
Gonatophragmium triuniae

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Gonatophragmium triuniae Crous & Summerell, *sp. nov.*

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

Mycelium consisting of hyaline, septate, branched, 2–3 µm diam hyphae. *Conidiophores* solitary, macronematous, erect, arising from superficial hyphae, straight to flexuous, T-cell at base slightly swollen (up to 7 µm diam) or not, stipe 200–280 µm long, 4–5 µm diam at the base, 4–7-septate, brown, smooth, thin-walled, branched in upper part. Primary branches pale brown, verruculose, subcylindrical, aseptate, 25–35 × 3–4 µm, giving rise to 1–2 secondary branches, pale brown, subcylindrical, aseptate, 15–20 × 3–4 µm. Secondary branches giving rise to a conidiogenous region consisting of 3–4 subcylindrical cells, pale brown, finely verruculose to smooth, each cell with an upper fertile region consisting of aggregated denticulate loci, 0.5 µm long, 1 µm diam, darkened and thickened; at times cells also have a fertile lateral branch, 13–20 × 3–3.5 µm. *Conidia* solitary, clavate, pale brown, guttulate, roughened, apex obtuse, lower part attenuating towards truncate base, 1 µm diam; conidia 1-septate, slightly constricted at septum, straight to slightly curved, apical cell 5–6 µm long, basal cell 7–8 µm long, conidia (10–)12–14(–15) × (3.5–)4(–4.5) µm (apical cell rarely developing a second septum); hila 0.5–1 µm diam, somewhat darkened and thickened.

Culture characteristics — Colonies reaching 15 mm diam after 2 wk at 25 °C in the dark, with moderate aerial mycelium and smooth, even margins. On MEA surface ochreous, reverse umber. On PDA surface luteous to buff, with diffuse, luteous pigment, but umber in reverse. On OA surface dirty white with diffuse buff pigment.

Typus. Australia, New South Wales, Nightcap National Park, S28.38.413 E153.20.179, on leaves of *Triunia youngiana* (*Proteaceae*), 9 Mar. 2013, *B.A. Summerell* (holotype CBS H-21985, culture ex-type CPC 22191, 22192 = CBS 138901; ITS sequence of CPC 22191, GenBank KP004451, LSU sequence GenBank KP004479, MycoBank MB810597).

Notes — Species of *Gonatophragmium* are commonly associated with leaf spots on a wide range of hosts (Ellis 1971, 1976, Braun & Hill 2008). Of the approximately 15 species presently known to occur in the genus, *G. triuniae* is easily distinguished based on its small, 1-septate conidia. It is also the only species thus far reported from *Triunia*.

ITS. Based on a megablast search of NCBIs GenBank nucleotide database, the closest hits using the ITS sequence are *Arthothelium spectabile* (GenBank AF138814; Identities = 446/469 (95 %), Gaps = 9/469 (1 %)), *Phaeodactylium stadleri* (GenBank HF678526; Identities = 317/369 (86 %), Gaps = 8/369 (2 %)) and *Radulidium subulatum* (GenBank EU041790; Identities = 436/544 (80 %), Gaps = 36/544 (6 %)).

LSU. Based on a megablast search of NCBIs GenBank nucleotide database, the closest hits using the LSU sequence are *Acrospermum adeanum* (GenBank EU940104; Identities = 758/800 (95 %), no gaps), *Pseudovirgaria grisea* (GenBank JF957610; Identities = 780/827 (94 %), Gaps = 2/827 (0 %)) and *Pseudovirgaria hyperparasitica* (GenBank EU041822; Identities = 780/827 (94 %), Gaps = 2/827 (0 %)).

Colour illustrations. Nightcap National Park, Australia; conidiophores, conidiogenous cells and conidia. Scale bars = 10 µm.

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