

Stomiopeltis syzygii



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Stomiopeltis syzygii Crous, *sp. nov.*

Etymology. Name refers to the host genus *Syzygium* from which it was isolated.

Classification — *Mycosphaerellaceae*, *Capnodiales*, *Dothideomycetes*.

Conidiomata globose, brown, 80–120 µm diam, pycnidial, opening via irregular rupture. *Conidiophores* lining the inner cavity, hyaline to pale brown, subcylindrical, septate, branched or not, 5–20 × 3–4 µm. *Conidiogenous cells* terminal and intercalary, phialidic, subcylindrical, hyaline to pale brown, 6–8 × 3–5 µm. *Conidia* solitary, hyaline, smooth, subcylindrical with obtuse ends, aseptate, mostly straight, (5–)8–10(–12) × 1.5 µm.

Culture characteristics — Colonies erumpent, spreading, with moderate aerial mycelium and smooth, lobate margin, reaching 6 mm diam after 2 wk at 25 °C. On MEA, PDA and OA surface olivaceous grey, and reverse iron-grey.

Typus. SOUTH AFRICA, Mpumalanga Province, Nelspruit, on leaves of *Syzygium cordatum* (*Myrtaceae*), 9 Aug. 2014, P.W. Crous, HPC 2564 (holotype CBS H-24254, culture ex-type CPC 36323 = CBS 146129, ITS, LSU, *actA*, *cmdA* and *tef1* sequences GenBank MN562119.1, MN567627.1, MN556787.1, MN556793.1 and MN556822.1, MycoBank MB832874).

Notes — Colonies were established from single ascospores shot out onto agar. Germinating ascospores were 1-septate, with germ tubes parallel to the long axis of the spore, germinating from both ends, becoming brown, verruculose, 5 µm diam, not to very slightly constricted at the septum. The sexual morph could not be located on the leaf material, but poor sporulation was induced in culture, and two asci were observed. The asexual morph that formed in culture is relatively nondescript, and the taxon is tentatively named in *Stomiopeltis* based on DNA sequence similarity to other deposited sequences. However, *Stomiopeltis* has thyrothecia, and thus cannot belong to the *Mycosphaerellaceae*, further suggesting that the sexual morph of this fungus will have pseudothecial ascomata. Future collections of the sexual morph will hopefully clarify its taxonomy, and its relationship with *Stomiopeltis* s.str.

Based on a megablast search of NCBI's GenBank nucleotide database, the closest hits using the **ITS** sequence had highest similarity to *Stomiopeltis phyllanthi* (voucher MFLU 18-2115, GenBank NR_163328.1; Identities = 389/426 (91 %), 10 gaps (2 %)), *Exopassalora zambiae* (strain CBS 112971, GenBank NR_156200.1; Identities = 361/400 (90 %), 8 gaps (2 %)), and *Clypeosphaerella quasiparkii* (strain IHBf 2280, GenBank MF326624.1; Identities = 419/481 (87 %), 16 gaps (3 %)). Closest hits using the **LSU** sequence are *Stomiopeltis sinensis* (voucher C450, GenBank MK348018.1; Identities = 751/756 (99 %), no gaps), *Chaetothyria artocarpi* (strain MFLUCC 15-1082, GenBank MF614834.1; Identities = 802/816 (98 %), no gaps), and *Chaetothyria musarum* (strain MFLUCC 15-0383, GenBank KU710171.1; Identities = 791/806 (98 %), no gaps). Closest hits using the **actA** sequence had highest similarity to *Davidiellomyces australiensis* (strain CBS 142165, GenBank KY979853.1; Identities = 385/408 (94 %), no gaps), *Exopassalora zambiae* (strain CBS 112970, GenBank KF903458.1; Identities = 424/461 (92 %), 5 gaps (1 %)), and *Ramularia inaequalis* (strain CPC 25742, GenBank KP894336.1; Identities = 469/519 (90 %), 11 gaps (2 %)). Closest hits using the **cmdA** sequence had highest similarity to *Septoria carvi* (strain KML93, GenBank KX822095.1; Identities = 289/304 (95 %), no gaps), *Septoria astericola* (strain CBS 128587, GenBank KF253998.1; Identities = 284/298 (95 %), no gaps), and *Septoria chrysanthemella* (strain CBS 128622, GenBank KF254028.1; Identities = 284/298 (95 %), no gaps). No significant hits were obtained when the **tef1** sequence was used in blastn and megablast searches.

Colour illustrations. *Syzygium cordatum* tree *Stomiopeltis syzygii* was isolated from. Conidiogenous cells; conidia; germinating ascospores; asci and ascospores. Scale bars = 10 µm.