Hymenophyllum lyallii

COMMON NAMES
filmy fern

BIOSTATUS
Native

CURRENT CONSERVATION STATUS
2023 | Not Threatened | Qualifiers: SO
Jump to previous conservation statuses

CATEGORY
Vascular

STRUCTURAL CLASS
Ferns

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.



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



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

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.

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.

GENUS
Hymenophyllum

FAMILY
Hymenophyllaceae

AUTHORITY
Hymenophyllum lyallii Hook. f.

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

ENDEMIC TAXON
No

ENDEMIC GENUS
No

ENDEMIC FAMILY
No

LIFE CYCLE AND DISPERSAL
Minute spores are wind dispersed (Thorsen et al., 2009).

PROPAGATION TECHNIQUE
Difficult—should not be removed from the wild

WHERE TO BUY
Not commercially available

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.

NVS CODE
HYMLYA

CHROMOSOME NUMBER
2n = 72

PREVIOUS CONSERVATION STATUSES
2017 | Not Threatened | Qualifiers: SO
2012 | Not Threatened
2009 | Not Threatened
2004 | Not Threatened
Jump to current conservation status

REGIONAL CONSERVATION STATUSES
Auckland: 2025 | Regionally At Risk – Regionally Naturally Uncommon | Qualifiers: DPS, DPT, RR, SO Help
The regional threat classification system leverages off the national assessments in the NZTCS, providing information relevant for the regional context. Auckland conservation status information is sourced from the "Conservation status of vascular plant species in Tāmaki Makaurau / Auckland" Simpkins E et al. (2025) report.

REFERENCES AND FURTHER READING
Bostock PD, Spokes TM. 1998. Hymenophyllaceae. *Flora of Australia 48, Ferns Gymnosperms and allied groups*: 116–148. ABRS/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.

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).

MORE INFORMATION

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

PDF DATE

27 May 2026