



LEIORREUMA ¹

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Leiorreuma Eschw., *Syst. Lich.*: 13 (1824).

Type: *L. lyellii* (Sm.) Staiger

Thallus crustose, corticate, containing calcium oxalate. Photobiont *Trentepohlia*, with cells suglobose to oblong-ellipsoid, 8–13 × 6–10 µm, mostly in chains. Ascomata apothecia, lirelliform, roundish, oval or elongate, immersed to sessile, with a prominent thalline margin. Disc exposed, brown-black to grey-black. Proper exciple black, entire, barely perceptible, in section entirely carbonised and opaque, K–, massive and continuous at the base. Hypothecium hyaline to pale yellowish. Hymenium hyaline, I+ yellow-brown, KI– or patchily pale blue, densely interspersed with oil droplets. Asci elongate-clavate, 8-spored, of the *Graphis*-type: non-amyloid, with a slightly thickened apex and ± truncate ascoplasm. Paraphyses rather robust, simple to sparsely branched and anastomosed; apices not markedly expanded. Ascospores broadly fusiform to ellipsoid, with rounded apices, transversely septate, non-halonate, soon becoming brownish, I+, KI+ reddish purple at the septa; locules lens-shaped. Conidiomata unknown in most species. Chemistry: depsidones related to stictic acid, or nil.

A small genus of mainly tropical, corticolous species, of which four are recorded in Australasia. The basally massive, carbonised exciple and densely interspersed hymenium readily distinguish this lirellate genus from others with brown ascospores (*Halegrapha*, *Phaeographis*) that are found in Tasmania.

Key references: Archer (2006, 2009); Staiger (2002).

1 *Leiorreuma exaltatum* (Mont. & Bosch) Staiger

Biblioth. Lichenol. 85: 298 (2002); — *Lecanactis exaltata* Mont. & Bosch, in F.A.W. Miquel, *Pl. Junghuhn* 4: 475 (1855); *Phaeographis exaltata* (Mont. & Bosch) Müll.Arg., *Flora* 65: 381 (1882).

Thallus dull olive-grey, smooth, glossy, continuous, 50–100 µm thick, forming diffuse patches to 10 cm wide. Lirellae scattered, ellipsoid to elongate, straight or sinuous, simple, stellate or forked, to 10 mm long and 0.2–1 mm wide, with a thin, entire thalline margin extending well above the disc, in section densely packed with calcium oxalate crystals; disc gaping, plane to deeply concave, grey-black, frequently faintly greyish-pruinose. Exciple in section 12–25 µm thick laterally, 50–200 µm thick basally. Hypothecium 20–50 µm thick. Hymenium 90–150 µm thick; asci 90–125 × 15–30 µm; paraphyses 1.5–2 µm wide, sparsely branched, commonly with apices brownish and to 3 µm wide. Ascospores transversely 5-septate, at first hyaline, soon becoming pale brown, ultimately deep brown and deformed, (22–)24–30.9–36 × (8–)10–11.8–14.5(–16) µm.

Chemistry: nil.

Very common in rainforest where it occurs mainly on the smooth bark of subdominant trees and shrubs such as *Anodopetalum*. Less commonly it is found on understorey trees such as *Nematolepis squamea* in eucalypt-dominated wet forest. The gaping lirellae with a broad, greyish black disc, thin, entire and prom-

1 This work can be cited as: Kantvilas G (2023). *Leiorreuma*, version 2023:1. In MF de Salas (Ed.) *Flora of Tasmania Online*. 2 pp. (Tasmanian Herbarium, Tasmanian Museum and Art Gallery: Hobart). <https://flora.tmag.tas.gov.au/lichens/genera/leiorreuma/> (accessed 21 September 2022).

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

inent thalline margin, and the brown ascospores make this lichen easily recognisable. This species is most similar to the rare *Phaeographis lindigiana*, which has a fissured thalline margin, essentially non-carbonised lirellae (in section), and smaller, 3-septate ascospores. *Leiorreuma exaltatum* is a widespread species, also known from mainland Australia, New Zealand, New Guinea, South-East Asia and tropical America.

Blue Tier, 41°13'S 147°57'E, 705 m, 1922, W.A. Weymouth 930(HO); Murchison rail crossing, 41°31'S 145°39'E, 700 m, 1965, G.C. Bratt & J.A. Cashin 2355a (HO); Sumac Road, Spur 2, 41°08'S 145°02'E, 170 m, 1981, G. Kantvilas 324/81 (BM, HO).

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