamarchuk, 2011a, 2012, 2020a, 2020b) and the Yugyd Va National Park (Palamarchuk, 2011b, 2016b, 2020b; Palamarchuk and Kirillov, 2018a).

**Perm Krai:** since 1975, Lidiya G. Perevedentseva has been studying agaricoid fungi of the region (Perevedentseva, Nezdoyminogo, and Kovalenko, 1990; Perevedentseva, Mukhutdinov, and Kuznetsova, 2005; Perevedentseva, 2008). In 1984, an inventorying survey of the Basegi Nature Reserve was conducted (Shkaraba, Perevedentseva, and Moshkina, 1990); the mycobiota of the Visherskiy Nature Reserve was studied as well (Belkovskaya et al., 2014). Beginning from 2010, Vitaliy S. Botalov has been studying fungi in the region (Botalov, 2015, 2017; Botalov, Perevedentseva, and Shishigin, 2020).

**Sverdlovsk Oblast:** a detailed history of mycological studies in Sverdlovsk Oblast can be found in the summary by Olga S. Shiryaeva (2015b); here we mention several key papers dealing with the diversity of agaricoid fungi. The first review was published in a monograph by (Stepanova and Sirko, 1977). Data on several wood-inhabiting species can be found in (Mukhin, 1993). In 1992–2005, Lidiya V. Marina performed inventory studies on Visimskiy Nature Reserve (Marina, 2006). Later, Olga S. Shiryaeva obtained data on new species for the region (Shiryaeva, 2018; Shiryaeva and Palamarchuk, 2019), also revision of genera *Conocybe* and *Pholiotina* from Sverdlovsk Oblast was made (Shiryaeva and Malysheva, 2018).

**Chelyabinsk Oblast:** in the 1960's, L. N. Aleksandrovskaia and A. S. Lobanova performed inventory studies on agaricoid fungi of the region (Aleksandrovskaia and Lobanova, 1968). Also, data on agaricoid fungi can be obtained from review by Stepanova and Sirko (1977).

**Orenburg Oblast:** first data on macromycetes of the region can be found in a paper by Petr A. Vorontsovsky (1921). Noteworthy, that he collected fungi by the way as the main purpose of his field surveys were insects. In 1993, Maksim A. Safonov started research on diversity and ecology of wood-inhabiting macromycetes, some data on agaricoid fungi can be found in his papers (Safonov, 2002, 2015; Safonov, Malenkova, Rusakov, and Leneva, 2013). In 2000–2007, Olesya A. Desyatova (Korshikova) had been studying agaricoid fungi diversity of the region (Korshikova, 2006; Desyatova, 2007, 2007).

**Bashkortostan:** some data on agaricoid fungi can be found in a review by Stepanova and Sirko (1977). No special studies have been conducted since the 1970's.

## SIBERIA

### *Western Siberia*

In the 1970–1980's, Victor A. Mukhin studied wood-inhabiting fungi of the Western Siberian Plain (Mukhin, 1993); the monograph contains data on agaricoid fungi collected in the Yamalo-Nenets and Khanty-Mansi Autonomous Okrugs, as well as the Tyumen, Sverdlovsk, and Kurgan Oblasts. Results of surveys from 1967 till 2000 in the southern part of Western Siberia were summarized in a review and an annotated checklist by Perova and Gorbunova (2001). The work covers the diversity of agaricoid fungi in the Novosibirsk, Tomsk and Kemerovo Oblasts as well as in the Altai Republic and Altayskiy Krai.

**Yamalo-Nenets Autonomous Okrug (eastern part):** in 1983–1991, O. B. Tarchevskaya surveyed agaricoid fungi of the Yamal tundra (Tarchevskaya, 1990). Unfortunately, studies were not completed, and published only partially (Mukhin, 2008).

