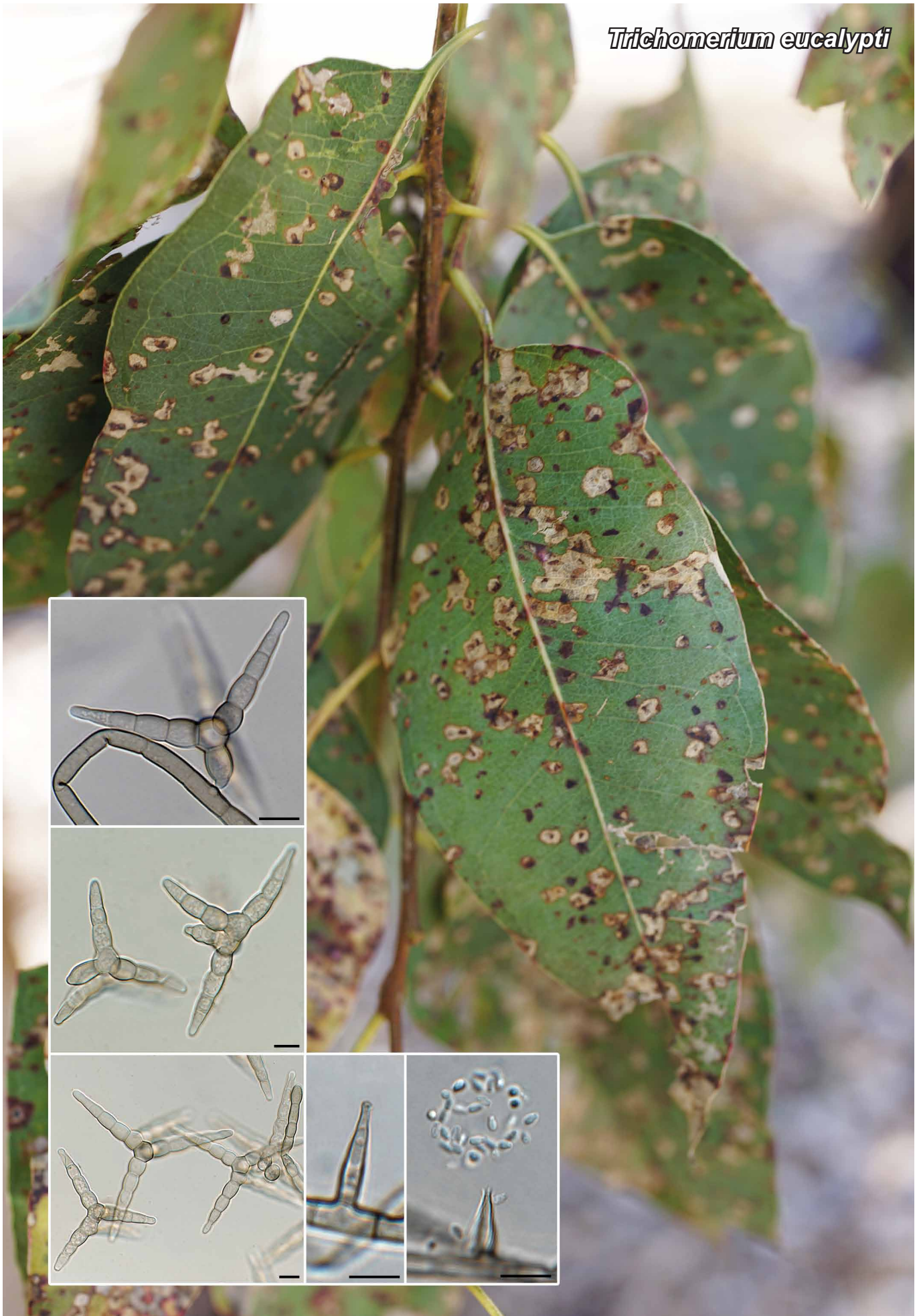


*Trichomerium eucalypti*



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## *Trichomerium eucalypti* Crous, *sp. nov.*

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

*Classification* — *Trichomeriaceae*, *Chaetothyriales*, *Eurotiomycetes*.

*Mycelium* consisting of smooth, branched, septate, 4–5 µm diam, brown hyphae. *Conidiophores* reduced to conidiogenous loci on hyphae, inconspicuous, 1–5 × 2 µm, not thickened nor darkened. *Conidia* solitary, medium brown, smooth, guttulate, star-shaped, with two globose central cells giving rise to four irregular radiating arms of 4–5(–7) cells, tapering from point of attachment to subobtuse apices, constricted at septa, 30–80 × 8–10 µm; conidia also have a fifth branch of 1–2 cells tapering to a subobtuse apex, 15–30 × 7–8 µm, which is the branch that attaches to the conidiogenous locus on hyphae. *Microconidiogenous cells* on hyphae solitary, ampulliform, medium brown, smooth, phialidic, 10–17 × 3–4 µm. *Microconidia* bacilliform, hyaline, smooth, aseptate, ends rounded, 2–3 × 2 µm.

*Culture characteristics* — Colonies erumpent, spreading, with moderate aerial mycelium and even, lobate margins, reaching 10–20 mm diam after 2 wk at 25 °C. On MEA, PDA and OA surface olivaceous grey, reverse iron-grey.

*Typus.* AUSTRALIA, New South Wales, Australian Botanical Garden, Mount Annan, on leaves of *Eucalyptus tereticornis* (*Myrtaceae*), 25 Nov. 2016, *P.W. Crous* (holotype CBS H-23309, culture ex-type CPC 32199 = CBS 143443, ITS and LSU sequences GenBank MG386068 and MG386121, MycoBank MB823417).

*Notes* — Species of *Trichomerium* are usually encountered as sooty molds that grow on honey dew excrements from insects on living plant leaves and stems. The genus *Trichomerium* has *Tripospermum* asexual morphs (Crous et al. 2014b).

Based on a megablast search using the ITS sequence, the closest matches in NCBI's GenBank nucleotide database were '*Trimmatostroma cordae*' (GenBank AJ244263; Identities 591/607 (97 %), 9 gaps (1 %)), *Trichomerium foliicola* (GenBank JX313653; Identities 611/659 (93 %), 13 gaps (1 %)) and *T. gleosporum* (GenBank JX313656; Identities 610/659 (93 %), 13 gaps (1 %)). The highest similarities using the LSU sequence were *T. foliicola* (GenBank JX313659; Identities 830/846 (98 %), no gaps), *T. gleosporum* (GenBank KY381953; Identities 823/839 (98 %), no gaps) and *T. dioscoreae* (GenBank KP004496; Identities 834/851 (98 %), no gaps).

*Colour illustrations.* Symptomatic leaves of *Eucalyptus tereticornis*; *Trichomerium* conidia, microconidiogenous cells and microconidia. Scale bars = 10 µm.

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