Persoonia 47, 2021: 178–374
www.ingentaconnect.com/content/nhn/pimj

RESEARCH ARTICLE

ISSN (Online) 1878-9080
https://doi.org/10.3767/persoonia.2021.47.06

Fungal Planet description sheets: 1284–1382

P.W. Crous[1,2], E.R. Osieck[3], Ž. Jurjević[4], J. Boers[5], A.L. van Iperen[1], M. Starink-Willemse[1], B. Dima[6], S. Balashov[4], T.S. Bulgakov[7], P.R. Johnston[8], O.V. Morozova[9], U. Pinruan[10], S. Sommai[10], P. Alvarado[11], C.A. Decock[12], T. Lebel[13], S. McMullan-Fisher[14], G. Moreno[15], R.G. Shivas[16], L. Zhao[1], J. Abdollahzadeh[17], M. Abrinbana[18], D.V. Ageev[19], G. Akhmetova[6], A.V. Alexandrova[20], A. Altés[15], A.G.G. Amaral[21], C. Angelini[22,23], V. Antonín[23], F. Arenas[24], P. Asselman[25], F. Badali[18], A. Baghela[26,27], A. Bañares[28], R.W. Barreto[29], I.G. Baseia[30], J.-M. Bellanger[31], A. Berraf-Tebbal[32], A.Yu. Biketova[33,34], N.V. Bukharova[35], T.I. Burgess[36], J. Cabero[37], M.P.S. Câmara[21], J.F. Cano-Lira[38], P. Ceryngier[39], R. Chávez[40], D.A. Cowan[41], A.F. de Lima[21], R.L. Oliveira[42], S. Denman[43], Q.N. Dang[44], F. Dovana[45], I.G. Duarte[21], A. Eichmeier[32], A. Erhard[4], F. Esteve-Raventós[15], A. Fellin[46], G. Ferisin[47], R.J. Ferreira[48], A. Ferrer[49], P. Finy[50], E. Gaya[51], A.D.W. Geering[52], C. Gil-Durán[40], K. Glässnerová[53], A.M. Glushakova[20,54], D. Gramaje[55], F.E. Guard[56], A.L. Guarnizo[24], D. Haelewaters[25,57], R.E. Halling[58], R. Hill[51], Y. Hirooka[59], V. Hubka[53,60], V.A. Iliushin[9], D.D. Ivanova[61], N.E. Ivanushkina[62], P. Jangsantear[63], A. Justo[64], A.V. Kachalkin[20,62], S. Kato[59], P. Khamsuntorn[65], I.Y. Kirtsideli[9], D.G. Knapp[6], G.A. Kochkina[62], O. Koukol[66], G.M. Kovács[6], J. Kruse[67], T.K.A. Kumar[68], I. Kušan[69], T. Læssøe[70], E. Larsson[71], R. Lebeuf[72], G. Levicán[40], M. Loizides[73], P. Marinho[74], J.J. Luangsa-ard[10], E.G. Lukina[75], V. Magaña-Dueñas[38], G. Maggs-Kölling[76], E.F. Malysheva[9], V.F. Malysheva[9], B. Martín[77], M.P. Martín[78], N. Matočec[69], A.R. McTaggart[79], M. Mehrabi-Koushki[80,81], A. Mešić[69], A.N. Miller[82], P. Mironova[25], P.-A. Moreau[83], A. Morte[24], K. Müller[84], L.G. Nagy[33], S. Nanu[68], A. Navarro-Ródenas[24], W. Nel[2], T.H. Nguyen[44], T.F. Nóbrega[29], M.E. Noordeloos[85], I. Olariaga[86], B.E. Overton[87], S.M. Ozerskaya[62], P. Palani[88], F. Pancorbo[89], V. Papp[90], J. Pawłowska[91], T.Q. Pham[44], C. Phosri[92], E.S. Popov[9], A. Portugal[93,94], A. Pošta[69], K. Reschke[95], M. Reul[96], G.M. Ricci[87], A. Rodríguez[24], J. Romanowski[39], N. Ruchikachorn[97], I. Saar[98], A. Safi[80], B. Sakolrak[63], F. Salzmann[99], M. Sandoval-Denis[1], E. Sangwichein[100], L. Sanhueza[49], T. Sato[101], A. Sastoque[38], B. Senn-Irlet[102], A. Shibata[59], K. Siepe[103], S. Somrithipol[10], M. Spetik[32], P. Sridhar[88], A.M. Stchigel[38], K. Stuskova[32], N. Suwannasai[104], Y.P. Tan[105], R. Thangavel[106], I. Tiago[93], S. Tiwari[26,27], Z. Tkalčec[69], M.A. Tomashevskaya[62], C. Tonegawa[59], H.X. Tran[44], N.T. Tran[52], J. Trovão[93], V.E. Trubitsyn[62], J. Van Wyk[107], W.A.S. Vieira[21], J. Vila[108], C.M. Visagie[2], A. Vizzini[109], S.V. Volobuev[9], D.T. Vu[110], N. Wangsawat[111], T. Yaguchi[60], E. Ercole[112], B.W. Ferreira[29], A.P. de Souza[113], B.S. Vieira[113], J.Z. Groenewald[1]

