

# Leptogium malmei

## SYNONYMS

*Leptogium menziesii* var. *fusiporum*

## FAMILY

Collembataceae

## AUTHORITY

*Leptogium malmei* P.M.Jørg.

## FLORA CATEGORY

Lichen – Native

## ENDEMIC TAXON

No

## ENDEMIC GENUS

No

## ENDEMIC FAMILY

No

## STRUCTURAL CLASS

Lichens - Foliose

## CURRENT CONSERVATION STATUS

2018 | At Risk – Naturally Uncommon | Qualifiers: DP, SO, Sp

## BRIEF DESCRIPTION

Characterised by a small, orbicular thallus; short, narrow lobes; a maculate upper surface ( $\times 10$  lens) without isidia or soredia; a yellow medulla; a cyanobacterial photobiont; and a chemistry dominated by pigments and stictane triterpenoids.

## DISTRIBUTION

**North Island:** Wellington (Ohakune; Manawatu River). **South Island:** Nelson (Cobb Valley, Lake Rotoiti), Marlborough (Avon Valley), Canterbury (Godley Valley), Otago (Hidden Falls Stream, Taieri Ridge), Southland (McKinnon Pass, Spey River). **Chatham Islands.** Recently recorded on Banks Peninsula (Knight 2019).

Also known from high-rainfall areas of southern Chile.

## HABITAT

Among bryophytes in shaded, high-humidity rainforest habitats from the central North Island to Fiordland and Campbell Island, with an altitudinal range of 100–1320 m. It is still poorly collected in New Zealand and its ecology here largely unknown.

## DETAILED DESCRIPTION

**Thallus** broadly lobate, orbicular to spreading, 5–8 cm diam., distinctly bluish to bluish grey, not brownish, musicolous, terricolous or corticolous. **Lobes** broadly orbicular, 5–10(–15) mm wide, papery, margins entire, wavy, sometimes minutely lobulate. **Upper surface** smooth, not wrinkled, matt or shining, often  $\pm$ maculate ( $\times 10$  lens). **Lower surface** densely white-tomentose, often with a narrow, marginal, glabrous zone concolorous with upper surface or paler. **Apothecia** occasional to abundant and then closely crowded together, sessile to subpedicellate, round to irregular, 0.2–1.5 mm diam., disc matt, yellow-brown to red-brown, concave to plane to subconvex, proper exciple prominent, paler than disc to  $\pm$ whitish, thalline exciple reduced to a few scattered lobules, concolorous with thallus, generally absent, rarely with short white, silky marginal hairs and longer basal hairs. Epithecium yellow-brown to 12.5  $\mu$ m thick. Hymenium colourless, 110–130  $\mu$ m tall. Hypothecium opaque, pale brownish. **Ascospores** broadly ellipsoidal with pointed apices, sometimes  $\pm$ apiculate at one or both ends, submuriform, 4–6 (–8) transverse septa and 1–3 vertical septa, (20–)25–35(–40)  $\times$  8–12(–14)  $\mu$ m.



Photographer: Marley Ford, Licence: CC BY-NC.



Apothecia. Photographer: Marley Ford, Licence: CC BY-NC.

### **SIMILAR TAXA**

*Leptogium malmei* is closely similar to *L. menziesii*, but is distinguished from it by the distinctive bluish colour, the sessile apothecia that are often produced in profusion, and have a very thin margin, and the larger, acuminate ascospores, 25–35(–40) × 8–12(–14) µm. New Zealand material studied shows some variation in spore size, with material from drier, eastern sites having spores that are slightly smaller (20–25 µm) than those from wetter, western sites, which have generally longer and slightly broader spores. The species has a fairly constant morphology and colour and is readily separated from *L. menziesii*, which has lobes that are brownish, especially at the margins, and which also does not produce either laminal or marginal isidia or phyllidia.

### **SUBSTRATE**

Ground, moss

### **ATTRIBUTION**

Fact sheet prepared by Marley Ford (3 March 2021). Brief description, Distribution, Habitat, Features and Similar taxa sections copied from Galloway (2007).

### **REFERENCES AND FURTHER READING**

Galloway D.J. 2007: *Flora of New Zealand: Lichens, including lichen-forming and lichenicolous fungi*. 2nd edition. Lincoln, Manaaki Whenua Press. 2261 pp.

Knight A. 2019: iNaturalist observation of *Leptogium malmei*. <https://inaturalist.nz/observations/23882782>. Date accessed: 7 June 2023.

### **MORE INFORMATION**

<https://www.nzpcn.org.nz/flora/species/leptogium-malmei/>