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Fungal Planet description sheets: 1697–1780

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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: Antarctica, Leuconeurospora bharatiensis from accumulated snow sediment sample. Argentina, Pseudocercospora quetri on leaf spots of Luma apiculata. Australia, Polychaetomyces verrucosus on submerged decaying wood in sea water, Ustilaginoidea cookiorum on Scleria levis, Xylaria guardiae as endophyte from healthy leaves of Macaranga tanarius. Belgium, lodophanus taxi on leaf of Taxus baccata. Belize, Hygrocybe mirabilis on soil. Brazil, Gongronella irregularis from soil, Linodochium splendidum on decaying sheath of Euterpe oleracea, Nothophysalospora agapanthi (incl. Nothophysalospora gen. nov.) on flower stalks of Agapanthus praecox, Phaeosphaeria tabebuiae on leaf of Tabebuia sp., Verrucohypha endophytica (incl. Verrucohypha gen. nov.) from healthy roots of Acrocomia aculeata. Estonia, Inosperma apricum on soil under Quercus robur. Greece, Monosporascus solitarius isolated from surfacesterilised, asymptomatic roots of Microthlaspi perfoliatum. India, Diaporthe neocapsici on young seedling stems of Capsicum annuum, Fuscoporia naditirana on dead wood, Sebacina spongicarpa on soil, Torula kanvae from the gut of a Copris signatus beetle. Iran, Sarcinomyces pruni from twig and petiole tissues of Prunus persica and Prunus armeniaca, Xenodidymella guercicola from leaf spots of Quercus brantii. Italy, Agaricus aereiceps on grass, Agaricus bellui in meadows, Agaricus fabrianensis in urban grasslands, Beaucarneamyces muscorum on moss growing in forest, Xenoanthostomella quercus on leaf litter of Quercus ilex. Netherlands, Alfaria neerlandica on stem lesions of Cortaderia selloana, Neodictyosporium juncicola on culms of Juncus maritimus, Penicillium geertdesnooi from soil under Papaver rhoeas, Russula abscondita on rich calcareous soil with Quercus, Russula multiseptata on rich clay soil with Quercus, Russula purpureopallescens on soil with Populus, Sarocladium caricicola on leaves of Carex riparia. Pakistan, Circinaria shimlaensis on limestone rocks. Panama, Acrocalymma philodendri on leaf spots of Philodendron sp., Caligospora panamaensis on leaf litter, Chlamydocillium simulans associated with a Xylaria sp., Corynesporina panamaensis on leaf litter, Cylindromonium panamaense on twig litter of angiosperm, Cyphellophora panamaensis on twig litter of angiosperm, Microcera panamensis on leaf litter of fern, Pseudotricholoma pusillum in tropical montane forest dominated by Quercus spp., Striaticonidium panamaense on leaf litter, Yunnanomyces panamaensis on leaf litter. Poland, Albocremella abscondita (incl. Albocremella aen. nov.) from rhizoids of liverwort Conocephalum salebrosum. Portugal, Agaricus occidualis in meadows. South Africa, Alternaria elsarustiae on culms of unidentified Poaceae, Capronia capensis on dead twig of unidentified angiosperm, Codinaeella bulbinicola on dead leaves of Bulbine frutescens, Cytospora carpobroticola on leaf of Carpobrotus quadrifidus, Neophaeomoniella watsoniae on leaf of Watsonia sp., Neoplatysporoides aloigena on leaf of Aloe khamiesensis, Nothodactylaria comitabilis on living leaf of Itea rhamnoides, Nothopenidiella beaucarneae (incl. Nothopenidiella gen. nov.) on dead leaves of Beaucarnea stricta, Orbilia kirstenboschensis on dead flower stalks of Agapanthus praecox, Phragmocephala agapanthi on dead flower stalks of Agapanthus praecox, Podocarpigena hagahagaensis (incl. Podocarpigena gen. nov.) on leaf spots of