Key words

ITS nrDNA barcodes
LSU
new taxa
systematics

Abstract Novel species of fungi described in this study include those from various countries as follows: **Antartica**, *Cladosporium austrolitorale* from coastal sea sand. **Australia**, *Austroboletus yourkae* on soil, *Crepidotus innuopurpureus* on dead wood, *Curvularia stenotaphri* from roots and leaves of *Stenotaphrum secundatum* and *Thecaphora stajsicii* from capsules of *Oxalis radicosa*. **Belgium**, *Paraxerochrysium coryli* (incl. *Paraxerochrysium* gen. nov.) from *Corylus avellana*. **Brazil**, *Calvatia nordestina* on soil, *Didymella tabebuiicola* from leaf spots on *Tabebuia aurea, Fusarium subflagellisporum* from hypertrophied floral and vegetative branches of *Mangifera indica* and *Microdochium maculosum* from living leaves of *Digitaria insularis*. **Canada**, *Cuphophyllus bondii* from a grassland. **Croatia**, *Mollisia inferiseptata* from a rotten *Laurus nobilis* trunk. **Cyprus**, *Amanita exilis* on calcareous soil. **Czech Republic**, *Cytospora hippophaicola* from wood of symptomatic *Vaccinium corymbosum*. **Denmark**, *Lasiosphaeria deviata* on pieces of wood and herbaceous debris. **Dominican Republic**, *Calocybella goethei* among grass on a lawn. **France (Corsica)**, *Inocybe corsica* on wet ground. **France (French Guiana)**, *Trechispora patawaensis* on decayed branch of unknown angiosperm tree and *Trechispora subregularis* on decayed log of unknown angiosperm tree. **Germany**, *Paramicrothecium sambuci* (incl. *Paramicrothecium* gen. nov.) on dead stems of *Sambucus nigra*. **India**, *Aureobasidium microtermitis* from the gut of a *Microtermes* sp. termite, *Laccaria diospyricola* on soil and *Phylloporia tamilnadensis* on branches of *Catunaregam spinosa*. **Iran**, *Pythium serotinoosporum* from soil under *Prunus dulcis*. **Italy**, *Pluteus brunneovenosus* on twigs of broadleaved trees on the ground. **Japan**, *Heterophoma rehmanniae* on leaves of *Rehmannia glutinosa* f. *hueichingensis*. **Kazakhstan**, *Murispora kazachstanica* from healthy roots of *Triticum aestivum*. **Namibia**, *Caespitomonium euphorbiae* (incl. *Caespitomonium* gen. nov.) from

Abstract (cont.)

stems of an *Euphorbia* sp. **Netherlands**, *Alfaria junci, Myrmecridium junci, Myrmecridium juncicola, Myrmecridium juncigenum, Ophioceras junci, Paradinemasporium junci* (incl. *Paradinemasporium* gen. nov.), *Phialoseptomonium junci, Sporidesmiella juncicola, Xenopyricularia junci* and *Zaanenomyces quadripartis* (incl. *Zaanenomyces* gen. nov.), from dead culms of *Juncus effusus, Cylindromonium everniae* and *Rhodoveronaea everniae* from *Evernia prunastri, Cyphellophora sambuci* and *Myrmecridium sambuci* from *Sambucus nigra, Kiflimonium junci, Sarocladium junci, Zaanenomyces moderatricis-academiae* and *Zaanenomyces versatilis* from dead culms of *Juncus inflexus, Microcera physciae* from *Physcia tenella, Myrmecridium dactylidis* from dead culms of *Dactylis glomerata, Neochalara spiraeae* and *Sporidesmium spiraeae* from leaves of *Spiraea japonica, Neofabraea salicina* from *Salix* sp., *Paradissoconium narthecii* (incl. *Paradissoconium* gen. nov.) from dead leaves of *Narthecium ossifragum, Polyscytalum vaccinii* from *Vaccinium myrtillus, Pseudosoloacrosporiella cryptomeriae* (incl. *Pseudosoloacrosporiella* gen. nov.) from leaves of *Cryptomeria japonica, Ramularia pararhabdospora* from *Plantago lanceolata, Sporidesmiella pini* from needles of *Pinus sylvestris* and *Xenoacrodontium juglandis* (incl. *Xenoacrodontium* gen. nov. and *Xenoacrodontiaceae* fam. nov.) from *Juglans regia*. **New Zealand**, *Cryptometrion metrosideri* from twigs of *Metrosideros* sp., *Coccomyces pycnophyllocladi* from dead leaves of *Phyllocladus alpinus, Hypoderma aliforme* from fallen leaves *Fuscopora solandri* and *Hypoderma subiculatum* from dead leaves *Phormium tenax.* **Norway**, *Neodevriesia kalakoutskii* from permafrost and *Variabilispora viridis* from driftwood of *Picea abies.* **Portugal**, *Entomortierella hereditatis* from a biofilm covering a deteriorated limestone wall. **Russia**, *Colpoma junipericola* from needles of *Juniperus sabina, Entoloma cinnamomeum* on soil in grasslands, *Entoloma verae* on soil in grasslands, *Hyphodermella pallidostraminea* on a dry dead branch of *Actinidia* sp., *Lepiota sayanensis* on litter in a mixed forest, *Papiliotrema horticola* from *Malus communis*, *Paramacroventuria ribis* (incl. *Paramacroventuria* gen. nov.) from leaves of *Ribes aureum* and *Paramyrothecium lathyri* from leaves of *Lathyrus tuberosus.* **South Africa**, *Harzia combreti* from leaf litter of *Combretum collinum* ssp. *sulvense, Penicillium xyleborini* from *Xyleborinus saxesenii*, *Phaeoisaria dalbergiae* from bark of *Dalbergia armata, Protocreopsis euphorbiae* from leaf litter of *Euphorbia ingens* and *Roigiella syzygii* from twigs of *Syzygium chordatum*. **Spain**, *Genea zamorana* on sandy soil, *Gymnopus nigrescens* on *Scleropodium touretii, Hesperomyces parexochomi* on *Parexochomus quadriplagiatus, Paraphoma variabilis* from dung, *Phaeococcomyces kinklidomatophilus* from a blackened metal railing of an industrial warehouse and *Tuber suaveolens* in soil under *Quercus faginea.* **Svalbard and Jan Mayen**, *Inocybe nivea* associated with *Salix polaris.* **Thailand**, *Biscogniauxia whalleyi* on corticated wood. **UK**, *Parasitella quercicola* from *Quercus robur.* **USA**, *Aspergillus arizonicus* from indoor air in a hospital, *Caeliomyces tampanus* (incl. *Caeliomyces* gen. nov.) from office dust, *Cippumomyces mortalis* (incl. *Cippumomyces* gen. nov.) from a tombstone, *Cylindrium desperesense* from air in a store, *Tetracoccosporium pseudoaerium* from air sample in house, *Toxicocladosporium glendoranum* from air in a brick room, *Toxicocladosporium losalamitosense* from air in a classroom, *Valsonectria portsmouthensis* from air in men's locker room and *Varicosporellopsis americana* from sludge in a water reservoir. **Vietnam**, *Entoloma kovalenkoi* on rotten wood, *Fusarium chuoi* inside seed of *Musa itinerans*, *Micropsalliota albofelina* on soil in tropical evergreen mixed forests and *Phytophthora docyniae* from soil and roots of *Docynia indica.* Morphological and culture characteristics are supported by DNA barcodes.

