

УДК 582.28 : 581.95 (470 + 571)

NEW SPECIES FOR REGIONAL MYCOBIOTAS OF RUSSIA. 7. REPORT 2022

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Received May 13, 2022; revised May 20, 2022; accepted June 7, 2022

A total of 8 ascomycete and 63 basidiomycete species have been recorded for the first time from 14 administrative regions of Russia: Republic of Crimea (6), Republic of Mordovia (16), Krasnoyarsk Krai (4), Stavropol Krai (1), Arkhangelsk Oblast (2), Bryansk Oblast (5), Irkutsk Oblast (1), Kaluga Oblast (3), Kursk Oblast (2), Kostroma Oblast (10), Murmansk Oblast (1), Oryol Oblast (1), Pskov Oblast (9), Tyumen Oblast (11 species). An annotated species list containing the data on location, substrate, habitat type and voucher numbers is provided. *Entoloma bryorum* is reported as the first record in Russia. *Hypoxylon petriniae* and *Leucoagaricus croceovelutinus* are recorded in Russia for the second time. *Acanthophysellum minor*, *Postia romellii*, and *Tomentellopsis pulchella* are reported for the third time. Sequences of ITS nuclear ribosomal DNA from studied specimens of *Entoloma bryorum*, *Mycena rosella*, and *Pycnoporellus fulgens* have been generated and submitted to the GenBank database.

Keywords: Ascomycota, Basidiomycota, biodiversity, DNA barcodes, fungal distribution, Russia

DOI: 10.31857/S0026364822060101

INTRODUCTION

The present report is the seventh in the series of articles devoted to the new regional records of fungi (Bolshakov et al., 2016, 2018, 2020; Svetasheva et al., 2017; Volobuev et al., 2019, 2021a).

An annotation record includes the data on species location, substrate, habitat, and herbarium documentation. The material was loaded in LE (Saint Petersburg), AR (Arkhangelsk), HMNR (Pushta), and INEP (Apatity) herbaria. Duplicates of all specimens are stored in LE.

MATERIALS AND METHODS

Material was collected and identified using light microscopy technique by the authors abbreviated as follows: Sergey V. Volobuev (SV), Sergey Yu. Bolshakov (SB), Lyudmila B. Kalinina (LK), Vladimir I. Kapitov (VK), Eugene S. Popov (EP), Irina S. Sarkina (IS), Artyom V. Leostrin (AL), Anna A. Efimova (AE), and other persons indicated in the text.

To shorten the names of administrative regions of Russia we have used the international standard codes ISO 3166-2:RU (ISO, 2010). Republic of Crimea was abbreviated as KM.

Data on the fungal species distribution in Russia is based on the updated database on *Agaricomycetes* diversity (Bolshakov et al., 2017, 2021) as well as other papers partly referenced in previous reports (Bolshakov et al., 2016; Svetasheva et al., 2017). Species registered for more than 30 regions are noted as widespread species.

Molecular identity of some studied specimens has been confirmed by ITS nrDNA sequence analysis. DNA extraction, PCR amplification and sequencing were performed followed Volobuev et al. (2021b). Newly generated sequences were submitted to GenBank.

RESULTS

ASCOMYCOTA

DOTHIDEOMYCETES

Catinellales

Catinella olivacea (Batsch) Boud. – new to Kaluga Oblast.

Distribution in Russia: BRY, DA, IVA, MO, MOS, KIR, PRI, PSK, STA, TA.

Specimen examined: Kaluga Oblast, Ulyanovsky District, Kaluzhskiye Zaseki Nature Reserve, southern area, vicinity of Yagodnoye village, 53.54804° N, 35.66732° E, on fallen trunk of *Populus tremula* (III) in polydominant broad-leaved forest, 01.08.2020, coll. SV, det. EP (LE F-342461).

SORDARIOMYCETES

Xylariales

Daldinia childiae J.D. Rogers et Y.M. Ju – new to Bryansk Oblast.

Distribution in Russia: AD, LIP, ROS.

Specimen examined: Bryansk Oblast, Suzemsky District, Bryansky Les Nature Reserve, environs of Chukhray village, 52.46207° N, 33.85548° E, on fallen trunk of *Ulmus* sp. in polydominant broad-leaved forest, 10.08.2015, coll. and det. EP (LE 294643).

Eutypa lata (Pers.) Tul. et C. Tul. – new to Kursk Oblast.

Distribution in Russia: AMU, KDA, KHA, LEN, MUR, PRI, SAK, SMO, SPE, SVE, TVE.

Specimen examined: Kursk Oblast, Kursky District, Tsentralno-Chernozyomny Nature Reserve, environs of Zapovedny, Dubroshina, 51.56618° N, 36.08818° E, on bark of a fallen trunk of *Fraxinus excelsior* in polydominant broad-leaved forest, 15.08.2015, coll. and det. EP (LE 294623).

Hypoxylon cercidicola (Berk. et M.A. Curtis ex Peck) Y.M. Ju et J.D. Rogers – new to Bryansk Oblast.

Distribution in Russia: AD, KHA, PRI.

Specimen examined: Bryansk Oblast, Suzemsky District, Bryansky Les Nature Reserve, environs of Chukhray village, 52.44871° N, 33.84248° E, on bark of a fallen trunk of *Fraxinus excelsior* in polydominant broad-leaved forest, 08.08.2015, coll. and det. EP (LE 294576).

H. fuscum (Pers.) Fr. – new to Oryol Oblast.

Distribution in Russia: widespread species.

Specimens examined: Oryol Oblast, Korsakovsky District, vicinity of Novomalinovo village, Golovkina Dubrava protected forest area, 53.21205° N, 37.29017° E, on fallen stem of *Corylus avellana* in polydominant broad-leaved forest (*Acer platanoides*, *Fraxinus excelsior*, *Quercus robur*), 30.07.2011, coll. SV, det. EP (LE F-342477); Novoderevenkovsky District, vicinity of Mokhovoye village, Shatilovskiy les Nature Sanctuary, 53.04658° N, 37.34414° E, on fallen stem of *Corylus avellana* in herb-rich larch stands, 24.07.2011, coll. SV, det. EP (LE F-342475); Novosilsky District, Dubovshchina protected forest area, 53.03064° N, 37.19853° E, on fallen stem of *Corylus avellana* in oak forest mixed with aspen and maple, 09.08.2011, coll. SV, det. EP (LE F-342476).

H. howeanum Peck – new to Bryansk Oblast and Stavropol Krai.

Distribution in Russia: AMU, KHA, KDA, KYA, MOS, PRI, ROS, SE, SMO, SPE, TUL.

