

# Dufourea ligulata

## COMMON NAME

Strap flame lichen

## SYNONYMS

*Parmelia aurea*, *Physcia ligulata*, *Xanthoria ligulata*

## FAMILY

Teloschistaceae

## AUTHORITY

*Dufourea ligulata* (Körb.) Frödén, Arup & Søchting

## FLORA CATEGORY

Lichen – Native

## ENDEMIC TAXON

No

## ENDEMIC GENUS

No

## ENDEMIC FAMILY

No

## STRUCTURAL CLASS

Lichens - Foliose

## CURRENT CONSERVATION STATUS

2018 | Not Threatened | Qualifiers: SO

## BRIEF DESCRIPTION

Characterised by the saxicolous habit; a rosette-forming to irregularly spreading thallus developed on saxicolous substrata; lobes are subdichotomously to irregularly branched, mainly convex, 0.1–1.2(–1.6) mm wide, 3–5(–8) mm long,  $\pm$ discrete at margins, often widely separated to  $\pm$ contiguous, imbricate centrally; margins are entire, noticeably downturned, apices rounded or shallowly incised, somewhat thickened, often with small, sparse to numerous, subapical lobules or branchlets; and the upper surface is matt, smooth or  $\pm$ scabrid in parts, coarsely undulate-plicate, coriaceous not faveolate or pitted, deep yellow to orange or orange-red. Varies quite widely in thallus size but less so in other main characters.

## DISTRIBUTION

**Kermadec Islands:** (Milne Islet, Macauley Island, Raoul Island). **North Island:** Three Kings Islands to Wellington (Pencarrow Head). **South Island:** Nelson to Southland (Howell's Point). **Stewart Island:** (Christmas Village to Port Pegasus). **Chatham Islands. Snares Islands. Auckland Islands.**

## HABITAT

A high-light species, most commonly found on coastal rocks (rarely on driftwood) above high-tide level where it forms a conspicuous yellow zone above a white lichen zone (dominated by *Pertusaria* and *Rinodina*) and where it associates with species of *Caloplaca*, *Phaeophyscia* and *Heterodermia* (the latter mainly in northern coastal habitats). It also occurs inland in Central Otago at 600 m on schist rock. It also colonises concrete, roof tiles, fibrolite, brick and mortar.

It is an Australasian species very widely distributed in New Zealand from the Kermadecs and Three Kings Island groups in the north to Fiordland, Stewart Island, the Snares Islands and Auckland Islands in the south, with a latitudinal range from 29°15's to 47°13's.

Also known in many coastal habitats in Australia and possibly more widely distributed in the South Pacific.



Ōtamahua/Quail Island, Canterbury.  
Photographer: Melissa Hutchison, Date taken:  
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Ōtamahua/Quail Island, Canterbury.  
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## DETAILED DESCRIPTION

**Thallus** foliose, spreading, closely attached, rosette-forming to ± irregular, 1-3(-5) cm diam., saxicolous. **Lobes** subdichotomously to irregularly branched, mainly convex, 0.1-1.2(-1.6) mm wide, 3-5(-8) mm long, 100-300(-450) µm thick, ± discrete at margins, often widely separated, to ± contiguous, imbricate centrally, margins entire, noticeably downturned, apices rounded or shallowly incised, somewhat thickened, often with small, sparse to numerous, subapical, adventitious globose lobules or branchlets. Upper surface matt, smooth or minutely roughened or ± scabrid in parts, coarsely undulate-plicate, coriaceous, not pitted or faveolate, deep yellow to orange, rarely orange-red. **Lower surface** white at margins, pale pinkish-buff or brownish centrally, glossy or dull, wrinkled-puckered, sparsely rhizinate. **Rhizines** rare, short, pale brownish-pink or blackened, less than 0.1 mm long, fasciculate. **Apothecia** sparse to numerous, mainly central, solitary or clustered, rounded or irregularly deformed through mutual pressure, 0.1-2.0 mm diam., innate at first, slowly emergent with a thick, rounded rim, becoming sessile, disc concave at first, often hidden by inflexed margins, normally plane to subconvex-undulate at maturity, deep orange to orange-red, darker than margins or thallus, minutely roughened, margins persistent, entire to subcrenulate, inflexed at first, thinner at maturity, concolorous with thallus. **Hymenium** colourless, 50-65 µm tall. Apices of paraphyses clavate, to 6-7 µm diam. **Ascospores** (10-)12-15 × 6.5-9 µm.

## SIMILAR TAXA

Distinguished from *Xanthoria parietina* in the thicker, usually narrower, convex lobes which are often marginally lobulate, the upper surface is coriaceous and never pitted or faveolate, the apothecia initially are obviously innate, with rounded smooth margins. It is also apparently restricted to maritime rocks and is not known from bark. The relationship of *D. ligulata* to the corticolous *Xanthoria filsonii* (Elix 1988) still needs detailed study.

## SUBSTRATE

Saxicolous, corticolous (rarely on driftwood), artificial surfaces (concrete, roof tiles, fibrolite, brick, mortar)

## ATTRIBUTION

Fact sheet prepared by Melissa Hutchison (29 November 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/dufourea-ligulata/>