Citation: Crous PW, Osieck ER, Jurjević Ž, et al. 2021. Fungal Planet description sheets: 1284–1382. Persoonia 47: 178–374.
https://doi.org/10.3767/persoonia.2021.47.06.
Effectively published online: 24 December 2021 [Received: 1 October 2021; Accepted: 4 November 2021].

[1] Westerdijk Fungal Biodiversity Institute, P.O. Box 85167, 3508 AD Utrecht, The Netherlands.
[2] Department of Biochemistry, Genetics and Microbiology, Forestry and Agricultural Biotechnology Institute (FABI), University of Pretoria, Pretoria, South Africa.
[3] Jkvr. C.M. van Asch van Wijcklaan 19, 3972 ST Driebergen-Rijsenburg, Netherlands.
[4] EMSL Analytical, Inc., 200 Route 130 North, Cinnaminson, NJ 08077 USA.
[5] Conventstraat 13A, 6701 GA Wageningen, Netherlands.
[6] Department of Plant Anatomy, Institute of Biology, Eötvös Loránd University, Pázmány Péter sétány 1/C, H-1117, Budapest, Hungary.
[7] Department of Plant Protection, Federal Research Centre the Subtropical Scientific Centre of the Russian Academy of Sciences, Yana Fabritsiusa street 2/28, 354002 Sochi, Krasnodar region, Russia.
[8] Manaaki Whenua – Landcare Research, P. Bag 92170, Auckland 1142, New Zealand.
[9] Komarov Botanical Institute of the Russian Academy of Sciences, 197376, 2 Prof. Popov Str., Saint Petersburg, Russia.
[10] Plant Microbe Interaction Research Team (APMT), BIOTEC, National Science and Technology Development Agency, Pathum Thani, Thailand, 113 Thailand Science Park, Phahonyothin Rd., Khlong Nueng, Khlong Luang, Pathum Thani Thailand.
[11] ALVALAB, C/ Dr. Fernando Bongera, Severo Ochoa bldg. S1.04, 33006 Oviedo, Spain.
[12] Mycothèque de l'Université catholique de Louvain (MUCL, BCCMTM), Earth and Life Institute – ELIM – Mycology, Université catholique de Louvain, Croix du Sud 2 bte L7.05.06, B-1348 Louvain-la-Neuve, Belgium.
[13] State Herbarium of South Australia, Adelaide, South Australia 5000 Australia.
[14] Royal Botanic Gardens, Victoria, Melbourne, Victoria, Australia.
[15] Universidad de Alcalá, Facultad de Ciencias, Departamento de Ciencias de la Vida (Botánica), 28805 Alcalá de Henares, Madrid, Spain.
[16] Centre for Crop Health, University of Southern Queensland, Toowoomba 4350, Queensland, Australia.
[17] Department of Plant Protection, Agriculture Faculty, University of Kurdistan, P.O. Box 416, Sanandaj, Iran.
[18] Department of Plant Protection, Faculty of Agriculture, Urmia University, P.O. Box 165, Urmia, Iran.
[19] LLC 'Signatec', 630090, Inzhenernaya Str. 22, Novosibirsk, Russia.
[20] Lomonosov Moscow State University (MSU), 119234, 1, 12 Leninskie Gory Str., Moscow, Russia.
[21] Departamento de Agronomia, Universidade Federal Rural de Pernambuco, Recife, Pernambuco, Brazil.
[22] Herbario Jardín Botánico Nacional Dr. Rafael Ma. Moscoso, Santo Domingo, Dominican Republic and Via Cappuccini, 78/8 – 33170 Pordenone, Italy.
[23] Department of Botany, Moravian Museum, Zelný trh 6, 659 37 Brno, Czech Republic.
[24] Departamento de Biología Vegetal (Botánica), Facultad de Biología, Universidad de Murcia, 30100 Murcia, Spain.
[25] Research Group Mycology, Department of Biology, Ghent University, K.L. Ledeganckstraat 35, 9000 Gent, Belgium.
[26] National Fungal Culture Collection of India (NFCCI).
[27] Biodiversity and Palaeobiology Group, MACS-Agharkar Research Institute, G.G. Agarkar Road, Pune 411004, Maharashtra, India.
[28] Departamento de Botánica, Ecología y Fisiología Vegetal, Universidad de La Laguna. Apdo. 456, E-38200 La Laguna, Tenerife, Islas Canarias, Spain.
[29] Departamento de Fitopatologia, Universidade Federal de Viçosa, Viçosa, 36570-900, MG, Brazil.
[30] Departamento Botânica e Zoologia, Centro de Biociências, Universidade Federal do Rio Grande do Norte, Campus Universitário, 59072–970 Natal, RN, Brazil.
[31] CEFE, CNRS, Université de Montpellier, Université Paul-Valéry Montpellier 3, EPHE, IRD, INSERM, 1919 route de Mende, F-34293 Montpellier Cedex 5, France.

