

Parmotrema perlatum

COMMON NAME

Black stone flower

SYNONYMS

Lichen chinensis, Lichen perlatus, Parmelia perlata, Parmotrema chinense

FAMILY

Parmeliaceae

AUTHORITY

Parmotrema perlatum (Huds.) M.Choisy

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/lignicolous/saxicolous habit; the loosely to moderately adnate thallus; submarginal soralia causing lobe margins to become revolute and suberect; and the stictic acid complex in the medulla.

DISTRIBUTION

Noth Island: Northland to Wellington. **South Island:** Nelson to Southland.

Stewart Island. Auckland Islands. Campbell Island.

Cosmopolitan. Occurs throughout the Northern and Southern hemispheres (Wikipedia 2021).

HABITAT

Parmotrema perlatum appears to be one of the most effectively dispersed lichens in New Zealand being an early and common coloniser of sawn and decorticated wood and, together with species of *Ramalina* and *Usnea* soon colonises fenceposts and telegraph poles. It rarely occurs as an epiphyte of standing forest trees but is commonly encountered on the bark of *Leptospermum* and other shrubs on disturbed ground, as well as on introduced trees and shrubs in parks and gardens. The ease of its dispersal and rapidity of growth on decorticated wood substrates and its comparative rarity in undisturbed habitats, particularly in native forests, argue strongly for *P. perlatum* being a highly successful adventive lichen whose range has been greatly increased by man and his activities



Saxicolous on basalt wall. Photographer: Marley Ford, Licence: CC BY-NC.



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DETAILED DESCRIPTION

Thallus orbicular to spreading, loosely attached, 5-15 cm diam., corticolous or saxicolous. **Lobes** rounded, 8-15 mm wide, margins entire, often strongly sinuous, black, shining, ciliate, cilia rather sparse, 0.5-2 mm long. **Upper surface** pale greenish-grey or bluish-grey in damp habitats, to white or greyish-white in exposed habitats, smooth, matt, often wrinkled and usually cracked in older parts, submarginally sorediate. Soralia linear, soon eroding a large area and causing margins to become strongly revolute or capitate-hooded, soredia fine, powdery, white. **Lower surface** black and shining, with a conspicuous dark brown, naked marginal zone. Rhizines central, long, black, simple. **Apothecia** rare, pedicellate, to 6 mm diam., disc concave to \pm plane, matt, pale brown to red-brown, imperforate, margins thick, inflexed, sorediate. **Ascospores** 25-28 \times 16-18 μm . **Pycnidia** occasional, minute, black, punctiform, mainly marginal.

Chemistry: Cortex K+ yellow; medulla K+ persistent yellow, C-, KC-, Pd+ pale orange. Atranorin and stictic acid.

SIMILAR TAXA

Some specimens may resemble *P. reticulatum* and in a number of habitats these two taxa are sympatric; however, *P. reticulatum* has salazinic acid (K+ yellow \rightarrow red), giving a characteristic blood-red reaction.

SUBSTRATE

Corticolous, saxicolous

Parmotrema perlatum is typically used in meat dishes like nihari (paaya), Bombay biryani, and goat meat stews, it is also used in vegetarian dishes (Wikipedia 2021). It is one of the ingredients in East Indian bottle masala, used for cooking meats, fish, and vegetables. In its raw state, black stone flower does not have much taste or fragrance. However, when put in contact with heat, especially cooking oil and ghee, it releases a distinctive earthy, smoky flavour and aroma. This property of black stone flower is especially valued in the tempering step of cooking a number of Indian dishes.

ATTRIBUTION

Fact sheet prepared by Marley Ford (2 September 21). Brief description, Distribution, Habitat, and Features 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.

Wikipedia 2021: https://en.wikipedia.org/wiki/Parmotrema_perlatum. Date accessed: 28 September 2021.

MORE INFORMATION

<https://www.nzpcn.org.nz/flora/species/parmotrema-perlatum/>