

Graphium jumulu



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Graphium jumulu Barber & Crous, *sp. nov.*

Etymology. The name for the famous boab in King's Park Botanic Gardens, Perth: 'Gija Jumulu'. Gija is the name of the indigenous people where the boab came from, and 'Jumulu' is the Gija name for boab.

Classification — *Microascaceae*, *Microascales*, *Sordariomycetes*.

Mycelium consisting of hyaline, smooth, branched, septate, 2–3 µm diam hyphae, aggregating to form hyphal ropes from which erect conidiophores arise. *Conidiophores* (on aerial hyphae, not those on agar medium, which are longer) aggregated in brown, erect, tuft-like synnemata, solitary or in clusters of up to six, 100–150 µm tall, 5–15 µm diam at base with rhizoids, 20–60 µm diam at apex; stipe olivaceous-brown, apex pale olivaceous, conidiophores branching into up to four conidiogenous cells at apex. *Conidiogenous cells* olivaceous at base, pale olivaceous at apex, roughened at base, with several percurrent proliferations at apex, 20–35 × 1.5–2 µm. *Conidia* aggregating in a slimy mass, aseptate, hyaline, straight to slightly curved, subcylindrical with obtuse apex, somewhat swollen, (3–)4–5(–7) × 2(–2.5) µm; base truncate, 1–1.5 µm diam, with minute marginal frill. Sporothrix-like synanamorph developing on SNA.

Culture characteristics — Colonies spreading, up to 60 mm diam, with sparse aerial mycelium and smooth, even margins. On PDA surface and reverse buff. On MEA surface isabelline, reverse hazel. On OA surface isabelline.

Typus. AUSTRALIA, Western Australia, Perth, Kings Park, on *Adansonia gregorii* (*Malvaceae*), 1 May 2012, P.A. Barber (holotype CBS H-22227, culture ex-type CPC 24639 = CBS 139898; ITS sequence GenBank KR476722, LSU sequence GenBank KR476757, MycoBank MB812434).

Notes — 'Gija Jumulu' is the famous boab tree that was transported 3 200 km from Telegraph Creek to King's Park in Perth, making way for the construction of a road bridge on the Great Northern Highway, in 2008. During transport the tree received some damage to its trunk, and one of the fungi isolated from the rotten bark, was *Graphium jumulu*. The genus *Graphium* is insect-vectored, and commonly associated with tree wounds (De Beer et al. 2014). Three *Graphium* species were recently described from *Adansonia*, namely *G. adansoniae* (from South Africa), and *G. madagascariense* and *G. fabiforme* (from Madagascar) (Cruywagen et al. 2010). Interestingly, the ITS sequence of *G. jumulu* is identical to a partial ITS sequence of a '*Graphium* sp.' isolated from an aneurysm in the abdominal aorta of a dog (GenBank LC007972) and several sequences (e.g. GenBank KF540218–KF540225) associated with the polyphagous shot hole borer on avocado and landscape trees. The latter sequences are labelled as 'sp.' in GenBank but the study title associated with these sequences indicates that the species was identified as '*Graphium euwallaceae* sp. nov.'. Although the sequences were released on 24 November 2013, we were not able to find any evidence that this species was ever validly published.

Colour illustrations. 'Gija Jumulu' in King's Park, Perth; synnematal conidiophores, conidiogenous cells and conidia. Scale bars = 10 µm.