**Khanty-Mansi Autonomous Okrug:** a comprehensive summary of the history of mycological research in the region was compiled by Nina V. Filippova with colleagues (Filippova et al., 2017a, 2017b). Here, we mention only those works that significantly contribute to the knowledge of the diversity of agaricoid fungi (Zvyagina, Baykalova, and Gorbunova, 2007; Zvyagina, 2008; Filippova, 2014; Shepeleva et al., 2014; Filippova and Bulyonkova, 2017a, 2017b; Zvyagina and Baykalova, 2017).

**Kurgan Oblast:** the first data on the diversity of agaricoid fungi can be found in two summaries (Stepanova and Sirko, 1977; Mukhin, 1993). A list of macromycetes of the Ozerninsky Bor territory is provided in (Bystrushkin, 2016). It should be noted that in many Russian publications, the Kurgan oblast is conventionally treated as part of the Urals region.

**Tyumen Oblast:** no published surveys exist for the region, however, Viktor A. Mukhin reported several species (1993).

**Omsk Oblast:** no systematic studies were conducted; some data on fungi can be found in works by Albert Pilát (1934) and Ateo M. Zhukov (1980).

**Tomsk Oblast:** the first data on the diversity of fleshy fungi were collected and published by Nina V. Perova (1972) and Larisa S. Milovidova (1980). In the 1990's, Perova and Irina A. Gorbunova carried out systematic studies on agaricoid fungi of the region; the data can be found in the already mentioned summary (Perova and Gorbunova, 2001). In the 2000's, Alyona P. Kosheleva and Natalia P. Kutafjeva studied mycobiota of the territory between the rivers Ob and Tom (Kosheleva and Kutafjeva, 2004). In 2004–2005, Nadezhda N. Kudashova (Agafonova) with colleagues worked in the central part of the region (Agafonova, Kutafjeva, and Gashkov, 2007, 2009b). In 2013, her team compiled a preliminary checklist of macromycetes of the region (Kudashova, Gashkov, and Kutafjeva, 2013); later additional data were published (Kudashova, Gashkov, and Vaishlya, 2016a) as well as information on rare and threatened species (Kudashova, Gashkov, and Vaishlya, 2016b). In 2004–2015, a team lead by Olga B. Vaishlya studied macromycetes ectomycorrhizal with *Pinus sibirica* and *Pinus sylvestris* (Vaishlya et al., 2017).

**Novosibirsk Oblast:** in 1965–1967, G. A. Zaytseva surveyed the northern part of the region (Zaytseva, 1971). Nina V. Perova conducted inventory studies around the Karachi Experimental Station, established as part of the IBP (International Biological Program, 1964–1974), in the Baraba forest-steppe in 1971–1972; the results were published five years later (Perova, 1977). In 1972–1974 and 1983–1984, Nina V. Perova collected specimens on the western slope of the Salair ridge (Perova, 1982; Perova and Gorbunova, 2007). In 2001, a major review covering a number of Western Siberian regions was published (Perova and Gorbunova, 2001). In 2000–2004, Irina A. Gorbunova did some surveying of the steppe communities (Gorbunova, 2006) and pine forests (Gorbunova, 2007) in Southwestern Siberia. A checklist of fleshy fungi of the territory of the of Central Siberian Botanical Garden is provided in (Koropachinskiy and Banaev, 2014).

**Altai Krai (northwestern part):** beginning from 2000, Irina A. Gorbunova conducted several surveys of the steppe zone of the region (Gorbunova, 2006; Gorbunova and Perova, 2006).

### *South Siberia*

**Altai Krai (southeastern part):** beginning from 2000, Irina A. Gorbunova worked in Tigirekskiy Nature Reserve together with Yulia A. Chubarova (Gorbunova and Chubarova, 2008; Gorbunova, Vlasenko, and Tzhubarova, 2011; Gorbunova, 2018a).



