

*Montagnula aloes*



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***Montagnula aloes* Crous, sp. nov.**

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

*Ascomata* separate, globose, imbedded in host tissue, subepidermal, becoming erumpent, up to 450 µm diam, papillate with central ostiole, up to 60 µm diam, exuding masses of brown spores; wall of 6–12 layers of olivaceous brown *textura angularis*; sporulating in culture, forming brown ascomata in aerial mycelium and in agar on PNA, OA, and MEA. *Pseudoparaphyses* cylindrical, hyaline, cellular, 3–5 µm diam, anastomosing between and above asci, branched, septate. *Asci* bitunicate, 8-spored, clavate, fissitunicate, with low ocular chamber, 5 µm diam, 1 µm high (visible only in young asci), with a long furcate pedicel (up to 100 µm long), 110–250 × 20–30 µm. *Ascospores* (32–)33–36(–38) × (10–)13–14(–16) µm, biseriate, ovoid to ellipsoid, medium brown, finely verruculose, 3-euseptate, prominently constricted at septa, somewhat more so at primary septum, widest in middle of second cell from apex, ends acutely rounded, becoming obtusely rounded at maturity.

*Culture characteristics* — (in the dark, 25 °C): Colonies erumpent, spreading with moderate aerial mycelium; on MEA surface rosy buff, reverse cinnamon, covering dish in 3 wk; on PDA slow growing, reaching only 25 mm diam after 3 wk, with sparse aerial mycelium and feathery margins, surface cinnamon, reverse cinnamon with patches of isabelline; on OA covering dish in 3 wk, surface and reverse rosy buff.

*Typus.* SOUTH AFRICA, Kwazulu-Natal, Durban, Salt Rock, on the beach, on dead leaf tips of *Aloe* sp. (*Xanthorrhoeaceae*), 16 July 2011, P.W. Crous, holotype CBS H-20959, cultures ex-type CPC 19672, 19671 = CBS 132531, ITS sequence GenBank JX069863 and LSU sequence GenBank JX069847, MycoBank MB800375.

*Notes* — The present collection matches species of *Chaetoplea* in having immersed ascomata, pseudoparaphyses, clavate, furcate asci, and ovoid to ellipsoid, medium brown ascospores that are transversely septate. *Chaetoplea* is distinguished from *Montagnula* by lacking muriformly septate ascospores, and from *Kalmusia* by lacking distoseptate ascospores (Zhang et al. 2009, 2012). Furthermore, *Montagnula aloes* is homothallic, sporulates well in culture, and does not form any anamorph. Although it seems to suit the morphological concept of *Chaetoplea*, it clusters with *Montagnula opulenta*, a didymosporous species, suggesting that muriformly septate ascospores may not be significant at generic level. For this reason, we choose to name it in *Montagnula* (1896), which is older than *Chaetoplea* (1931).

Based on a megablast search of NCBI's GenBank nucleotide database, the closest hit using the ITS sequence is *Munkovalsaria appendiculata* (GenBank DQ435529; Identities = 498/526 (95 %), Gaps = 10/526 (2 %)), followed by *Aporospora terricola* (GenBank DQ865097; Identities = 472/506 (93 %), Gaps = 18/506 (4 %)), and *Microdiplodia miyakei* (GenBank HQ248187; Identities = 492/540 (91 %), Gaps = 23/540 (4 %)). Closest hits using the LSU sequence yielded highest similarity to *Montagnula opulenta* (GenBank DQ678086; Identities = 847/856 (99 %), Gaps = 4/856 (0 %)), *Coniothyrium nitidae* (GenBank EU552112; Identities = 880/905 (97 %), Gaps = 7/905 (1 %)), and *Microdiplodia hawaiiensis* (GenBank DQ885897; Identities = 880/907 (97 %), Gaps = 7/907 (1 %)).

*Colour illustrations.* Sugarbird playing on *Aloe* sp. in the rain; sporulation on pine needle agar; immersed ascomata on leaf tissue; vertical section through ascoma; ascomatal wall; asci and ascospores. Scale bars: 100, 10, 10 µm.