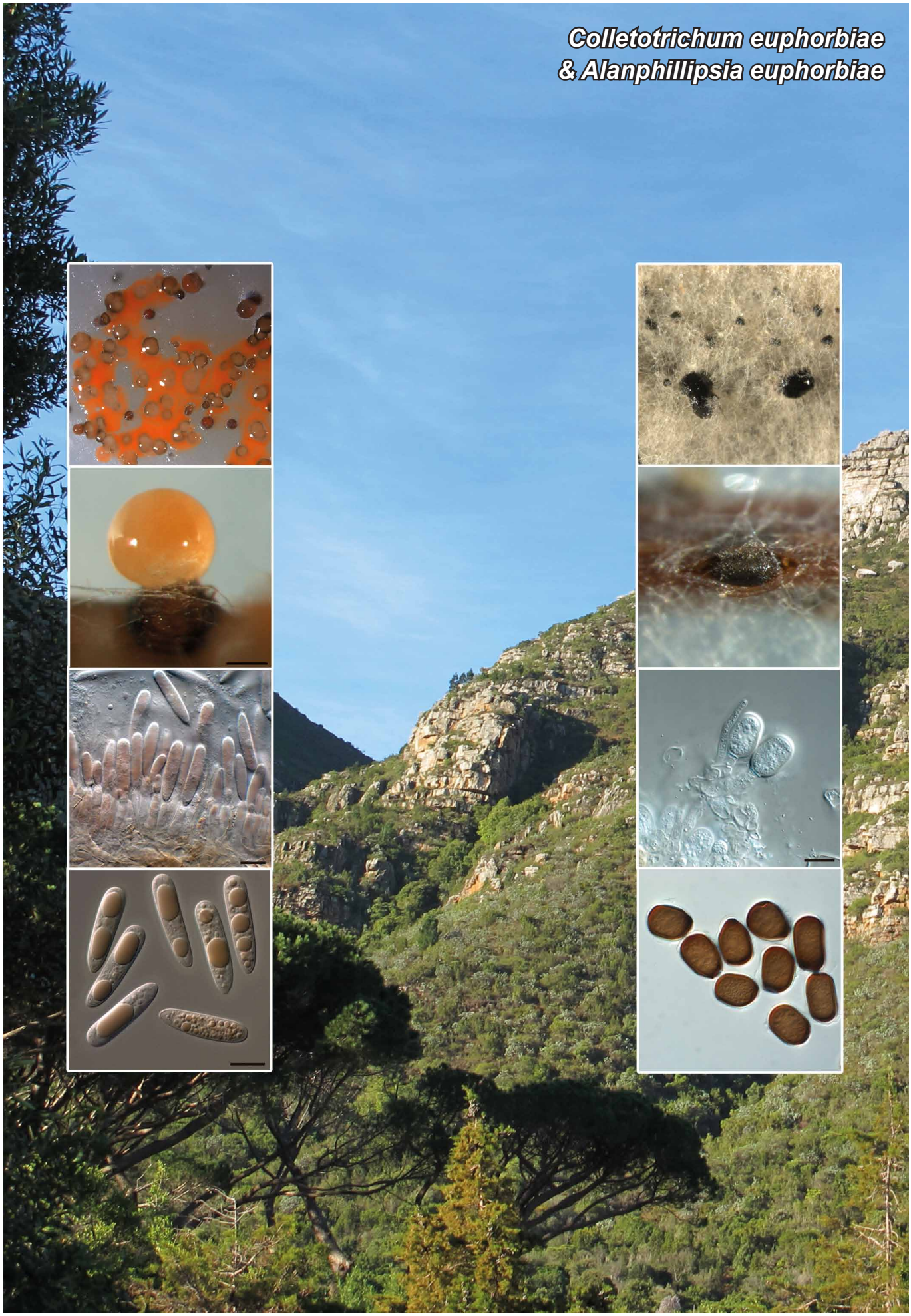
Colletotrichum euphorbiae
& Alanphillipsia euphorbiae

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Colletotrichum euphorbiae Damm & Crous, *sp. nov.*

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

Sexual morph not observed. *Asexual morph on SNA. Conidiomata* poorly developed and conidiophores formed directly on hyphae or globose, closed conidiomata, apparently opening by rupture, wall cells medium brown, angular. *Setae* not observed. *Conidiophores* pale brown, smooth-walled, septate, branched, to 50 µm long. *Conidiogenous cells* pale brown, smooth-walled, cylindrical, percurrent proliferation often observed, 13.5–23 × 5.5–7 µm, opening 1.5–2.5 µm diam, collarette 0.5 µm long, periclinal thickening sometimes observed. *Conidia* hyaline to pale orange, smooth-walled, aseptate, straight, sometimes slightly curved, cylindrical to clavate, with one end round and one end truncate, guttulate (17–)23–28(–28.5) × (6–)6.5–7 µm, mean ± SD = 25.6 ± 2.6 × 6.7 ± 0.2 µm, L/W ratio = 3.8. *Appressoria* formed in SNA slide culture after 20 d, single, medium to dark brown, smooth-walled, roundish to clavate, the edge lobate to undulate, (6.5–)8.5–14.5(–20.5) × (5.5–)6–10.5(–16) µm, mean ± SD = 11.5 ± 3.4 × 8.2 ± 2.2 µm, L/W ratio = 1.4. For description on *Anthriscus* stem and OA, see MycoBank.

