

New Species of Macromycetes for Regions of the Russian Far East. 6

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Abstract. In this publication devoted to the new finds of macrofungi (ascomycetes, basidiomycetes) in regions of the Russian Far East the data about 45 species are reported. The species are pointed for the first time from six administrative units of the Russian Far East: Amur Oblast, Jewish Autonomous Oblast, Khabarovsk Krai, Magadan Oblast, Primorskiy Krai and Sakhalin Oblast. Each annotated record provides details about collection information: locality, habitat, substrate, specimen herbarium number, collector and determiner. For some of the rare species, notes are given about the features of distribution and ecology. The identification of *Rhizopogon jiyaozi* is confirmed by molecular genetic data. The material is deposited in LE, MAG, SVER, TOB, VLA herbaria. Four species (*Adelphella babingtonii*, *Helvella solitaria*, *Rutstroemia alnobetulae*, *Pseudoplectania episphagnum*) are reported as the first records for the Russian Far East, and three (*Spooneromyces daliensis*, *Tympanis prunicola* и *Rhizopogon jiyaozi*) as the first for Russia.

Keywords: ascomycetes, basidiomycetes, biodiversity, fungal distribution, morphological and molecular identification, rare species, Russia

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Новые для регионов Российского Дальнего Востока виды макромицетов. 6

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Аннотация. В очередной статье, посвященной находкам новых для Дальневосточного региона видов макромицетов, приведены сведения о 45 видах базидиальных и сумчатых грибов. Эти виды впервые отмечены в шести административных единицах Дальнего Востока (Амурской, Еврейской автономной, Магаданской, Сахалинской областях, Приморском и Хабаровском краях). Каждая запись содержит подробную информацию об образце: место сбора, место обитания, субстрат, гербарный номер, кто собрал и определил. Для некоторых редких видов даны примечания об особенностях распространения и экологии. Идентификация вида *Rhizopogon jiyaozi* подтверждена молекулярно-генетическими данными. Цитируемый материал хранится в микологических коллекциях LE (Санкт-Петербург), MAG (Магадан), SVER (Екатеринбург), TOB (Тобольск), VLA (Владивосток). Впервые для Дальнего Востока России отмечено четыре вида (*Adelphella babingtonii*, *Helvella solitaria*, *Rutstroemia alnobetulae*, *Pseudoplectania epispaghnum*). Находки еще трех видов (*Spooneromyces daliensis*, *Tyrmpanis prunicola* и *Rhizopogon jiyaozi*) являются первыми для России.

Ключевые слова: аскомицеты, биоразнообразие, биоразнообразие, морфологические и молекулярно-генетические методы идентификации, распространение грибов, редкие виды, Россия

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Соблюдение этических стандартов. Настоящая статья не содержит каких-либо исследований с участием людей и животных в качестве объектов.

Конфликт интересов. Авторы данной работы заявляют, что у них отсутствует конфликт интересов.

Вклад авторов. Ю.А. Ребриевым проведена разработка концепции статьи и подготовка рукописи. Все авторы принимали участие в сборе и идентификации коллекционных образцов, подборе литературы, редактировании рукописи.

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INTRODUCTION

This paper is a sixth in the series of publications devoted to the new finds of macrofungi in the regions of the Russian Far East which was launched in 2020 [1–5]. The data contained in these publications are deposited on the GBIF resource [6].

Each annotated record provides details about specimen ecology and collection information: locality, habitat, substrate, specimen herbarium numbers, collectors and determiners as well as notes on rarity and peculiar features of some species.

MATERIALS AND METHODS

Material was collected and identified by Anna V. Bogacheva (abbreviated as AB), Elena A. Erofeeva (EE), Vladimir I. Kapitonov (VK), Yury A. Rebriev (YuR), Nina A. Sazanova (NS), Anton G. Shiryaev (AS), Elena A. Zvyagina (EZ) and others, as indicated in the text. If the specimen was collected and determined by the same specialist, such notes as “coll. and det.” are omitted in the text. The taxa names are actualized in accordance with the Index Fungorum database [7].