Specimens examined: Bryansk Oblast, Suzemsky District, Bryansky Les Nature Reserve, environs of Chukhray village, 52.44871° N, 33.84248° E, on fallen stem of *Corylus avellana* in polydominant broad-leaved forest, 08.08.2015, coll. and det. EP (LE 294577); Stavropol Krai, Kochubeyevsky District, Stavropolsky forest-steppe Nature Sanctuary, the upper reaches of the Krasnoyarskaya ravine near Novokaterinovskaya village, 44.78663° N, 42.02627° E, on fallen branch of *Carpinus betulus* in polydominant broad-leaved forest (*Fagus orientalis*, *Carpinus betulus*, *Quercus robur*), 21.08.2013, coll. and det. EP (LE 294669).

H. petriniae M. Stadler et J. Fourn. – new to Kursk Oblast.

Distribution in Russia: STA.

Specimen examined: Kursk Oblast, Kursky District, Tsentralno-Chernozyomny Nature Reserve, environs of Zapovedny, Dubroshina, 51.56618° N, 36.08818° E, on bark of a fallen trunk of *Fraxinus excelsior* in polydominant broad-leaved forest, 15.08.2015, coll. and det. EP (LE 294595).

Xylaria hypoxylon (L.) Grev. – new to Kaluga Oblast.

Distribution in Russia: BEL, BU, KC, KGD, KM, LEN, LIP, MOS, MOW, PRI, PSK, ROS, SPE, STA, TUL.

Specimen examined: Kaluga Oblast, Ulyanovsky District, Kaluzhskiye Zaseki Nature Reserve, southern area, vicinity of Trud former village, 53.62389° N, 35.86757° E, on fallen trunk of *Fraxinus excelsior* in polydominant broad-leaved forest, 04.08.2020, coll. SV, det. EP (LE F-342462).

BASIDIOMYCOTA**AGARICOMYCETES***Agaricales*

Agaricus campestris var. *squamulosus* (Rea) Pilát – new to Republic of Crimea.

Distribution in Russia: widespread species.

Specimen examined: Republic of Crimea, Yalta Urban Okrug, the Nikitsky Botanical Gardens, Cape Martyan Reserve, 44.5097° N, 34.25137° E, on solid soil under *Juniperus excelsa*, 30.12.2020, coll. and det. IS (LE F-342480).

Aspropaxillus lepistoides (Maire) Kühner et Maire – new to Republic of Crimea.

Distribution in Russia: KYA, MOS, PNZ, ROS.

Specimen examined: Republic of Crimea, Alushta, 44.69666° N, 34.39538° E, on soil in the edge of hornbeam-oak forest, 06.04.2021, coll. I.I. Salyuk, det. IS (LE F-342479).

Calvatia turneri (Ellis et Everh.) Demoulin et M. Lange – new to Krasnoyarsk Krai.

Distribution in Russia: AL, ALT, ARK, CHU, KAM, KO, MAG, SVE, TYU, YAN.

Specimen examined: Krasnoyarsk Krai, Shushensky District, Sayano-Shushensky Nature Reserve, the mouth of the Malaya Golaya river, 52.3209° N, 92.3050° E, on soil in tundra, 04.08.1984, coll. A.E. Kovalenko, det. Yu.A. Rebriv (LE 254242).

Crepidotus caspari Velen. – new to Pskov Oblast.

Distribution in Russia: AMU, BEL, KHA, KYA, LEN, MAG, MOS, NGR, NVS, ORE, PRI, ROS, RYA, SAM, SPE, SVE, TOM, TUL, TVE, ULY, YAN, YEV.

Specimens examined: Pskov Oblast, Bezhanitsky District, Polistovsky Nature Reserve, Slepethoe stow, 57.08287° N, 30.5193° E, on wood in spruce forest with *Tilia cordata* and *Sorbus aucuparia* in undergrowth, 09.08.2021, coll. and det. LK (LE F-332219); 57.08334° N, 30.51969° E, on wood in aspen forest with *Picea* sp., *Tilia cordata*, *Corylus avellana*, 09.08.2021, coll. and det. LK (LE F-332218).

Cristinia helvetica (Pers.) Parmasto – new to Tyumen Oblast.

Distribution in Russia: ARK, DA, KO, KR, LEN, NIZ, NVS, ORL, PER, PRI, SAK, SPE, SVE, TA, TVE, VGG, VLG, VOR.

Specimen examined: Tyumen Oblast, Tobolsk, 58.19369° N, 68.23838° E, on rotten dead log in wasteland overgrown with *Acer negundo*, 06.08.2021, coll. and det. VK (LE F-342494).

Entoloma bryorum Romagn. – new to Pskov Oblast.

Distribution in Russia: New to Russia.

Specimens examined: Pskov Oblast, Bezhanitsky District, Tsevlo village, 57.05058° N, 30.27373° E, on soil under old-growth *Tilia cordata* in old manor park, 05.09.2019, coll. and det. LK (LE F-332068, GenBank accession number – OP219718); 57.05113° N, 30.27384° E, on soil under old-growth *Tilia cordata* in old manor park, 07.09.2019, coll. and det. LK (LE F-332069, fig. 1, a – c, GenBank accession number – OP219715).

E. sinuatum (Bull. ex Pers.) P. Kumm. – new to Pskov Oblast.

Distribution in Russia: AD, BEL, BRY, KGD, KM, KR, KDA, KYA, LEN, LIP, NVS, SEV, TOM, TUL, VGG, VOR.

Specimen examined: Pskov Oblast, Novosokolnichesky District, the hill on the Moscow–Riga highway near the turn-off to Lovno settlement, 56.30748° N, 30.20166° E, on soil in oak stands on the top of the hill, 11.08.2019, coll. S.A. Kalinin, det. LK (LE F-331544).

Hygrophorus persoonii Arnolds – new to Pskov Oblast.

Distribution in Russia: KHA, KM, LIP, MOS, PNZ, PRI, SAK, SEV, SVE, TA, TUL, YEV.

Specimen examined: Pskov Oblast, Novosokolnichesky District, the hill on the Moscow–Riga highway near the turn-off to Lovno settlement, 56.30748° N, 30.20166° E, on soil in oak stands on the top of the hill, 11.08.2019, coll. and det. LK (LE F-331547).

Leucoagaricus croceovelutinus (Bon et Boiffard) Bon – new to Republic of Crimea.

Distribution in Russia: VGG.

Specimen examined: Republic of Crimea, Yalta Urban Okrug, the Nikitsky Botanical Gardens, Upper Park, 44.51363° N, 34.23322° E, on soil in stands of *Cupressus sempervirens* and *Quercus ilex*, 27.11.2021, coll. and det. IS (LE F-342478).

Marasmius torquescens Quél. – new to Pskov Oblast.

