

**A new lichenicolous species of *Sclerococcum*
(Dactylosporaceae, Ascomycota) from south-eastern Australia**

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Abstract

The new lichenicolous species *Sclerococcum ewersii*, collected on *Trapeliopsis* in south-eastern Australia, is described and illustrated.

Recently Diederich *et al.* (2018) have shown that *Sclerococcum sphaerale* (Ach.) Fr., a common, anamorphic lichenicolous fungus on *Lepra corallina*, and numerous *Dactylospora* species form a monophyletic group. Because the generic name *Sclerococcum* Fr. has priority over *Dactylospora* Körb., the authors transferred many species from the latter to the former. In addition, many newly detected teleomorphs were also included in *Sclerococcum*. In this paper we describe a new lichenicolous species of *Sclerococcum* from south-eastern Australia.

Sclerococcum ewersii Elix, P.M.McCarthy & Hafellner, sp. nov.
Mycobank No.: **MB 831354**

Fig. 1

Similar to *Sclerococcum saxatile* (Schaer.) Ertz & Diederich, but differs in being lichenicolous on *Trapeliopsis* species. Apothecia immersed then broadly adnate, 0.1–0.25 mm wide; discs black, epruinose; ascospores brown, 1-septate, 9–13 × 4–5.5 µm.

Type: Australia, New South Wales, South Coast, Bodalla State Forest, Mummaga Lake Walk, 7 km SSE of Bodalla, 36°09'03"S, 150°05'46"E, c. 4 m alt., on sterile *Trapeliopsis* over sandstone in wet *Eucalyptus* woodland along inlet, *J.A. Elix 45698*, 17.ix.2008 (holotype – CANB; isotype – GZU).

Apothecia 0.1–0.25 mm wide, scattered or in groups, lecideine, round, emerging from the host thallus without appearing to produce any harm to the host tissues, immersed then broadly adnate; disc black, epruinose, weakly concave to plane or weakly convex. *Proper excipulum* persistent, black, initially raised above level of disc, in section 20–35 µm thick; outer part dark brown, K–, N+ orange-brown; inner part paler brown. *Epiphymenium* 7–10 µm thick, dark brown, K–, N–. *Hypothecium* 65–80 µm thick, colourless in upper part, yellow-brown below, K–. *Hymenium* 45–55 µm thick, colourless, not interspersed; paraphyses rarely branched and anastomosing, 1.5–1.7(–2) µm wide, with apices 3–5 µm wide and brown caps. *Asci* 8-spored, of the *Dactylospora*-type, with a marked, external, amyloid cap (Hafellner 1979), 30–45 × 11–15 µm. *Ascospores* 1-septate, brown, ellipsoid, 9–[11.1]–13 × 4–[4.7]–5.5 µm; outer spore-wall smooth. *Pycnidia* not seen.

Chemistry: K–, P–, C–, UV–; no substances detected by TLC.

Etymology: The species is named after the Australian biologist, the late Dr W.H. (Bill) Ewers, who first collected it.

Remarks

Sclerococcum ewersii is a distinctive species, characterized by its lichenicolous habit, the dark brown epihymenium, the colourless to yellow-brown hypothecium and the small, 1-septate ascospores. Superficially, it resembles *Sclerococcum saxatile*, which occurs on *Pertusaria* spp. in the Northern and Southern Hemispheres (Hafellner 2004). However, *S. saxatile* has broader ascospores, 4.5–7.5 µm wide, and a pale brown hypothecium. *Sclerococcum australe* (Triebel & Hertel) Ertz & Diederich is also rather similar to *S. ewersii*, but it occurs on *Lecidea*, *Paraporpidia*, *Poeltiaria* and *Porpidia* species; it also has a thicker excipulum, 20–[30]–50 µm, and a deeper hymenium, 45–80 µm high (Triebel 1989).

ADDITIONAL SPECIMEN EXAMINED

Victoria: • Victorian Volcanic Plain region, Mount Eccles, on rim near dry crater, 38°04'S, 141°56'E, on *Trapeliopsis granulosa* over basalt, *W.H. Ewers* 75, 11.x.1986 (CANB).

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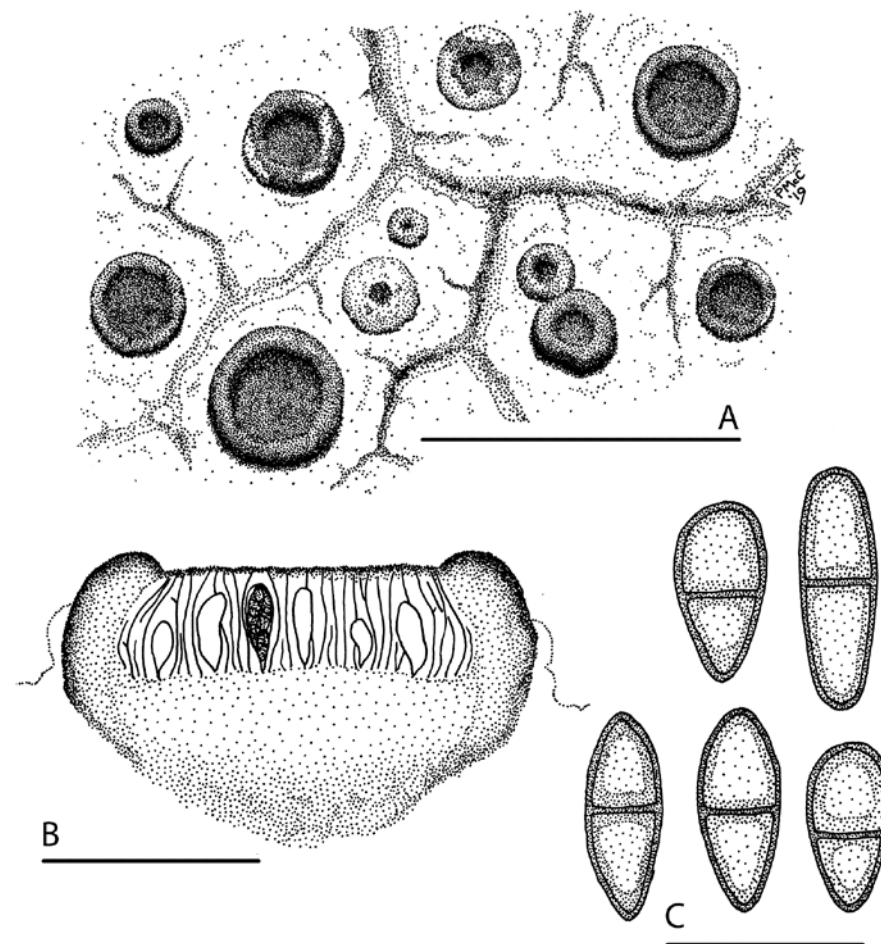


Figure 1. *Sclerococcum ewersii* (holotype in CANB). Scales A = 0.5 mm, B = 0.1 mm, C = 10 µm.