The cited specimens are stored in the herbaria: Komarov Botanical Institute of RAS (LE, Saint Petersburg), Institute of the Biological Problems of the North FEB RAS (MAG, Magadan), Institute of Plant and Animal Ecology UB RAS (SVER, Ekaterinburg), Tobolsk Complex Scientific Station UB RAS (TOB, Tobolsk) and Bioresource Collection of the Federal Scientific Centre of the East Asia Terrestrial Biodiversity FEB RAS (VLA, Vladivostok).

The novelty of finding the species in the region was assessed on the analysis of numerous publications. The main sources of information for macromycetes taxa is a cumulative checklists published in the 2021 and 2022 [8, 9], as well as the Global Biodiversity Information Facility [10].

The identification was carried out mainly by morphological methods. For *Rhizopogon jiyaozi*, the full ITS region was sequenced via standard Sanger sequencing. The methodology of work on gene identification is discussed in detail in Rebriev et al., 2024 [5].

RESULTS

Ascomycota

Helotiales

Calycellina ulmariae (Lasch) Korf – new for Sakhalin Oblast.

Specimens examined: *Sakhalin Oblast*: Okhynskiy District, Schmidt Peninsula, Sukharny stream valley, 54.1200°N, 142.3900°E, on dead stems of *Petasites* sp., 11.08.2003, AB (VLA D-4678).

Chlorenchelia macrospora F. Ren et W.Y. Zhuang – new for Jewish Autonomous Oblast.

Specimens examined: *Jewish Autonomous Oblast*: Bastak Nature Reserve, vicinity of 39 km cordon, 49.05578°N, 133.05287°E, *Quercus* spp. dominated broadleaf forest, on dead wood, 24.07.2023, coll. N.V. Bukharova, det. AB (VLA D-4704).

Rutstroemia alnobetulae Dougloud – new for Russian Far East.

Specimens examined: *Magadan Oblast*: vicinity of Magadan city, Novaya Veselaya, valley of Kedrovyy klyuch brook, 59.5235°N, 150.8961°E, forest with *Betula lanata* and *Alnus fruticosa*, on a dead branch of *Alnus* without bark, 24.08.2012, coll. NS, det. E.S. Popov (MAG 5396).

Leotiales

Tympanis prunicola J.W. Groves – new for Russian Federation.

Specimens examined: *Sakhalin Oblast*: Makarovskiy District, Porechye settlement area, Makarovskiy Zakaznik, 48.3411°N, 142.4501°E, *Abies–Picea* dominated forest with *Betula* sp. and *Salix* sp., on the branches of *Betula ermani*, 20.07.2008, AB (VLA D-4688).

Pezizales

Adelphella babingtonii (Berk. et Broome) Pfister, Matóčec et I. Kušan – new for Russian Far East.

Specimens examined: *Sakhalin Oblast*: Noglikskiy District, south of Val village, the floodplain of the Terpelivy stream, 52.2025°N, 143.0354°E, swampy area, on peat, 08.09.2008, AB (VLA D-4706).

Cheilymenia crucipila (Cooke et W. Phillips) Le Gal ex Denison – new for Sakhalin Oblast.

Specimens examined: *Sakhalin Oblast*: Noglikskiy District, south of Val village, 676 km of the federal highway, 52.2025°N, 143.0354°E, swampy area, on peat, 04.08.2008, AB (VLA D-4707).

Helvella solitaria P. Karst. – new for Russian Far East.

Specimens examined: *Magadan Oblast*: Olskiy District, Koni Peninsula, Magadanskiy Nature Reserve, Olskiy section, Cape Plosky, along the Khindzha river, 59.1580°N, 151.6512°E, floodplain forest with *Salix* spp. and *Alnus fruticosa*, on soil with small mosses, 04.08.2023, coll. E.V. Zheludeva, det. NS (MAG 6498).

Peziza domiciliana Cooke – new for Sakhalin Oblast.

Specimens examined: *Sakhalin Oblast*: Smirnykhovskiy District, Pobedino settlement area, 49.5012°N, 142.4930°E, *Betula*-forest with *Carex* spp., on clay soil, 03.09.2008, AB (VLA D-4683).

