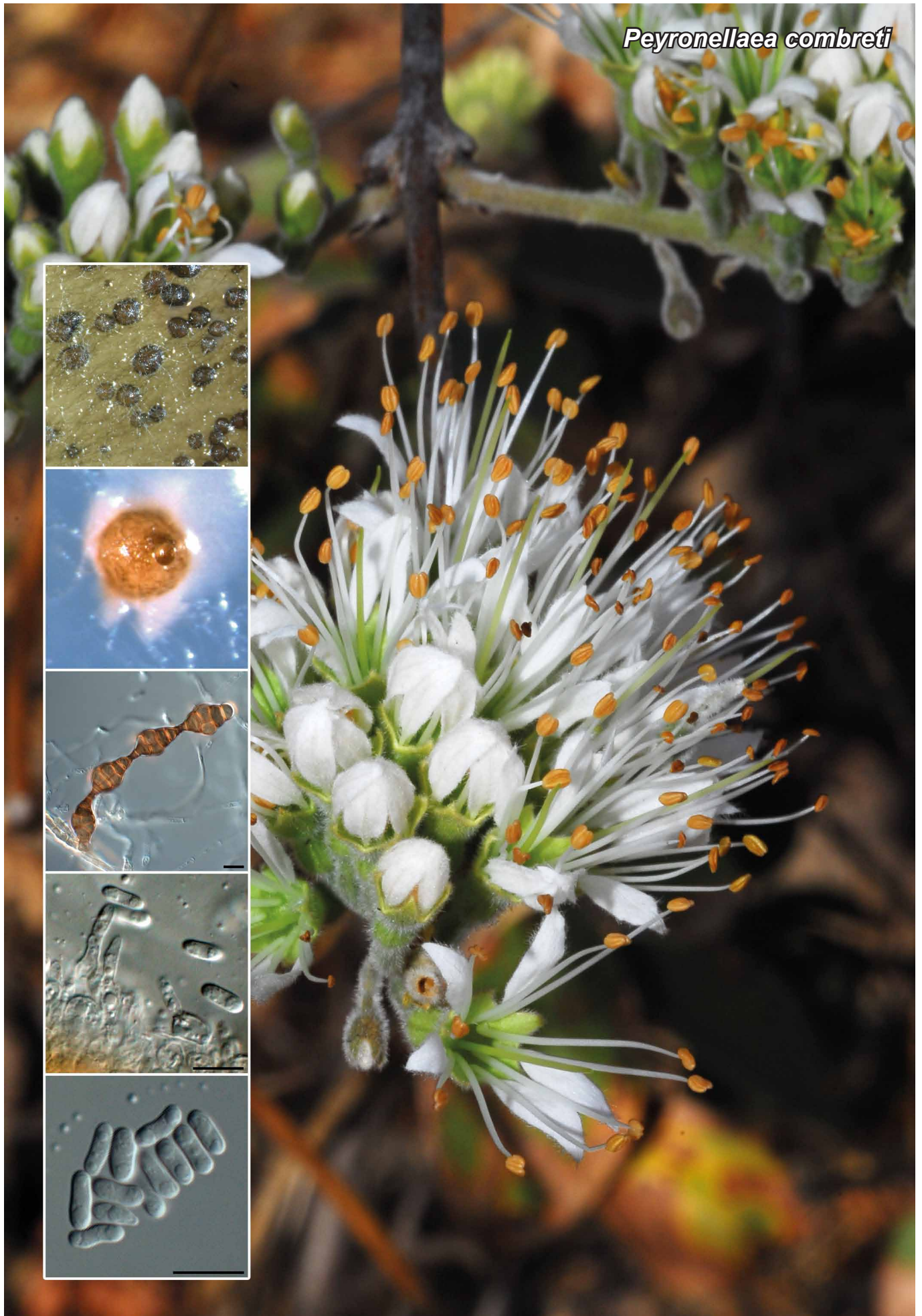


Peyronellaea combreti



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***Peyronellaea combreti* Crous, sp. nov.**

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

Conidiomata erumpent to superficial, medium brown, globose, up to 250 µm diam, becoming papillate with central ostiole, up to 25 µm diam; wall of 3–4 layers of pale brown *textura angularis*. *Conidiophores* reduced to conidiogenous cells. *Conidiogenous cells* lining the inner cavity, doliiform to ampulliform, 5–7 × 4–5 µm, with visible periclinal thickening and collarette. *Conidia* solitary, hyaline, smooth, guttulate, ellipsoid to subcylindrical with obtuse ends, straight to gently curved, (5–)8–10(–12) × 3.5(–4) µm. *Chlamydospores* arranged in alternarioid chains, muriformly septate, brown, smooth, up to 15 µm diam.

Culture characteristics — Colonies covering the dish within 2 wk at 22 °C, with sparse aerial mycelium and even, smooth margins. On PDA surface iron-grey with patches of dirty white, reverse iron-grey. On OA surface iron-grey. On MEA surface and reverse iron-grey.

Typus. ZAMBIA, S16°55.766' E27°75.914', on *Combretum mossambicensis* (*Combretaceae*), 28 Feb. 2013, M. van der Bank (holotype CBS H-21694, culture ex-type CPC 22587 = CBS 137982; ITS sequence GenBank KJ869134, LSU sequence GenBank KJ869191, ACT sequence GenBank KJ869228, TUB sequence GenBank KJ869246, MycoBank MB808910).

