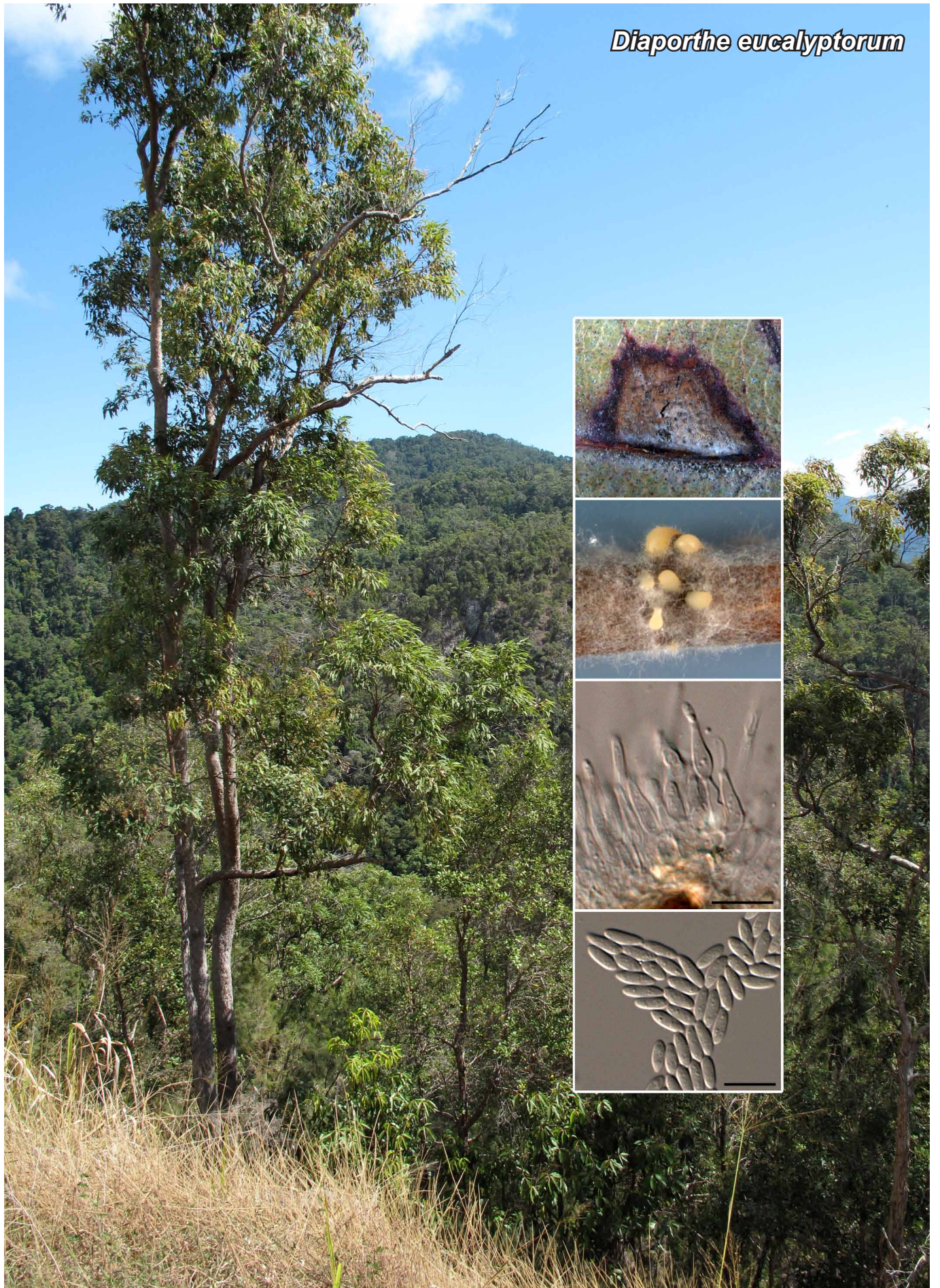


Diaporthe eucalyptorum



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

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

Leaf spots amphigenous, irregular, 2–7 mm diam, medium brown, with raised margin and red-purple border. *Pycnidia* in culture on pine needle agar, subglobose, up to 350 µm diam, black, erumpent; white to cream conidial droplets exuding from central ostioles; walls consisting of 3–6 layers of medium brown *textura angularis*. *Conidiophores* hyaline, smooth, reduced to conidiogenous cells or up to 4-septate, densely aggregated, straight to sinuous, unbranched or branched below, 15–60 × 3–4 µm. *Conidiogenous cells* 10–30 × 2–3 µm, phialidic, cylindrical, terminal and lateral, with slight taper towards apex, 1–1.5 µm diam, with visible periclinal thickening and flared collarette up to 2 µm long, surrounded by a prominent flaring mucoid sheath. *Paraphyses* hyaline, smooth, cylindrical, 1–3-septate, flexuous, unbranched or branched below, up to 70 µm long, 2–3 µm wide at base. *Alpha conidia* aseptate, hyaline, smooth, guttulate, fusoid, tapering towards both ends, straight, apex subobtusate, base subtruncate, (5.5–)6.5–7(–8) × (2–)2.5(–3) µm. *Beta* and *gamma conidia* not seen.

Culture characteristics — (in the dark, 25 °C, after 2 wk): Colonies covering the dish after 2 wk on oatmeal agar, malt extract agar and potato-dextrose agar, with moderate ropey aerial mycelium; dirty white with patches of olivaceous grey, also in reverse.

Typus. AUSTRALIA, Queensland, Cairns Road to Atherton Giles Highway, on leaves of *Eucalyptus* sp., 16 Aug. 2009, P.W. Crous, holotype CBS H-20958, cultures ex-type CPC 17203 = CBS 132525, ITS sequence GenBank JX069862 and LSU sequence GenBank JX069846, MycoBank MB800374.

Notes — *Phomopsis eucalypti* has been reported from living and dead leaves of *Eucalyptus* in Russia (Jecker 1988), and has also been recorded as a pathogen of *Eucalyptus* in India (Mohanan & Sharma 1987). *Diaporthe eucalyptorum* is distinguished by having shorter conidia ((5.5–)6.5–7(–8) × (2–)2.5(–3) µm than those of *P. eucalypti* 6.9–9.2(–12) × 2–2.5 µm (Jecker 1988)).

Based on a megablast search of NCBI's GenBank nucleotide database, the closest hit using the ITS sequence is *Diaporthe ceratozamia* (GenBank JQ044420; Identities = 657/675 (97 %), Gaps = 6/675 (1 %)), followed by *Phaeocytostroma plurivorum* (GenBank FR748046; Identities = 650/674 (96 %), Gaps = 1/674 (0 %)) and *Stenocarpella maydis* (GenBank FR748052; Identities = 653/680 (96 %), Gaps = 10/680 (1 %)). Closest hits using the LSU sequence yielded highest similarity to *Diaporthe ceratozamia* (GenBank JQ044440; Identities = 852/856 (99 %), Gaps = 3/856 (0 %)), *Diaporthe musigena* (GenBank JF951158; Identities = 852/856 (99 %), Gaps = 3/856 (0 %)), and *Phomopsis longicolla* (GenBank FJ755236; Identities = 851/855 (99 %), Gaps = 4/855 (0 %)).

Colour illustrations. *Eucalyptus* growing along highway in northern Queensland; close-up of leaf spot; pycnidia sporulating in culture; conidiogenous cells and alpha conidia. Scale bars = 10 µm.

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