

Hymenophyllum lyallii

COMMON NAME

filmy fern

SYNONYMS

Sphaerocionium lyallii (Hook. f.) Hook. et Barker; *Trichomanes lyallii* (Hook.f.) Hook. ex Hook. et Baker;

FAMILY

Hymenophyllaceae

AUTHORITY

Hymenophyllum lyallii Hook. f.

FLORA CATEGORY

Vascular – Native

ENDEMIC TAXON

No

ENDEMIC GENUS

No

ENDEMIC FAMILY

No

STRUCTURAL CLASS

Ferns

NVS CODE

HYMLYA

CHROMOSOME NUMBER

$2n = 72$

CURRENT CONSERVATION STATUS

2017 | Not Threatened | Qualifiers: SO

PREVIOUS CONSERVATION STATUSES

2012 | Not Threatened

2009 | Not Threatened

2004 | Not Threatened

DISTRIBUTION

Indigenous. New Zealand: North Island (from the Mangamuka Range and Ahipara south but mostly westerly and uncommon in the southern North Island), South Island, Stewart Island/Rakiura, Chatham Islands, Auckland Islands. Also Australia.

HABITAT

Lowland to montane (mostly montane in northern part of range). Usually epiphytic (rarely on rocks or mosses banks) on tree fern trunks, or at the base of trees in cloud forest, or in root and trunk caves.



Tokatea, Coromandel. Photographer: John Smith-Dodsworth, Licence: CC BY-NC.



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DETAILED DESCRIPTION

Epiphytic (rarely rupestral) diminutive fern. **Rhizome** long creeping, much branched, slender, filiform, 0.1–0.2 mm diameter, dark brown to black, glossy, hairy; hairs red-brown, simple or once-forked. **Frond** lamina 10–50 mm long. **Stipe** 10–70 mm long, filiform, wiry, widely spaced; hairs similar to those of rhizome, tufted near the base, scattered above. **Lamina** flabellate to almost round, divided into dichotomous segments, very rarely simple, deltoid to very broadly obovate or round, 5–40 mm long × 10–30 mm wide, dull green-black to glaucous-black, membranous; conventional laminal blades present. **Ultimate segments** 1–20, opposite, ascending, 0.8–11 mm long × 0.8–1.8 mm wide, glabrous; margins bearing small persistent teeth with fugacious simple or forked hairs. **Sori** marginal, solitary or rarely in pairs, at the apex of the ultimate segments, deeply sunken in the lamina; involucre obcordate or cuneate-obconical, sometimes bilabiate, 0.5–2.3 mm long × 0.8–2.5 mm wide, apex retuse, erose or toothed, each tooth bearing a reddish forked hair; receptacle included.

SIMILAR TAXA

A very distinctive species that is nonetheless occasionally confused with reduced states of *Hymenophyllum flabellatum* (which has flabellate fronds) which has the rhizomes, base of the stipe copiously covered in yellow to yellow-white simple hairs (the same hairs may also be present on the abaxial surface of the fronds (especially immature expanding fronds)) and yellow-green to emerald green pinnae.

LIFE CYCLE

Minute spores are wind dispersed (Thorsen et al., 2009).

PROPAGATION TECHNIQUE

Difficult—should not be removed from the wild

ETYMOLOGY

hymenophyllum: Membranous leaf, from the Greek humen and phullon

lyallii: Named after David Lyall (1817–1895), 19th century Scottish naturalist and surgeon with the Royal Navy, who explored Antarctica, New Zealand, the Arctic and North America and was a lifelong friend of Sir Joseph Hooker.

WHERE TO BUY

Not commercially available

ATTRIBUTION

Fact Sheet Prepared for NZPCN by P.J. de Lange (11 April 2011). Description adapted from Bostock & Spokes (1998) and Brownsey & Smith-Dodsworth (2000).

REFERENCES AND FURTHER READING

Bostock PD, Spokes TM. 1998. Hymenophyllaceae. *Flora of Australia* 48, *Ferns Gymnosperms and allied groups*: 116–148. ABRIS/CSIRO Victoria, Australia.

Brownsey PJ, Smith-Dodsworth JC. 2000. New Zealand Ferns and Allied Plants. David Bateman, Auckland, NZ. 168 p.

Thorsen MJ, Dickinson KJM, Seddon PJ. 2009. Seed dispersal systems in the New Zealand flora. *Perspectives in Plant Ecology, Evolution and Systematics* 11: 285–309. <https://doi.org/10.1016/j.ppees.2009.06.001>.

NZPCN FACT SHEET CITATION

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MORE INFORMATION

<https://www.nzpcn.org.nz/flora/species/hymenophyllum-lyallii/>