

Pseudocyphellaria hookeri

FAMILY

Lobariaceae

AUTHORITY

Pseudocyphellaria hookeri (C.Bab.) D.J.Galloway & P.James

FLORA CATEGORY

Lichen – Native

ENDEMIC TAXON

Yes

ENDEMIC GENUS

No

ENDEMIC FAMILY

No

STRUCTURAL CLASS

Lichens - Foliose

CURRENT CONSERVATION STATUS

2018 | At Risk – Naturally Uncommon | Qualifiers: Sp

BRIEF DESCRIPTION

A faveolate species with a blue-green photobiont. The upper cortex gives a C+ red reaction.

DISTRIBUTION

North Island: North Auckland to Wellington. **South Island:** Nelson. Mainly a northern species, which is only rarely collected in Nelson.

HABITAT

Characteristic of shaded, humid habitats and is often densely developed on regenerating kahikatea (*Dacrycarpus dacrydioides*) twigs.

DETAILED DESCRIPTION

Thallus ± orbicular, 5-10(-15) cm diam., ± loosely attached, margins ± free. **Lobes** broadly laciniate or ± rounded, 10-20 diam., margins entire or variously notched or incised. **Upper surface** slate-blue to brownish-black, conspicuously white-maculate (×10 lens) when wet, conspicuously and often densely reticulate-faveolate, ridges pale (free of algae), smooth or sharp, faveolations deep, matt or glossy, smooth or wrinkled, often suffused brownish centrally, without isidia, soredia or pseudocyphellae. **Medulla** white. **Photobiont** blue-green. **Lower surface** pale buff or whitish with a ± uniform, short, stiff, brownish tomentum, tomentum in short, discrete bundles, wrinkled-bullate, glabrous at margins. Pseudocyphellae white, frequent, raised, verruciform, with a naked, white, waxy margin, 0.05-0.2 mm wide, exposed hyphae in small, punctiform depression. **Apothecia** ± frequent, sessile to subpedicellate, 1-8 mm diam., concave to plane at first becoming irregularly convex with age, disc black, matt, epruinose, minutely granular, ± shining, margins pale, thin, inflexed, crenulate, thalline exciple concolorous with thallus, smooth or minutely verrucose. **Ascospores** oblong-ellipsoid, polaribilocular, brown, (20-)23-25(-30) × 8-11 µm.

Chemistry: Cortex C+ red. Hopane-6 α ,7 β ,22-triol, tenuiorin, methyl evernate, methyl lecanorate, methyl gyrophorate, gyrophoric, stictic, norstictic and constictic acids.



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SIMILAR TAXA

It is related to *P. montagei* and *P. durietzii*. It is distinguished from *P. durietzii* by the blue-green photobiont and the brown tomentum of the lower surface, however the two species are very closely related chemically and morphologically. Photosymbiodemes between *P. hookeri* and *P. durietzii* were discovered by Drs T.G.A. Green and A.L. Wilkins (Waikato University). *P. montagnii* differs in the closely appressed habit (*P. hookeri* is usually only attached centrally and is free and \pm subsascent at margins), the pale buff, sparsely tomentose lower surface with pale yellowish, insignificant, sparse pseudocyphellae, and also marginal and laminal phyllidia and phyllidiate apothecial margins.

Discussing the species, Babington (loc. cit., p. 282) states "... the plant is, after all, far more nearly allied to *S. anthraspis* Ach., which we refer to *S. faveolata* but the lobes are not, as it seems, corniculate, and the apothecia are much larger and more free. The apothecia are in their very infancy closed, but very soon become remarkably open and free, almost stipitate; the thalline excipulum (which is often corrugated outside) is polished towards the edge, and this is so extremely fine that the disc appears to have no distinct margin. The thallus also shows some slight symptoms of becoming isidiophorous, with sooty processes; but these do not assume a distinct coralline form, as in *S. sylvatica*. The upper and under lobes have a strong tendency to adhere to each other, so as to become absolutely united at certain points, and not to be separated without rupturing the thallus..."

SUBSTRATE

Corticolous

ETYMOLOGY

hookeri: Named after Sir Joseph Dalton Hooker (born 1817) - a world famous botanist who travelled on the Antarctic expedition of 1839 under the command of Sir James Ross and wrote "Handbook of New Zealand Flora" published in 1864-67 describing many specimens sent to Kew by collectors. He died in 1911 and has a memorial stone at Westminster Abbey London.

ATTRIBUTION

Fact sheet prepared by Marley Ford (5 August 2021). Brief description, Distribution, Habitat, Features and Similar taxa sections copied from Galloway (2007).

REFERENCES AND FURTHER READING

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-hookeri/>