[32] Mendeleum – Institute of Genetics, Faculty of Horticulture, Mendel University in Brno, Valticka 334, Lednice, 69144, Czech Republic.
[33] Institute of Biochemistry, Biological Research Centre of the Eötvös Lóránd Research Network, Temesvári blvd. 62, H-6726 Szeged, Hungary.
[34] Jodrell Laboratory, Royal Botanic Gardens, Kew, Richmond, Surrey TW9 3DS, UK.
[35] Federal Scientific Center of the East Asia Terrestrial Biodiversity, Far Eastern Branch of the Russian Academy of Sciences, Pr-t 100-let Vladivostoka 159, 690022 Vladivostok, Russia.
[36] Phytophthora Science and Management, Harry Butler Institute, Murdoch University, 90 South Street, Murdoch, WA 6150, Australia.
[37] C/ El Sol 6, 49800 Toro, Zamora, Spain.
[38] Mycology Unit, Medical School, Universitat Rovira i Virgili (URV), Sant Llorenç 21, 43201 Reus, Tarragona, Spain.
[39] Institute of Biological Sciences, Cardinal Stefan Wyszyński University, Wóycickiego 1/3, 01-938 Warsaw, Poland.
[40] Facultad de Química y Biología, Universidad de Santiago de Chile (USACH), Alameda 3363, Estación Central, 9170022, Santiago, Chile.
[41] Centre for Microbial Ecology and Genomics, Department of Biochemistry, Genetics and Microbiology, University of Pretoria, Private Bag X20, Hatfield 0028, Pretoria, South Africa.
[42] Programa de Pós-Graduação em Sistemática e Evolução, Centro de Biociências, Universidade Federal do Rio Grande do Norte, Av. Senador Salgado Filho, 3000, 59072-970 Natal, RN, Brazil.
[43] Forest Research, Alice Holt Lodge, Farnham, Surrey, UK.
[44] Forest Protection Research Centre, Vietnamese Academy of Forest Sciences, 46 Duc Thang Ward, Bac Tu Liem District, Hanoi City, Vietnam.
[45] Via Quargnento, 17, 15029, Solero (AL), Italy.
[46] Via G. Canestrini 10/B, I-38028, Novella (TN), Italy.
[47] Associazione Micologica Bassa Friulana, 33052 Cervignano del Friuli, Italy.
[48] Programa de Pós-Graduação em Biologia de Fungos, Departamento de Micologia, Universidade Federal de Pernambuco, 50670-420 Recife, PE, Brazil.
[49] Facultad de Estudios Interdisciplinarios, Núcleo de Química y Bioquímica, Universidad Mayor, Santiago, Chile.
[50] Zsombolyai u. 56, 8000 Székesfehérvár, Hungary.
[51] Comparative Fungal Biology, Royal Botanic Gardens, Kew, Richmond, Surrey, TW9 3DS, UK.
[52] Centre for Horticultural Science, Queensland Alliance for Agriculture and Food Innovation, The University of Queensland, Dutton Park 4102, Queensland, Australia.
[53] Department of Botany, Faculty of Science, Charles University, Benátská 2, 128 01 Prague 2, Czech Republic.
[54] Mechnikov Research Institute for Vaccines and Sera, 105064, Moscow, Maly Kazenny by-street, 5A, Russia.
[55] Instituto de Ciencias de la Vid y del Vino (ICVV), Consejo Superior de Investigaciones Científicas (CSIC) – Universidad de La Rioja – Gobierno de La Rioja, Ctra. LO-20, Salida 13, 26007, Logroño, Spain.
[56] Maleny, Queensland, Australia.
[57] Faculty of Science, University of South Bohemia, Branišovská 31, 370 05 České Budějovice, Czech Republic.
[58] Inst. Systematic Botany, New York Botanical Garden, 2900 Southern Blvd, Bronx, NY, USA 10458-5126.
[59] Department of Clinical Plant Science, Hosei University, 3-7-2 Kajino-cho, Koganei, Tokyo, Japan.
[60] Medical Mycology Research Center, Chiba University, 1-8-1 Inohana, Chuo-ku, Chiba, 260-8673, Japan.
[61] The Herzen State Pedagogical University of Russia, 191186, 48 Moyka Embankment, Saint Petersburg, Russia.
[62] All-Russian Collection of Microorganisms, G.K. Skryabin Institute of Biochemistry and Physiology of Microorganisms, Pushchino Center for Biological Research of the Russian Academy of Sciences, 142290, Pushchino, pr. Nauki, 5, Russia.
[63] Forest and Plant Conservation Research Office, Department of National Parks, Wildlife and Plant Conservation, Chatuchak District, Bangkok, Thailand.
[64] Department of Natural History, New Brunswick Museum, 277 Douglas Ave. Saint John, NB – E2K 1E5 Canada.
[65] Microbe Interaction and Ecology Laboratory (BMIE), National Center for Genetic Engineering and Biotechnology (BIOTEC), 113 Thailand Science Park, Phahonyothin Rd., Khlong Nueng, Khlong Luang, Pathum Thani Thailand.
[66] Department of Botany, Charles University, Faculty of Science, Benátská 2, 128 01 Prague 2, Czech Republic.
[67] Pfalzmuseum für Naturkunde – POLLICHIA-Museum, Hermann-Schäfer-Str. 17, 67098 Bad Dürkheim, Germany.
[68] Department of Botany, The Zamorin's Guruvayurappan College, Kozhikode, Kerala, India.
[69] Laboratory for Biological Diversity, Ruđer Bošković Institute, Bijenička cesta 54, HR-10000 Zagreb, Croatia.
