

Arthrorhaphis alpina

COMMON NAME

Alpine dot lichen

SYNONYMS

Lecidea flavovirescens var. *alpina*

FAMILY

Arthrorhaphidaceae

AUTHORITY

Arthrorhaphis alpina (Schaer.) R.Sant.

FLORA CATEGORY

Lichen – Native

ENDEMIC TAXON

No

ENDEMIC GENUS

No

ENDEMIC FAMILY

No

STRUCTURAL CLASS

Lichens - Crustose

CURRENT CONSERVATION STATUS

2018 | Not Threatened | Qualifiers: SO

BRIEF DESCRIPTION

Characterised by the compact, squamulose-lobate (often hollow at the apices) thallus which is generally free of soredia (except in some sheltered situations), by calcium oxalate crystals in the medulla, by shorter acicular ascospores than *A. citrinella*, the ascospores generally not lying at the same height in the ascus.

DISTRIBUTION

North Island: Wellington (Mt Ruapehu). **South Island:** Nelson (Mt Arthur, St Arnaud Ranges, Wairau Valley), Canterbury (Mt Sebastopol), Otago (N Huxley Valley, Mt Cargill). **Campbell Island:** (Mt Honey, Mt Lyall).

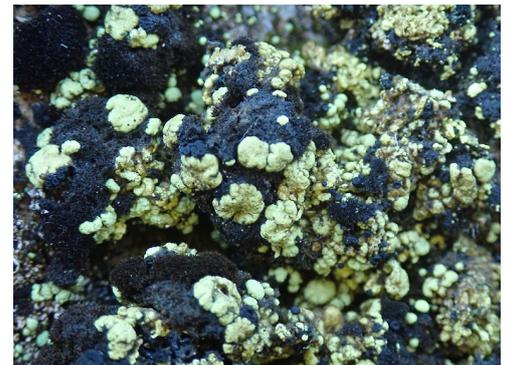
Widely distributed in the Northern Hemisphere where it is a circumpolar, arctic-alpine species. It has a rather restricted occurrence in the Southern Hemisphere being known from alpine regions of New South Wales in Australia, from Tasmania, Mt Wilhelm in Papua New Guinea in summit tundra at 4900 m, from Hawai'i and from the E coast of the Antarctic Peninsula. Recently reported from Campbell Island, and the South Shetland Islands.

HABITAT

On soil in alpine fellfield.



Lake Ida, Canterbury. Photographer: Melissa Hutchison, Date taken: 26/07/2020, Licence: CC BY-NC.



Lake Ida, Canterbury. Photographer: Melissa Hutchison, Date taken: 26/07/2020, Licence: CC BY-NC.

DETAILED DESCRIPTION

Thallus squamulose-lobulate, irregularly spreading, 0.5–3(–5) cm diam., muscicolous-terricolous. **Squamules** 0.2–5 mm diam., round to irregular, convex, swollen, scattered, discrete to ±crowded-congested, plicate, ±cerebriform or areolate-imbricate, often hollow in apical parts, vivid yellow-green, yellow to sordid yellow-brown or ±blackened in parts, surface matt, somewhat roughened, minutely crazed with fine black lines (×10 lens), soredia generally absent, present in some specimens from sheltered habitats. **Apothecia** moderately common, sessile, 0.5–3 mm diam., solitary to 5–6-conglomerate, developed at margins of squamules, or sometimes in discrete, scattered clumps independent of thalline squamules, round to somewhat irregular, at first slightly immersed between squamules, soon becoming convex and at maturity ±convex-convolute and projecting above squamules, marginate at first, then immarginate, disc black, matt, epruinose, slightly roughened, plane at first, soon convex and at maturity markedly rugose-plicate. Epithecium densely granular, greenish black, pigment dissolving in K, 25–35 µm thick. **Hymenium** 124–145 µm tall, opaque, appearing finely granular, pale straw-coloured to grey-brown. **Asci** narrowly clavate, tapering at foot, 90–145 × 9.11.5 µm. **Ascospores** colourless, 7–12(–14)-septate, acicular, apices tapering, pointed (55–)60–75(–85) × 2.5–4 µm.

Chemistry: Rhizocarpic acid, epanorin and unidentified pigments.

SIMILAR TAXA

Has shorter acicular ascospores than *Arthrorhaphis citrinella*.

SUBSTRATE

Terricolous

ETYMOLOGY

alpina: From the Latin alpes 'the Alps', refers to plants growing in mountainous areas

ATTRIBUTION

Fact sheet prepared by Melissa Hutchison (29 December 2021). Brief description, Distribution, Habitat, and Features sections copied from Galloway (1985, 2007).

REFERENCES AND FURTHER READING

Galloway D.J. 1985: *Flora of New Zealand: Lichens*. Wellington: PD Hasselberg, Government Printer. 662 pp.
Galloway D.J. 2007: *Flora of New Zealand: Lichens, including lichen-forming and lichenicolous fungi*. 2nd edition. Lincoln, Manaaki Whenua Press. 2261 pp.

MORE INFORMATION

<https://www.nzpcn.org.nz/flora/species/arthrorhaphis-alpina/>