

Tuckermannopsis chlorophylla

SYNONYMS

Cetraria chlorophylla, *Lichen chlorophyllus*, *Nephromopsis chlorophylla*, *Tuckermanopsis chlorophylla*

FAMILY

Parmeliaceae

AUTHORITY

Tuckermannopsis chlorophylla (Willd.) Hale

FLORA CATEGORY

Lichen – Native

ENDEMIC TAXON

No

ENDEMIC GENUS

No

ENDEMIC FAMILY

No

STRUCTURAL CLASS

Lichens - Foliose

CURRENT CONSERVATION STATUS

2018 | Data Deficient | Qualifiers: SO

BRIEF DESCRIPTION

Thallus foliose, lobes narrow, with a pale-brown to greenish, weakly wrinkled or smooth upper surface, and a pale, brownish or blackish lower surface, with sparse rhizhines.

DISTRIBUTION

North Island: Northland (Hihitahi State Forest). **South Island:** recently discovered in Canterbury (Banks Peninsula). Apparently rare but very little is known about this species in New Zealand.

HABITAT

Found on *Dacrydium cupressinum* in Hihitahi State Forest. Recently found in red beech (*Fuscopora fusca*) forest on Banks Peninsula (Hutchison 2019).



Stony Bay, Hinewai Reserve, Banks Peninsula.
Photographer: Melissa Hutchison, Date taken:
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Stony Bay, Hinewai Reserve, Banks Peninsula.
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DETAILED DESCRIPTION

Thallus foliose to subfoliose, loosely adnate on bark. Lobes moderately broad, c.1–4 mm wide, slightly canaliculate, with scattered marginal cilia. **Upper surface** pale-brown to greenish, weakly wrinkled or ±smooth, with scattered pseudocyphellae, upper cortex of paraplectenchymatous hyphae. **Lower surface** pale-tan, brownish or blackish, with sparse rhizines. **Ascomata apothecia**, developed at margins. **Asci** small, uniseriate, cylindrical, c. 30 × 8 µm; tholus small, ocular chamber cylindrical and broad, axial body rather distinctive and broad. **Ascospores** globose to subglobose, c.4–8 × 4–8 µm. **Conidiomata pycnidia**, marginal, raised, wall one-layered, pigmented, no cortical tissue beneath, conidia bifusiform, rarely filiform, c. 5–6 × 1–2 µm.

Chemistry: Atranorin in the cortex and alectoronic, α-collatolic, microphyllic, physodic and protolichesterinic acids in the medulla (Kärnefelt & Thell 2001).

Tuckermanopsis is a genus of small-lobed foliose taxa in the family Parmeliaceae, often classified with *Cetraria*. The genus is best developed in the Northern Hemisphere (North America, Japan, E Asia), where it has a boreal-montane distribution, and comprises c.10 taxa worldwide, being known from North America; eastern Asia, Japan, Southern South America and Tasmania. The systematic position of the genus is discussed by Kärnefelt *et al.* (1992, 1993), Thell (1998) and Kärnefelt & Thell (2001). On the basis of ITS sequence data, *Tuckermanopsis* is regarded as polyphyletic, composed of three or more groups of different origins (Thell *et al.* 2004). It was recently monographed (Kärnefelt & Thell 2001).

SIMILAR TAXA

Cetraria

SUBSTRATE

Corticolous

ATTRIBUTION

Fact sheet prepared by Melissa Hutchison (25 June 2021). Information in the 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.
- Hutchison M. 2019: iNaturalist observation of *Tuckermanopsis chlorophylla*. <https://inaturalist.nz/observations/35845996>
- Kärnefelt I., Mattsson J.-E. and Thell A. 1992: Evolution and phylogeny of cetrarioid lichens. *Plant Systematics and Evolution* 183: 113–160.
- Kärnefelt I., Mattsson J.-E. and Thell A. 1993: The lichen genera *Arctocetraria*, *Cetraria*, and *Cetrariella* (Parmeliaceae) and their presumed evolutionary affinities. *Bryologist* 96: 394–404.
- Kärnefelt E.I. and Thell A. 2001: Delimitation of the lichen genus *Tuckermannopsis* Gyeln. (Ascomycotina, Parmeliaceae) based on morphology and DNA sequences. *Bibliotheca Lichenologica* 78: 193–209.
- Thell A. 1998: Phylogenetic relationships of some cetrarioid species in British Columbia with notes on *Tuckermannopsis*. *Folia Cryptogamica Estonia* 32: 113–122.

MORE INFORMATION

<https://www.nzpcn.org.nz/flora/species/tuckermannopsis-chlorophylla/>