**Altai Republic:** the first data on the region appears in the works of Albert Pilát (1934, 1935). Rolf Singer and Ljubov N. Vassiljeva visited the territory in the 1930's, and the results of the survey were published in a number of papers (Singer, 1938a, 1938d, 1938e, 1938c, 1939, 1943, 1945, 1950a, 1950b). In 1990, Alexander E. Kovalenko studied fleshy fungi in the Altaiskiy Nature Reserve (Kovalenko, 1992). In 1994, Irina A. Gorbunova began regular surveys of the mycobiota of the Altai mountains, resulting in numerous publications (Gorbunova, 1996, 1997, 2003, 2010, 2019; Perova and Gorbunova, 2001). Beginning from 2000, she did several surveys in the Katunskiy Nature Reserve (Gorbunova, 2001a, 2008, 2017a) and Tigirekskiy Nature Reserve together with Yulia A. Chubarova (Gorbunova and Chubarova, 2008; Gorbunova, Vlasenko, and Tzhubarova, 2011; Gorbunova, 2018a). In 2018, a joint Russian-Norwegian team (Tatyana Yu. Svetasheva, Tor Eric Brandrud, Olga V. Morozova, Irina A. Gorbunova) visited the Altaiskiy Nature Reserve (Brandrud et al., 2019; Svetasheva et al., 2019).

**Kemerovo Oblast:** only five sources containing information on agaricoid fungi was found (Pilát, 1934; Zhukov, 1972, 1980; Perova and Gorbunova, 2001; Kupriyanov, 2012).

**Khakassia:** first data can be found in summarizing work on fungi of southern part of Krasnoyarsk Krai in former borders by Matilda I. Beglyanova (1972a). Thirty years later, during 2006–2014, Natalja A. Zauzolkova and Irina A. Gorbunova studied the macromycetes diversity of Minusink Depression (Zauzolkova, 2012, 2015; Zauzolkova and Gorbunova, 2016). In 2011, Natalya V. Majnagasheva collected specimens of macromycetes in steppe sites of Khakasskiy Nature Reserve (Gorbunova and Majnagasheva, 2013).

**Krasnoyarsk Krai (southern part):** from 1954 to 1971, Matilda I. Beglyanova organized numerous surveys of agaricoid fungi in the vicinity of Krasnoyarsk and in the southern part of the region. The results of 16 years of studies were published as an annotated species list and phenological data (Beglyanova, 1972a). In 2003, Kutafjeva and Kosheleva explored the Sayano-Shushenskiy Nature Reserve (Kutafjeva and Kosheleva, 2005) and Krasnoyarskie Stolby National Park (Kosheleva and Kutafjeva, 2008b; Kosheleva, 2010). In 2011–2014, Olga E. Kruchkova studied the mycobiota of the same protected area (Kryuchkova, 2015). In 2006, she collected material on the Arandansky ridge, in the Western Sayan mountain system (Kryuchkova, 2009). During 2006–2014, Natalja A. Zauzolkova and Irina A. Gorbunova studied the diversity of fungi of the Minusink Depression (Zauzolkova, 2012, 2015; Zauzolkova and Gorbunova, 2016). In 2010, Gorbunova did a survey of the Ergaki protected area in the Western Sayan mountains (Gorbunova, 2016). In 2015, Ekaterina F. Malysheva, Alexander E. Kovalenko, Anna A. Kiyashko conducted an inventorying study of the of Sayano-Shushenskiy Nature Reserve; the results were published two years later (Malysheva, Malysheva, Kiyashko, et al., 2017). In 1998–2018, Igor V. Krom, an outstanding citizen scientist, studied the diversity of fleshy fungi around the village Zharovsk, in the Eastern Sayan mountains (Krom and Kapitonov, 2019).

**Tyva Republic:** in 1993, Nina V. Perova, and in 2014, Irina A. Gorbunova studied fleshy fungi in the region (Gorbunova, 2015).

**Irkutsk Oblast (southern and eastern parts):** since the 1990's, Alexander N. Petrov performed research in the Pribaykalskiy National Park (Petrov, 2008). In 1998–2000, Sergey M. Muzyka studied the macromycetes in Nizhneudinky District of the region (Muzyka, 2002). In 2013, Irina A. Gorbunova and Nadezhda V. Stepancova explored Baikalo-Lenskiy Nature Reserve (Gorbunova and Stepancova, 2015).