[70] Globe Inst./Department of Biology, University of Copenhagen, Universitetsparken 15, 2100 Copenhagen Ø, Denmark, Denmark.
[71] Biological and Environmental Sciences, University of Gothenburg, and Gothenburg Global Biodiversity Centre, Box 461, SE40530 Göteborg, Sweden.
[72] 775, rang du Rapide Nord, Saint-Casimir, Quebec, G0A 3L0, Canada.
[73] P.O. Box 58499, 3734 Limassol, Cyprus.
[74] Departamento de Biologia Celular e Genética, Universidade Federal do Rio Grande do Norte, Natal, Rio Grande do Norte, Brazil.
[75] Saint Petersburg State University, 199034, 7-9 Universitetskaya emb., St. Petersburg, Russia.
[76] Gobabeb-Namib Research Institute, Walvis Bay, Namibia.
[77] Servicio Territorial de Agricultura, Ganadería y Desarrollo Rural de Zamora, C/ Prado Tuerto 17, 49019 Zamora, Spain.
[78] Real Jardín Botánico RJB-CSIC, Plaza de Murillo 2, 28014 Madrid, Spain.
[79] Queensland Alliance for Agriculture and Food Innovation, The University of Queensland, Brisbane 4001, Australia.
[80] Department of Plant Protection, Faculty of Agriculture, Shahid Chamran University of Ahvaz, Ahvaz, Khuzestan Province, Iran.
[81] Biotechnology and Bioscience Research Center, Shahid Chamran University of Ahvaz, Ahvaz, Iran.
[82] University of Illinois Urbana-Champaign, Illinois Natural History Survey, 1816 South Oak Street, Champaign, Illinois, 61820, USA.
[83] Université de Lille, Faculté de pharmacie de Lille, EA 4483, F-59000 Lille, France.
[84] Falkstraße 103, D-47058 Duisburg, Germany.
[85] Naturalis Biodiversity Center, section Botany, P.O. Box 9517, 2300 RA Leiden, The Netherlands.
[86] Rey Juan Carlos University, Dep. Biology and Geology, Physics and Inorganic Chemistry, C/ Tulipán s/n, 28933 Móstoles, Madrid, Spain.
[87] 205 East Campus Science Center, Lock Haven University, Department of Biology, Lock Haven, PA 17745, USA.
[88] Centre for Advanced Studies in Botany, University of Madras, Guindy Campus, Chennai 600 025, India.
[89] Sociedad Micológica de Madrid, Real Jardín Botánico, C/ Claudio Moyano 1, 28014 Madrid, Spain.
[90] Department of Botany, Hungarian University of Agriculture and Life Sciences, Ménesi út 44. H-1118 Budapest, Hungary.
[91] Institute of Evolutionary Biology, Faculty of Biology, Biological and Chemical Research Centre, University of Warsaw, ul. Zwirki i Wigury 101, 02-089 Warsaw, Poland.
[92] Biology programme, Faculty of Science, Nakhon Phanom University, Nakhon Phanom, 48000, Thailand.
[93] Centre for Functional Ecology, Department of Life Sciences, University of Coimbra, 3004-531 Coimbra, Portugal.
[94] Fitolab - Laboratory for Phytopathology, Instituto Pedro Nunes, 3030-199 Coimbra, Portugal.
[95] Mycology Research Group, Faculty of Biological Sciences, Goethe University Frankfurt am Main, Max-von-Laue Straße 13, 60439 Frankfurt am Main, Germany.
[96] Ostenstraße 19, D-95615 Marktredwitz, Germany.
[97] The Institute for the Promotion of Teaching Science and Technology, Bangkok, 10110, Thailand.
[98] Institute of Ecology and Earth Sciences, University of Tartu, Ravila Street 14A, 50411 Tartu, Estonia.
[99] Kloosterweg 5, 6301WK, Valkenburg a/d Geul, The Netherlands.
[100] Department of Biology, Faculty of Science, Ramkhamhaeng University, Bangkok, 10240, Thailand.
[101] Department of Agro-Food Science, Niigata Agro-Food University, 2416 Hiranedai, Tainai, Niigata Prefecture, Japan.
[102] Swiss Federal Institute for Forest, Snow and Landscape Research WSL, Birmensdorf, Switzerland.
[103] Geeste 133, D-46342 Velen, Germany.
[104] Department of Microbiology, Faculty of Science, Srinakharinwirot University, Bangkok, 10110 Thailand.
[105] Plant Pathology Herbarium, Department of Agriculture and Fisheries, Dutton Park 4102, Queensland, Australia.
[106] Plant Health and Environment Laboratory, Ministry for Primary Industries, P.O. Box 2095, Auckland 1140, New Zealand.
[107] Department of Plant Soil and Microbial Sciences, 1066 Bogue Street, Michigan State University, East Lansing, MI, 48824 USA.
[108] Passatge del Torn, 4, 17800 Olot, Spain.
[109] Department of Life Sciences and Systems Biology, University of Torino, Viale P.A. Mattioli 25, I-10125 Torino, Italy.
[110] Research Planning and International Cooperation Department, Plant Resources Center, An Khanh, Hoai Duc, Hanoi 152900, Vietnam.
[111] Department of Biology, Faculty of Science, Srinakharinwirot University, Bangkok, 10110 Thailand.
[112] Via Murazzano 11, I-10141, Torino (TO), Italy.
[113] Laboratório de Microbiologia e Fitopatologia, Universidade Federal de Uberlândia, Monte Carmelo, 38500-000, MG, Brazil.

