

Hymenophyllum bivalve

COMMON NAME

filmy fern

SYNONYMS

Meringium bivalve (G. Forst.) Copel.; Sphaerocionium bivalve (G.Forst.) C.Presl; Trichomanes bivalve G.Forst.; Hymenophyllum pyriforme Bosch; Hymenophyllum spathulatum Colenso

FAMILY

Hymenophyllaceae

AUTHORITY

Hymenophyllum bivalve (G. Forst.) Sw.

FLORA CATEGORY

Vascular – Native

ENDEMIC TAXON

No

ENDEMIC GENUS

No

ENDEMIC FAMILY

No

STRUCTURAL CLASS

Ferns

NVS CODE

HYMBIV

CHROMOSOME NUMBER

2n = 44

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 Campbells Bay (Auckland) south, though scarce north of Waikato), South Island, Stewart Island/Rakiura, Chatham Islands, Auckland Islands. Also Australia (Queensland to New South Wales).

HABITAT

Coastal to montane forest. Either terrestrial or a low epiphyte on tree trunks and exposed roots.



Waikaremoana, October. Photographer: John Smith-Dodsworth, Licence: CC BY-NC.



Waikaremoana, October. Photographer: John Smith-Dodsworth, Licence: CC BY-NC.

DETAILED DESCRIPTION

Delicate, mat-forming terrestrial or low epiphytic fern. **Rhizomes** long-creeping, rather gracile, wiry, pliant, sparsely hairy; hairs dark brown, appressed. **Fronde** pendulous in epiphytic plants otherwise with erect stipes and laminae lying horizontal. **Stipes** well spaced on rhizomes, 30–150–(180) mm long, slender, not-winged ± glabrous (sometimes with sparse hairs near base and apex); rachises narrowly winged throughout. **Laminae** 60–200 × 30–160 mm, light green, ± glabrous, broadly triangular to broadly ovate with apex deflexed, deeply 3–4-pinnate, primary pinnae often up-curved. **Ultimate segments** linear, 0.3–1.5 mm wide, obtuse, margins shallowly toothed. **Sori** numerous, terminating ultimate segments, slightly sunken in lamina, many on each primary pinna. **Involucre** round to ovoid, bilabiate, almost divided almost to base, 0.8–1.5 mm long × 0.5–1.5 mm wide; base cuneate, only slightly immersed; indusial flaps entire, smooth-edged; receptacle included or slightly exserted. (Description adapted from Bostock & Spokes (1998) and Brownsey & Smith-Dodsworth (2000)).

SIMILAR TAXA

Sterile plants are virtually impossible to distinguish from *Hymenophyllum multifidum* but when fertile this species is easily recognised by the much smaller sori which are held horizontally or slightly bent but never bent at 90° to the the frond as in *H. multifidum*. The fronds of *H. bivalve* are slightly larger than those of *H. multifidum*, brighter green, notably less prominently curled downwards, and the margins are more finely and less deeply toothed.

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

WHERE TO BUY

Not commercially available

ATTRIBUTION

Fact sheet prepared for NZPCN by P.J. de Lange (17 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. 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>.

NZPCN FACT SHEET CITATION

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<https://www.nzpcn.org.nz/flora/species/hymenophyllum-bivalve/> (Date website was queried)

MORE INFORMATION

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