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Abstract:

Podocarpus falcatus, Sporisorium enterogonipteri from the gut of Gonipterus sp., Synnemapestaloides searsiae on leaf of Searsia populifolia, Xenophragmocapnias diospyri (incl. Xenophragmocapnias gen. nov.) on leaf spots of Diospyros sp., Yunnanomyces hagahagaensis on leaf spots of Sideroxylon inerme. **Spain**, Agaricus basicinctus in meadows, Agaricus quercetorum among leaf litter in oak forests, Coprinopsis palaciosii on degraded woody debris, Inocybe complutensis in calcareous loamy soil, Inocybe tanitiae in calcareous sandy soil, Mycena subfragosa on dead leaves of Salix atrocinerea, Pseudobaeospora cortegadensis in laurel forests, Trichoderma sedimenticola from fluvial sediments. **Sweden**, Inocybe badjelanndana on calcareous soil. **Ukraine**, Beaucarneamyces lupini on overwintered stems of Lupinus polyphyllus, Protocreopsis globulosa on thallus and apothecia of Lecania cyrtella on bark of Populus sp., Thyridium tiliae on dead twigs of Tilia sp. **USA**, Cladosporium louisianense, Cyphellophora americana from a bedroom vent, Extremus massachusettsianus from lyse buffer, Myxotrichum tapetae on carpet in basement, Neospissiomyces gen. nov.) on submerged driftwood in sea water, Steccherinum fragrans on hardwood fallen on the beach, Steinbeckomyces carnegieae (incl. Steinbeckomyces gen. nov.) on Carnegiea gigantea, Tolypocladium pennsylvanicum from air sampled in basement. **Vietnam**, Acidomyces ducanhii from Aglaia flowers, Acidomyces paludis from dead bark of Acacia sp., Phakopsora sageretiae on Sageretia theezans, Puccinia stixis on Stixis scandens. Morphological and culture characteristics are supported by DNA barcodes.

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Fungal Planet 1766

Pseudocercospora quetri G.H. Ramirez, sp. nov.

Etymology: The name derives from the term "quetri", used by the native Mapuche people to refer to the arrayán tree (*Luma apiculata*), from which this fungus was isolated.

| Classification: | Mycosphaerellaceae, | Capnodiales, |
|------------------|---------------------|--------------|
| Dothideomvcetes. | | |

Leaf spots amphigenous, circular to irregular, up to 7 mm diam, grey to pale brown in middle, sometimes with concentric rings, with raised purple border. Ascomata pseudothecial, epiphyllous, semi-immersed, globose, dark brown, up to 130 µm wide, unilocular, with central ostiole 10-20 µm wide; wall consisting of 2-4 layers of brown textura angularis. Asci fasciculate, bitunicate, cylindric-clavate, straight to slightly curved, 8-spored, with apical chamber, hyaline, $40-60 \times 8-12 \mu m$. Ascospores biseriate, fusoid-ellipsoidal with obtuse ends, straight to slightly curved, 1-septate, slightly constricted at septum, widest in middle of apical cell, tapering towards both ends, more prominently towards the lower end, thin-walled, smooth, hyaline, (14-)15- $21(-22) \times 3-4 \mu m$. Mycelium subhyaline to pale brown, smooth, septate, branched, 2-4 µm diam hyphae. Sclerotia formed on sterile pine needles, cylindrical, dark brown, up to $300 \times 100 \,\mu$ m. Asexual morph observed only on artificial cultures (potato dextrose agar; PDA, malt extract agar; MEA, and oatmeal agar; OA). Conidiophores reduced to conidiogenous cells, indistinguishable from the vegetative hyphae. Conidia solitary, subcylindrical, apex obtuse to subobtuse, base obconically truncate to truncate, straight to geniculate, smooth, subhyaline, 0-8-septate, (24-)32-96(-108) × 2.5-3.5(-4) μm; hila neither thickened nor darkened-refractive, with marginal frill.

