

Clypeosphaeria oleae



Fungal Planet 977 – 18 December 2019

Clypeosphaeria oleae Crous, *sp. nov.*

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

Classification — *Xylariaceae*, *Xylariales*, *Sordariomycetes*.

Associated with pale brown, subcircular, amphigenous leaf spots, 1–3 cm diam, with red brown border. Cultures were derived from 1–3-septate fusoid, brown ascospores, but ascomata could not be located on host material. *Mycelium* consisting of hyaline, smooth, branched, septate, 1.5–2 µm diam hyphae. *Conidiophores* solitary, erect, medium brown, smooth, 1–2-septate, subcylindrical with apical taper, 30–50 × 3 µm. *Conidiogenous cells* integrated, terminal, medium brown, smooth, 20–30 × 2–3 µm, forming a rachis with sympodial loci, pimple-like, 0.5 µm diam, not thickened nor darkened. *Conidia* solitary, aggregated in mucoid mass, hyaline, smooth, aseptate, spindle-shaped, curved, apex subobtuse, base truncate, (17–)19–22(–25) × 1.5(–2) µm.

Culture characteristics — Colonies erumpent, spreading, with moderate aerial mycelium and smooth, lobate margin, reaching 30 mm diam after 2 wk at 25 °C. On MEA, PDA and OA surface buff, reverse cinnamon.

Typus. SOUTH AFRICA, Western Cape Province, Knysna, Knysna area, on leaves of *Olea capensis* (*Oleaceae*), 21 Nov. 2018, *M.J. Wingfield*, HPC 2706 (holotype CBS H-24177, culture ex-type CPC 36779 = CBS 146080, ITS and LSU sequences GenBank MN562130.1 and MN567637.1, MycoBank MB832888).

Notes — The genus *Clypeosphaeria* (based on *C. mamillana*) is a member of the *Xylariaceae*, and has brown, septate ascospores (Jaklitsch et al. 2016). Although the sexual morph of the present collection could not be traced (other than the germinating ascospores shot out onto agar plates), the xylariaceous asexual morph, ascospores, and DNA phylogeny suggest that it is presently best to accommodate it as a new species of *Clypeosphaeria*.

Based on a megablast search of NCBI's GenBank nucleotide database, the closest hits using the **ITS** sequence had highest similarity to *Anthostomella eucalyptorum* (strain 2741, GenBank AM922205.1; Identities = 432/478 (90 %), 9 gaps (1 %)), and *Digitodochium rhodoleucum* (strain NBRC 32296, GenBank LC146732.1; Identities = 434/491 (88 %), 23 gaps (4 %)). Closest hits using the **LSU** sequence are *Clypeosphaeria mamillana* (strain CBS 140735, GenBank MH554225.1; Identities = 783/801 (98 %), 1 gap (0 %)), *Anthostomella eucalyptorum* (strain CBS 120036, GenBank DQ890026.1; Identities = 806/825 (98 %), 1 gap (0 %)), and *Xylaria arbuscula* (strain CBS 126416, GenBank MH875561.1; Identities = 806/826 (98 %), 3 gaps (0 %)).

Colour illustrations. Knysna forest in South Africa. Sporulation on synthetic nutrient poor agar; conidiophores with conidiogenous cells; conidia. Scale bars = 10 µm.

Pedro W. Crous & Johannes Z. Groenewald, Westerdijk Fungal Biodiversity Institute, P.O. Box 85167, 3508 AD Utrecht, The Netherlands; e-mail: p.crous@wi.knaw.nl & e.groenewald@wi.knaw.nl

Michael J. Wingfield, Department of Biochemistry, Genetics and Microbiology, Forestry and Agricultural Biotechnology Institute (FABI), Faculty of Natural and Agricultural Sciences, University of Pretoria, Private Bag X20, Hatfield 0028, Pretoria, South Africa; e-mail: mike.wingfield@fabi.up.ac.za

Francois Roets, Department of Conservation Ecology and Entomology, Stellenbosch University, Stellenbosch 7600, South Africa; e-mail: fr@sun.ac.za

Wijnand J. Swart, Department of Plant Sciences (Division of Plant Pathology), University of the Free State, P.O. Box 339, Bloemfontein 9300, South Africa; e-mail: Swartwj@ufs.ac.za