Distribution in Russia: KDA, KGD, LEN, MOS, NGR, PER, PNZ, SAM, TA, TOM, TUL, ULY, VLG.

Specimen examined: Pskov Oblast, Bezhanitsky District, Polistovsky Nature Reserve, Slepethoe stow, 57.08319° N, 30.51657° E, on litter in linden-aspen forest with hazel in undergrowth, 09.08.2021, coll. and det. LK (LE F-332220).

Mycena arcangeliana Bres. – new to Pskov Oblast.

Distribution in Russia: AD, KGD, KIR, KM, MOS, PER, PNZ, SAM, TUL.

Specimens examined: Pskov Oblast, Loknyansky District, Miritinitsy village, 56.640809° N, 29.804164° E, on rotten deciduous wood in broad-leaved forest (*Acer platanoides*, *Fraxinus excelsior*, *Ulmus* sp., *Corylus avellana*), 14.09.2019, coll. and det. LK (LE F-330300, LE F-331302).

M. citrinomarginata Gillet – new to Pskov Oblast.

Distribution in Russia: widespread species.

Specimen examined: Pskov Oblast, Bezhanitsky District, Polistovsky Nature Reserve, sq. 14, 57.16126° N, 30.48107° E, on coniferous litter in spruce forest with *Corylus avellana* and *Sorbus aucuparia* in undergrowth, 03.08.2021, coll. and det. LK (LE F-332221).

M. rosella (Fr.) P. Kumm. – new to Bryansk Oblast.

Distribution in Russia: BEL, CE, CHE, KB, KGD, KIR, KLU, KM, KO, KR, KYA, LEN, LIP, MAG, MOS, MOW, NGR, NVS, PER, PSK, ROS, SPE, TA, TOM, TUL, TVE, UD, VLA, VLG.

Specimen examined: Bryansk Oblast, Trubchevsky District, Bryansky Les Nature Reserve, vicinity of Proletarsky station, 52.53992° N, 34.06301° E, on branches of *Picea abies* buried in the soil in herb-sphagnum spruce forest with pine, 08.10.2021, coll. N.V. Shakhova, det. SV (LE F-342458, voucher for the strain LE-BIN 4784). GenBank accession number – OP219717.

Pluteus aurantiorugosus (Trog) Sacc. – new to Kaluga Oblast.

Distribution in Russia: AMU, CU, KHA, KYA, LEN, NGR, NVS, PER, PNZ, PRI, ROS, SPE, TA, TOM, TUL, YEV.



Fig. 1. Fruit bodies of some collected agarics: a – c – *Entoloma bryorum* LE F-332069 (a – basidiomata, b – lamellae, c – basidiospores, scale bar 10 µm, photo by L.B. Kalinina); d – *Pluteus aurantiorugosus* LE F-342460 (photo by S.V. Volobuev).

Specimen examined: Kaluga Oblast, Ulyanovsky District, Kaluzhskiye Zaseki Nature Reserve, southern area, vicinity of Nagaya village, 53.56746° N, 35.77658° E, on fallen trunk of *Ulmus glabra* in polydominant broad-leaved forest, 08.08.2021, coll. SV, det. SV and LK (LE F-342460, fig. 1, d).

Tricholomopsis rutilans (Schaeff.) Singer – new to Bryansk Oblast.

Distribution in Russia: widespread species.

Specimen examined: Bryansk Oblast, Trubchevsky District, Bryansky Les Nature Reserve, vicinity of the Proletarsky cordon, 52.53511° N, 34.05695° E, on wood buried in the soil in herb-rich spruce forest with pine and oak, 07.10.2021, coll. SV and N. V. Shakhova, det. SV (LE F-342457).

Volvariella pusilla (Pers.) Singer – new to Republic of Crimea.

Distribution in Russia: AL, KK, KYA, LEN, LIP, MOS, NVS, ORE, PER, PNZ, PRI, ROS, RYA, SPE, SVE, TA, TUL, VGG.

Specimen examined: Republic of Crimea, Yalta Urban Okrug, the Nikitsky Botanical Gardens, Cape Martyan Reserve, 44.50783° N, 34.24595° E, on soil under *Juniperus ex-celsa*, close to the trail, 30.06.2021, coll. and det. IS (LE F-342481).

Auriculariales

Aporpium canescens (P. Karst.) Bondartsev et Singer – new to Republic of Mordovia.

Distribution in Russia: ARK, BRY, DA, IRK, IVA, KAM, KGD, KHM, KIR, KLU, KO, KR, LEN, MOS, MUR, NGR, NIZ, ORL, PRI, PSK, RYA, SAM, SPE, SVE, TA, TOM, TVE, TY, VOR.

Specimens examined: Republic of Mordovia, Temnikovskiy District, 2.5 km W from Vesoly village, 54.55074°

N, 42.97448° E, on fallen trunk of *Betula* sp. (30-III) in nemoral-herb birch forest, 11.11.2015, coll. and det. SB (LE F-314409); Mordovsky State Nature Reserve, 54.73671° N, 43.30625° E, on fallen trunk of *Populus tremula* (70-II) in nemoral-herb aspen forest, 10.09.2015, coll. and det. SB (LE F-314942); 54.72205° N, 43.23323° E, on fallen trunk of *Pinus sylvestris* in aspen forest, 07.10.2011, coll. and det. SB (LE F-314943).

Note. The distribution of *Aporpium canescens* in Russia is given taking into account that previously the species was considered as a heterotypic synonym of *A. caryae* (Schwein.) Teixeira et D.P. Rogers. Miettinen et al. (2012) showed that the latter one is an American taxon, having small differences in pore and spore sizes, as well as in ITS nrDNA sequences, with a European species *A. canescens*.

Heteroradulum kmetii (Bres.) Spirin et Malysheva – new to Republic of Mordovia.

Distribution in Russia: KEM, KHA, KYA, OMS, PRI.

Specimen examined: Republic of Mordovia, Temnikovskiy District, Mordovsky State Nature Reserve, 54.73058° N, 43.21667° E, on fallen trunk of *Populus tremula* in nemoral-herb aspen forest, 10.10.2011, coll. SB, det. SV and SB (LE F-314928).

Boletales

Boletinus asiaticus Singer – new to Murmansk Oblast.

Distribution in Russia: AL, ALT, AMU, BU, CHE, IRK, KHA, KHM, KIR, KK, KO, KR, KYA, LEN, MAG, NVS, PER, PRI, SAK, SVE, TOM, UD, YEV.

Specimen examined: Murmansk Oblast, Kolsky District, Listvennitsy Nizhnetulomskogo Vodokhranilishcha regional protected area, 68.7555° N, 32.2969° E, on soil in *Larix sibirica* stands planted in 1953, 10.08.2019, coll. and det. L. G. Isaeva (INEP 3617).

