

SOME INTERESTING FUNGAL RECORDS FOR TASMANIA

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The following is an account of a few noteworthy records of fungi that either have never previously been reported as occurring in Tasmania or have not been reported in recent times, being known only from old herbarium records.

The first species is *Battarrea stevenii* (Libosch.) Fr., a 'stalked puffball' of worldwide distribution, known from the arid zones of mainland Australia but not previously reported from Tasmania. We knew that our fellow Field Naturalists Janet and Geoff Fenton were going to Swan Island, east of Cape Portland and north of Musselroe Bay in Bass Strait. As this is an area that is not easy for us to visit, we asked them to collect any fungi species that they might find. They turned up at the next Field Naturalists meeting with two specimens (Figure 1) of what looked like a thick stem of a grass, rush or sedge with a knob at the end, that they had collected among *Poa* tussocks on 29 April 2004. Although we had an inkling at the meeting that this might be *Battarrea stevenii*, neither of us had actually seen a specimen before, so we contained our excitement until microscopic examination at home showed that the specimen was indeed *Battarrea stevenii*.

It is certainly an unusual species, with a stem reported by Cunningham (1944) to be up to 35 cm tall and up to 15 mm diameter, tapering downwards and attached to the substrate by a distinct two-layered leathery or woody 'volva'. The diameter of the 'head' of the fungus, which rarely exceeds 6 cm, is disproportionately small compared with the length of the scaly stipe. The outer peridium is usually a mixture of sand particles and hyphae, soon disappearing to leave a tough, membranaceous inner peridium hiding the gleba, the spore-bearing tissue of the puffball. At dehiscence, little is left of the peridium. The spores are globose to subglobose, ca. 5-6 μm , with a surface that appears pitted when seen at x1000 magnification using oil immersion. A very unusual feature of this puffball is the presence of elaters amongst the spore mass. These cylindrical or cigar-shaped spiral thickenings are common in liverworts, where their function is to assist in spore dispersal, but they are rare in fungi, being present in only a few species. A colour photograph of this species appears in May *et al.* (2003, plate 61) and microscopic details of the spores and elaters are illustrated by Grgurino-vic (1997, fig. 373). The climate of Swan Island is similar to that of Flinders Is-

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land and other islands of the Furneaux group, and that of the coastal area north of St. Helens. Hence, annual rainfall is lower than in most other parts of Tasmania. This may be the first reported record of this species from Tasmania, but it is likely that it occurs in other coastal areas in the northeast.

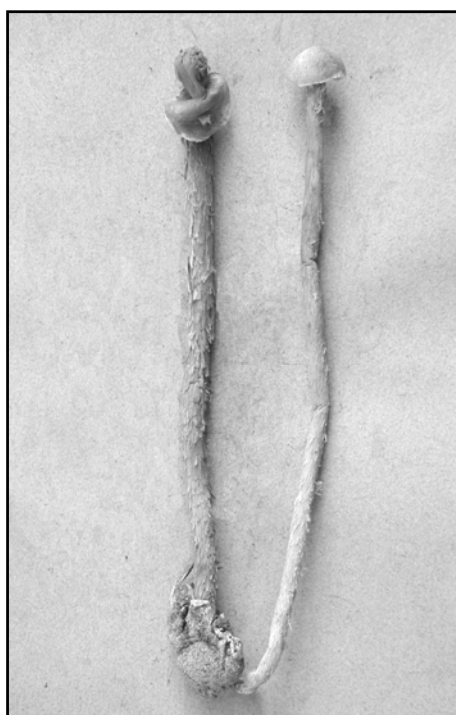


Figure 1. The two *Battarea stevenii* specimens collected by the Fentons from Swan Island, 29 April 2004.

The second species is *Laccocephalum hartmannii* (Cooke) Núñez and Ryvarden, known from Queensland and southeastern Australia, but not reported recently from Tasmania. Our first specimen was collected by Marc Gates, the 12-year old son of one of the authors, in dry sclerophyll bushland a few hundred metres south of their home in Taroona on 24 March 2004. It was growing near the root of a *Eucalyptus viminalis* tree. A photograph of this species appears in McCann (2003), p. 81. We have since found it in dry sclerophyll bush at Quarantine Point on Bruny Island on 9 May 2004.

Two closely related species to the above are *Laccocephalum tumulosum* (Cooke) Núñez and Ryvarden, and *Laccocephalum sclerotinum* (Rodway) Núñez and Ryvarden, which occur in recently burnt, native forests. Both of these polypores possess a sclerotium, a storage organ that enables the species to fruit abundantly after severe fire. We first found *L. tumulosum* during an outing to

Macgregor Peak, Forestier Peninsula, on 10 April 2004 on a walk through an area of recently burnt, wet eucalypt forest. Six weeks later, whilst surveying the start of the old Cape Pillar track (also wet sclerophyll), which was burnt early in 2004, we found it again (Figure 2). It is a fairly large species, with a medium brown pileus to 8 cm diameter and large, well-formed, soft, white pores measuring 1-2 x 1 mm. Microscopically, the elliptical, hyaline spores are 12-14 x 5-6.5 μm . In contrast, *Laccocephalum sclerotinum*, based on a Tasmanian type described by Leonard Rodway, is a much smaller species with a medium brown pileus to 3.5 cm diameter, marked by prominent concentric rings, much finer pores ca. 3-4 per mm, and much smaller spores, 5.5-6 x 2-2.5 μm . These two species are also illustrated by Fuhrer (2001), pp. 125-126.



Figure 2. *Laccocephalum tumulosum*, observed by the authors from the old Cape Pillar track, 1st July 2004.

Another species of *Laccocephalum* that may be encountered in Tasmania is *L. mylittae* (Cooke and Masee) Núñez and Ryvarden, commonly known as native bread because of its very large, fleshy sclerotium that may have been a food source for the Aborigines. It is the sclerotium that is usually brought into herbaria as a curio (see Bougher and Syme, 1998, p. 329, as *Polyporus mylittae* and Fuhrer, 2001, p. 123, for illustrations). Unlike *L. tumulosum* and *L. sclerotinum*, whose storage organ can best be described as a “false sclerotium”, *L. mylittae* has a true sclerotium made up of marbled masses of fungal mycelia that can be up to 60 cm diameter and weigh as much as 18 kg (Robinson, 2001). In contrast,

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the sclerotia of *L. tumulosum* and *L. sclerotinium* consist of a mixture of soil and hyphae. In *L. tumulosum*, the binding may be so hard that the sclerotium has a rock-like texture and appearance, earning its common name of stonemaker fungus. Some of these may reach a weight of 30 kg (Robinson, 2001). In *L. sclerotinium*, however, the false sclerotia are small and lie close to the soil surface.

ACKNOWLEDGEMENTS

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