Culture characteristics (near UV light with a 12 h photoperiod, 20 °C after 10 d) — Colonies on SNA flat, with undulate to lobate margin, hyaline, covered by thin, felty, white, aerial mycelium, the *Anthriscus* stem, filter paper and medium partly covered by orange conidiomata, reverse similar colours; growth 16–19 mm in 7 d (22.5–26.5 mm in 10 d). Conidia in mass orange.

Typus. South Africa, Western Cape Province, Kirstenbosch Botanical Garden, on leaves of *Euphorbia* sp. (*Euphorbiaceae*), Sept. 2012, *M.J. Wingfield* (holotype CBS H-21409, culture ex-type CBS 134725 = CPC 21823, ITS sequence GenBank KF777146, GAPDH sequence GenBank KF777131, TUB2 sequence GenBank KF777247, ACT sequence GenBank KF777125, CHS-1 sequence GenBank KF777128, HIS3 sequence GenBank KF777134, LSU sequence GenBank KF777202, MycoBank MB805820). For additional specimens, see MycoBank.

Notes — The genus *Colletotrichum* is currently under review; major species complexes such as *C. acutatum*, *C. boninense* and *C. gloeosporioides* were treated recently (Damm et al. 2012a, b, Weir et al. 2012). *Colletotrichum euphorbiae* forms cylindrical to clavate conidia with one end round and one end truncate, often in closed fruit bodies. Conidia with similar shapes were formed by other *Colletotrichum* species as well, especially by *C. sansevieriae* (Nakamura et al. 2006) and the species of the *C. orbiculare* complex (Damm et al. 2013). However, only conidia of *C. euphorbiae* exceed 20 µm on average in length. Closest matches in blastn searches with the ITS sequence were *C. sansevieriae* strains from *Sansevieria* spp. in Korea, Florida and Australia (KC847065, Park et al. 2013; JF911349, JF911350, Palmateer et al. 2012 and HQ433226, Aldoud et al. 2011), with 96–97 % identity. The ITS sequence of the ex-holotype strain of *C. sansevieriae* in GenBank (AB212991, Nakamura et al. 2006) only comprised 159 bp (ITS2) and was therefore not included in the ITS phylogeny of Cannon et al. (2012).

Reports of *Colletotrichum* species on *Euphorbia* include *C. capsici*, *C. dematium*, *C. euchroum* (conidia 12–20 × 4–5 µm; Sydow & Sydow 1913), *C. lineola* and *C. gloeosporioides* (Damm et al. 2009, Farr & Rossman 2013). Only *C. gloeosporioides* (s.lat.) was previously reported from *Euphorbia* in Africa (Doidge 1950, Crous et al. 2000). All these taxa form either shorter or curved conidia or are not closely related to *C. euphorbiae*.

Alanphillipsia euphorbiae Crous & M.J. Wingf., *sp. nov.*

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

Conidiomata erumpent, pycnidial, globose with central ostiole up to 300 µm diam; wall of 3–6 layers of dark brown *textura angularis*. *Conidiophores* reduced to conidiogenous cells. *Conidiogenous cells* lining the inner cavity, hyaline, smooth, subcylindrical to ampulliform, 10–15 × 4–6 µm; proliferating several times percurrently near apex. *Paraphyses* intermingled among conidiogenous cells, hyaline, smooth, 0–2-septate, subcylindrical, 35–50 × 3–5 µm. *Conidia* solitary, brown, guttulate, finely roughened, ellipsoid to somewhat clavate, aseptate, apex obtuse, base truncate, 3–5 µm diam, (18–)20–23(–26) × (12–)13–14(–16) µm.

Colour illustrations. Kirstenbosch Botanical Garden, South Africa. Left column *Colletotrichum euphorbiae*: conidiomata SNA; conidiogenous cells and conidia. Scale bars = 100, 10 and 10 µm. Right column *Alanphillipsia euphorbiae*: conidiomata on PDA and on PNA; paraphyses and conidiogenous cells; conidia. Scale bar = 10 µm.

Culture characteristics — Colonies covering dish in 2 wk, with abundant, fluffy aerial mycelium. On PDA surface and reverse iron-grey. On MEA surface olivaceous-grey, reverse iron-grey. On OA surface iron-grey with patches of dirty white.

Typus. South Africa, Western Cape Province, Kirstenbosch Botanical Garden, on leaves of *Euphorbia* sp. (*Euphorbiaceae*), Sept. 2012, *M.J. Wingfield* (holotype CBS H-21421, culture ex-type CPC 21629, 21628 = CBS 136411, ITS sequence GenBank KF777140, LSU sequence GenBank KF777196, MycoBank MB805821).

Notes — Based on a megablast search of NCBIs GenBank nucleotide database, the closest hits using the LSU sequence are *Diplodia corticola* (GenBank DQ377848; Identities = 870/875 (99 %), no gaps), *Botryosphaeria sumachi* (GenBank DQ377865; Identities = 888/894 (99 %), no gaps) and *Phaeobotryosphaeria porosa* (GenBank DQ377895; Identities = 887/894 (99 %), no gaps).

Pedro W. Crous & Ulrike Damm, CBS-KNAW Fungal Biodiversity Centre, P.O. Box 85167, 3508 AD Utrecht, The Netherlands;
e-mail: p.crous@cbs.knaw.nl & u.damm@cbs.knaw.nl
Michael J. Wingfield, Forestry and Agricultural Biotechnology Institute (FABI), University of Pretoria, Private Bag X20, Pretoria, 0028, South Africa;
e-mail: mike.wingfield@up.ac.za