

Rachicladosporium eucalypti



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Rachicladosporium eucalypti Crous, sp. nov.

Etymology. Name reflects the host genus *Eucalyptus*, from which the species was isolated.

Leaf spots brown, amphigenous, subcircular to irregular, up to 15 mm diam. *Colonies* homothallic, sporulating on OA. *Ascomata* pseudothecial, erumpent, up to 90 µm diam, with central ostiole; wall of 3–6 layers of brown *textura angularis*. *Asci* fasciculate, bitunicate, subsessile, hyaline, smooth, 8-spored, narrowly obovoid, with minute apical chamber, 1 µm diam, 23–40 × 7–12 µm. *Pseudoparaphyses* absent. *Ascospores* hyaline, smooth, guttulate, fusoid-ellipsoid, widest in middle of apical cell, tapering towards both ends, constricted at median septum, (10–)11–12 × 3(–3.5) µm; ascospores germinating from both ends, frequently with lateral branches, ascospores becoming distorted, 6–8 µm diam, brown and verruculose.

Culture characteristics — Colonies reaching 12 mm diam after 2 wk at 25 °C in the dark, spreading with moderate aerial mycelium, and even, smooth margins. On MEA surface olivaceous-grey, reverse iron-grey. On PDA surface smoke grey, reverse olivaceous-grey. On OA surface olivaceous-grey.

Typus. ETHIOPIA, Addis Ababa, Addis Ababa Botanical Garden, N09°05' 16.2" E38°43'4.7", on leaves of *Eucalyptus globulus* (*Myrtaceae*), 24 June 2013, P.W. Crous & A. Assefa (holotype CBS H-21982, culture ex-type CPC 23241 = CBS 138900; ITS sequence GenBank KP004448, LSU sequence GenBank KP004476, MycoBank MB810594).

Notes — The genus *Rachicladosporium* was established for taxa associated with leaf spots that are cladosporium-like in morphology, but distinct in that they have conidiophores with an apical rachis, and conidia that are pigmented, occur in chains and have slightly thickened hila (Crous et al. 2007b). *Rachicladosporium eucalypti* is the first species in the genus with a known sexual morph, which is mycosphaerella-like in morphology.

ITS. Based on a megablast search of NCBI's GenBank nucleotide database, the closest hits using the ITS sequence are *Rachicladosporium alpinum* (GenBank KF309941; Identities = 451/464 (97 %), Gaps = 4/464 (0 %)), *Rachicladosporium inconspicuum* (GenBank KF309939; Identities = 451/464 (97 %), Gaps = 4/464 (0 %)) and *Rachicladosporium pini* (GenBank JF951145; Identities = 564/584 (97 %), Gaps = 3/584 (0 %)).

LSU. Based on a megablast search of NCBI's GenBank nucleotide database, the closest hits using the LSU sequence are *Rachicladosporium alpinum* (GenBank KF309988; Identities = 705/707 (99 %), no gaps), *Rachicladosporium pini* (GenBank JF951165; Identities = 756/759 (99 %), no gaps) and *Rachicladosporium luculiae* (GenBank EU040237; Identities = 756/759 (99 %), no gaps).

Colour illustrations. *Eucalyptus globulus* leaves at the Addis Ababa Botanical Garden, Ethiopia; ascomata, asci and germinating ascospores. Scale bars = 10 µm.

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