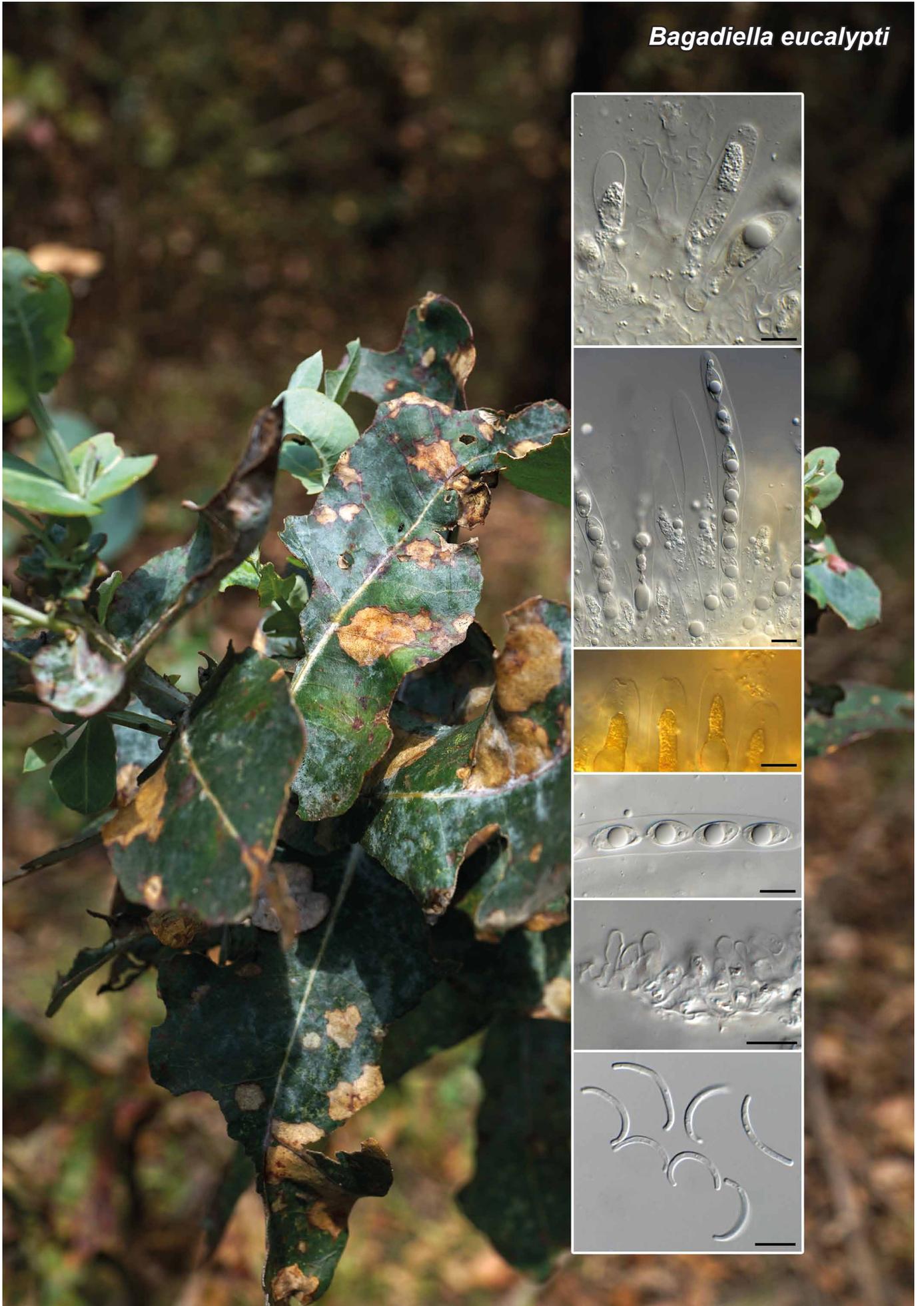


*Bagadiella eucalypti*



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

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

*Classification* — *Clypeophysalospora*, *Xylariales*, *Sordariomycetes*.

Associated with amphigenous, pale brown leaf spots, co-occurring with *Teratosphaeria*. *Mycelium* consisting of pale brown, smooth, septate, branched, 2–3 µm diam hyphae. *Conidiogenous cells* integrated, as terminal ends on hyphae, pale brown, smooth, subcylindrical, 10–17 × 2 µm, monophialidic with flared collarete. *Conidia* solitary, hyaline, smooth, subcylindrical, apex obtuse, base truncate, strongly curved, (12–)14–17(–21) × (1.5–)2 µm. *Ascomata* immersed, globose, not visible on the surface, 150–250 µm diam, with periphysate ostiolar channel; wall of 3–4 layers of medium brown *textura angularis*. *Asci* 8-spored, cylindrical, unitunicate, apical apparatus reacting in Melzer's reagent, 110–130 × 10–13 µm. *Paraphyses* hyaline, smooth, cellular, intermingled between asci, 4–6 µm diam, constricted at septa, unbranched. *Ascospores* uniseriate, aseptate, guttulate, ellipsoid, ends acutely rounded, smooth, hyaline, (13–)15–16(–18) × (6.5–)7 µm.

*Culture characteristics* — Colonies flat, spreading, with moderate aerial mycelium and feathery, lobate margins, reaching 30 mm diam after 2 wk at 25 °C. On MEA surface honey to buff, reverse cinnamon. On PDA surface and reverse buff. On OA surface buff.

*Typus.* AUSTRALIA, Victoria, Nowa Nowa, on leaves of *Eucalyptus globulus* (*Myrtaceae*), 30 Nov. 2016, P.W. Crous (holotype CBS H-23310, culture ex-type CPC 32619 = CBS 143439, ITS and LSU sequences GenBank MG386069 and MG386122, MycoBank MB823418).

*Notes* — *Bagadiella* was established for a group of endophytic hyphomycetes occurring on leaves of *Eucalyptus* (Cheewangkoon et al. 2009). These fungi are usually observed to start sporulating once leaves are incubated in damp chambers, with conidiophores being associated with pale yellow leaf blotches, although it should be noted that no pathogenicity experiments have as yet been conducted with members of the genus.

*Bagadiella eucalypti* is related to other species of the genus, but is phylogenetically distinct. The present taxon also represents the first report of a sexual morph for *Bagadiella*, showing it to be related to genera such as *Neophysalospora*, *Clypeophysalospora* and *Paraphysalospora* (Crous et al. 2014b, Giraldo et al. 2017).

Based on a megablast search using the ITS sequence, the closest matches in NCBI's GenBank nucleotide database were *Bagadiella lunata* (GenBank NR\_132832; Identities 588/600 (98 %), 2 gaps (0 %)), *B. koalae* (GenBank JF951142; Identities 586/601 (98 %), 3 gaps (0 %)) and *B. victoriae* (GenBank JF951141; Identities 584/604 (97 %), 5 gaps (0 %)). The highest similarities using the LSU sequence were *B. lunata* (GenBank GQ303300; Identities 844/848 (99 %), no gaps), *B. koalae* (GenBank JF951162; Identities 842/847 (99 %), no gaps) and *B. victoriae* (GenBank JF951161; Identities 842/848 (99 %), no gaps).

*Colour illustrations.* Symptomatic leaves of *Eucalyptus globulus*; asci and ascospores, conidiogenous cells and conidia. Scale bars = 10 µm.

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