Acknowledgements P.R. Johnston thanks J. Sullivan (Lincoln University) for the habitat image of Kowai Bush, Duckchul Park (Manaaki Whenua – Landcare Research) for the DNA sequencing, and the New Zealand Department of Conservation for permission to collect the specimens; this research was supported through the Manaaki Whenua – Landcare Research Biota Portfolio with funding from the Science and Innovation Group of the New Zealand Ministry of Business, Innovation and Employment. V. Hubka was supported by the Czech Ministry of Health (grant number NU21-05-00681), and is grateful for the support from the Japan Society for the Promotion of Science – grant-in-aid for JSPS research fellow (grant no. 20F20772). K. Glässnerová was supported by the Charles University Grant Agency (grant No. GAUK 140520). J. Trovão and colleagues were financed by FEDER-Fundo Europeu de Desenvolvimento Regional funds through the COMPETE 2020 – Operational Programme for Competitiveness and Internationalisation (POCI), and by Portuguese funds through FCT – Fundação para a Ciência e a Tecnologia in the framework of the project POCI-01-0145-FEDER-PTDC/EPH-PAT/3345/2014. This work was carried out at the R&D Unit Centre for Functional Ecology – Science for People and the Planet (CFE), with reference UIDB/04004/2020, financed by FCT/MCTES through national funds (PIDDAC). J. Trovão was also supported by POCH – Programa Operacional Capital Humano (co-funding by the European Social Fund and national funding by MCTES), through a 'FCT – Fundação para a Ciência e Tecnologia' PhD research grant (SFRH/BD/132523/2017). D. Haelewaters acknowledges support from the Research Foundation – Flanders (Junior Postdoctoral Fellowship 1206620N). M. Loizides and colleagues are grateful to Y. Cherniavsky for contributing collections AB A12-058-1 and AB A12-058-2, and Á. Kovács and B. Kiss for their help with molecular studies of these specimens. C. Zmuda is thanked for assisting with the collection of ladybird specimens infected with *Hesperomyces parexochomi*. A.V. Kachalkin and colleagues were supported by the Russian Science Foundation (grant No. 19-74-10002). The study of A.M. Glushakova was carried out as part of the Scientific Project of the State Order of the Government of Russian Federation to Lomonosov Moscow State University No. 121040800174-6. S. Nanu acknowledges the Kerala State Council for Science, Technology and Environment (KSCSTE) for granting a research fellowship and is grateful to the Chief Conservator of Forests and Wildlife for giving permission to collect fungal samples. A. Bañares and colleagues thank L. Monje and A. Pueblas of the Department of Drawing and Scientific Photography at the University of Alcalá for their help in the digital preparation of the photographs, and J. Rejos, curator of the AH herbarium for his assistance with the specimens examined in the present study. The research of V. Antonín received institutional support for long-term conceptual development of research institutions provided by the Ministry of Culture (Moravian Museum, ref. MK000094862). The studies of E.F. Malysheva, V.F. Malysheva, O.V. Morozova, and S.V. Volobuev were carried out within the framework of a research project of the Komarov Botanical Institute RAS, St Petersburg, Russia (AAAA-A18-118022090078-2) using equipment of its Core Facility Centre 'Cell and Molecular Technologies in Plant Science'.The study of A.V. Alexandrova was carried out as part of the Scientific Project of the State Order of the Government of Russian Federation to Lomonosov Moscow State University No. 121032300081-7. The Kits van Waveren Foundation (Rijksherbariumfonds Dr E. Kits van Waveren, Leiden, Netherlands) contributed substantially to the costs of sequencing and travelling expenses for M.E. Noordeloos. The work of B. Dima was partly supported by the ÚNKP-20-4 New National Excellence Program of the Ministry for Innovation and Technology from the source of the National Research, Development and Innovation Fund. The work of L. Nagy was supported by the 'Momentum' program of the Hungarian Academy of Sciences (contract No. LP2019-13/2019 to L.G.N.). G.A. Kochkina and colleagues acknowledge N. Demidov for the background photograph, and N. Suzina for the SEM photomicrograph. The research of C.M. Visagie and W. Nel was supported by the National Research Foundation grant no 118924 and SFH170610239162. C. Gil-Durán acknowledges Agencia Nacional de Investigación y Desarrollo, Ministerio de Ciencia, Tecnología, Conocimiento e Innovación, Gobierno de Chile, for grant ANID – Fondecyt de Postdoctorado 2021 – N° 3210135. R. Chávez and G. Levicán thank DICYT-USACH and acknowledges the grants INACH RG_03-14 and INACH RT_31-16 from the Chilean Antarctic Institute, respectively. S. Tiwari and A. Baghela would like to acknowledge R. Avchar and K. Balasubramanian from the Agharkar Research Institute, Pune, Maharashtra for helping with the termite collection. S. Tiwari is also thankful to the University Grants Commission, Delhi (India) for a junior research fellowship (827/(CSIR-UGC NET DEC.2017)). R. Lebeuf and