

Flora of Tasmania online



LEIMONIS ¹

Gintaras Kantvilas ²

Leimonis R.C.Harris, *Opusc. Phil.* 6: 151 (2009).

Type: *L. erratica* (Körb.) R.C.Harris & Lendemer

Thallus crustose, areolate to warted, or highly reduced and indistinct; prothallus sometimes present. Photobiont a unicellular green alga with \pm globose cells 8–20(–26) μ m wide. Ascomata apothecia, biatorine, sessile, basally constricted. Disc plane to convex, black, epruinose. Proper exciple concolorous with the disc, usually persistent, in section annular, composed of radiating, branched and anastomosed hyphae to 2.5 μ m thick, dark pigmented at the outer edge, \pm hyaline within. Hypothecium hyaline to dark pigmented. Hymenium hyaline, I+ blue, overlain by a dark pigmented epithecium. Paraphyses simple or sparsely branched, not or slightly expanded at the apices. Asci clavate, 8-spored, approximating the *Psora*-type: tholus well-developed, amyloid, with a darker-staining, broad, diverging tube structure; ocular chamber not developed. Ascospores simple, hyaline, ellipsoid, non-halonate. Conidiomata pycnidia, immersed. Conidia cylindrical. Chemistry: nil.

A genus of two species that are primary colonisers of rock and dead wood, widely distributed in temperate areas of the world, and previously included in the genus *Micarea*. Although the distinction between these two genera is supported by molecular data (Andersen & Ekman 2005), their separation morphologically and anatomically is difficult and based chiefly on the non-micareoid photobiont, the better developed, persistent exciple, and the *Psora*-type asci.

Key references: Rambold (1989); Czarnota (2007); Coppins (2009); Harris (2009); Kantvilas & Coppins (2019).

1 *Leimonis erratica* (Körb.) R.C.Harris & Lendemer

In R.C. Harris, *Opusc. Phil.* 6: 151 (2009); —*Lecidea erratica* Körb., *Parerga Lich.*: 223 (1861); *Micarea erratica* (Körb.) Hertel, Rambold & Pietschmann, *Bibiloth. Lich.* 34: 227 (1989).

Thallus scurfy, pale greyish or greyish brown, usually highly reduced and visible at most as a diffuse discoloration of the substratum. Apothecia black, numerous, mostly plane, 0.15–0.5 mm wide; proper exciple in section 20–50 μ m thick, usually hyaline within, greenish, N+ crimson-red at the outer edge. Hypothecium 30–50(–100) μ m thick, opaque purple-brown, intensifying purplish in K. Hymenium 35–50 μ m thick, mostly hyaline but often infused with epithecial and hypothecial pigments; epithecium greenish, N+ crimson-red; paraphyses 1.5–2 μ m thick, with apices unexpanded; asci 30–40 \times 12–16 μ m. Ascospores (7–)7.5–9.1–10.5(–12) \times 3.5–4.4–5.5 μ m. Conidia reported as 3–4.5 \times 1.2–1.8 μ m (Coppins 2009).

Widely distributed in both hemispheres. In Tasmania, it occurs mostly in areas of high rainfall, colonising small stones or wood, most frequently in disturbed habitats such as roadsides. This species is inconspicuous and can be difficult to identify, not least because of the internally intensely pigmented apothecia, very scant thallus, relatively few, well-developed asci (despite the abundance of apothecia), and relatively few mature ascospores. Whereas most Tasmanian specimens generally accord with the general concept of the species

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2 Tasmanian Herbarium, Tasmanian Museum & Art Gallery, PO Box 5058, UTAS LPO, Sandy Bay, TAS 7005, Australia.

world-wide, in others the exciple may contain dark greenish and brownish pigments internally, or additional red-brown pigments may be present in the hypothecium. Furthermore, the ascospores of Tasmanian specimens seem consistently larger than those reported for Europe [e.g. (6–)7–9(–10) × (2–)3–4(–5); Coppins 2009]. Separation of *L. erratica* from *Micarea micromelaena* Kantvilas & Coppins can be especially difficult because both species occur in identical habitats and have the same suite of dark pigments in their apothecia. The latter differs by having occasionally 1-septate ascospores, rather more convex, tuberculate apothecia with a reflexed, soon-excluded exciple of narrow hyphae (to 1.5 µm thick) and, most critically, a micareoid photobiont with cells 4–6(–10) µm wide.

Tim Shea Quarry, 42°43'S 146°28'E, 600 m, 1963, G.C. Bratt 937 (HO); W of Savage River Pipeline Road, 41°13'S 145°19'E, 450 m, 2003, G. Kantvilas 683/03A (HO); Cape Portland, Musselroe Wind Farm, "Cadaver Ridge", 40°48'28"S 148°04'05"E, 65 m, 2019, G. Kantvilas 221/19 (HO).

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