P. repanda Wahlenb. ex Fr. – new for Jewish Autonomous Oblast.

Specimens examined: *Jewish Autonomous Oblast*: Bastak Nature Reserve, vicinity of 39 km cordon, 49.0558°N, 133.0529°E, *Quercus* spp. dominated broadleaf forest, on dead wood of *Populus* sp., 23.07.2023, coll. N.V. Bukharova, det. AB (VLA D-4702).

Plicaria endocarpoides (Berk.) Rifai – new for Sakhalin Oblast.

Specimens examined: *Sakhalin Oblast*: Noglikskiy District, Nabyt settlement area, 51.7249°N, 143.3007°E, disturbed area, on clay soil, 13.09.2008, AB (VLA D-4687).

Pseudoplectania episphagnum (J. Favre) M. Carbone, Agnello et P. Alvarado – new for Russian Far East.

Specimens examined: *Magadan Oblast*: Olskiy District, vicinity of Glukhoe lake, 59.7437°N, 149.8800°E, lumpy sphagnum tundra with *Oxycoccus microcarpus* and *Drosera rotundifolia*, on *Sphagnum* sp., 08.06.2025, NS (MAG 6990); Khasynskiy District, Rangifer station, Tenkeli river valley, 60.6891°N, 152.0306°E, sparse forest with *Larix cajanderi*, on *Sphagnum* sp., 14.06.1984, NS (MAG 176).

Note: The specimen MAG 176 was previously pointed as *Pseudoplectania nigrella* (Pers.) Fuckel in Sazanova [11].

Spooneromyces daliensis (W.Y. Zhuang) W.Y. Zhuang — new for Russian Federation.

Specimens examined: *Sakhalin Oblast*: Noglikskiy District, north of Val village, 699 km of the federal highway, 52.2025°N, 143.0354°E, area of disturbed soil cover, on sandy soil, 02.08.2008, AB (VLA D-4708).

Basidiomycota

Agaricales

Arrhenia telmatiaea (Berk. et Cooke) Voitek et I. Saar — new for Magadan Oblast.

Specimens examined: *Magadan Oblast*: Olskiy District, Zavyalov Island, Rassvet Bay, 59.0781°N, 150.5918°E, hollow-ridge tundra, on *Sphagnum* sp., 22.06.2010, NS (MAG 2975); Spafar'yev Island, Crab Bay, 59.1373°N, 148.9631°E, wet lowland at the foot of the slope, on *Sphagnum fuscum*, 21.07.2013, NS (MAG 3924); Tauy river valley, 72 km, 59.7981°N, 148.2661°E, sphagnum swamp with *Oxycoccus palustris*, on *Sphagnum* sp., 23.08.2017, NS (MAG 6594); Tenkinskiy District, upper part of Kolyma river, Malyy Chubukalah brook valley, east of the Yolochka area, 62.0490°N, 148.7542°E, sparse forest with *Larix cajanderi* moss-cloudberry, on *Sphagnum* spp., 02.08.2011, NS (MAG 5805).

Note: The species was listed as *Arrhenia oniscus* (Fr.) Redhead, Lutzoni, Moncalvo et Vilgalys [11, 12]. Redefined according to Voitek et al. [13] as an obligate sphagnophile.

Clavaria falcata Pers. — new for Khabarovsk Krai.

Specimens examined: *Khabarovsk Krai*: Tuguro-Chumikanskiy District, Shantar Islands, Big Shantar Island, Yakshin Bay, 54.8735°N, 137.5273°E, open meadow, on soil under grasses, 02.09.2016, coll. E. Fridzon, det. AS (SVER(F) 87301).

Clitocybe nebularis (Batsch) P. Kumm. — new for Magadan Oblast.

Specimens examined: *Magadan Oblast*: Olskiy District, Magadanskiy Nature Reserve, Kava-Chelomdzhinskiy section, vicinity of Kheta cordon, 60.2532°N, 147.7238°E, high-floodplain mixed *Larix-Betula* forest, on soil, 16.08.2024, NS (MAG 6350); Olskiy District, Magadanskiy Nature Reserve, Yamskiy section, cordon Khalanchiga, 59.6687°N, 153.8287°E, middle-floodplain forest with *Populus suaveolens* and *Salix arbutifolia*, on soil among the litter, 08.09.2006, NS (MAG 6945).

