



Fungal Planet 684 – 20 December 2017

Dothidea eucalypti Crous, *sp. nov.*

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

Classification — *Dothideaceae*, *Dothideales*, *Dothideomycetes*.

Conidiomata separate, erumpent, pycnidial, brown, 50–250 µm diam with central ostiole, exuding a crystalline conidial mass; wall of 3–6 layers of brown *textura angularis*. *Conidiophores* reduced to conidiogenous cells, lining the inner cavity, pale brown, smooth, doliform, 6–10 × 4–5 µm, with central phialidic locus. *Conidia* hyaline, smooth, guttulate, aseptate, subcylindrical, apex obtuse, base truncate, (7–)8–10(–12) × (2.5–)3 µm. *Hyphae* 3–5 µm diam, brown, thick-walled, verruculose, constricted at septa, giving rise to hormonema-like synasexual morph.

Culture characteristics — Colonies flat, spreading, with sparse to moderate aerial mycelium and feathery, lobate margins, reaching 60 mm diam after 2 wk at 25 °C. On MEA, PDA and OA surface and reverse greenish black.

Typus. AUSTRALIA, New South Wales, South East Forests National Park, on leaves of *Eucalyptus dalrympleana* (*Myrtaceae*), 28 Nov. 2016, P.W. Crous (holotype CBS H-23290, culture ex-type CPC 32313 = CBS 143417, ITS, LSU and *tef1* sequences GenBank MG386053, MG386106 and MG386152, MycoBank MB823402).

Notes — Genera in the *Dothideaceae* commonly form *Dothichiza* and hormonema-like morphs in culture (Crous & Groenewald 2017), which were also seen in cultures of *Dothidea eucalypti* in this study.

Based on a megablast search using the ITS sequence, the closest matches in NCBI's GenBank nucleotide database were *Dothidea berberidis* (GenBank EU167601; Identities 497/515 (97 %), 3 gaps (0 %)), *Dothidea ribesia* (GenBank KY929142; Identities 501/515 (97 %), 3 gaps (0 %)) and *Dothidea hippophaeos* (GenBank KF147924; Identities 497/515 (97 %), 2 gaps (0 %)). The highest similarities using the LSU sequence were *Dothidea sambuci* (GenBank AF382387; Identities 856/857 (99 %), no gaps), *Dothidea ribesia* (GenBank KY929175; Identities 855/857 (99 %), no gaps) and *Dothidea insculpta* (GenBank NG_027643; Identities 854/856 (99 %), no gaps). The highest similarities using the *tef1* sequence were *Dothidea ribesia* (GenBank KY929192; Identities 153/207 (74 %), 26 gaps (12 %)), *Dothiora phillyreae* (GenBank KU728590; Identities 134/179 (75 %), 19 gaps (10 %)) and *Dothiora agapanthi* (GenBank KU728578; Identities 160/225 (71 %), 19 gaps (8 %)).

Colour illustrations. South East Forests National Park; conidiomata sporulating on banana leaf agar, conidioma (scale bar = 200 µm), conidiogenous cells, hormonema-like synasexual morph and conidia (scale bars = 10 µm).

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