

Diaporthe canthii



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Diaporthe canthii Crous, sp. nov.

Etymology. Named after the host genus on which it occurs, *Canthium inerme*.

Leaf spots brown, amphigenous, circular, 2–8 mm diam, with raised border. *Pycnidia* amphigenous, associated with necrotic tissue; pycnidia in culture on PNA subglobose, up to 400 µm diam, erumpent; cream conidial masses exuding from ostioles; walls consisting of 3–6 layers of medium brown *textura angularis*. *Conidiophores* hyaline, smooth, 1–3-septate, branched, densely aggregated, cylindrical, straight to sinuous, 15–40 × 2–4 µm. *Conidiogenous cells* phialidic, cylindrical, terminal and lateral, with slight taper towards apex, 1.5–2 µm, with visible periclinal thickening; collarette not flared, 1–2 µm long. *Paraphyses* not seen. *Alpha conidia* aseptate, hyaline, smooth, fusiform, tapering towards both ends, straight, acutely rounded at apex, base subtruncate, (11–)12–14(–15) × (2.5–)3(–3.5) µm. *Gamma conidia* elongated, fusoid, wider in upper third, apex acutely rounded, with taper towards truncate hilum, 15–18 × 2.5(–3) µm. *Beta conidia* spindle-shaped, curved, 25–18 × 1.5 µm (rarely observed).

Culture characteristics — (in the dark, 25 °C): Colonies spreading, erumpent, covering the dish in 3 wk at 25 °C, with sparse aerial mycelium. On MEA and PDA dirty white with black conidiomata, oozing creamy spore masses; on OA dirty white with patches of orange and black sporulation.

Typus. SOUTH AFRICA, Western Cape Province, Kirstenbosch Botanical Garden, on leaves of *Canthium inerme* ('Gewone bokdrol' in Afrikaans) (*Rubiaceae*), 30 July 2011, P.W. Crous, holotype CBS H-20960, cultures ex-type CPC 19741, 19740 = CBS 132533, ITS sequence GenBank JX069864 and LSU sequence GenBank JX069848, MycoBank MB800376.

Notes — Presently there are no records of *Diaporthe* or *Phomopsis* species associated with *Canthium inerme* in South Africa (Crous et al. 2000). *Diaporthe canthii* is associated with prominent leaf spots on this host, and older infections result in leaves with a shot-hole appearance, as diseased tissue frequently drops out leaving holes in the leaves.

Based on a megablast search of NCBI's GenBank nucleotide database, the closest hit using the ITS sequence is *Diaporthe rhusicola* (GenBank JF951146; Identities = 554/571 (97 %), Gaps = 7/571 (1 %)), followed by *Diaporthe phaseolorum* (GenBank AF001014; Identities = 554/574 (97 %), Gaps = 11/574 (2 %)), and *Phomopsis theicola* (GenBank GQ281809; Identities = 546/566 (96 %), Gaps = 11/566 (2 %)). Closest hits using the LSU sequence yielded highest similarity to *Diaporthe oncostoma* (GenBank AF408353; Identities = 864/866 (99 %), Gaps = 0/866 (0 %)), *Diaporthe rhusicola* (GenBank JF951166; Identities = 872/878 (99 %), Gaps = 2/878 (0 %)), and *Diaporthe musigena* (GenBank JF951158; Identities = 869/875 (99 %), Gaps = 0/875 (0 %)).

Colour illustrations. Symptomatic leaves of *Canthium inerme*; close-up of leaf spot, with pycnidia in the central region; conidiomata sporulating on pine needle agar; conidiogenous cells and alpha conidia. Scale bar = 10 µm.