

Idriellomyces eucalypti



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***Idriellomyces* Crous, gen. nov.**

Etymology. Name reflects a similarity to the genus *Idriella*.

Classification — *Phlogicylindriaceae*, *Xylariales*, *Sordariomycetes*.

Mycelium consisting of hyaline to olivaceous, smooth, septate, branched hyphae. *Conidiophores* arising from superficial mycelium, brown, smooth, septate, branched, aggregated into thick, erect synnemata, consisting of branched conidiophores

with apical and intercalary conidiogenous cells; lateral conidiophores arising from synnemata, septate. *Conidiogenous cells* medium brown, smooth, subcylindrical with apical taper to a rachis containing several darkened scars. *Conidia* aseptate, solitary, dry, hyaline, smooth, guttulate, fusoid, apex subobtuse, base truncate.

Type species. *Idriellomyces eucalypti* Crous.
Mycobank MB825426.

***Idriellomyces eucalypti* Crous, sp. nov.**

Etymology. Name refers to *Eucalyptus*, the host genus from which this fungus was collected.

Mycelium consisting of hyaline to olivaceous, smooth, septate, branched hyphae, 1.5–2 µm diam. *Conidiophores* arising from superficial mycelium, brown, smooth, septate, branched, aggregated into thick, erect synnemata, up to 200 µm tall and 60 µm diam, consisting of branched conidiophores with apical and intercalary conidiogenous cells; lateral conidiophores arising from synnemata, 15–40 × 2–2.5 µm, 1–3-septate. *Conidiogenous cells* medium brown, smooth, subcylindrical with apical taper to a rachis containing several darkened scars, 0.5 µm diam, 8–20 × 2–2.5 µm. *Conidia* aseptate, solitary, dry, hyaline, smooth, guttulate, fusoid, apex subobtuse, base truncate, 0.5 µm diam, (5–)6.5–7(–8) × 1.5(–2) µm.

Culture characteristics — Colonies erumpent, spreading, with sparse aerial mycelium and even, smooth margin, reaching 12 mm diam after 2 wk at 25 °C. On MEA surface and reverse umber. On PDA surface sepia, reverse isabelline. On OA surface cinnamon with patches of sienna.

Typus. AUSTRALIA, Victoria, Silvan Reservoir Park, on leaves of *Eucalyptus obliqua* (*Myrtaceae*), 1 Dec. 2016, P.W. Crous (holotype CBS H-23571, culture ex-type CPC 32632 = CBS 144432, ITS, LSU, *tef1* and *tub2* sequences GenBank MH327813.1, MH327849.1, MH327881.1 and MH327893.1, MycoBank MB825427).

Notes — The genus *Idriella* (based on *I. lunata*) was treated by Hernández-Restrepo et al. (2016a) and shown to reside in the *Microdochiaceae*. The genus *Idriellomyces* is somewhat similar to *Idriella* in morphology, but represents a distinct genus in the family. *Idriellomyces* is morphologically distinct in that it lacks chlamydospores, conidiophores are pigmented and frequently aggregated in synnemata.

Based on a megablast search of NCBI's GenBank nucleotide database, the closest hits using the ITS sequence had highest similarity to *Cylindrium elongatum* (GenBank KM231853.1; Identities = 457/540 (85 %), 37 gaps (6 %)), *Neopestalotiopsis piceana* (GenBank KM199372.1; Identities = 464/549 (85 %), 37 gaps (6 %)) and *Neopestalotiopsis aotearoa* (GenBank KM199369.1; Identities = 464/549 (85 %), 37 gaps (6 %)). Closest hits using the LSU sequence are *Castanediella cagnizarii* (GenBank KP858988.1; Identities = 818/849 (96 %), 1 gap (0 %)), *Anungitea eucalyptorum* (GenBank KJ869176.1; Identities = 853/886 (96 %), 2 gaps (0 %)) and *Pseudophloeospora eucalypti* (GenBank HQ599593.1; Identities = 832/866 (96 %), 5 gaps (0 %)). No significant hits were obtained when the *tef1* and *tub2* sequences were used in BLASTn and megablast searches.

Colour illustrations. *Eucalyptus obliqua* trees at Silvan Reservoir Park; synnema on SNA, conidiogenous cells and conidia. Scale bars = 10 µm.

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