**Buryatia:** B. A. Tomilin (1963) reported some species collected by P. S. Mikhno in 1910–1928. In 1966–1970, Emma L. Nezdoinogo worked in Barguzinskiy Nature Reserve while preparing her PhD thesis (Nezdoinogo, 1970a, 1973). Later, since 1979, Alexander N. Petrov performed studies in the vicinity of the Baikal Lake (Petrov, 1991, 2013).

**Zabaykalsky Krai:** no special researchers were performed, information was obtained from several sources (Tomilin, 1963; Petrov, 2013; Polyakov, Popova, and Afonina, 2017).

#### *Eastern Siberia*

**Krasnoyarsk Krai (northern part):** in 1960–1970, mycologists worked on the territory of Taimyr Peninsula (northern part of the region), results were published in a number of works (Vassilkov, 1971b; Stepanova and Tomilin, 1973). Later, Michail P. Zhurbenko collected specimens on the territory of Taymyrskiy Nature Reserve, collections were identified by Emma L. Nezdoinogo (Nezdoinogo and Zhurbenko, 1996). In 2000, Nina V. Matvejeva collected specimens on Bolshevik Island. Emma L. Nezdoinogo identified the collection and revised specimens from Franz Josef Land and Severnaya Zemlya (Nezdoinogo, 2002).

**Krasnoyarsk Krai (central part):** in 1972, Emma L. Nezdoinogo visited Mirnoje village (Nezdoinogo, 1976a, 1982a), in 1982–1987, L. S. Lapitskaya performed research in vicinities of Nikulino village (Lapitskaya, 1990, 1993). In 1999–2005, Kosheleva and Kutafjeva worked in Teseevsky District (Kosheleva and Kutafjeva, 2008a).

**Irkutsk Oblast (northern part):** N. P. Kutafjeva began systematic studies of agaricoid fungi in 1968 (Kutafjeva, 1982, 1983, 1984); later, Vladimir V. Astapenko joined the research (Kutafjeva and Astapenko, 1987; Kutafjeva, 1989; Astapenko, 1990a; Astapenko and Kutafjeva, 1990). In the 1980's, Alexander N. Petrov began his studies (Petrov, 1983, 1984, 1986, 1989, 1991, 2013; Petrov, Nezdoininogo, and Bulakh, 1987). In 2008 and 2014, Sergey M. Muzyka collected material in different parts of the region (Muzyka, 2009; Muzyka and Penzina, 2017).

**Sakha Republic:** during the Yakutsk Complex Expedition of the Academy of Sciences of the USSR in 1929–1930, Andrey L. Birkenhof collected agaricoid fungi, among other specimens. Unfortunately, specimens were kept in alcohol, so the collection has not been preserved. Nevertheless, Lidia A. Lebedeva identified the collected specimens, and later, some data were published (Birkenhof, 1936). Eventually, Emma L. Nezdoininogo summarised some data on Cortinariaceae, Galerina and Inocybe species in her major monograph on cortinarioid fungi (Nezdoininogo, 1996). Data on species collected in the northern part of the republic (including the Ust'-Lenskij Nature Reserve) are summarized in (Karatygin et al., 1999), and later were enlarged (Nezdoininogo, 2003).

## FAR EAST

**Chukotka Autonomous Okrug:** in 1972, V. F. Shamurin and V. V. Petrovsky collected material on the Wrangel island. Emma L. Nezdoininogo identified the collections (Nezdoininogo, 1997a). In 1986–1987, Nina A. Sazanova conducted an inventorying survey in the Anadyr river basin (Sazanova, 1993). Later, the existing data was summarized in a monograph on the fungi of the Russian Arctic (Karatygin, Nezdoininogo, Novozhilov, and Zhurbenko, 1999).

