

Xanthoparmelia substrigosa

SYNONYMS

Parmelia substrigosa

FAMILY

Parmeliaceae

AUTHORITY

Xanthoparmelia substrigosa (Hale) Hale

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/terricolous habit; the loosely adnate thallus; broadly sinuous lobe margins; a pale-brown to dark brown-black lower surface with very dense, brush-like simple to dichotomously branched rhizines; and norstictic acid in the medulla.

DISTRIBUTION

North Island: Hawke's Bay (Taradale, near Napier). **South Island:** Marlborough (Wairau River mouth, Saxton Pass), Canterbury (Waipara, Wakari, Amberley, Sockburn, Harewood near Christchurch, Gebbie's Pass, Banks Peninsula, Duvauchelle), Otago (Wanaka, Manorburn Reservoir Alexandra, Otematapaio River, Kyeburn).

Australasian. Known also from upland areas of southern and eastern Australia and Tasmania.

HABITAT

On rocks and soil in grassland.

DETAILED DESCRIPTION

Thallus foliose, lobate, loosely or ± evenly attached, to 10 cm diam. **Lobes** variable, linear-elongate, 3-8 mm wide, variously incised and divided, often imbricate, margins entire or slightly notched or incised, black, shining, occasionally eroded by amphipods, not ascending at apices. **Upper surface** yellowish-green, smooth, shining at margins, wrinkled, cracked centrally, isidia, maculae and soredia absent. **Lower surface** brown or tan, or whitish, darker centrally, wrinkled, papillate, often shining, ± densely rhizinate. **Rhizines** brown to brown-black or reddish-brown, simple, with ± squarrose, anchoring tufts at apices. **Apothecia** occasional to frequent, subpedicellate, to 12 mm diam., disc red-brown, concave to plane, imperforate, margins entire or crenulate, concolorous with thallus, thalline exciple smooth. **Pycnidia** common in fertile plants, often dense centrally, clustered, black, pustular.

Chemistry: Cortex K–; medulla K+ yellow→red, C–, KC+ red, Pd+ orange; containing norstictic acid (major), connorstictic, ±salazinic, ±consalazinic and usnic acids.



Dry grassland, West Melton, Christchurch.
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Dry grassland, West Melton, Christchurch.
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SIMILAR TAXA

Xanthoparmelia substrigosa is distinguished from *X. tasmanica* chemically, and by the brown or pale lower surface, the squarrose tufts anchoring the rhizines to the substrate (?possibly important in soil consolidation in some areas), and by the wrinkled upper surface often with pustular, papillate pycnidia.

SUBSTRATE

Saxicolous, terricolous

ATTRIBUTION

Fact sheet prepared by Melissa Hutchison (16 June 2023). Brief description, Distribution, Habitat, Features, and Similar taxa 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/xanthoparmelia-substrigosa/>