Coprinellus truncorum (Scop.) Redhead, Vilgalys et Moncalvo — new for Magadan Oblast.

Specimens examined: *Magadan Oblast*: Olskiy District, Magadanskiy Nature Reserve, Olskiy section, Koni Peninsula, Cape Ploskiy, along the Khindzha river, 59.1606°N, 151.6496°E, floodplain forest with *Salix* spp. and *Alnus fruticosa*, at the base of the trunk of *Salix* sp., 04.08.2023, coll. E.V. Zheludeva, det. NS (MAG 6601);

ibid., Kava-Chelomdzhinskiy section, vicinity of Kheta cordon, 60.2529°N, 147.7235°E, bank of the riverbed, floodplain forest, at the base of the trunk of *Salix* sp., 16.08.2024, NS (MAG 6369); *ibid.*, floodplain forest, at the base of the trunk and on the roots of *Prunus padus*, 16.08.2024, NS (MAG 6370).

Coprinopsis cinerea (Schaeff.) Redhead, Vilgalys et Moncalvo — new for Magadan Oblast.

Specimens examined: *Magadan Oblast*: Olskiy District, vicinity of Chistoe lake, the mouth of the Uchesan stream, 59.5395°N, 151.7421°E, sparse forest with *Larix cajanderi* cloudberry-sphagnum, on horse droppings, 02.08.1991, NS (MAG 6409).

Crepidotus applanatus (Pers.) P. Kumm. — new for Magadan Oblast.

Specimens examined: *Magadan Oblast*: Olskiy District, Magadanskiy Nature Reserve, Kava-Chelomdzhinskiy section, vicinity of Kheta cordon, 60.2540°N, 147.7249°E, middle-floodplain forest with *Populus suaveolens* and *Salix arbutifolia*, on deadwood *P. suaveolens*, 20.08.2024, NS (MAG 6356).

Flammulaster limulatus (Fr.) Watling — new for Magadan Oblast.

Specimens examined: *Magadan Oblast*: Olskiy District, Magadanskiy Nature Reserve, Kava-Chelomdzhinskiy section, vicinity of Kheta cordon, 60.2534°N, 147.7249°E, floodplain forest with *Salix* spp. and *Alnus hirsuta*, on a rotten alder trunk, 20.08.2024, NS (MAG 6605).

Galerina clavata (Velen.) Kühner — new for Magadan Oblast.

Specimens examined: *Magadan Oblast*: Olskiy District, Magadanskiy Nature Reserve, Kava-Chelomdzhinskiy section, vicinity of Kheta cordon, 60.2528°N, 147.7235°E, floodplain forest, among the green moss on a mossy tree trunk, 20.08.2024, NS (MAG 6604).

G. sideroides (Bull.) Kühner — new for Magadan Oblast.

Specimens examined: *Magadan Oblast*: Olskiy District, Magadanskiy Nature Reserve, Kava-Chelomdzhinskiy section, Kutana river valley, 60.1792°N, 147.3504°E, high-floodplain forest with *Larix cajanderi*, on rotten, mossy, fallen wood *L. cajanderi*, 17.08.2024, NS (MAG 6606).

Homophron cernuum (Vahl) Örstadius et E. Larss. — new for Magadan Oblast.

Specimens examined: *Magadan Oblast*: Olskiy District, Magadanskiy Nature Reserve, Kava-Chelomdzhinskiy section, Chelomdzha river basin, cordon Moldot, 60.0203°N, 148.0361°E, floodplain forest, at the base of the trunk of a living *Salix arbutifolia*, 22.08.2017, NS (MAG 5059); *ibid.*, Chelomdzha river valley in the Khuren river area, 60.2455°N, 147.5181°E, deciduous forest with *Populus suaveolens* and *Betula platyphylla*, at the base of the trunk of a living *P. suaveolens*, 19.08.2024, NS (MAG 6607).

Hygrocybe helobia (Arnolds) Bon — new for Magadan Oblast.

