



Fungal Planet 991 – 18 December 2019

## *Zygosporium pseudomasonii* Crous, *sp. nov.*

*Etymology.* Name refers to its morphological similarity to *Zygosporium masonii*.

*Classification* — *Zygosporiaceae*, *Xylariales*, *Sordariomycetes*.

*Mycelium* consisting of hyaline to pale brown, smooth to verruculose, branched, septate, 1.5–2 µm diam hyphae. *Conidiophores* erect, unbranched, subcylindrical, medium brown, smooth, consisting of a stipe, lateral conidiogenous cells and a stipe extension, 20–26 µm long, terminating in a clavate to ovoid vesicle, 2.5–3 µm diam, at times with mucoid droplet, 2–4-septate, 10–30 × 2–3 µm; conidiogenous region consisting of 2–4 hook-like cells, brown, smooth, 5–7 × 2.5–3 µm, lateral hook 2–4 × 2.5–3 µm, the hook frequently alternating left to right, but not consistently. *Conidiogenous cells* (1–2) arising from hook-like cells, pale brown, smooth, ovoid-acuminate, phialidic, 4–6 × 2.5–3 µm. *Conidia* solitary, aseptate, hyaline to subhyaline, verruculose, ellipsoid, apex often tapering to truncate hilum, 0.5 µm diam, (6–)7(–8) × (2–)2.5(–3) µm.

*Culture characteristics* — Colonies flat, spreading, with sparse to moderate aerial mycelium and smooth, lobate margin, reaching 35 mm diam after 2 wk at 25 °C. On MEA surface buff, reverse cinnamon. On PDA surface buff with patches of hazel, reverse hazel. On OA surface hazel with patches of buff.

*Typus.* USA, Florida, Gainesville, on leaf of *Serenoa repens* (*Arecaeae*), 24 Feb. 2019, *M.J. Wingfield*, HPC 2792 (holotype CBS H-24198, culture ex-type CPC 37503 = CBS 146059, ITS, LSU and *rpb2* sequences GenBank MN562147.1, MN567654.1 and MN556815.1, MycoBank MB832907).

*Notes* — *Zygosporium* is characterised by dark brown conidiophores (with or without stipe extension and vesicle), and 2–4 ampulliform conidiogenous cells. Conidia are aseptate, ellipsoid to globose, hyaline to pale brown, smooth to verruculose. *Zygosporium pseudomasonii* resembles *Z. masonii* (on *Cocos nucifera*, Gold Coast, with up to six lateral hook-like cells, stipe extension 7–12 µm, vesicles 4–5 µm diam; Ellis 1971), but can be distinguished based on its conidiophore morphology, having less lateral hook-like cells, longer stipe extensions and narrower vesicles.

Based on a megablast search of NCBI's GenBank nucleotide database, the closest hits using the **ITS** sequence had highest similarity to *Zygosporium masonii* (strain CBS 557.73, GenBank MH860771.1; Identities = 547/567 (96 %), 4 gaps (0 %)), *Podosordaria muli* (strain DFFSCS030, GenBank JX156376.1; Identities = 507/532 (95 %), 8 gaps (1 %)), and *Zygosporium mycophilum* (strain CBS 894.69, GenBank MH859474.1; Identities = 534/576 (93 %), 12 gaps (2 %)). Closest hits using the **LSU** sequence are *Zygosporium masonii* (strain CBS 557.73, GenBank MH872493.1; Identities = 856/861 (99 %), no gaps), *Zygosporium pseudogibbum* (strain CBS 143503, GenBank NG\_063962.1; Identities = 837/844 (99 %), no gaps), and *Zygosporium mycophilum* (strain CBS 533.76, GenBank MH877824.1; Identities = 851/859 (99 %), no gaps). No significant hits were obtained when the **rpb2** sequence was used in blastn and megablast searches.

*Colour illustrations.* Leaf spots on *Serenoa repens*. Conidiophores with conidiogenous cells; conidia. Scale bars = 10 µm.

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