

# Lecanora swartzii

## SYNONYMS

Lichen swartzii, Verrucaria swartzii

## FAMILY

Lecanoraceae

## AUTHORITY

Lecanora swartzii (Ach.) Ach.

## FLORA CATEGORY

Lichen – Native

## ENDEMIC TAXON

No

## ENDEMIC GENUS

No

## ENDEMIC FAMILY

No

## STRUCTURAL CLASS

Lichens - Crustose

## CURRENT CONSERVATION STATUS

2018 | Data Deficient | Qualifiers: SO

## BRIEF DESCRIPTION

Characterised by the saxicolous habit (underhangs and roofs of small caverns); rosette-forming to spreading whitish thalli that are immediately and strongly C+ yellow-orange; the distinctly convex apothecia that are grey-pruinose. The development of small, fruticose forms of *L. swartzii* from the predominantly crustose form is commented on by Lumbsch & Feige (1994).

## DISTRIBUTION

**South Island:** Otago (Old Man Range, Manorburn, Poolburn Reservoir, Teviot River near Lake Onslow, Rock & Pillar Range). Still very poorly known and collected in New Zealand.

Known also from upland Britain, high mountains of Europe including Sardinia, Scandinavia, North America and from alpine habitats in SE Australia and Tasmania.

## HABITAT

Beneath overhanging surfaces and on roofs and steeply sloping sides of underhangs and dry caves of high-alpine rocks, especially of schist. Often occurring with other saxicolous lichens such as *Caloplaca lutea*, *Lecanora cavicola*, *L. polytropa*, *L. rupicola*, pale greenish forms of *Protoparmelia badia*, *Ramalina fimbriata*, *Rhizocarpon geographicum* and *R. grande* (Galloway 2002).



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## DETAILED DESCRIPTION

**Thallus** in spreading rosettes, 0.5–2.5(–3) cm diam., continuous to somewhat effuse at margins, cracked–areolate centrally, often becoming clumped–caespitose to subfruticose, uneven or wrinkled, white, grey-white to grey-brown, surface smooth to roughened, strongly C+ yellow-orange (containing sordidone). Prothallus white, byssoid, C+ yellow-orange. **Apothecia** clustered centrally, (0.1–)0.5–1(–1.5) mm diam., immersed at first becoming sessile and soon distinctively convex, strongly constricted at base, or often at the tips of subfruticose stalks, rounded to angular, separated by deep cracks, or conglomerate, the apothecia rather easily detached from thallus, thalline margin narrow, very slightly raised, entire, flexuous, at length becoming excluded, concolorous with thallus or darker; disc convex, often strongly so, yellow-brown to brown-black, shining, densely grey-pruinose appearing bluish (C+ yellow). Epithecium colourless to olive-greenish, inspersed with granules. Hymenium 60–85 µm tall; paraphyses simple, 2–2.5 µm wide, apices slightly thickened. **Ascospores** ellipsoidal, (9–)10–12(–14) × 5–6(–7) µm. **Chemistry:** Thallus: C+ yellow or orange, KC+orange; apothecial margins C+ yellow or orange, KC+ orange, PD–; apothecial discs C+ yellow or orange, KC+ orange; containing sordidone, thiophanic acid, roccellic acid and atranorin. Lumbsch & Elix (2004: 58) give the chemistry as atranorin (major), roccellic acid (major), sordidone (major), chloroatranorin (minor) and eugenitol (minor).

## SIMILAR TAXA

*Lecanora rupicola* is similar but *L. swartzii* is characteristic of dry, shaded caves or underhangs and is not found in exposed, sunny situations where *L. rupicola* mainly occurs. It is also distinguished from *L. rupicola* by the C+ yellow-orange reaction (sordidone) of the thallus (*L. rupicola* has sordidone only in the apothecial discs).

## SUBSTRATE

Saxicolous

## ATTRIBUTION

Fact sheet prepared by Melissa Hutchison (31 August 2021). Brief description, Distribution, Habitat, Features, and Similar Taxa sections copied from Galloway (2007).

## REFERENCES AND FURTHER READING

Galloway D.J. 2002: Notes on high-alpine species of *Lecanora* from schist underhangs in southern New Zealand, and a new name for *L. parmelinoides*. *Australasian Lichenology* 51: 20-32.

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

Lumbsch H.T. & Elix J.A. 2004: *Lecanora*. *Flora of Australia* 56A: 12-62.

Lumbsch H.T. & Feige G.B. 1994: Comments on the exsiccata "Lecanoroid Lichens" II. *Mycotaxon* 52: 429-442.

## MORE INFORMATION

<https://www.nzpcn.org.nz/flora/species/lecanora-swartzii/>