Specimens examined: *Magadan Oblast*: vicinity of Magadan city, Novaya Veselaya, valley of Kedrovyy klyuch brook, 59.5222°N, 150.9030°E, swampy, sparse forest with *Larix cajanderi* and *Vaccinium uliginosum*, among sphagnum mosses, 09.08.2013, NS (MAG 6733); Olskiy District, Magadanskiy Pass (in the area of the quarry near the river Oksa), 59.6586°N, 150.5266°E, swampy sparse forest with

Larix cajanderi, among sphagnum mosses, 26.08.2025, coll. E.A. Andriyanova, det. NS (MAG 6937).

Lycopodon rupicola Jeppson, E. Larss. and M.P. Martín — new for Jewish Autonomous Oblast.

Specimens examined: *Jewish Autonomous Oblast*: Bastak Nature Reserve, valley of Bastak river, 49.0070°N, 133.0120°E, swampy sparse forest of *Larix cajanderi* with shrubby *Betula* spp., *Ledum* spp., grasses and mosses, among green mosses, 14.08.2022, coll. EE, det. YuR (LE F-365128).

L. umbrinum Pers. — new for Jewish Autonomous Oblast.

Specimens examined: *Jewish Autonomous Oblast*: Smidovichskiy District, Cluster Zabelovsky of the Bastak Nature Reserve, northern shore of Zabelovskoe lake, 48.4331°N, 134.2236°E, forest of *Quercus mongolica* and *Populus tremula* with dead trees of *Betula* spp., on soil, 04.08.2015, coll. EE, det. YuR (LE F-364958).

Melanoleuca polioleuca (Fr.) Kühner et Maire — new for Magadan Oblast.

Specimens examined: *Magadan Oblast*: Olskiy District, Magadanskiy Nature Reserve, Kava-Chelomdzhinskiy section, vicinity of Kheta cordon, 60.2528°N, 147.7236°E, mixed forest, on soil among the litter, 20.08.2024, NS (MAG 6390); Khasynskiy District, Rangifer station, valley of the Neozhidanny stream, 60.6539°N, 152.0827°E, *Larix*-dominated forest, on soil among the litter, 17.08.1984, NS (MAG 6414).

Mycena abramsii (Murrill) Murrill — new for Magadan Oblast.

Specimens examined: *Magadan Oblast*: Olskiy District, Koni Peninsula, Magadanskiy Nature Reserve, Olskiy section, Cape Ploskiy, along the Khindzha river, 59.1606°N, 151.6496°E, floodplain forest with *Salix* spp. and *Alnus fruticosa*, on buried wood, 04.08.2023, NS (MAG 6506).

Pluteus thomsonii (Berk. et Broome) Dennis — new for Amur Oblast.

Specimens examined: *Amur Oblast*: Svobodnenskiy District, vicinity of Yukhta-3 village, 51.4856°N, 128.1908°E, *Betula-Quercus* forest, on fallen trunk of *Quercus mongolica*, 08.08.2025, VK (TOB8083705).

Pterula gracilis (Desm. et Berk.) Corner — new for Khabarovsk Krai.

Specimens examined: *Khabarovsk Krai*: Tuguro-Chumikanskiy District, Shantar Islands, Big Shantar Island, Yakshin Bay, 54.8735°N, 137.5273°E, open meadow, on dead grasses, 02.09.2016, coll. E. Fridzon, det. AS (SVER(F) 87292).

Simocybe centunculus (Fr.) P. Karst. — new for Magadan Oblast.

Specimens examined: *Magadan Oblast*: Tenkinskiy District, upper part of Kolyma river, Orotuk station, 62.0556°N, 148.6486°E, anthropogenic territory, on soil with woody debris, 19.06.2018, coll. N.V. Sinelnikova, det. NS (MAG 5312).

Typhula micans (Pers.) Berthier — new for Khabarovsk Krai.

Specimens examined: *Khabarovsk Krai*: Tuguro-Chumikanskiy District, Shantar Islands, Big Shantar Island, Yakshin Bay, 54.8735°N, 137.5273°E, open meadow, on dead grasses, 02.09.2016, coll. E. Fridzon, det. AS [SVER(F) 87302].

Boletales

Rhizopogon jiyaozi Lin Li et Shu H. Li — new for Russian Federation.