I. Saar thank D. and H. Spencer for collecting and photographing the holotype of *C. bondii*, and R. Smith for photographing the habitat. A. Voitk is thanked for helping with the colour plate and review of the manuscript, and the Foray Newfoundland and Labrador for providing the paratype material. I. Saar was supported by the Estonian Research Council (grant PRG1170) and the European Regional Development Fund (Centre of Excellence EcolChange). M.P.S. Câmara acknowledges the 'Conselho Nacional de Desenvolvimento Científico e Tecnológico – CNPq' for the research productivity fellowship, and financial support (Universal number 408724/2018-8). W.A.S. Vieira acknowledges the 'Coordenação de Aperfeiçoamento Pessoal de Ensino Superior – CAPES' and the 'Programa Nacional de Pós-Doutorado/CAPES – PNPD/CAPES' for the postdoctoral fellowship. A.G.G. Amaral acknowledges CNPq, and A.F. Lima and I.G. Duarte acknowledge CAPES for the doctorate fellowships. F. Esteve-Raventós and colleagues were financially supported by FEDER/Ministerio de Ciencia, Innovación y Universidades – Agencia Estatal de Investigación (Spain)/ Project CGL2017-86540-P. The authors would like to thank L. Hugot and N. Suberbielle (Conservatoire Botanique National de Corse, Office de l'Environnement de la Corse, Corti) for their help. The research of E. Larsson is supported by The Swedish Taxonomy Initiative, SLU Artdatabanken, Uppsala. Financial support was provided to R.J. Ferreira by the National Council for Scientific and Technological Development (CNPq), and to I.G. Baseia, P.S.M. Lúcio and M.P. Martín by the National Council for Scientific and Technological Development (CNPq) under CNPq-Universal 2016 (409960/2016-0) and CNPq-visiting researcher (407474/2013-7). J. Cabero and colleagues wish to acknowledge A. Rodríguez for his help to describe *Genea zamorana*, as well as H. Hernández for sharing information about the vegetation of the type locality. S. McMullan-Fisher and colleagues acknowledge K. Syme (assistance with illustrations), J. Kellermann (translations), M. Barrett (collection, images and sequences), T. Lohmeyer (collection and images) and N. Karunajeewa (for prompt accessioning). This research was supported through funding from Australian Biological Resources Study grant (TTC217-06) to the Royal Botanic Gardens Victoria. The research of M. Spetik and co-authors was supported by project No. CZ.02.1.01/0.0/0.0/16_017/0002334. N. Wangsawat and colleagues were partially supported by NRCT and the Royal Golden Jubilee Ph.D. programme, grant number PHD/0218/2559. They are thankful to M. Kamsook for the photograph of the Phu Khiao Wildlife Sanctuary and P. Thamvithayakorn for phylogenetic illustrations. The study by N.T. Tran and colleagues was funded by Hort Innovation (Grant TU19000). They also thank the turf growers who supported their surveys and specimen collection. N. Matočec, I. Kušan, A. Pošta, Z. Tkalčec and A. Mešić thank the Croatian Science Foundation for their financial support under the project grant HRZZ-IP-2018-01-1736 (ForFungiDNA). A. Pošta thanks the Croatian Science Foundation for their support under the grant HRZZ-2018-09-7081. A. Morte is grateful to Fundación Séneca – Agencia de Ciencia y Tecnología de la Región de Murcia (20866/PI/18) for financial support. The research of G. Akhmetova, G.M. Kovács, B. Dima and D.G. Knapp was supported by the National Research, Development and Innovation Office, Hungary (NKFIH KH-130401 and K-139026), the ELTE Thematic Excellence Program 2020 supported by the National Research, Development and Innovation Office (TKP2020-IKA-05) and the Stipendium Hungaricum Programme. The support of the János Bolyai Research Scholarship of the Hungarian Academy of Sciences and the Bolyai+ New National Excellence Program of the Ministry for Innovation and Technology to D.G. Knapp is highly appreciated. F.E. Guard and colleagues are grateful to the traditional owners, the Jirrbal and Warungu people, as well as L. and P. Hales, Reserve Managers, of the Yourka Bush Heritage Reserve. Their generosity, guidance, and the opportunity to explore the Bush Heritage Reserve on the Einasleigh Uplands in far north Queensland is greatly appreciated. The National Science Foundation (USA) provided funds (DBI#1828479) to the New York Botanical Garden for a scanning electron microscope used for imaging the spores. V. Papp was supported by the ÚNKP-21-5 New National Excellence Program of the Ministry for Innovation and Technology from the National Research, Development and Innovation Fund of Hungary. A.N. Miller thanks the WM Keck Center at the University of Illinois Urbana – Champaign for sequencing *Lasiosphaeria deviata*. J. Pawłowska acknowledges support form National Science Centre, Poland (grant Opus 13 no 2017/25/B/NZ8/00473). The research of T.S. Bulgakov was carried out as part of the State Research Task of the Subtropical Scientific Centre of the Russian Academy of Sciences (Theme No. 0492-2021-0007). K. Bensch (Westerdijk Fungal Biodiversity Institute, Utrecht) is thanked for correcting the spelling of various Latin epithets.