Neoboletus erythropus (Pers.) C. Hahn – new to Pskov Oblast.

Distribution in Russia: widespread species.

Specimen examined: Pskov Oblast, Kunyinsky District, Gruzdovo village, 56.2604° N, 31.11358° E, on soil in herb-rich oak forest, 10.08.2019, coll. S. A. Kalinin, det. LK (LE F-331519).

Cantharellales

Botryobasidium capitatum (Link) Rossman et W.C. Allen – new to Republic of Mordovia.

Distribution in Russia: ARK, CE, CHE, DA, KDA, KO, KR, KYA, LEN, LIP, MUR, NGR, NIZ, NVS, ORL, PER, SVE, TA, TVE, VLG, VOR, YAN.

Specimen examined: Republic of Mordovia, Temnikovskiy District, Mordovsky State Nature Reserve, 54.79914° N, 43.48959° E, on fallen trunk of *Pinus sylvestris* in moss-dwarf shrub pine forest, 31.07.2014, coll. and det. SB (LE F-314589).

B. subcoronatum (Höhn. et Litsch.) Donk – new to Tyumen Oblast.

Distribution in Russia: widespread species.

Specimen examined: Tyumen Oblast, Tobolsky District, vicinity of Verhnie Aremzyany village, 58.30358° N, 68.57505° E, on fallen trunk of *Pinus sibirica* in coniferous forest (*Picea obovata*, *Abies sibirica*, *Pinus sibirica*, *P. sylvestris*), 05.10.2021, coll. and det. VK (LE F-342485).

Sistotrema brinkmannii (Bres.) J. Erikss. – new to Kostroma Oblast.

Distribution in Russia: widespread species.

Specimen examined: Kostroma Oblast, Nerekhtsky District, ca. 3 km S from Luzhki village, 57.33767° N, 40.72811° E, on fallen trunk of *Alnus incana* in mixed stands with birch, aspen and elm (*Ulmus laevis*), 07.06.2022, coll. AL and AE, det. SV (LE F-342471).

Corticiales

Erythricium hypnophilum (P. Karst.) J. Erikss. et Hjortstam – new to Tyumen Oblast.

Distribution in Russia: ALT, KGN, KHM, ROS, SVE.

Specimen examined: Tyumen Oblast, Kazansky District, vicinity of Novoaleksandrovka village, 55.39275° N, 68.80257° E, on fallen pine cone in pine plantation, 05.06.2019, coll. and det. VK (LE F-342493).

Geastrales

Geastrum coronatum Pers. – new to Republic of Crimea.

Distribution in Russia: AL, AST, BEL, KGD, KK, KRS, KYA, LEN, LIP, ME, ROS, RYA, SAR, SPE, STA, SVE, TA, TVE, VGG, VOR.

Specimens examined: Republic of Crimea, Alushta Urban Okrug, Zaprudnoe village, 44.5838° N, 34.31638° E, on soil mixed with litter in the edge of deciduous forest, 18.09.2021, coll. and det. Yu. A. Rebriev (LE F-342241); Yalta, 44.5141° N, 34.16539° E, on soil in park with *Cupressus* sp. and *Juglans regia*, 01.11.2020, coll. IS, det. Yu. A. Rebriev (LE F-342242).

G. pectinatum Pers. – new to Krasnoyarsk Krai.

Distribution in Russia: AMU, BEL, KGD, KHA, KK, KM, KO, KR, KYA, LEN, LIP, MOS, NGR, NIZ, NVS, PNZ, PRI, PSK, ROS, SMO, SPE, SVE, TA, TVE, VOR.

Specimens examined: Krasnoyarsk Krai, Berezovsky District, Krasnoyarskiye Stolby National Park, the right bank of the Bolshaya Slizneva river, 55.88333° N, 92.76667° E, on litter under *Picea* sp. in mixed forest, 01.06.2021, coll. D Polyanskaya., det. Yu. A. Rebriev (LE F-342249); Shushensky District, Sayano-Shushensky Nature Reserve, the mouth of the Malaya Golaya river, 52.2681° N, 91.6137° E, on litter under *Picea* sp., 04.08.2003, coll. N.P. Kutafieva, det. Yu. A. Rebriev (LE F-342250).

G. pseudolimbatum Hollós – new to Krasnoyarsk Krai.

Distribution in Russia: AST, NVS, PNZ, ROS, SAR, TA, TAM, VOR.

Specimen examined: Krasnoyarsk Krai, Krasnoyarsk, territory of the Siberian Federal University, 56.00313° N, 92.77175° E, on soil in pine plantation, 08.09.2009, coll. O. E. Kryuchkova, det. Yu. A. Rebriev (LE F-342253).

G. triplex Jungh. – new to Krasnoyarsk Krai.

Distribution in Russia: AD, AL, AMU, BEL, KDA, KGD, KHA, KM, KO, KR, KRS, LIP, ME, MO, NIZ, PRI, ROS, SAR, SVE, TA, UD, YEV.

Specimen examined: Krasnoyarsk Krai, Berezovsky District, Krasnoyarskiye Stolby National Park, the right bank of the Bolshaya Slizneva river, 55.8833° N, 92.7667° E, on litter in mixed forest, 04.09.2019, coll. O. E. Kryuchkova, det. Yu. A. Rebriev (LE F-342266).

Hymenochaetales

Hydnoporia tabacina (Sowerby) Spirin, Miettinen et K.H. Larss. – new to Kostroma Oblast.

Distribution in Russia: widespread species.

Specimen examined: Kostroma Oblast, Nerekhtsky District, ca. 3 km S from Luzhki village, 57.33751° N, 40.73007° E, on dry standing stem of *Corylus avellana* in herb-rich birch forest with hazel, 07.06.2022, coll. AL and AE, det. SV (LE F-342469).

Inocutis rheades (Pers.) Fiasson et Niemelä – new to Kostroma Oblast.

Distribution in Russia: widespread species.

Specimen examined: Kostroma Oblast, Galichsky District, ca. 2.6 km SSW from Nagatino village, 58.37251° N, 42.07418° E, on fallen trunk of *Populus tremula* in herb-rich aspen forest mixed with spruce, birch and pine, 15.08.2021, coll. AL, det. SV (LE F-342466).

Kneiffiella subalutacea (P. Karst.) Jülich et Stalpers – new to Tyumen Oblast.

Distribution in Russia: AL, ARK, BA, BEL, BRY, CHE, IRK, KDA, KGD, KHM, KM, KO, KR, KYA, LEN, MUR, NIZ, NVS, ORE, ORL, PER, ROS, SA, SPE, SVE, TA, TVE, VLG, YAN.

