Zasmidium gahniicola
Zasmidium gahniicola Crous, sp. nov.

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

Classification — Mycosphaerellaceae, Capnodiales, Dothideomycetes.

Mycelium consisting of medium brown, verruculose, branched, septate, 2–2.5 μm diam hyphae. Conidiophores solitary, erect, straight to flexuous, 70–120 × 2–3.5 μm, thick-walled, dark brown, finely verruculose, 4–6-septate. Conidiogenous cells integrated, terminal, subcylindrical, medium brown, finely roughened, 15–40 × 3 μm; scars thickened, darkened, somewhat refractive, 1 μm diam, arranged in a rachis. Conidia solitary, verruculose, medium brown, subcylindrical, 1(–3)-septate, straight, apex obtuse, tapering in basal cell to truncate hilum, 1 μm diam, thickened, darkened, slightly refractive, (9–)13–18(–20) × (3.5–)4(–5) μm.

Culture characteristics — Colonies erumpent, spreading, surface folded, with moderate aerial mycelium and smooth, lobate margins, reaching 15 mm diam after 2 wk at 25 °C. On MEA, PDA and OA surface and reverse iron-grey.


Notes — The only cercosporoid fungus known from Gahnia is Zasmidium gahniae, occurring on G. lacera and G. setifolia in New Zealand. It is characterised by having solitary, straight, cylindrical to narrowly obclavate, pluriseptate conidia (20–300 × 3–5 μm; Braun et al. 2014), and is thus quite distinct from those of Z. gahniicola.

Based on a megablast search using the ITS sequence, the closest matches in NCBI's GenBank nucleotide database were Zasmidium podocarpi (GenBank KY979766; Identities 507/531 (95 %), 2 gaps (0 %)), Z. commune (GenBank KY979762; Identities 504/533 (95 %), 6 gaps (1 %)) and Z. streltziae (as Ramichloridium streltziae; GenBank EU041803; Identities 499/532 (94 %), 5 gaps (0 %)). The highest similarities using the LSU sequence were Z. velutinum (as Periconiella velutina; GenBank EU041838; Identities 811/817 (99 %), no gaps), Z. commune (GenBank KY979820; Identities 804/810 (99 %), no gaps) and Z. arcuata (as Periconiella arcuata; GenBank EU041836; Identities 830/837 (99 %), no gaps).

Colour illustrations. Gahnia sieberiana; conidiophores sporulating on SNA, conidiogenous cells and conidia. Scale bars = 10 μm.