

Physcia jackii

SYNONYMS

P. stellaris sensu Galloway (1985: 394), auct. non (L.) Nyl.

FAMILY

Physciaceae

AUTHORITY

Physcia jackii Moberg

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 corticolous habit; the neat, rosette-forming thallus; abundant, central apothecia; and the K–/K+ yellow medulla; a chemistry comprising atranorin (cortex) and zeorin (medulla).

DISTRIBUTION

North Island: South Auckland (Thames, Coromandel Peninsula, Raglan, Hamilton), Taranaki (Waipapa, Mt Taranaki), Wellington (Rangitikei, Feilding). **South Island:** Nelson (Foxhill), Marlborough (Seddon, Hapuku River), Westland (Otira Gorge), Canterbury (Waikari, Banks Peninsula, Mt Somers, Peel Forest, Kelsey's Bush), Otago (Makarora, Glenorchy, Herbert, Broad Bay Otago Peninsula, Whare Flat, Akatore), Southland (Otautau, Queen's Park Invercargill, Awarua). **Stewart Island:** (Traill Park, Butterfield's Beach Moturau Moana).

Known also from Australia and South Africa).

HABITAT

On twigs and bark of trees and shrubs.



Bankside Reserve, Canterbury Plains.
Photographer: Melissa Hutchison, Date taken: 27/10/2020, Licence: CC BY-NC.



Lows Cutting, Rakaia River. Photographer:
Melissa Hutchison, Date taken: 12/09/2020,
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DETAILED DESCRIPTION

Thallus orbicular, rosette-forming to irregularly spreading (encircling twigs), closely attached from margins to centre, 1–2(–7) cm diam. **Lobes** plane to convex, 0.5–2(–3) mm wide, 3–5(–8) mm long, adjacent to loosely imbricate at apices, densely and complexly imbricate centrally, often also secondarily lobulate or hummocky centrally.

Margins entire, shallowly notched, incised or scalloped, not noticeably thickened below. **Upper surface** pale greenish grey or blue-grey when moist, grey-white to creamish when dry, smooth to minutely granular–crystalline ($\times 10$ lens), occasionally minutely maculate centrally ($\times 10$ lens), epruinose, esorediate. **Lower surface** whitish at margins to pale-buff or creamish centrally, smooth, rhizinate. **Rhizines** sparse to frequent, simple to squarrose-branched (especially at apices), white to pale-tan, 0.4–1 mm long. **Apothecia** laminal, at centre of thallus, frequent, crowded–congested, sessile, constricted at base, rounded or contorted through mutual pressure, (0.2–)0.5–1(–2) mm diam., thalline exciple persistent, concolorous with thallus, entire, smooth to crenulate–striate, disc plane, matt, dark brown-black, with or without a fine, grey-white, delicately farinose pruina. **Epithecium** yellow-brown to chestnut-brown, 12.5–18 μm thick. **Hymenium** colourless, 100–112.5 μm tall. Hypothecium pale yellow-brown, opaque, of densely interwoven hyphae. **Ascospores** grey-brown, Physcia-type, (20–)22–25(–27.5) \times 7.5–10 μm . **Pycnidia** sparse or absent, to numerous when present, immersed in thallus and visible as black dots. **Conidia** subcylindrical, 4–5 \times 1 μm .

Chemistry: Cortex K+ yellow; medulla K– or + yellow; containing atranorin and zeorin.

SIMILAR TAXA

New Zealand material is very uniform chemically and also morphologically. The rather smooth, emaculate upper cortex and the crowded, central apothecia have led to the New Zealand material formerly being identified as *P. stellaris*. However, true *P. stellaris* lacks zeorin in the medulla, and no New Zealand collection formerly identified as *P. stellaris* has atranorin alone in acetone extracts.

SUBSTRATE

Corticolous (bark, twigs)

ATTRIBUTION

Fact sheet prepared by Melissa Hutchison (12 February 2022). Brief description, Distribution, Habitat, Features, and Similar taxa sections copied from 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/physcia-jackii/>