

Toxicocladosporium posoqueriae



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***Toxicocladosporium posoqueriae* Crous & R.G. Shivas, sp. nov.**

Etymology. Named after the host genus from which it was collected, *Posoqueria*.

Description based on colonies sporulating on synthetic nutrient poor agar. *Mycelium* internal, pale brown, smooth, 2–3 µm diam (in culture brown, thick-walled, constricted at septa, smooth, 3–7 µm diam); giving rise to conidiophores that arise from stomata (hypophyllous, on brown leaf spots with concentric brown rings, associated with a *Colletotrichum* sp., the presumed primary pathogen), erect, solitary, straight, subcylindrical, main axis unbranched on host (frequently branched in culture), 50–200 × 4–7 µm; apex branched with lateral branches, 15–50 × 3–5 µm, 1–3-septate, becoming clavate towards apex, thick-walled, smooth to finely verruculose. *Conidiogenous cells* integrated, terminal and lateral, in whorls of 3–4, clavate or broadly cylindrical to doliiform, 10–20 × 4–7 µm, aseptate, medium to dark brown, concolorous with conidiophores, polyblastic with numerous loci at conidiogenous tip; loci truncate, circular, thickened, slightly darkened and refractive, 0.5–1(–1.5) µm. *Ramoconidia* dark brown, clavate to subcylindrical, finely verruculose, thick-walled, aseptate, 5–15 × 4–5 µm, with numerous apical loci, resembling those on conidiogenous cells. *Conidia* in branched, short chains, subglobose, ellipsoid to fusoid, (4–)6–7 × (3–)4 µm, pale brown, smooth, thin-walled; hila with circular, thickened, darkened and refractive loci, 1–1.5 µm diam.

Culture characteristics — (in the dark, 25 °C after 2 wk): Colonies erumpent, spreading, with moderate aerial mycelium and even, lobate margins. On malt extract agar surface folded, grey-olivaceous, reverse olivaceous-grey. On oatmeal agar surface grey-olivaceous in centre, sienna in outer region. On potato-dextrose agar grey-olivaceous in centre, olivaceous-grey in outer region, iron-grey in reverse, reaching 30 mm diam.

Typus. AUSTRALIA, Northern Territory, Darwin, on leaves of *Posoqueria latifolia* (*Rubiaceae*), 12 Apr. 2011, R.G. Shivas, holotype CBS H-21086, cultures ex-type CPC 19305 = CBS 133583, ITS sequence GenBank KC005782, LSU sequence GenBank KC005803, MycoBank MB801780.

Notes — The genus *Toxicocladosporium*, based on *T. irritans*, presently accommodates eight species (Crous et al. 2007, 2009d, Crous & Groenewald 2011). *Toxicocladosporium posoqueriae* differs from other members of the genus in that it has whorls of conidiogenous cells, resembling *Parapericoniella asterinae*, the type species of the genus *Parapericoniella* (Bensch et al. 2012). However, *P. asterinae* is mycophylic, growing on *Asterina contigua*, thus it differs ecologically from *T. posoqueriae*, which appears to be plant pathogenic, colonising lesions of a *Colletotrichum* sp. Nevertheless, if these genera are eventually found to be synonymous, *Parapericoniella* (2005) would represent an older name than *Toxicocladosporium* (2007). Based on a megablast search of NCBI's GenBank nucleotide database, the closest hits using the LSU sequence are *Toxicocladosporium pseudoveloxum* (GenBank JF499868; Identities = 924/938 (99 %), Gaps = 0/938 (0 %)), *Toxicocladosporium streltitziae* (GenBank JX069858; Identities = 922/938 (98 %), Gaps = 0/938 (0 %)) and *Toxicocladosporium irritans* (GenBank EU040243; Identities = 922/938 (98 %), Gaps = 0/938 (0 %)). Closest hits using the ITS sequence had highest similarity to *Toxicocladosporium streltitziae* (GenBank JX069874; Identities = 532/562 (95 %), Gaps = 10/562 (2 %)), *Toxicocladosporium pseudoveloxum* (GenBank JF499847; Identities = 660/698 (95 %), Gaps = 11/698 (2 %)) and *Toxicocladosporium rubrigenum* (GenBank FJ790285; Identities = 638/675 (95 %), Gaps = 7/675 (1 %)).

Colour illustrations. Rocky outcrop in Northern Territories, Darwin; colony on synthetic nutrient-poor agar; conidiophores with whorls of conidiogenous cells and conidia. Scale bars = 10 µm.

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