Specimen examined: Tyumen Oblast, Tobolsky District, vicinity of Priirtyshskij village, 58.15401° N, 68.34988° E, on fallen trunk of *Salix fragilis* in floodplain willow forest, 22.08.2021, coll. and det. VK (LE F-342488).

Lyomyces sambuci (Pers.) P. Karst. – new to Tyumen Oblast.

Distribution in Russia: widespread species.

Specimen examined: Tyumen Oblast, Tobolsky District, vicinity of Vesnina village, 58.32872° N, 68.14586° E, on fallen trunk of *Salix fragilis* in floodplain willow forest, 22.07.2021, coll. and det. VK (LE F-342489).

Peniophorella pallida (Bres.) K.H. Larss. – new to Republic of Mordovia.

Distribution in Russia: ARK, BEL, CHE, KDA, KHM, KO, KYA, LEN, MUR, NIZ, NVS, ORE, ORL, PER, SPE, SVE, TVE, TY, YAN.

Specimen examined: Republic of Mordovia, Temnikovskiy District, Mordovskiy State Nature Reserve, 54.90674° N, 43.23540° E, on fallen trunk of *Pinus sylvestris* (20-II) in moss-dwarf shrub pine forest, 22.07.2015, coll. and det. SB (LE F-314694).

P. pubera (Fr.) P. Karst. – new to Tyumen Oblast.

Distribution in Russia: widespread species.

Specimen examined: Tyumen Oblast, Tobolsky District, vicinity of Verhnie Aremzyany village, 58.30351° N, 68.58291° E, on fallen trunk of *Alnus incana* in alder forest, 05.10.2021, coll. and det. VK (LE F-342484).

Jaapiales

Jaapia ochroleuca (Bres.) Nannf. et J. Erikss. – new to Irkutsk Oblast.

Distribution in Russia: AL, BA, BRY, KHM, PRI, ROS, SVE.

Specimen examined: Irkutsk Oblast, Ust'-Kutsky District, vicinity of Orlinga village, 56.0526° N, 105.8758° E, on fallen trunk of *Picea* sp. in lingonberry spruce forest, 15.09.1967, coll. M. A. Bondartseva, det. SV (LE F-342459).

Polyporales

Antrodiella leucoxantha (Bres.) Miettinen et Niemelä – new to Kostroma Oblast.

Distribution in Russia: BRY, MUR, NIZ, ORL, ROS, SAM.

Specimen examined: Kostroma Oblast, Pyschugsky District, ca. 0.7 km S from Borovskoy village, the right bank of the Andronovskiy Ferdos river, 58.8231° N, 45.5582° E, on fallen log of a deciduous tree in mixed forest with spruce, fir, aspen and birch, 04.08.2019, coll. AL and AE, det. SV (LE F-342470).

A. romellii (Donk) Niemelä – new to Kostroma Oblast.

Distribution in Russia: widespread species.

Specimen examined: Kostroma Oblast, Galichsky District, Yakushkino former village, 58.35257° N, 42.40995° E, on fallen branch of *Quercus robur* in abandoned village, 12.09.2020, coll. AL, det. SV (LE F-342474).

Brunneoporus kuzyanus (Pilát) Audet – new to Kostroma Oblast.

Distribution in Russia: KIR, NIZ, NVS, ORE, ORL, ROS, RYA, SAM, SPE, SVE, TVE.

Specimen examined: Kostroma Oblast, Krasnoselsky District, ca. 2.8 km NNE from Svetochyeva Gora village, the right bank of the Volga river, 57.47102° N, 41.36115° E, on fallen trunk of *Populus tremula* in herb-rich aspen forest mixed with oak, maple and grey alder, 03.06.2021, coll. AL and AE, det. SV (LE F-342465).

Note. Spirin et al. (2016) showed that *Antrodia malicola* (Berk. et M.A. Curtis) Donk sensu auct. Eur. represents a separate species, *A. kuzyana* (Pilát) Spirin et Vlasák [≡ *Brunneoporus kuzyanus* (Pilát) Audet], with very subtle morphological differences from the former species distributed in North America and Asia. Distribution in Russia is given for the European taxon without taking into account any references as *A. malicola* from the Asian part of the country.

B. minutus (Spirin) Audet – new to Republic of Mordovia.

Distribution in Russia: ARK, BA, DA, KOS, KYA, LEN, LIP, MOW, NIZ, ORL, SAM, SVE, TY, UD.

Specimen examined: Republic of Mordovia, Temnikovskiy District, Mordovskiy State Nature Reserve, 54.74667° N, 43.08713° E, on fallen trunk of *Populus tremula* in nitrophilous-herb oak forest, 10.07.2014, coll. and det. SB (LE F-304276).

Ceriporia bresadolae (Bourdot et Galzin) Donk – new to Arkhangelsk Oblast.

Distribution in Russia: AST, CHE, DA, LIP, NIZ, ORL, PER, PNZ, TA, TY, YAN.

Specimen examined: Arkhangelsk Oblast, Shenskursky District, vicinity of Shegovary village, 62.37171° N, 42.91573° E, on fallen stem of *Juniperus communis* (II) in blueberry spruce forest, 20.09.2021, coll. O. N. Ezhov, det. I. V. Zmitrovich (LE F-342455, dupl. AR 3531).

Hypoderma mutatum (Peck) Donk – new to Kostroma Oblast.

Distribution in Russia: widespread species.

Specimen examined: Kostroma Oblast, Galichsky District, Zhilotovo former village, 58.3397° N, 42.4017° E, on dry fallen branch of *Tilia cordata* in abandoned village, 09.06.2021, coll. AL, det. SV (LE F-342473).

Hypochnicium geogenium (Bres.) J. Erikss. – new to Republic of Mordovia.

Distribution in Russia: AL, ARK, CHE, IRK, KHM, KIR, KO, KR, KYA, LEN, MUR, NIZ, ORL, PSK, SPE, SVE, TA.

Specimens examined: Republic of Mordovia, Temnikovskiy District, Mordovskiy State Nature Reserve, 54.74718° N, 43.30793° E, on fallen trunk of *Picea abies* (30-III) in nemoral-herb pine forest, 10.09.2015, coll. and det. SB (LE F-311601); 54.72101° N, 43.20718° E, on fallen trunk of *Pinus sylvestris* (10-III) in boreal-nemoral-herb pine forest, 10.10.2015, coll. and det. SB (LE F-314378).

H. punctulatum (Cooke) J. Erikss. – new to Republic of Mordovia.

Distribution in Russia: AL, KAM, KDA, KHM, KO, KR, KYA, LEN, MUR, NIZ, ORE, ORL, PER, PSK, RYA, SPE, SVE, VLG.

