

Anungitea eucalyptorum



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***Anungitea eucalyptorum* Crous & R.G. Shivas, sp. nov.**

Etymology. Named after the host genus from which it was collected, *Eucalyptus*.

Mycelium consisting of pale brown, smooth, septate, branched, 1.5–2 µm diam hyphae. *Conidiophores* dimorphic, erect, brown, mostly unbranched. *Microconidiophores* reduced to conidiogenous cells, subcylindrical, 1–3-septate, pale brown, 20–50 × 2–3 µm. *Conidiogenous cells* terminal, clavate, 15–25 × 4–6 µm, with several sympodial, flat-tipped apical loci, 1.5–2 µm diam, not thickened. *Macroconidiophores* erect, flexuous, dark brown, thick-walled, up to 180 µm tall, 2–4 µm diam. *Ramiconidia* giving rise to branched chains of cylindrical conidia, pale brown, smooth, subcylindrical, 0–1-septate, 12–17 × 2–3 µm, with 1–4 apical, flat-tipped scars, 1.5–2 µm diam. *Conidia* hyaline to very pale olivaceous, cylindrical, 0–1-septate, often with bluntly rounded ends, guttulate, (13–)14–15(–17) × 2.5(–3) µm.

Culture characteristics — Colonies reaching 20 mm diam after 2 wk at 22 °C, flat, spreading, with moderate aerial mycelium and feathery margins. On PDA surface and reverse olivaceous-grey. On OA surface iron-grey with diffuse apricot pigment. On MEA surface smoke-grey with olivaceous-grey outer region, iron-grey in reverse.

Typus. AUSTRALIA, Queensland, Dave's Creek, S28°12'13.7" E153°12'9.5", on *Eucalyptus* (Myrtaceae) leaf litter, 11 July 2009, P.W. Crous & R.G. Shivas (holotype CBS H-21678, culture ex-type CPC 17207 = CBS 137967; ITS sequence GenBank KJ869118, LSU sequence GenBank KJ869176, TEF sequence GenBank KJ869234, MycoBank MB808893).

Notes — The genus *Anungitea* (*Venturiaceae*, see Crous et al. 2007c) was established for taxa with dark, solitary conidiophores, bearing a head with denticles with flattened conidiogenous scars that are unthickened nor darkened, and chains of cylindrical, 1-septate subhyaline conidia (Sutton 1973). *Phlogicylindrium* was established for species with aggregated, subhyaline, subcylindrical conidiophores that proliferate percurrently, giving rise to chains of hyaline, 1-septate, subcylindrical conidia (Summerell et al. 2006). The present collection fits well within the generic concept of *Anungitea*, and can be distinguished from *A. globosa* (conidia 9–14 × 2 µm, occurring on *Eucalyptus* in Hawaii, New Zealand and South Africa; Sutton & Hodges 1978, Crous & van der Linde 1993) by having larger conidia.

ITS. Based on a megablast search of NCBI's GenBank nucleotide database, the closest hits using the ITS sequence are *Phlogicylindrium eucalyptorum* (GenBank EU040223; Identities = 615/658 (93 %), Gaps = 19/658 (2 %)), *Phlogicylindrium uniforme* (GenBank JQ044426; Identities = 535/578 (93 %), Gaps = 19/578 (3 %)) and *Pestalotiopsis pauciseta* (GenBank GQ891045; Identities = 451/488 (92 %), Gaps = 11/488 (2 %)).

LSU. Based on a megablast search of NCBI's GenBank nucleotide database, the closest hits using the LSU sequence are *Phlogicylindrium uniforme* (GenBank JQ044445; Identities = 872/885 (99 %), Gaps = 1/885 (0 %)), *Phlogicylindrium eucalypti* (GenBank DQ923534; Identities = 873/887 (98 %), Gaps = 1/887 (0 %)) and *Phlogicylindrium eucalyptorum* (GenBank EU040223; Identities = 864/879 (98 %), Gaps = 1/879 (0 %)).

TEF. Based on a megablast search of NCBI's GenBank nucleotide database, the closest hits using the TEF sequence are *Hypocrea crassa* (GenBank JN133572; Identities = 215/253 (85 %), Gaps = 9/253 (3 %)), *Trichoderma strigosellum* (GenBank JQ425702; Identities = 214/252 (85 %), Gaps = 6/252 (2 %)) and *Hypocrea virens* (GenBank FJ463363; Identities = 216/255 (85 %), Gaps = 13/255 (5 %)).

Colour illustrations. Dave's Creek, Queensland, Australia; conidiophores, conidiogenous cells and conidia in culture. Scale bars = 10 µm.

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