

Toxicocladosporium strelitziae



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Toxicocladosporium strelitziae* Crous, sp. nov.Etymology.* Named after the genus from which it was isolated, *Strelitzia*.

Colonies sporulating on synthetic nutrient-poor agar. *Mycelium* consisting of branched, septate, smooth, pale brown, 1.5–2.5 µm wide hyphae. *Conidiophores* dimorphic. *Macroconidiophores* solitary, arising from superficial mycelium, erect, brown, unbranched or branched above, verruculose, subcylindrical, straight to flexuous, 40–70 × 2–3.5 µm, 2–5-septate. *Microconidiophores* reduced to conidiogenous cells on hyphae, pale brown, smooth, erect, subcylindrical, 3–7 × 2.5–3.5 µm. *Conidiogenous cells* integrated, polyblastic, terminal and lateral, smooth, brown, 10–15 × 2.5–3.5 µm; scars truncate, thickened and darkened, 1.5–2 µm wide. *Primary ramoconidia* medium brown, smooth to finely verruculose, aseptate, subcylindrical, 12–20 × 2–3.5 µm. *Secondary ramoconidia* giving rise to branched chains of conidia, subcylindrical, polyblastic, brown, finely verruculose, aseptate, 10–17 × 2–3.5 µm; scars darkened, thickened, 0.5–1 µm diam. *Intercalary conidia* subcylindrical to fusoid-ellipsoidal, brown, finely verruculose, 10–12 × 2–2.5 µm. *Small terminal conidia* fusoid-ellipsoidal, brown, finely verruculose, (5–)7–8(–9) × 2(–2.5) µm; hila thickened and darkened, 0.5–1 µm diam.

Culture characteristics — (in the dark, 25 °C after 3 wk): Colonies flat to semi erumpent, spreading, with sparse to moderate aerial mycelium, and smooth, even margins, reaching 35 mm diam. On MEA surface folded, olivaceous grey, reverse iron-grey; on OA iron-grey; on PDA surface and reverse iron-grey.

Typus. SOUTH AFRICA, Mpumalanga, Kruger Game Reserve, Satara Rest Camp, on leaves of *Strelitzia reginae* (*Strelitziaceae*), 11 July 2011, P.W. Crous, holotype CBS H-20970, cultures ex-type CPC 19763, 19762 = CBS 132535, ITS sequence GenBank JX069874 and LSU sequence GenBank JX069858, MycoBank MB800392.

Notes — The genus *Toxicocladosporium* was established for *T. irritans*, a species with dimorphic conidiophores, and dark, thick-walled conidial and conidiophore septa, lacking coronate scars as observed in *Cladosporium* s.str. (Crous et al. 2007b). Since it was initially described, a further six species have been added to the genus (Crous & Groenewald 2011). *Toxicocladosporium* is phylogenetically closely related to *T. pseudoveloxum*, but is distinct in having longer, narrower conidiophores (20–50 × 3–4 µm in *T. pseudoveloxum*), and larger, aseptate ramoconidia (0–1-septate, 8–15 × 2.5–4 µm in *T. pseudoveloxum*) (Crous & Groenewald 2011).

Based on a megablast search of NCBI's GenBank nucleotide database, the closest hit using the ITS sequence is *Toxicocladosporium pseudoveloxum* (GenBank JF499849; Identities = 540/557 (97 %), Gaps = 7/557 (1 %)), followed by *Toxicocladosporium irritans* (GenBank EU040243; Identities = 527/539 (98 %), Gaps = 2/539 (0 %)), and *Toxicocladosporium banksiae* (GenBank HQ599598; Identities = 538/557 (97 %), Gaps = 10/557 (2 %)). Closest hits using the LSU sequence yielded highest similarity to *Toxicocladosporium irritans* (GenBank EU040243; Identities = 939/939 (100 %), Gaps = 0/939 (0 %)), *Toxicocladosporium pseudoveloxum* (GenBank JF499868; Identities = 927/940 (99 %), Gaps = 4/940 (0 %)), and *Graphiopsis chlorocephala* (GenBank EU009458; Identities = 918/940 (98 %), Gaps = 3/940 (0 %)).

Colour illustrations. *Strelitzia reginae* flower with minute brown lesions; sporulation on synthetic nutrient-poor agar; conidiophores giving rise to conidial chains. Scale bars = 10 µm.