**Magadan Oblast:** in the 1970's, Margarita A. Nazarova surveyed the agaricoid fungi of the region (Nazarova, 1976). Beginning in 1985, Nina A. Sazanova has been studying the diversity of fleshy fungi in the Magadan Nature Reserve (Sazanova, 1996, 2009a, 2011) and other territories of the region (Sazanova, 2009b; Sazanova and Golodnova, 2015).

**Kamchatka Krai:** in 1978, Kuulo Kalamees and Mall Vaasma studied the diversity of macromycetes in the region (Kalamees and Vaasma, 1981). During the Russian-Scandinavian Trans-Siberian Mycological Expedition in 1997, collections of Inocybe species were made (Peintner and Horak, 2002).

**Amur Oblast:** in 1959, Boris A. Tomilin studied fungi of various natural communities in the southwestern part of the region (Tomilin, 1962). In 1976, Margarita M. Nazarova explored the Selenga River basin (Nazarova, 1986). Later, a checklist of the Khinganskiy Nature Reserve was published (Azbukina et al., 1998). In 1977–1979, an expedition from Moscow State University surveyed the mycobiota of the Tukuringir, in the Zeiskiy Nature Reserve (Gordienko, Petrova, and Tarasov, 1981). In 2000 and in 2014–2015, Natalia A. Kochunova (Taranina) collected specimens of basidial macromycetes in the same reserve (Bulakh, Govorova, and Taranina, 2003; Kochunova, 2016; Kochunova and Erofeeva, 2017), in 2001–2004, she surveyed the nature monument "Mukhinka", located near Blagoveschensk city (Taranina, 2005), and in 2013–2015, she conducted surveys of the Urban Cluster of the Amur Branch of the Botanical Garden-Institute (Kochunova, 2019).

**Jewish Autonomous Oblast:** Evgenia M. Bulakh started a systematized study of the agaricoid fungi diversity of the Bastak Nature Reserve (Bulakh, Govorova, Nazarova, and Vassiljeva, 2007; Bau, Bulakh, and Govorova, 2011); later, Elena A. Erofeeva joined the project (Erofeeva, Bukharova, and Bulakh, 2019).

**Khabarovsk Krai:** systematic studies of agaricoid fungi were concentrated on inventorying the diversity of the Bolshekhikhtsirskiy (Azbukina et al., 1986; Bau, Bulakh, and Govorova, 2011; Bogacheva et al., 2018), Komsomolskiy (Azbukina et al., 1989; Bogacheva et al., 2018), Bureinsky (Bulakh, Vassiljeva, and Erofeeva, 2010), and Botchinskiy Nature Reserves (Bulakh, 2013) and Anyuyskiy National Park (Erofeeva and Bulakh, 2015a, 2016; Bogacheva et al., 2018).

**Primorsky Krai:** a detailed review of mycological studies in the region is provided in Bogacheva (2018). In the second half of the XX century, Ljubov N. Vassiljeva fruitfully worked in various parts of the Russian Far East and published a large number of works (Vassiljeva, 1950, 1972, 1973, and others). Later, Margarita M. Nazarova and Eugenia M. Bulakh started their research that resulted in numerous publications (Bunkina and Nazarova, 1978, 1978; Nazarova, 1978; Bulakh, 1987, 1989; Azbukina et al., 1990; Bardunov et al., 2002; Bau, Bulakh, and Govorova, 2011; Bulakh et al., 2016, and others).

**Sakhalin Oblast:** Ljubov N. Vassiljeva and Margarita M. Nazarova worked on the island in the 1960's (Vassiljeva and Nazarova, 1972). In 1996–1997, during a scientific expedition focused on the biodiversity of the Kuril islands, Bogatov collected specimens of agaricoid fungi that were later studied and identified by Eugenia M. Bulakh (Bulakh, Govorova, and Bogatov, 1999). Scattered data on agaricoid fungi of the region can be found in numerous papers (Vassiljeva, 1973; Nezdoininogo, 1980b; Bulakh, 2003; Kalamees, 2004; Kobayashi and Terashima, 2014) and others).

## Appendix E.

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