



Fungal Planet 1213 – 13 July 2021

***Teratosphaeria combreti* Crous, sp. nov.**

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

Classification — *Teratosphaeriaceae*, *Mycosphaerellales*, *Dothideomycetes*.

Ascomata not associated with leaf spots, but occurring on leaf litter; pseudothecial, amphigenous, dark brown, erumpent, 50–80 µm diam, with central ostiole; wall of 3–4 layers of brown *textura angularis*. *Asci* 8-spored, stipitate, fasciculate, bitunicate, obovoid, with narrow ocular chamber, 23–29 × 5–6 µm. *Ascospores* multiseriate, guttulate, fusoid-ellipsoid, widest above septum, not constricted at median septum, thick-walled, without mucoid sheath, hyaline, smooth, 7–8 × 2.5–3 µm; ascospores germinating from both ends, with germ tubes parallel to the long axis, swelling at median septum, remaining hyaline, 5–7 µm diam.

Culture characteristics — Colonies erumpent, spreading, surface folded, with moderate aerial mycelium and smooth, lobate margin, reaching 20 mm diam after 2 wk at 25 °C. On MEA, PDA and OA surface and reverse olivaceous grey.

Typus. SOUTH AFRICA, Mpumalanga, Mbombela, Buffelskloof Nature Reserve, on leaf litter of *Combretum kraussii* (*Combretaceae*), Nov. 2018, P.W. Crous, HPC 3145 (holotype CBS H-24497, culture ex-type CPC 38958 = CBS 146985, ITS, LSU, *cmdA*, *rpb2*, *tef1* (first part) and *tub2* sequences GenBank MZ064442.1, MZ064499.1, MZ078165.1, MZ078206.1, MZ078230.1 and MZ078270.1, MycoBank MB 839530).

Notes — *Teratosphaeria combreti* is related to *T. agapanthi* (on *Agapanthus* spp., ascospores (17–)18–20(–21) × 4.5–5 (–6) µm; Crous et al. 2011, 2020b). Both species occur on host plants indigenous to South Africa. Morphologically, however, they can easily be distinguished based on their ascospore dimensions.

Based on a megablast search of NCBI's GenBank nucleotide database, the closest hits using the **ITS** sequence had highest similarity to *Teratosphaeria agapanthi* (strain CBS 129192, GenBank NR_169894.1; Identities = 507/531 (95 %), one gap (0 %)), *Teratosphaeria hortaea* (strain CBS 124156, GenBank MH863358.; Identities = 498/537 (93 %), nine gaps (1 %)) and *Teratosphaeria considerianae* (strain CPC 15009, GenBank MN162031.1; Identities = 489/528 (93 %), six gaps (1 %)). Closest hits using the **LSU** sequence are *Teratosphaeria agapanthi* (strain CPC 18266, GenBank JF770471.1; Identities = 879/882 (99 %), no gaps), *Teratosphaeria hortaea* (strain CBS 124156, GenBank MH874881.1; Identities = 871/879 (99 %), no gaps) and *Teratosphaeria miniata* (strain CBS 125006, GenBank GQ852711.1; Identities = 837/845 (99 %), no gaps). Distant hits obtained using the **cmdA** sequence had highest similarity to *Austroafricana parva* (strain CPC 12249, GenBank KF902533.1; Identities = 287/304 (94 %), no gaps), *Penidiella columbiana* (strain CBS 486.80, GenBank KF902594.1; Identities = 285/305 (93 %), no gaps) and *Euteratosphaeria verrucosiafricana* (strain CBS 118497, GenBank KF902541.1; Identities = 281/305 (92 %), no gaps). Closest hits using the **rpb2** sequence had highest similarity to *Teratosphaeria cryptica* (strain CBS 111663, GenBank KX348101.1; Identities = 691/871 (79 %), 15 gaps (1 %)), *Teratosphaeria sieberi* (strain CPC 32099, GenBank MH327872.1; Identities = 690/871 (79 %), 19 gaps (2 %)) and *Teratosphaeria stellenboschiana* (strain CBS 125215, GenBank MF951743.1; Identities = 682/868 (79 %), 13 gaps (1 %)). Distant hits using the **tef1** sequence had highest similarity to *Teratosphaeria corymbiicola* (strain CBS 146047, GenBank MN556823.1; Identities = 291/365 (80 %), 26 gaps (7 %)), *Teratosphaeria pseudocryptica* (strain CPC 29430, GenBank MN162366.1; Identities = 280/353 (79 %), 20 gaps (5 %)) and *Teratosphaeria fibrillosa* (strain CBS 121707, GenBank KF903305.1; Identities = 284/357 (80 %), 32 gaps (8 %)). Closest hits using the **tub2** sequence had highest similarity to *Teratosphaeria gracilis* (strain CBS 145090, GenBank MK047583.1; Identities = 438/530 (83 %), 27 gaps (5 %)), *Teratosphaeria dunnii* (strain CBS 145548, GenBank MK876504.1; Identities = 433/537 (81 %), 22 gaps (4 %)) and *Teratosphaeria henryi* (strain CBS 145539, GenBank MK876505.1; Identities = 431/536 (80 %), 29 gaps (5 %)).

Colour illustrations. *Combretum kraussii*. Leaf spot with ascomata; asci with ascospores; ascospores; germinating ascospores. 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