Notes — Within *Phoma* section *Peyronellaea* species were formerly characterised by having dictyochlamydospores and in some cases epicoccum-like synasexual morphs (Boerema et al. 2004). In a subsequent phylogenetic study, Aveskamp et al. (2009) showed that chlamydospore formation evolved several times within the *Phoma* complex. Aveskamp et al. (2010) established *Peyronellaea* as a separate genus characterised by having multicellular chlamydospores. Within *Peyronellaea*, *P. combreti* appears distinct from the taxa currently known based on their DNA sequence data, and represents a novel taxon on *Combretum*.

ITS. Based on a megablast search of NCBI's GenBank nucleotide database, the closest hits using the ITS sequence are *Scytalidium acidophilum* (GenBank HQ213804; Identities = 525/529 (99 %), Gaps = 1/529 (0 %)), *Didymella fabae* (GenBank GQ305306; Identities = 531/536 (99 %), Gaps = 1/536 (0 %)) and *Peyronellaea pinodella* (GenBank EU167565; Identities = 531/536 (99 %), Gaps = 1/536 (0 %)). A similar search in the Q-bank fungal nucleotide database (www.q-bank.eu) revealed highest similarity with *Peyronellaea curtisii* (GenBank FJ427041; Identities = 483/486 (99 %), Gaps = 1/486 (0 %)), *Peyronellaea musae* (GenBank FJ427027; Identities = 483/486 (99 %), Gaps = 1/486 (0 %)) and *Peyronellaea curtisii* (GenBank FJ427039; Identities = 482/486 (99 %), Gaps = 1/486 (0 %)).

Colour illustrations. *Combretum mossambicensis* in Zambia (photo: Olivier Maurin); conidiomata, chlamydospores, conidiogenous cells and conidia in culture. Scale bars = 10 µm.

LSU. Based on a megablast search of NCBI's GenBank nucleotide database, the closest hits using the LSU sequence are *Peyronellaea prosopidis* (GenBank KF777232; Identities = 910/910 (100 %), no gaps), *Phoma pedeciae* (GenBank GU238126; Identities = 881/881 (100 %), no gaps) and *Phoma dimorpha* (GenBank GU238068; Identities = 881/881 (100 %), no gaps).

ACT. Based on a megablast search of NCBI's GenBank nucleotide database, the closest hits using the ACT sequence are *Phaeosphaeria nodorum* (GenBank XM_001791742; Identities = 386/409 (94 %), no gaps), *Alternaria smyrnii* (GenBank JQ671675; Identities = 386/411 (94 %), no gaps) and *Chalastospora cetera* (GenBank JQ671626; Identities = 395/423 (93 %), Gaps = 1/423 (0 %)).

TUB. Based on a megablast search of NCBI's GenBank nucleotide database, the closest hits using the TUB sequence are *Phoma narcissi* (GenBank FJ427149; Identities = 334/343 (97 %), no gaps), *Phoma sancta* (GenBank FJ427171; Identities = 332/343 (97 %), no gaps) and *Phoma jolyana* (GenBank FJ427136; Identities = 332/343 (97 %), no gaps).

In a recent treatment of the genus *Peyronellaea* (Aveskamp et al. 2010) two combinations were incorrectly introduced, which are corrected herewith:

***Peyronellaea heteroderae* (Sen Y. Chen, D.W. Dicks. & Kimbr.) Crous, comb. nov. — MycoBank MB808912**

Basionym. *Phoma heteroderae* Sen Y. Chen, D.W. Dicks. & Kimbr., Mycologia 88: 885. 1996 (1997).

= *Phoma pomorum* var. *calorpreferens* Boerema, Gruyter & Noordel. apud Boerema, Persoonia 15: 207. 1993.

= *Phoma calorpreferens* (Boerema, Gruyter & Noordel.) Aveskamp, Gruyter & Verkley, Mycologia 101: 370. 2009.

= *Peyronellaea calorpreferens* (Boerema, Gruyter & Noordel.) Aveskamp, Gruyter & Verkley, Stud. Mycol. 65: 31. 2010.

Notes — *Peyronellaea calorpreferens* is a nom. illeg., since *Phoma heteroderae*, which was cited as synonym, has priority at the species rank.

***Peyronellaea maydis* (Arny & R.R. Nelson) Crous, comb. nov. — MycoBank MB808913**

Basionym. *Phyllosticta maydis* Arny & R.R. Nelson, Phytopathology 61: 1171. 1971.

= *Phoma zaeae-maydis* Punith., Mycopathologia 112, 1: 50. 1990 (nom. nov. for *Phyllosticta maydis* in *Phoma*).

= *Mycosphaerella zaeae-maydis* Mukunya & Boothr., Phytopathology 63: 530. 1973.

= *Didymella zaeae-maydis* (Mukunya & Boothr.) Arx, Beih. Nova Hedwigia 87: 288. 1987.

= *Peyronellaea zaeae-maydis* (Mukunya & Boothr.) Aveskamp, Gruyter & Verkley, Stud. Mycol. 65: 33. 2010.

Notes — *Phyllosticta maydis* represents the name with the oldest epithet for this species.

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

Michelle van der Bank, Department of Botany and Plant Biotechnology, University of Johannesburg, P.O. Box 524, Auckland Park, 2006, South Africa; e-mail: mvdbank@uj.ac.za