Specimen examined: Republic of Mordovia, Temnikovskiy District, Mordovskiy State Nature Reserve, 54.7083° N, 43.1971° E, on fallen trunk of *Alnus glutinosa* (10-II) in hygrophilous-herb alder forest, 28.09.2015, coll. and det. SB (HMNR F20576).

H. wakefieldiae (Bres.) J. Erikss. – new to Tyumen Oblast.

Distribution in Russia: KDA, KO, KR, LEN, LIP, MO, ORL, TVE, VLG.

Specimen examined: Tyumen Oblast, Tobolsk, vicinity of Mendeleevo village, 58.27808° N, 68.3493° E, on fallen trunk of *Pinus sylvestris* in pine forest, 04.08.2021, coll. and det. VK (LE F-342492).

Lilaceophlebia tremelloidea (Bres.) Zmitr. – new to Tyumen Oblast.

Distribution in Russia: ARK, KDA, KHM, KIR, KYA, LEN, MO, NIZ, TVE.

Specimen examined: Tyumen Oblast, Tobolsk, 58.20079° N, 68.24206° E, on fallen trunk of *Salix fragilis* in floodplain willow forest, 07.08.2021, coll. and det. VK (LE F-342487).

Neoantrodia leucaena (Y.C. Dai et Niemelä) Audet – new to Republic of Mordovia.

Distribution in Russia: KHA, LEN, MOW, NIZ, UD.

Specimen examined: Republic of Mordovia, Temnikovskiy District, Mordovskiy State Nature Reserve, 54.72596° N, 43.19394° E, on fallen trunk of *Acer platanoides* in nemoral-herb linden forest, 08.11.2012, coll. and det. SB (LE F-314952).

Phanerochaete alnea (Fr.) P. Karst. – new to Republic of Mordovia.

Distribution in Russia: AL, BEL, CHE, DA, KAM, KEM, KO, KR, LEN, NGR, NIZ, NVS, OMS, ORL, PER, PRI, SVE, VLG, YAN.

Specimen examined: Republic of Mordovia, Temnikovskiy District, Mordovskiy State Nature Reserve, 54.76936° N, 43.39528° E, on fallen branch of *Betula* sp. (5-III) with *Phlebia acerina* Peck in moss-dwarf shrub pine forest, 28.06.2017, coll. and det. SB (LE F-315144).

Phlebia rufa (Pers.) M.P. Christ. – new to Kostroma Oblast.

Distribution in Russia: widespread species.

Specimen examined: Kostroma Oblast, Nerekhtskiy District, ca. 3 km S from Luzhki village, 57.33767° N, 40.72811°

E, on fallen trunk of *Alnus incana* in mixed stands with birch, aspen and elm (*Ulmus laevis*), 07.06.2022, coll. AL and AE, det. SV (LE F-342472).

Postia guttulata (Sacc.) Jülich – new to Republic of Mordovia.

Distribution in Russia: AD, AL, ARK, BA, CHE, KHA, KHM, KIR, KO, KR, KYA, LEN, NGR, NIZ, ORE, ORL, PER, PRI, SAM, SPE, SVE, TA, TOM, TVE, VLG, YEV.

Specimen examined: Republic of Mordovia, Temnikovskiy District, Mordovskiy State Nature Reserve, 54.70912° N, 43.2136° E, on stump of *Picea abies*, 16.08.1937, coll. T. L. Nikolajeva, det. SB (LE F-314950).

P. ptychogaster (F. Ludw.) Vesterh. – new to Republic of Mordovia.

Distribution in Russia: AL, ARK, KGD, KHA, KHM, LEN, MOS, NGR, NIZ, PSK, RYA, SPE, SVE, TA, TVE, TYU, UD, VLG, YAN.

Specimen examined: Republic of Mordovia, Temnikovskiy District, Mordovskiy State Nature Reserve, 54.74892° N, 43.31683° E, on fallen trunk of *Picea abies* in boreal-nemoral-herb pine forest, 10.09.2015, coll. and det. SB (HMNR F20578).

P. romellii M. Pieri et B. Rivoire – new to Republic of Mordovia.

Distribution in Russia: KO, TVE.

Specimen examined: Republic of Mordovia, Temnikovskiy District, Mordovskiy State Nature Reserve, 54.74892° N, 43.31683° E, on fallen trunk of *Picea abies* in boreal-nemoral-herb pine forest, 10.09.2015, coll. and det. SB (LE F-314703); Temnikov, park imeni 50–Letiya VLKSM, 54.62287° N, 43.22728° E, on fallen trunk of *Pinus sylvestris* (20-III) in birch forest, 28.09.2015, coll. and det. SB (LE F-314701).

Pycnoporellus fulgens (Fr.) Donk – new to Kostroma Oblast.

Distribution in Russia: widespread species.

Specimen examined: Kostroma Oblast, Krasnoselsky District, ca. 2.8 km NNE from Svetocheva Gora village, the right bank of the Volga river, 57.47170° N, 41.36420° E, on fallen trunk of *Alnus incana* in herb-rich birch forest mixed with elm (*Ulmus laevis*) and grey alder, 03.06.2021, coll. AL and AE, det. SV (LE F-342468). GenBank accession number – OP219716.

Yuchengia narymica (Pilát) B.K. Cui, C.L. Zhao et K.T. Steffen – new to Republic of Mordovia.

Distribution in Russia: ARK, KHM, KIR, LEN, NIZ, NVS, ORL, PRI, SAM, SVE, TOM, TVE, VLG.

Specimens examined: Republic of Mordovia, Temnikovskiy District, 6 km N to Staryy Gorod village, 54.73606° N, 43.07284° E, on fallen trunk of *Ulmus* sp. (20-IV) in nitrophilous-herb linden forest, 05.08.2015, coll. SB, det. SV (LE F-314408); Mordovskiy State Nature Reserve, 54.79910° N, 43.40145° E, on fallen trunk of *Betula* sp. in nemoral-herb aspen forest, 16.07.2013, coll. and det. SB (LE F-314951); 54.78861° N, 43.41018° E, on fallen trunk of *Populus tremula* (40-IV) in nemoral-herb linden forest, 10.07.2015, coll. and det. SB (LE F-314651).

Russulales

Acanthophysellum minor (Pilát) Sheng H. Wu, Boidin et C.Y. Chien – new to Republic of Mordovia.

Distribution in Russia: LIP, YAR.

Specimen examined: Republic of Mordovia, Temnikovskiy District, Mordovskiy State Nature Reserve, 54.76472° N, 43.29505° E, on dry standing *Salix cinerea*, 22.06.2017, coll. and det. SB (LE F-315140).