Specimens examined: *Primorskiy Krai*: Khankayskiy District, vicinity of Novokachalinsk village, 45.1563°N, 132.0031°E, mixed sparse forest with *Pinus* sp., *Juniperus* sp., *Quercus mongolica*, in soil, 17.08.2018, coll. YuR, det. EZ (LE F-365116; ITS GenBank PP501182).

Notes: This species was described from Yunnan and Sichuan, southwestern China [14]. *R. jilaozi* resembles *R. roselius* (Corda) Th. Fr. but has smaller basidiospores and deeper yellow basidiocarps. The ITS1–5.8S–ITS2 locus sequence PP501182 differs from the type specimen of *R. jiyaozi* YAAS L2929 (NR_158906) by three nucleotide substitutions and two single-nucleotide deletions, with most evolutionary events concentrated in the ITS2 region. In the ML tree, sequence PP501182 clusters within a moderately supported clade (85% bootstrap) alongside sequences from Chinese specimens of *R. jiyaozi* (NR_158906, KP893832, and KP893833).

Cantharellales

Multiclavula corynoides (Peck) R.H. Petersen — new for Khabarovsk Krai.

Specimens examined: *Khabarovsk Krai*: Okhotskiy District, 7 km northeast from Okhotsk town, vicinity of Kirpichny village, 59.4081°N, 143.3155°E, slope at the *Betula ermanii* bushes edge, on clay soil, 20.08.2005, AS [SVER(F) 87299].

Gomphales

Lentaria afflata (Lagger) Corner — new for Khabarovsk Krai.

Specimens examined: *Khabarovsk Krai*: Sovetsko-Gavanskiy District, 8 km south of Sovetskaya Gavan town, Sovetskaya Sopka Mt., 48.8919°N, 140.2786°E, *Picea-Betula* dominated forest, on fallen trunk of *Populus* sp., 30.08.2005, coll. G. Pichugina, det. AS [SVER(F) 87300].

Phaeoclavulina corrugata (P. Karst.) J.H. Petersen [= *Ramaria corrugata* (P. Karst.) Schild] — new for Khabarovsk Krai.

Specimens examined: *Khabarovsk Krai*: Sovetsko-Gavanskiy District, 8 km south of Sovetskaya Gavan town, Sovetskaya Sopka Mt., 48.8919°N, 140.2786°E, *Picea-Betula* dominated forest, on fallen trunk of *Populus* sp., 30.08.2005, coll. G. Pichugina, det. AS [SVER(F) 87297].

Ramaria botrytoides (Peck) Corner — new for Khabarovsk Krai.

Specimens examined: *Khabarovsk Krai*: Khabarovskiy District, Khekhtsirskiy Zakaznik, 48.2818°N, 135.1397°E, *Abies-Pinus* dominated forest, on soil, 29.08.2016, AS [SVER(F) 87298].

R. flavosaponaria R.H. Petersen — new for Khabarovsk Krai.

Specimens examined: *Khabarovsk Krai*: Khabarovskiy District, Khekhtsirskiy Zakaznik, 48.2818°N, 135.1397°E, *Abies-Pinus* dominated forest, on soil, 29.08.2016, AS [SVER(F) 87293].

Hymenochaetales

Tubulicrinis calothrix (Pat.) Donk — new for Amur Oblast.

Specimens examined: *Amur Oblast*: Svobodnenskiy District, 6.5 km northeast of Yukhta village, 51.5530°N,

128.2037°E, *Betula–Quercus* forest with *Pinus sylvestris* and *Larix gmelinii*, on burnt fallen trunk of *P. sylvestris*, 02.08.2024, VK (TOB2200395).

Platyglloeales

Eocronartium muscicola (Pers.) Fitzp. — new for Magadan Oblast.

Specimens examined: *Magadan Oblast*: Olskiy District, Koni Peninsula, Magadanskiy Nature Reserve, Olskiy section, Cape Plosky, along the Khindzha river, 59.1602°N, 151.6500°E, floodplain forest with *Salix* spp. and *Alnus fruticosa*, on a large boulder on the moss *Sanionia uncinata*, 04.08.2023, NS (MAG 6515).

Polyporales

Neofavolus suavissimus (Fr.) Seelan, Justo et Hibbett — new for Magadan Oblast.

