Placopsis centrifuga

FAMILY
Trapeliaceae

AUTHORITY
Placopsis centrifuga D.J.Galloway

FLORA CATEGORY
Lichen – Native

ENDEMIC TAXON
Yes

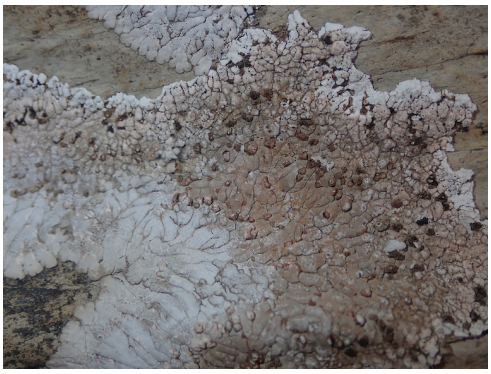
ENDEMIC GENUS
No

ENDEMIC FAMILY
No

STRUCTURAL CLASS
Lichens - Placodioid

CURRENT CONSERVATION STATUS
2018 | Data Deficient | Qualifiers: Sp

On limestone, Thousand Acre Plateau, Kahurangi National Park. Photographer: Marley Ford, Licence: CC BY-NC.



On limestone, Thousand Acre Plateau, Kahurangi National Park. Photographer: Marley Ford, Licence: CC BY-NC.

BRIEF DESCRIPTION
Characterised by eroding bands of thallus 1–4(–7) cm wide, forming single to multiple concentric rings or arcs (up to 50 cm diam., the area within each ring dying and being replaced by new, smaller rings), closely attached to smooth rock, extending at margins and dying centrally; whitish pruina in patches or generally over upper surface; orbicular cephalodia developing in concentric lines or bands towards centre; small, sessile apothecia, 0.5–1 mm diam., scattered among cephalodia; hymenium 180–250 µm tall; ascospores broadly ellipsoidal to oval, 25–27(–28.5) × 13–15 µm.

DISTRIBUTION
South Island: Nelson (Thousand Acre Plateau, Matiri Range, Mokihinui River), Westland (Waitaha River headwaters).
Still very poorly collected.

HABITAT
On smooth greywacke, limestone and calcareous mudstone, in subalpine to high-alpine sites of high rainfall W of the Main Divide.

DETAILED DESCRIPTION

Thallus closely attached, lobate, orbicular at first, growing at margins and dying centrally, forming distinctive concentric circles or arcs to 50 cm diam., individual bands of thallus 1–4(–7) cm wide, margins entire to delicately notched or incised, flabellate, flat to subconvex, without a marginal prothallus. **Lobes** contiguous, parallel, radiating from near centre to periphery, or complexly interlocking, convex, 1–2 mm wide and to 2 cm long, broadening to 3–4 mm at periphery, separated by narrow cracks. **Upper surface** pale olive-greenish when moist, grey-brown to olive-brown when dry, densely to lightly white-pruinose, pruina farinose to crystalline, commonly developed in spots near margins reminiscent of maculae, smooth to shallowly wrinkled, becoming areolate and epruinose centrally, without isidia, pseudocyphellae or soredia. **Medulla** white, visible at dying edge of eroding thalline bands. **Photobiont** green, chlorococcoid, 8–10 µm diam. **Cephalodia** developing in concentric lines or bands near centre, absent from margins, orbicular, 1–3(–5) mm diam., hemispherical and smooth at first, becoming plicate–ridged and with deep radiating cracks at maturity, grey-blue when moist, pale pinkish brown when dry, with or without a thin, white, glistening pruina; cyanobiont Scytonema, in chains, cells compressed, cylindrical to fabiform, 8–10–12.5 µm diam. **Apothecia** scattered centrally among cephalodia, sessile, constricted at base, solitary, round, 0.5–1.0 mm diam., disc concave to plane, pale red-brown, thickly white-pruinose, obscured by margins. **Thalline margin**, persistent, smooth, swollen, concolorous with thallus, white-pruinose and contrasting with disc. **Proper margin** thin, concolorous with disc, slightly raised above level of disc, often somewhat glossy and contrasting with white-pruinose thalline margin. Epithecium pale-brownish, 20–30(–37.5) µm thick. **Hymenium** 180–250 µm tall, colourless; paraphyses slender, septate, unbranched, to 2.5 µm diam., apices not swollen. Hypothecium dilute yellow-brown or orange-brown, densely interwoven, 75–100(–125) µm thick. **Asci** cylindrical, 175–250 × 25–27.7 µm, wall at apex 5–7 µm thick, at sides 1.5–2.5 µm thick. **Ascospores** uniseriate, ovoid to broadly ellipsoidal, apices rounded or with one end pointed, comprising a large vacuole with clear, pale yellowish pink contents surrounded by granular-oily ascoplasm, 25–27(–28.5) × 13–15 µm; wall smooth, 1–1.5 µm thick. Pycnidia widely scattered on surface of lobes, immersed, to 200–250 µm diam.; ostiole punctate-depressed, red-brown. Conidia filiform, curved, 16.5–20 × 0.5 µm.

Chemistry: Thallus K−, C+ red. KC+ red, Pd−; containing gyrophoric acid (major), lecanoric acid (minor) and methyl lecanorate (minor).

SIMILAR TAXA

Placopsis centrifuga differs from *P. fuscidula* (q.v.) in the nature of the thallus (*P. fuscidula* never forms concentric rings of thallus), in the rather denser marginal, maculate pruina, and the larger spores [those of *P. fuscidula* are 17.5–22.5 × 9–12.5 µm]. These characters also distinguish it from *P. pruinosa*.

SUBSTRATE

Saxciolous (limestone)

ATTRIBUTION

Fact sheet prepared by Melissa Hutchison (20 April 2022). 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/placopsis-centrifuga/