Baltazaria galactina (Fr.) Leal-Dutra, Dentinger et G.W. Griff. – new to Kostroma Oblast.

Distribution in Russia: widespread species.

Specimens examined: Kostroma Oblast, Krasnoselsky District, ca. 2.5 km N from Svetocheva Gora village, the right bank of the Volga river, 57.46865° N, 41.35158° E, on fallen trunk of *Populus tremula* in herb-rich aspen forest with *Corylus avellana*, 03.06.2021, coll. AL and AE, det. SV (LE F-342467); Oktyabrskiy District, ca. 9 km NE from Solovetskoye village, the upper stream of the Irdom river, 59.10814° N, 47.40876° E, on fallen trunk of *Betula* sp. in blueberry-mosses spruce forest mixed with birch and pine, 25.07.2020, coll. AL and AE, det. SV (LE F-342464).

Dichostereum effuscatum (Cooke et Ellis) Boidin et Lanq. – new to Tyumen Oblast.

Distribution in Russia: KDA, LEN, MO, ORL, PSK, ROS.

Specimen examined: Tyumen Oblast, Tobolsk, 58.20544° N, 68.24749° E, on fallen trunk of *Salix fragilis* in floodplain willow forest, 16.08.2021, coll. and det. VK (LE F-342486).

Lactarius azonites (Bull.) Fr. – new to Pskov Oblast.

Distribution in Russia: AD, AMU, KC, KDA, KGD, KHA, LEN, LIP, ME, MOS, NGR, PNZ, PRI, SMO, SPE, TA, TUL, YEY.

Specimen examined: Pskov Oblast, Kunyinsky District, Gruzdovo village, 56.2604° N, 31.11358° E, on soil in herb-rich oak forest, 10.08.2019, coll. and det. LK (LE F-331554).

Peniophora limitata (Chaillet ex Fr.) Cooke – new to Arkhangelsk Oblast.

Distribution in Russia: BEL, BRY, CE, CHE, KDA, KLU, LEN, MUR, NVS, ORE, ORL, PSK, SPE, SVE, TUL, VGG.

Specimen examined: Arkhangelsk Oblast, Primorsky District, Dendrological garden of the Northern Research Institute of Forestry, 64.49583° N, 40.77806° E, on bark of *Acer ukurunduense*, 01.09.2021, coll. O. N. Ezhov, det. I. V. Zmitrovich (LE F-342456, dupl. AR 3592).

Thelephorales

Tomentella cinerascens (P. Karst.) Höhn. et Litsch. – new to Republic of Mordovia.

Distribution in Russia: ARK, DA, KC, KDA, KEM, KHA, KR, KYA, LEN, MUR, NGR, NVS, ORE, ORL, PER, PRI, PSK, SAK, SAR, SVE, TVE, TY, VLG, YAN, ZAB.

Specimen examined: Republic of Mordovia, Temnikovskiy District, Mordovskiy State Nature Reserve, 54.77494° N, 43.40858° E, on fallen trunk of *Pinus sylvestris* (25-III) in moss-dwarf shrub pine forest, 11.07.2015, coll. and det. SB (LE F-314366).

Tomentellopsis pulchella Kõljalg et Bernicchia – new to Republic of Mordovia.

Distribution in Russia: BEL, VGG.

Specimens examined: Republic of Mordovia, Temnikovskiy District, Mordovskiy State Nature Reserve, 54.75422° N, 43.09874° E, on fallen branch of *Quercus robur* with *Henningsomyces candidus* (Pers.) Kuntze in nitrophilous-herb oak forest, 24.09.2014, coll. and det. SB (LE F-304126); 54.72042° N, 43.16203° E, on fallen trunk of *Alnus glutinosa* in nitrophilous-herb oak forest, 13.10.2014, coll. and det. SB (LE F-304188).

Trechisporales

Trechispora cohaerens (Schwein.) Jülich et Stalpers – new to Tyumen Oblast.

Distribution in Russia: ARK, BEL, BRY, DA, KDA, KGD, KO, KR, KYA, LEN, LIP, MOS, NGR, NIZ, NVS, ORL, PER, SA, SAM, SPE, SVE, TA, TUL, TVE, VOR, YAN, YEY, ZAB.

Specimen examined: Tyumen Oblast, Vagaysky District, ca. 9.5 km SE to Istyatskoye village, 57.27563° N, 69.2649° E, on fallen trunk of *Populus tremula* in mixed forest (*Populus tremula*, *Betula* spp., *Pinus sylvestris*), 23.09.2021, coll. and det. VK (LE F-342491).

T. nivea (Pers.) K.H. Larss. – new to Tyumen Oblast.

Distribution in Russia: ARK, CHE, KHM, KM, KR, KYA, LEN, MO, MUR, NGR, ORL, SPE, SVE, TOM, TVE, TY, VLG, YAN, ZAB.

Specimen examined: Tyumen Oblast, Tobolsk, 58.28905° N, 68.473064° E, on fallen trunk of *Pinus sylvestris* in mixed forest (*Picea obovata*, *Abies sibirica*, *Pinus sibirica*, *P. sylvestris*, *Populus tremula*, *Betula* spp.), 18.09.2021, coll. and det. VK (LE F-342490).

TREMELLOMYCETES

Tremellales

Naematelia aurantia (Schwein.) Burt – new to Republic of Crimea.

Distribution in Russia: ARK, BRY, KC, KR, SVE.

Specimen examined: Republic of Crimea, Yalta Urban Okrug, the Nikitsky Botanical Gardens, Cape Martyan Reserve, 44.50894° N, 34.24289° E, on fallen trunk of *Carpinus orientalis* with basidiomata of *Stereum hirsutum* (Willd.) Pers., 22.06.2021, coll. and det. IS (LE F-342483).

DISCUSSION

A total of 71 macromycete species, including 8 species from the phylum *Ascomycota* and 63 species from the phylum *Basidiomycota*, have been recorded for the first time from 14 administrative regions of Russia. The distribution of the new records of 63 basidial species within the regions is shown in the Table 1.

Among regional mycological novelties, one species, *Entoloma bryorum* is reported as new to Russia based on specimens collected in Pskov Oblast. In addition to traditional microscopic identification, ITS nrDNA sequences were obtained from the specimens studied and compared with the reference sequences from the GenBank database. Based on a megablast search, the iden-

Table 1. Species richness of basidial macrofungi within the regions studied

Region	Number of new species reported	Total species number (to date)
Arkhangelsk Oblast	2	835
Bryansk Oblast	2	491
Irkutsk Oblast	1	1181
Kaluga Oblast	1	499
Kostroma Oblast	10	154
Krasnoyarsk Krai	4	1831
Murmansk Oblast	1	952
Pskov Oblast	9	1018
Republic of Crimea	6	1013
Republic of Mordovia	16	675
Tyumen Oblast	11	399

tity has been shown with LN850539 (specimen collected by K. Kokkonen from Finland, 100% similarity) and MZ868978 (specimen collected by T.E. Brandrud from Norway, 99.9% similarity).