Specimens examined: *Magadan Oblast*: Olskiy District, Magadanskiy Nature Reserve, Kava-Chelomdzhinskiy section, vicinity of Kheta cordon, 60.2510°N, 147.7237°E, floodplain forest with *Salix* spp. and *Alnus hirsuta*, on dead wood *Salix* sp., 18.08.2024, NS (MAG 6354).

Pappia fissilis (Berk. et M.A. Curtis) Zmitr. — new for Magadan Oblast.

Specimens examined: *Magadan Oblast*: Olskiy District, Magadanskiy Nature Reserve, Kava-Chelomdzhinskiy section, Chelomdzha river valley in the Khuren river area, 60.2452°N, 147.5208°E, mixed deciduous floodplain forest, at the base of the trunk of a living *Populus suaveolens*, on wood, 19.08.2024, NS (MAG 6599).

Russulales

Lactarius tabidus Fr. — new for Magadan Oblast.

Specimens examined: *Magadan Oblast*: Olskiy District, Magadanskiy Nature Reserve, Kava-Chelomdzhinskiy section, vicinity of Kheta cordon, 60.2529°N, 147.7242°E, mixed forest with *Larix cajanderi*, *Betula platyphylla* and *Alnus hirsuta*, on soil, 20.08.2024, NS (MAG 6527).

Russula pelargonia Niole — new for Magadan Oblast.

Specimens examined: *Magadan Oblast*: Olskiy District, Magadanskiy Nature Reserve, Kava-Chelomdzhinskiy section, Kava river valley, 59.7943°N, 148.0096°E, forest with *Populus tremula*, on soil, 21.08.2024, NS (MAG 6353); *ibid.*, Chelomdzha river valley, Meteo hill, 60.1130°N, 147.8595°E, forest with *P. tremula*, on soil, 16.08.2024, NS (MAG 6340).

R. renidens Ruots., Sarnari et Vauras — new for Magadan Oblast.

Specimens examined: *Magadan Oblast*: Olskiy District, Magadanskiy Nature Reserve, Kava-Chelomdzhinskiy section, Chelomdzha river valley in the Khuren river area, 60.2367°N, 147.4702°E, mixed forest with *Betula platyphylla* and *B. middendorffii*, on soil, 19.08.2024, NS (MAG 6538).

R. versicolor Jul. Schäff. — new for Magadan Oblast.

Specimens examined: *Magadan Oblast*: Olskiy District, Magadanskiy Nature Reserve, Kava-Chelomdzhinskiy section, Chelomdzha river valley, cordon Moldot, 60.0197°N, 148.0341°E, mixed forest-cutting with *Betula platyphylla*, on soil, 22.08.2017, NS (MAG 6522); *ibid.*, in the Khuren river area, 60.2369°N, 147.4704°E, forest-cutting with *B. platyphylla* and *B. middendorffii*, on soil, 19.08.2024, NS (MAG 6525).

Note: In the GBIF database [15], cf. *Russula versicolor* is indicated for the Khasynskiy District (Karamken) of the Magadan Region based on DNA sequences isolated from soil samples.

DISCUSSION

A total, 57 records of 45 species of macrofungi are reported as new for administrative units of the Russian Far East and the whole region. 13 species belong to the *Ascomycota* (*Leotiales*, *Helotiales*, and *Pezizales*), and 31 — to the *Basidiomycota* (*Agaricales*, *Boletales*, *Cantharellales*, *Gomphales*, *Hymenochaetales*, *Platyglloeales*, *Polyporales* and *Russulales*). Four species (*Adelphella babingtonii*, *Helvella solitaria*, *Pseudoplectania epispagnum*, *Rutstroemia alnobetulae*) are reported for the first time for the Russian Far East. Three species (*Rhizopogon jiyaozi*, *Spooneromyces daliensis* and *Tympanis prunicola*) are new for Russian Federation.

The distribution of new records of macromycetes within the regions is as follows:

- 1 — Primorskiy Krai;
- 2 — Amur Oblast;
- 4 — Jewish Autonomous Oblast;
- 7 — Sakhalin Oblast;
- 8 — Khabarovsk Krai;
- 23 — Magadan Oblast.

The studies on fungal diversity in the Far Eastern regions of Russia to be continued.

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