

# Pseudocyphellaria faveolata

## SYNONYMS

*Crocodia cellulifera*, *Diphanosticta cellulifera*, *Lobaria billardierei* var. *cellulifera*, *Pseudocyphellaria cellulifera*, *Pseudocyphellaria condensata*, *Sticta billardierei* var. *cellulifera*, *Sticta cellulifera*, *Sticta condensata*, *Sticta elatior*, *Sticta fossulata* var. *cellulifera*, *Sticta faveolata*, *Sticta foveolata* var. *cellulifera*, *Sticta lorifera*

## FAMILY

Peltigeraceae

## AUTHORITY

*Pseudocyphellaria faveolata* (Delise) Malme

## 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 linear-elongate, narrow to broad lobes that are dichotomously to irregularly branched and with divergent, blunt or acute apices; entire, thickened margins with prominent, raised, verruciform white pseudocyphellae; a coriaceous, waxy, reticulate-faveolate upper surface without isidia, maculae, phyllidia, pseudocyphellae or soredia; a white medulla; a green photobiont; a dark-brown to black lower surface with scattered white or creamish pseudocyphellae; marginal apothecia with a dark red-brown to black disc that is white-pruinose at first; a dark grey-brown epithecium turning vinous-purple in K; and a complex chemistry of depsides, hopane triterpenoids and depsidones, with physciosporin as a characteristic compound.

## DISTRIBUTION

**North Island:** Northland (Puketi Forest) to Wellington. **South Island:** Nelson to Southland. **Stewart Island:** (North coast to Port Pegasus). **Snares Islands, Auckland Islands. Campbell Island.** Throughout. Also known from Australia (southern Victoria and Tasmania) and from southern South America.

## HABITAT

Widespread and common occupying many habitat niches from windswept coastal scrub, lowland coastal forest, beech forest, mixed beech-podocarp forest, subalpine scrub close to or above treeline, to successional vegetation in disturbed sites. It is common on both bark and twigs, being especially well developed in open forest habitats (close to margins of standing forest) in high-rainfall areas, and is more commonly collected from southern and western localities. It is a moderately photophilous species and does not tolerate deep shade. It appears to be an obligate epiphyte and is not known from rocks and soil, although it will attach to ferns.



Corticolous on montane ridge forest, Coromandel. Photographer: Marley Ford, Date taken: 03/10/2020, Licence: CC BY-NC.



Thallus underside of corticolous specimen on montane ridge forest, Coromandel. Photographer: Marley Ford, Date taken: 03/10/2020, Licence: CC BY-NC.

## DETAILED DESCRIPTION

**Thallus** ± orbicular to spreading, often forming extensive, entangled clones, loosely attached, to 25 cm diam., or larger. **Lobes** very variable ± rounded, irregular or linear-laciniate and ± subdichotomously branched, margins entire, often with raised, verruciform, white pseudocyphellae, apices blunt, notched or furcate, often complex-imbricate centrally, ± discrete at margins. **Upper surface** bright lettuce-green, olive-green to greenish- or yellowish-brown, sometimes superficially blackened, distinctly and regularly reticulate-faveolate, smooth, waxy, without soredia, isidia, phyllidia or pseudocyphellae. **Photobiont** green. **Medulla** white. **Lower surface** bullate, ridged, with a narrow, glabrous marginal zone at apices, ± densely and uniformly tomentose to margins in older lobes, tomentum felted, brown or black, rarely pale buff or whitish. **Pseudocyphellae** verruciform, raised above tomentum, with a conspicuous, inflated, smooth, fawn or buff, waxy margin, decorticate area flat, small, white or occasionally yellowish. **Apothecia** marginal and laminal, most commonly developed towards lobe apices, 2-5 mm diam., disc matt, black or dark reddish-brown, concave to convex, often white-pruinose when young, margins pale, whitish or greyish, prominent, inflexed at first, becoming denticulate and excluded with age, thalline exciple pale to red-brown, minutely verrucose-areolate, to white- or brown-tomentose. **Ascospores** brown, polaribilocular, fusiform-ellipsoid, (20-) 24-33 × 10-14 µm.

**Chemistry:** Methyl viresate, physciosporin, hopane-6 $\alpha$ ,7 $\beta$ ,22-triol, stictic, norstictic (tr.), cryptostictic and constictic acids.

## SIMILAR TAXA

It is distinguished from *P. carpoloma* which has yellow pseudocyphellae and a different chemistry, from *P. rufovirescens* which has a glabrous lower surface, white, fleck-like pseudocyphellae and red-brown apothecia and a differing chemistry and from *P. billardieri* by differences in lobe margins (in *P. billardieri* these are smooth and never with pseudocyphellae) apothecia (red-brown to black but never pruinose in *P. billardieri*) morphology of the pseudocyphellae and texture of the tomentum. The chemistry of *P. billardieri* also differs from *P. faveolata*.

## SUBSTRATE

Corticolous

The great variation in lobe morphology shown by *P. faveolata*, (possibly a response to differing ecological conditions, although there is no corresponding chemical variation) has resulted in an extensive synonymy with the taxa *Sticta cellulifera* Hook.f. & Taylor, *S. impressa* J.D. Hook. et Taylor, *S. physcopsora* Nyl., *S. lorifera* Stirton and *Sticta elatior* Stirt. being described between 1844 and 1900 for this polymorphic species. An excellent drawing (by Walter Fitch) of the round-lobed form (as *Sticta faveolata* var. *cellulifera* Church. Bab.) showing the deep faveolation, marginal, verruciform pseudocyphellae and the characteristic morphology of the pseudocyphellae of the lower surface with thick tomentum to margins, is given in Babington (loc. cit., pl. CXXIV).

## ATTRIBUTION

Fact sheet prepared by Marley Ford (2 February 2022). Brief description, Distribution, Habitat, Features and Similar taxa sections copied from Galloway (1985) & Galloway (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/pseudocyphellaria-faveolata/>