Noteworthy are fungal finds which are reported for Russia only for the second time and for the third time. Two species – *Hypoxylon petriniae* and *Leucoagaricus croceovelutinus* – are listed for Russia as the second occurrences. Species *Acanthophysellum minor*, *Postia romellii*, and *Tomentellosis pulchella* are recorded by the third finds.

The work of S.V. Volobuev, S.Yu. Bolshakov, L.B. Kalinina, E.S. Popov, N.V. Shakhova, and I.V. Zmitrovich has been carried out within the framework of the institutional research project of the Komarov Botanical Institute (project 122011900033-4) using the equipment of the Core Facility Centre “Cell and Molecular Technologies in Plant Science” at the Komarov Botanical Institute, RAS (St. Petersburg, Russia). The work of S.V. Volobuev was partially funded by the Russian Foundation for Basic Research (project 20-04-00733) in terms of collection of fungal specimens. The work of L.B. Kalinina has been carried out within the framework of the research project of the Polistovsky State Nature Reserve, FOIV – 1-22-66-3. The work of Yu.A. Rebriev was carried out within the frame of government assignment for the South Science Center RAS (project 122020100332-8). The work of O.N. Ezhov was carried out in frameworks of State Task (FUUW-2022-0057, project 122011400384-2).

REFERENCES

Bolshakov S. Yu., Potapov K. O., Ezhov O. N. et al. New species for regional mycobiotas of Russia. 1. Report 2016. Mikologiya i fitopatologiya. 2016. V. 50 (5). P. 275–286.

Bolshakov S. Yu., Volobuev S. V., Ezhov O. N. et al. Checklist of aphyllorphoroid fungi of the European part of Russia: the first results. In: Dyakov Yu. T., Sergeev Yu. V. (eds) Current mycology in Russia. V. 6. National Academy of mycology, Moscow, 2017. P. 120–122 (in Russ.).

Bolshakov S. Yu., Volobuev S. V., Potapov K. O. et al. New species for regional mycobiotas of Russia. 3. Report 2018. Mikologiya i fitopatologiya. 2018. V. 52 (6). P. 386–397. <https://doi.org/10.1134/S0026364818060028>

Bolshakov S. Yu., Kalinina L. B., Volobuev S. V. et al. New species for regional mycobiotas of Russia. 5. Report 2020. Mikologiya i fitopatologiya. 2020. V. 54 (6). P. 404–413. <https://doi.org/10.31857/S0026364820060033>

Bolshakov S., Kalinina L., Palomozhnykh E. et al. Agaricoid and boletoid fungi of Russia: the modern country-scale checklist of scientific names based on literature data. Biological Communications. 2021. V. 66 (4). P. 316–325. <https://doi.org/10.21638/spbu03.2021.404>

ISO 3166-2 Changes in the list of subdivision names and code elements. Newsletter II-2. 2010. http://www.iso.org/iso/iso_3166-2_newsletter_ii-2_2010-06-30.pdf. Accessed 12.04.2021

Miettinen O., Spirin V., Niemelä T. Notes on the genus *Aporpium* (*Auriculariales*, *Basidiomycota*), with a new species from temperate Europe. Ann. Bot. Fennici. 2012. V. 49 (5). P. 359–368. <https://doi.org/10.5735/085.049.0607>

Spirin V., Vlasák J., Rivoire B. et al. Hidden diversity in the *Antrodia malicola* group (*Polyporales*, *Basidiomycota*). Mycol. Progress. 2016. V. 15. Art. 51. <https://doi.org/10.1007/s11557-016-1193-9>

Svetasheva T. Yu., Arslanov S. N., Bolshakov S. Yu. et al. New species for regional mycobiota of Russia. 2. Report 2017. Mikologiya i fitopatologiya. 2017. V. 51 (6). P. 375–389.

Volobuev S. V., Bolshakov S. Yu., Shiryayev A. G. et al. New species for regional mycobiotas of Russia. 4. Report 2019. Mikologiya i fitopatologiya. 2019. V. 53 (5). P. 261–271. <https://doi.org/10.1134/S0026364819050076>

Volobuev S. V., Bolshakov S. Yu., Khimich Yu. R. et al. New species for regional mycobiotas of Russia. 6. Report 2021. Mikologiya i fitopatologiya. 2021a. V. 55 (6). P. 411–422. <https://doi.org/10.31857/S0026364821060131>

Volobuev S. V., Ivanushenko Yu. Yu., Ismailov A. B. Diversity and ecology of poroid fungi (*Agaricomycetes*, *Basidiomycota*) of the Gunib Plateau, Dagestan. South of Russia: ecology, development. 2021b. V. 16 (3). P. 68–80. <https://doi.org/10.18470/1992-1098-2021-3-68-80>

Большаков С. Ю., Волобуев С. В., Ежов О. Н. и др. (Bolshakov et al.) Чек-лист афиллофороидных грибов Европейской части России: первые результаты // Современная микология в России. Том 6 / Ред. Ю. Т. Дьяков, Ю. В. Сергеев. М.: Нац. акад. микол., 2017. С. 120–122.

Новые виды для микобиот регионов России.

7. Информационное сообщение – 2022

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Представлены данные о находках 8 видов сумчатых и 63 видов базидиальных грибов, выявленных впервые для Республики Крым (6), Республики Мордовия (16), Красноярского края (4), Ставропольского края (1), Архангельской (2), Брянской (5), Иркутской (1), Калужской (3), Курской (2), Костромской (10), Мурманской (1), Орловской (1), Псковской (9), Тюменской (11 видов) областей. Аннотированный список включает данные о местонахождениях, местообитаниях, субстратах и датах сбора приводимых находок, с указанием коллекционных номеров микологических гербариев. Впервые для России приводится *Entoloma bryorum*. Виды *Huroxylon petrinae* и *Leucoagaricus croceovelutinus* указываются для России во второй раз, виды *Acanthophysellum minor*, *Postia romellii* и *Tomentellopsis pulchella* отмечены третьими находками. Получены и депонированы в международную базу данных Генбанк нуклеотидные последовательности ITS-области ядерной рибосомальной ДНК для образцов *Entoloma bryorum*, *Mycena rosella* и *Pycnoporellus fulgens*.

Ключевые слова: аскомицеты, базидиомицеты, биоразнообразие, ДНК-штрихкоды, распространение грибов, Россия