Culture characteristics (in darkness, 20 °C, 14 d): Colonies round, raised surface, velvety, with entire margin, reaching 11 mm diam. On MEA and PDA surface greyish sepia, reverse olivaceous. On OA surface smoke grey, reverse greyish sepia.

Typus: **Argentina**, Neuquén Province, Villa la Angostura, 40°47'S, 71°39'W, on leaf spots of *Luma apiculata (Myrtaceae)*, 21 Jan. 2024, *G.H. Ramírez* (**holotype** BBB:GR-LUM-03, culture ex-type BBB:GR-PSE-03; ITS and LSU sequences GenBank PQ111801 and PQ111802).

Notes: The occurrence of *Mycosphaerella* and its asexual morphs on *Myrtaceae* has been extensively documented (*e.g.* Crous 1999, Aptroot 2006). Among these species, *Amomyrtus luma* is frequently misidentified as *Luma apiculata* due to their overlapping distribution. *Mycosphaerella lumae* was originally described on leaves of *A. luma* (Sydow 1928). Despite the lack of molecular data for *M. lumae*, it has notable differences from *Pseudocercospora quetri*, such as the morphology and location of the ascomata (hypophyllous, densely clustered in groups, and often aggregated in a stroma in *M. lumae*).

Molecular phylogenetic analysis places *Pseudocercospora quetri* within a monophyletic clade, being closely related to *P. leandrae-fragilis* and *P. sphaerulinae*. Although the absence of a known sexual morph of *P. leandrae-fragilis* to compare with, its conidial size ($80-164.5 \times 4-5 \mu m$) is notably larger than those from *P. quetri*. In contrast, while the conidia of *P. sphaerulinae* ($70-100 \times 2-3 \mu m$) are similar to those of *P. quetri*, it can be distinguished by its 3-septate ascospores. *Pseudocercospora quetri* represents the first recorded species of *Pseudocercospora* with a sexual morph occurring on *Luma apiculata*.

Based on a search in GenBank database, the closest hits using the **ITS** sequence had highest similarity to *Pseudocercospora basitruncata* [CBS 114664, GenBank DQ267600; Identities = 497/505 (98 %), three gaps], *P. paranaensis* [CPS 24680, GenBank NR_147289; Identities = 495/505 (98 %), three gaps] and *P. plunkettii* [CPC 26081, GenBank KT290151.1; Identities = 484/494 (98 %), four gaps]; closest hits using the **LSU** sequence had highest similarity to *P. paranaensis* [CPC 24680, GenBank NG_069294; Identities = 804/811 (99 %), no gaps], *P. rhabdothamni* [CBS 114872, GenBank NG_069099; Identities = 804/811 (99 %), no gaps] and *P. cyatheicola* [CBS 129520, GenBank MH878060; Identities = 804/811(99 %), no gaps].

Colour illustrations: Luma apiculata in Villa la Angostura, Argentina. Foliar symptoms; detail of leaf spot with semi-immersed ascomata; asci; ascospores; conidia; sclerotium. Scale bars = $10 \mu m$.





0.005

Bayesian inference phylogenetic tree of concatenated ITS and LSU sequences using MrBayes v. 3.2.7, illustrates the relationship of *Pseudocercospora quetri* to closely related species. The species included in this analysis belong predominantly to clade 5 *sensu* Groenewald *et al.* (2024), with the exception of *P. eucalyptorum*, which belongs to clade 7. *Pseudocercosporella pastinacae* was used as outgroup. Sequences derived from material with a type status are indicated with a superscript HT [from (ex-)type] and ET [from (ex-)epitype]. Bayesian posterior probability values are shown at the nodes. The coloured block comprises Clade 5, and the novel species is indicated in **bold**. The alignment and tree were deposited at figshare.com, (doi: 10.6084/m9.figshare.27173130.v1).

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