

Toxicocladosporium leucadendri



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Toxicocladosporium leucadendri Crous, *sp. nov.*

Toxicocladosporium rubrigenae similis, sed conidiis majoribus, (6–)7–8(–9) × (2.5–)3(–4) µm, discernitur.

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

Leaf spots absent, sporulating on dead tissue under moist conditions. On synthetic nutrient poor agar. **Mycelium** consisting of pale brown, smooth, branched, septate, 2–3 µm diam hyphae. **Conidiophores** solitary, erect, unbranched or branched above, subcylindrical, straight to flexuous, 50–150 × 3–5 µm, 6–15-septate, apical septum becoming dark brown and thickened. **Conidiogenous cells** integrated, polyblastic, terminal and lateral, subcylindrical, smooth, brown, 8–20 × 4–6 µm; scars truncate, thickened and darkened, 3–4 µm diam. **Primary ramoconidia** medium brown, verruculose to warty, 1–2-septate, 25–45 × 3–5 µm. **Secondary ramoconidia** giving rise to branched chains of conidia, subcylindrical, polyblastic, brown, verruculose to warty, 0–1-septate, 15–20 × 3–4 µm, frequently forking close to apex; scars darkened, thickened, 1.5–2.5 µm diam. **Intercalary conidia** subcylindrical to fusoid-ellipsoidal, brown, smooth to somewhat warty, 9–11(–15) × (2.5–)3(–4) µm. **Small terminal conidia** fusoid-ellipsoidal, brown, smooth, (6–)7–8(–9) × (2.5–)3(–4) µm; hila thickened and darkened, 0.5–1 µm diam.

Culture characteristics — (in the dark, 25 °C, after 2 wk): Colonies spreading, flat, with even, lobed margins, and irregular surface, reaching 30 mm diam after 2 wk. On potato-dextrose agar pale smoke-grey in centre, becoming olivaceous grey in outer region, and honey at margin. On malt extract agar surface with patches of smoke grey and iron-grey in middle, honey in outer region. On oatmeal agar iron-grey with patches of olivaceous grey and dirty white.

Typus. SOUTH AFRICA, Western Cape Province, Hermanus, Fernkloof Nature Reserve, on leaves of *Leucadendron* sp. (*Proteaceae*), 4 May 2010, P.W. Crous, holotype CBS H-20774, cultures ex-type CPC 18315 = CBS 131317, ITS sequence GenBank JQ044436 and LSU sequence GenBank JQ044455, MycoBank MB560708.

Notes — The genus *Toxicocladosporium* (*Davidiellaceae*) is somewhat reminiscent of *Penidiella* (*Teratosphaeriaceae*) (Crous et al. 2007a, b, Crous et al. 2011b). *Toxicocladosporium leucadendri* differs from known taxa, many of which also occur in the fynbos vegetation (Crous et al. 2011b), based on a combination of culture characteristics, conidiophore and conidial dimensions. A megablast search of the NCBI's GenBank nucleotide sequence database using the ITS sequence of *P. leucadendri* retrieves as closest hits *Graphiopsis chlorocephala* (GenBank EU009456; Identities = 595/712 (84 %), Gaps = 51/712 (7 %)) and *Verrucocladosporium dirinae* (GenBank EU040244; Identities = 470/516 (91 %), Gaps = 17/516 (3 %)), amongst others. A megablast search of the NCBI's GenBank nucleotide sequence database using the LSU sequence of *P. leucadendri* retrieves as closest hits *Graphiopsis chlorocephala* (GenBank EU009458; Identities = 922/935 (99 %), Gaps = 0/935 (0 %)), *Verrucocladosporium dirinae* (GenBank EU040244; Identities = 896/910 (98 %), Gaps = 0/910 (0 %)) and *Rachicladosporium cboliae* (GenBank GU214484; Identities = 846/866 (98 %), Gaps = 9/866 (1 %)), amongst others.

Colour illustrations. View from the mountain at Fernkloof Nature Reserve, Hermanus, South Africa; colonies sporulating on oatmeal agar; conidiophores with branched chains of conidia forming on synthetic nutrient-poor agar. Scale bars = 10 µm.