

*Toxicocladosporium pterocarpi*



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***Toxicocladosporium pterocarp*** Crous, *sp. nov.*

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

*Classification* — *Cladosporiaceae*, *Cladosporiales*, *Dothideomycetes*.

*Mycelium* consisting of pale brown to brown, smooth to warty, septate, branched, 2–3 µm diam hyphae. *Conidiophores* macro-nematous, erect, flexuous, branched, brown, thick-walled, subcylindrical, smooth to finely verruculose with large guttules, 60–130 × 3–4 µm. *Conidiogenous cells* integrated, terminal and intercalary, subcylindrical, brown, smooth to finely verruculose, 10–20 × 3–3.5 µm; loci darkened, thickened, refractive, 2–3 µm diam. *Conidia* occurring in dry, branched chains, subcylindrical to narrowly fusoid-ellipsoid, thick-walled, brown, verruculose, 0–1-septate; primary ramoconidia 13–25 × 3–3.5 µm; hila 2–3 µm diam; secondary ramoconidia 15–22 × 3–3.5 µm, with 1–2 apical loci; intercalary and terminal conidia (10–)13–15(–17) × 2.5–3 µm; hila thickened, darkened and refractive, 1.5–2 µm diam.

*Culture characteristics* — Colonies flat, spreading, surface folded, with moderate aerial mycelium and smooth, lobate margin, reaching 17 mm diam after 2 wk at 25 °C. On MEA, PDA and OA surface olivaceous grey, reverse iron-grey.

*Typus.* SOUTH AFRICA, Mpumalanga, Mbombela, Buffelskloof Nature Reserve, on pods of *Pterocarpus angolensis* (*Fabaceae*), Nov. 2018, *P.W. Crous*, HPC 3137 (holotype CBS H-24483, culture ex-type CPC 38890 = CBS 146971, ITS, LSU, *actA*, *rpb2* and *tub2* sequences GenBank MZ064422.1, MZ064479.1, MZ078148.1, MZ078198.1 and MZ078263.1, MycoBank MB 839510).

*Notes* — Crous et al. (2007a) introduced the genus *Toxicocladosporium* to accommodate cladosporium-like fungi with distinct, dark, thick-walled conidial septa, and lacking the typical coronate *Cladosporium* scar type. *Toxicocladosporium pterocarp* is related to *T. chlamydosporum* (on *Eucalyptus camaldulensis*, Madagascar; terminal conidia 6–7(–9) × 2.5(–3) µm, forming chlamydospores in culture; Crous et al. 2009), from which it is morphologically distinct.

Based on a megablast search of NCBI's GenBank nucleotide database, the closest hits using the **ITS** sequence had highest similarity to *Toxicocladosporium chlamydosporum* (strain CBS 124159, GenBank MH863361.1; Identities = 545/549 (99 %), no gaps), *Toxicocladosporium protearum* (strain CBS 126499, GenBank NR\_152321.1; Identities = 541/545 (99 %), one gap (0 %)) and *Toxicocladosporium velox* (strain CBS 124159, GenBank NR\_155890.1; Identities = 518/522 (99 %), no gaps). Closest hits using the **LSU** sequence are *Toxicocladosporium chlamydosporum* (strain CBS 124157, GenBank NG\_069916.1; Identities = 864/866 (99 %), no gaps), *Toxicocladosporium pseudoveloxum* (strain CBS 128777, GenBank JF499868.1; Identities = 864/866 (99 %), no gaps) and *Toxicocladosporium pini* (strain CBS 138005, GenBank KJ869217.1; Identities = 845/847 (99 %), no gaps). No significant hits were obtained when the **actA** sequence was used in blastn and megablast searches. Closest hits using the **rpb2** sequence had highest similarity to *Toxicocladosporium protearum* (strain CPC 15254, GenBank LT799786.1; Identities = 783/847 (92 %), one gap (0 %)), *Toxicocladosporium chlamydosporum* (strain CPC 15736, GenBank LT799779.1; Identities = 776/837 (93 %), no gaps) and *Toxicocladosporium pini* (strain CPC 23639, GenBank LT799784.1; Identities = 772/838 (92 %), no gaps). Closest hits using the **tub2** sequence had highest similarity to *Toxicocladosporium pini* (strain CBS 138005, GenBank KY706603.1; Identities = 349/395 (88 %), 14 gaps (3 %)), *Toxicocladosporium velox* (strain CBS 124159, GenBank KY706609.1; Identities = 342/393 (87 %), 10 gaps (2 %)) and *Toxicocladosporium chlamydosporum* (strain CBS 124157, GenBank KY706598.1; Identities = 339/390 (87 %), ten gaps (2 %)).

*Colour illustrations.* *Pterocarpus angolensis* growing in Buffelskloof Nature Reserve. Conidiophores; conidiogenous cells giving rise to branched conidial chains. Scale bars = 10 µm.

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