Hyphodermella pallidostraminea

Fungal Planet 1359 – 24 December 2021

Hyphodermella pallidostraminea Bukharova & Volobuev, *sp. nov.*

Etymology. Name refers to the pale straw-yellow colour of hymenial surface.

Classification — *Phanerochaetaceae*, *Polyporales*, *Agaricomycetes*.

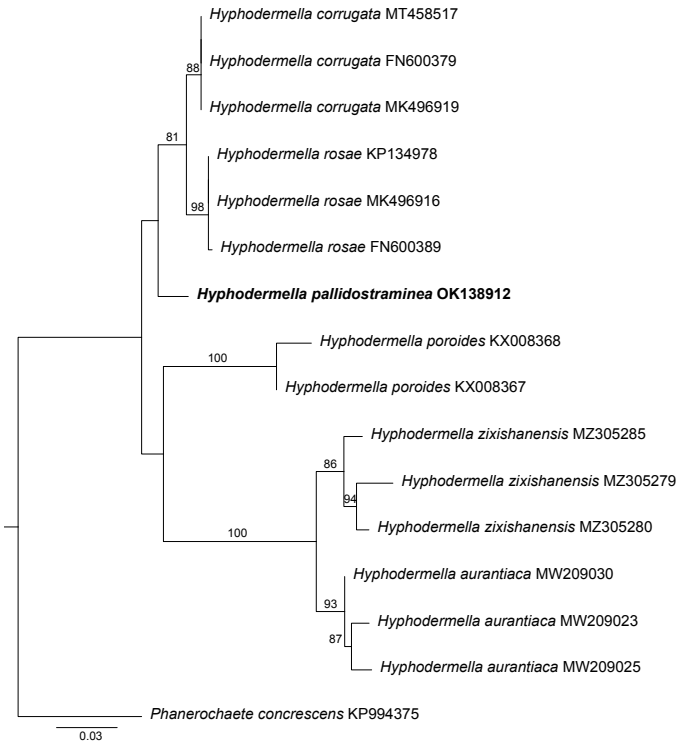
Basidiomata annual, resupinate, adnate, effuse, ceraceous to crustaceous when dry, at first orbicular, then confluent, up to 15 mm diam. Margin white, determinate, narrow, fibrillose, with age thinning out. *Hymenial surface* yellowish, tiger yellow (090 90 50), fresh yellow (095 90 40) or pea green (095 80 40) (all colour codes are given following the RAL Design colour chart), smooth to slightly tuberculate, cracked. Subiculum thin, indistinct, white. *Hyphal system* monomitic; generative hyphae simple-septate. Subicular hyphae 3.5–5 µm diam, hyaline, thick-walled or with slightly thickened walls, encrusted with numerous prismatic crystals, loosely interwoven, more or less parallel arranged, occasionally branched. Subhymenial hyphae 2.5–3.5 µm diam, hyaline, thin-walled, smooth, compactly interwoven, frequently ramified. *Cystidia* absent, but cylindrical to fusoid, cystidioid hyphal ends occasionally present, thin-walled, not encrusted, projecting above the hymenium up to 35 µm. *Basidia* 17–25 × 5.2–6 µm, clavate, with a simple septum at the base, 4-sterigmate. *Basidiospores* (5.0–)5.4–6.6(–6.7) × (2.9–)3.0–3.5(–3.6) µm, n = 30, L = 5.96, W = 3.23, Q = 1.82–1.87, smooth, hyaline, thin-walled, ellipsoid, inamyloid, non-dextrinoid, with tiny oil drops.

Habitat & Distribution — On dry, dead *Actinidia* sp. branch, in a herbaceous mixed coniferous-broadleaf forest. Hitherto only known from the type locality in the south of the Russian Far East.

Typus. Russia, Jewish Autonomous Oblast, Obluchensky District, Bastak State Nature Reserve, 15 km north-northeastward from the Kirga settlement, at the foot of Mount Skalistaya, N49°00'47.3" E132°53'53.6", on dry dead branch of *Actinidia* sp. (*Actinidiaceae*) in mixed coniferous-broadleaf forest, 24 Aug. 2009, *N. Bukharova (Vasilyeva)* (holotype LE 286968, isotype VLA M-22719, ITS and LSU sequences GenBank OK138912 and OK138911, MycoBank MB 841840).

Notes — *Hyphodermella pallidostraminea* is a minute-sized corticioid fungus characterised macroscopically by pale-yellowish smooth to tuberculate hymenophore and white pruinose margin of basidiocarps. The main distinguishing microscopic feature among other representatives of the genus *Hyphodermella* is the spore size (up to 3.5 µm in width) that is overlapping only with the recently described *H. zixishanensis*, but the latter species differs by the reddish to brown hymenial surface and the absence of cystidioid hyphal ends projecting above the hymenium (Wang et al. 2021). The previous attempt to find a taxonomic interpretation for the studied specimen of *H. pallidostraminea* without a molecular analysis led to the fact that this material was erroneously identified as *Sistotremastrum niveocremeum* (Bukharova & Zmitrovich 2014), also being a deciduous-dwelling fungus having a monomitic hyphal system, similar spore sizes and shape, but differing by clamps on hyphae.

Based on a megablast search of NCBIs GenBank nucleotide database, the closest hits using the **ITS** sequence had highest similarity to *H. rosae* (strain FP-150552, GenBank KP134978; Identities = 625/657 (95 %), 13 gaps (1 %)), *H. corrugata* (voucher K(M) 237661, GenBank MK496919; Identities = 633/666 (95 %), 13 gaps (1 %)) and *H. rosae* (voucher CFMR DLL2011-177, GenBank KJ140672; Identities = 613/646 (95 %), 13 gaps (2 %)). Closest hits using the **LSU** sequence are *Geliporus exilisporus* (voucher TNM GC 1702-15, GenBank LC379153; Identities = 847/859 (99 %), no gaps), *H. rosae* (strain GC 1604-113, GenBank MZ637147; Identities = 849/862 (98 %), no gaps) and *H. corrugata* (voucher MA-Fungi 5527, GenBank JN939597; Identities = 849/862 (98 %), no gaps).



Phylogenetic tree derived from Maximum Likelihood analysis based on nrITS1-5.8S-ITS2 data. The analysis was performed in the IQ-TREE Web Server (Trifinopoulos et al. 2016) with 1000 ultrafast bootstrap replicates. Maximum Likelihood bootstrap support values shown above branches (BS > 80 %). The new species described in this study is in **bold** face. The scale bar represents the expected number of nucleotide changes per site.

Colour illustrations. Coniferous-broadleaf mixed forest in the Bastak State Nature Reserve (Jewish Autonomous Oblast, Russia). Basidiocarp; basidia and spores (all from holotype). Scale bars = 2 mm (basidiocarp), 10 µm (cystidioid hyphal ends), 5 µm (spores and basidia).

Sergey V. Volobuev, Komarov Botanical Institute of the Russian Academy of Sciences, 2, Professora Popova street, 197376 Saint Petersburg, Russia; e-mail: sergvolobuev@mail.ru
Nadezhda V. Bukharova, Federal Scientific Center of the East Asia Terrestrial Biodiversity, Far Eastern Branch of the Russian Academy of Sciences, Pr-t 100-let Vladivostoka 159, 690022 Vladivostok, Russia; e-mail: nadya808080@mail.ru