

***Mycosphaerella alistairii* Crous, sp. nov.**

**Mycobank:** MB501005.

**Anamorph:** *Batcheloromyces* sp.

**Etymology:** Named after Alistair Smith of Kentucky Farms, Elgin, South Africa, who took me mountain-biking on his birthday, and patiently waited on top of the mountain while I collected this fungus.

**Latin diagnosis:** *Mycosphaerellae bellulae* similis, sed ascosporis majoribus, (9–)10–12(–13) × (2.5–)3–4 μm, differens.

**Description:** *Leaf spots* amphigenous, sub-circular to circular, 2–5 mm diam, pale to medium brown with a thin, raised, dark brown border. *Ascomata* pseudothecial, amphigenous, black, subepidermal, substomatal, erumpent to superficial, globose, up to 200 μm diam; apical ostiole 5 μm wide; wall consisting of 2–3 layers of medium brown *textura angularis*. *Asci* aparaphysate, fasciculate, bitunicate, sessile, obovoid to broadly ellipsoid, straight to slightly curved, 8-spored, 35–50 × 6–8 μm. *Ascospores* bi- to tri-seriate, overlapping, hyaline, guttulate, thin-walled, straight, fusoid-ellipsoidal with obtuse ends, widest in middle of apical cell, medianly 1-septate, constricted at the septum, tapering towards both ends, but more prominently towards the lower end, (9–)10–12(–13) × (2.5–)3–4 μm in lactic acid; ascospores frequently becoming pale brown and slightly verruculose in older asci. *Ascospores* primarily geminating from polar ends with germ tubes parallel to the long axis of the spore; spores distorting, becoming brown and verruculose, up to 7 μm wide, with lateral branches growing out from the original ascospore. *Conidiophores* formed on brown, verruculose hyphae. *Conidia* brown, verruculose, subcylindrical to ellipsoid, with a marginal frill present at one or both ends; when aseptate, 7–10 × 4–6 μm; when 1-septate, 9–15 × 5–6 μm; when 2–3-septate, 15–25 × 5–7 μm.

**Cultural characteristics:** Colonies on 2 % potato-dextrose agar<sup>1</sup> (PDA; Difco) erumpent, spreading, reaching 40 mm diam after 5 weeks at 25 °C; surface olivaceous-black with moderate olivaceous-grey aerial mycelium; margins smooth, regular; reverse iron-grey; colonies fertile.

**Typus:** **South Africa**, Western Cape Province, Hermanus, Rotary Road, close to the Vodacom tower, on leaves of *Protea repens*, 31 Dec. 2005, collected by P.W. Crous & A. Smith, CBS-H 19765, **holotypus**; cultures ex-type CPC 12730 = CBS 120035, CPC 12731–12732.

**Notes:** Disease symptoms of *M. alistairii* resemble those of *M. jonkershoekensis* P.S. van Wyk, Marasas & Knox-Dav. and *M. bellula* Crous & M.J. Wingf., which also occur on this host. Ascospores of *M. alistairii* are smaller than those of *M. jonkershoekensis*, but larger than those of *M. bellula*. They lack the prominent mucous sheath present in *M. bellula*<sup>2</sup>.

BLASTn results of the ITS sequence of *M. alistairii* (GenBank DQ885901) had an E-value of 0.0 (99 % identical) with the ITS sequence of *Batcheloromyces leucadendri* P.S. van Wyk, Marasas & Knox-Dav. (AY260100, AY260101), and *B. proteae* Marasas, P.S. van Wyk & Knox-Dav. (AY260099).

**Colour illustrations:** *Protea repens* bush growing along the Rotary road at the top of the mountain in Hermanus (P.W. Crous); colony on PDA; asci with ascospores; germinating ascospores on 2 % malt extract agar (Oxoid); conidia formed *in vitro* (P.W. Crous). Scale bar = 10 μm.

**References:** <sup>1</sup>Gams W, Hoekstra ES, Aptroot A (eds) (1998). *CBS course of mycology* 4<sup>th</sup> ed. Centraalbureau voor Schimmelcultures, Baarn, Delft, Netherlands. <sup>2</sup>Crous PW, Denman S, Taylor JE, Swart L, Palm ME (2004). Cultivation and diseases of *Proteaceae*: *Leucadendron*, *Leucospermum* and *Protea*. *CBS Biodiversity Series* 2: 1–228.

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