

Psilolechia lucida

COMMON NAME

Sulphur dust lichen

SYNONYMS

Lichen lucidus

FAMILY

Pilocarpaceae

AUTHORITY

Psilolechia lucida (Ach.) M.Choisy

FLORA CATEGORY

Lichen – Native

ENDEMIC TAXON

No

ENDEMIC GENUS

No

ENDEMIC FAMILY

No

STRUCTURAL CLASS

Lichens - Leprose

CURRENT CONSERVATION STATUS

2018 | Data Deficient | Qualifiers: SO

BRIEF DESCRIPTION

Characterised by the terricolous/saxicolous habit; its bright, chartreuse, yellow-green, leprose-granular thallus (UV+ orange); and the yellow, immarginate, convex apothecia, often sunk in thalline granules.

DISTRIBUTION

South Island: Canterbury (Woolshed Hill), Otago (Mt Cargill, Swampy Spur track, Black Gully Blue Mountains). Probably more widespread than present records indicate.

Widely distributed in the Northern Hemisphere, and known from Australia and Tasmania, southern Chile, and Charcot Island, Antarctica.

HABITAT

On small stones, overhanging clay banks, along walking tracks in somewhat shaded situations.

DETAILED DESCRIPTION

Thallus bright yellow-green, spreading in irregular patches, often quite extensive, 5–15(–20) cm diam., leprose-granular, to 0.5 mm thick; continuous, cracked or granular-areolate, the areolae 0.1–0.3 mm diam. Goniocysts discrete in leprose forms, less or not discernible in areolate forms, ±globose, 18–30(–40) µm diam., often ±oblong in forms with *Stichococcus*; hyphae and algal cells interspersed with yellowish granular crystals. Photobiont *Stichococcus* (in NZ collections). **Apothecia** (often lacking), convex to ±globose, 0.1–0.3 mm diam., rarely tuberculate and to 0.5 mm diam., yellow-green or yellow-orange at maturity. Hymenium c. 25 µm high, colourless, I+ yellow; epithecium c. 5 µm thick, yellow, encrusted with minute crystals. **Asci** 20 × 5.5 µm. **Ascospores** ellipsoidal, 4–5 × 1.5–2 µm.

Chemistry: Thallus and apothecia K–, C–, KC–, Pd–, UV+ orange; containing rhizocarpic acid and zeorin.

SUBSTRATE

Terricolous

ETYMOLOGY

lucida: Shining



Psilolechia is a genus of four species, formerly included in the family Micareaceae (Eriksson *et al.* 2004; Pennycook & Galloway 2004), but now transferred to Pilocarpaceae (Andersen & Ekman 2005; Eriksson 2005). All species of *Psilolechia* are found in shaded, humid situations such as on vertical rocks and walls, in underhangs, and on clay banks or among exposed tree roots, rocks, stones, soil and plant debris. *Psilolechia lucida* is commonly seen on building materials in towns in the Northern Hemisphere. With the exception of *P. lucida*, the genus is still rather poorly known and collected, although it is widely distributed in temperate regions of the world (Europe, Macaronesia, North America, Costa Rica, Hawai'i, and Australasia). Two species are known from New Zealand, but the genus is still very poorly collected and understood here.

ATTRIBUTION

Fact sheet prepared by Melissa Hutchison (3 September 2021). Brief description, Distribution, Habitat, Features, and Extra information sections copied from Galloway (2007).

REFERENCES AND FURTHER READING

- Andersen H.L. & Ekman S. 2005: Disintegration of the *Micareaceae* (lichenized *Ascomycota*): a molecular phylogeny based on mitochondrial rDNA sequences. *Mycological Research* 109: 21-30.
- Eriksson O.E. (Ed.) 2005: Outline of *Ascomycota* – 2005: *Myconet* 11: 1-113.
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- Galloway D.J. 2007: *Flora of New Zealand: Lichens, including lichen-forming and lichenicolous fungi*. 2nd edition. Lincoln, Manaaki Whenua Press. 2261 pp.
- Pennycook S.R. & Galloway D.J. 2004: Checklist of New Zealand "Fungi". In: McKenzie, E.H.C. (Ed.) Introduction to fungi of New Zealand. *Fungi of New Zealand/Ngā Harore o Aoteroa* Volume 1. *Fungal Diversity Research Series* 14: 401-488.

MORE INFORMATION

<https://www.nzpcn.org.nz/flora/species/psilolechia-lucida/>