

Xanthoparmelia scabrosa

COMMON NAME

Sexy pavement lichen

SYNONYMS

Parmelia scabrosa, *Parmelia scabropustulata*

FAMILY

Parmeliaceae

AUTHORITY

Xanthoparmelia scabrosa (Taylor) 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: Inc, SO

BRIEF DESCRIPTION

Characterised by the saxicolous, lignicolous, corticolous habit; the presence of warty or globose isidia which become subcylindrical and erumpent; a pale-pinkish or -brownish lower surface; and loxodin and norlobaridone in the medulla.

DISTRIBUTION

North Island: Northland (Three Kings Islands) to Wellington. **South Island:** Nelson to Southland. **Stewart Island. Campbell Island.**

Known also from Australia, Papua New Guinea, South America, South Africa and Japan.

HABITAT

Widely distributed (both E and W of the Main Divide), coastal rocks to subalpine and alpine, s.l. to 1900 m, in areas of both high and low rainfall. On rock, soil, decorticated wood, bark, glass, concrete, tile, slate and bitumen (roads, paths, airport runways). Often growing on glass and metal of abandoned cars (Green & Snelgar 1977) and also common on greenhouse glass. In a study in Hamilton, Green (1997) records an estimated annual radial growth rate on glass substrata of 16 mm per year for *X. scabrosa*. Very commonly seen on bitumen paths, and roads in all parts of the country, especially in humid areas, and at perimeters of airfield runways, where it actively accumulates Cu, Pb, S and Zn (Bennett & Wright 2004), the levels of these anthropogenic elements decreasing significantly from urban to rural areas. This species has markedly increased its area of distribution through growth on man-made substrata.



Growing on car, Pureora Taupo. Photographer: Marley Ford, Date taken: 08/01/2022, Licence: CC BY-NC.



Growing on car window, Pureora Taupo. Photographer: Marley Ford, Date taken: 08/01/2022, Licence: CC BY-NC.

DETAILED DESCRIPTION

Thallus foliose, closely attached, rosette-forming or spreading and ± loosely attached, to 8 cm diam. **Lobes** very variable, sublinear-elongate, subdichotomously branched to densely imbricate, complex, margins entire or variously incised, black, shining. **Upper surface** yellowish-green, smooth, shining, moderately to densely isidiate, maculae and soredia absent. **Isidia** small, simple to coralloid-branched, terete to ± pustularscurfy at maturity. **Lower surface** pale brown, pinkish or creamish-white, smooth to subcorrugate. **Rhizines** sparse, simple, pale brown. **Apothecia** very rare, pedicellate, disc to 5 mm diam., matt, red-brown, concave to ± undulate, margins concolorous with thallus, entire to crenate, ± ragged-incised, isidiate. **Pycnidia** not seen.

Chemistry: Cortex K–; medulla K–, C–, KC+ pink, Pd–; containing norlobaridone, norlobariol, loxodin, ±scabrosin 4,4'-diacetate, ±scabrosin 4-acetate 4'-butyrate; ±scabrosin 4,4'-dibutyrate, ±scabrosin 4-acetate 4'-hexanoate, isonorlobaridone (tr.), norlobariol methyl ester (tr.), conloxodin (tr.), conororlobaridone (tr.) and usnic acid.

SIMILAR TAXA

Similar to other members of this genus.

SUBSTRATE

Saxicolous, lignicolous, corticolous, artificial surfaces (e.g. concrete, metal, glass, bricks, tiles, bitumen)

ATTRIBUTION

Fact sheet prepared by Marley Ford (25 February 2022). Brief description, Distribution, Habitat, Features, and Similar taxa sections copied from Galloway (1985, 2007).

REFERENCES AND FURTHER READING

- Bennett, J.P.; Wright, D.M. 2004: Element content of *Xanthoparmelia scabrosa* growing on asphalt in urban and rural New Zealand. *Bryologist* 107: 421–428.
- 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.
- Green, T.G.A. 1997: Growth rates of foliicolous lichens on garden shrubs in New Zealand. *Bibliotheca Lichenologica* 67: 211–220.
- Green, T.G.A.; Snelgar, W.P. 1977: *Parmelia scabrosa* on glass in New Zealand. *Lichenologist* 9: 170–172.

MORE INFORMATION

<https://www.nzpcn.org.nz/flora/species/xanthoparmelia-scabrosa/>