

Ophiostoma eucalyptigena



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Ophiostoma eucalyptigena Barber & Crous, *sp. nov.*

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

Classification — *Ophiostomataceae*, *Ophiostomatales*, *Sordariomycetes*.

Ascomata with globose bases, dark brown, 60–130 µm diam, surface of *textura epidermoidea*, with medium brown 2 µm diam hyphae. *Perithecial necks* brown to black, smooth, 100–500 µm long, 25–40 µm wide at base, 10–13 µm wide at apex. *Ostiolar hyphae* not common, subhyaline, tapering to acutely rounded apices, 20–35 × 2 µm. *Ascospores* hyaline, aseptate, allantoid, round in side view, 3(–3.5) × 2 µm. *Asexual morph* sporothrix-like. *Conidiogenous cells* form directly on superficial hyphae, micronematous, hyaline, 15–30 × 1.5–2 µm, with several flat-tipped denticles, 0.5–2 × 0.5 µm. *Conidia* hyaline, aseptate, guttulate, smooth, ellipsoid to clavate, apex obtuse, tapering to truncate base, 0.5 µm diam, (4–)5–6(–7) × (2–)2.5(–3) µm.

Culture characteristics — Colonies reaching 50 mm diam after 1 mo at 25 °C, spreading with sparse aerial mycelium, and smooth, lobed margins. On PDA surface hazel, reverse vinaceous buff. On MEA surface umber with patches of dirty white, reverse isabelline with patches of dirty white. On OA surface umber, reverse mouse grey.

Typus. AUSTRALIA, Western Australia, on *Eucalyptus marginata* (*Myrtaceae*), 22 June 2013, P.A. Barber (holotype CBS H-22228, culture ex-type CPC 24638 = CBS 139899; ITS sequence GenBank KR476721, LSU sequence GenBank KR476756, MycoBank MB812435).

Notes — Species of *Ophiostoma* are well-known associates of bark beetles and some cause tree diseases (De Beer et al. 2014). Some species known by their *Sporothrix* s.str. morphs contain important human pathogens, and species are commonly associated with plant debris or soil (Zhang et al. 2015). *Ophiostoma eucalyptigena* is phylogenetically closely related to *Ophiostoma braganthinum*, which has larger ascomata (bases 130–220 µm diam, necks 700–1200 µm long, ostiolar necks up to 45 µm long), and smaller conidia, 4–6 × 2–2.5 µm (Pfenning & Oberwinkler 1993).

Colour illustrations. *Eucalyptus marginata* tree with dieback; ascomata, ostiolar hyphae, ascospores; conidiophores and conidia. Scale bars = 10 µm.