

Hymenophyllum multifidum

COMMON NAME

much-divided filmy fern

SYNONYMS

Mecodium multifidum (G. Forst.) Copel.; Hymenophyllum multifidum var. oligocarpum (Colenso) Domin; Trichomanes multifidum G.Forst.; Hymenophyllum multifidum var. truncatum (Colenso) Domin; Hymenophyllum multifidum var. alpinum (Colenso) Domin; Hymenophyllum oligocarpum Colenso; Hymenophyllum truncatum Colenso; Davallia multifidum (G.Forst.) Spreng.; Hymenophyllum alpinum Colenso

FAMILY

Hymenophyllaceae

AUTHORITY

Hymenophyllum multifidum (G. Forst.) Sw.

FLORA CATEGORY

Vascular – Native

ENDEMIC TAXON

Yes

ENDEMIC GENUS

No

ENDEMIC FAMILY

No

STRUCTURAL CLASS

Ferns

NVS CODE

HYMMUL

CHROMOSOME NUMBER

2n = 52

CURRENT CONSERVATION STATUS

2017 | Not Threatened | Qualifiers: SO

PREVIOUS CONSERVATION STATUSES

2012 | Not Threatened

2009 | Not Threatened

2004 | Not Threatened

DISTRIBUTION

Endemic. New Zealand. North Island, South Island, Stewart Island/Rakiura, Chatham Islands, Antipodes Islands, Auckland Islands, Campbell Island/Motu Ihupuku.

HABITAT

Widespread in coastal to montane forest and subalpine scrub. A common ground cover of the forest floor, as well as epiphytic, also common on rock faces, boulders and on shaded rock overhangs.

WETLAND PLANT INDICATOR STATUS RATING

UPL: Obligate Upland

Rarely is a hydrophyte, almost always in uplands (non-wetlands).



Akatarawa. June 1984. Photographer: Jeremy R. Rolfe, Date taken: 16/06/1984, Licence: CC BY.



Stokes Valley, Lower Hutt. Photographer: Jeremy R. Rolfe, Date taken: 19/12/2004, Licence: CC BY.

DETAILED DESCRIPTION

Terrestrial or epiphytic fern often forming thick patches on substrate. **Rhizomes** long-creeping, slender, much branched and interwoven. **Fronde**s bright or dark green. **Stipes** 20–100 mm, slender, glabrous, sometimes winged above; rachises winged throughout. **Laminae** broader than long or elliptic to deltoid, 3–4-pinnate, 30–200 × 15–100 mm, glabrous. **Ultimate segments** linear, margins toothed. **Sori** large and conspicuous, on short segments, 1–several on each primary pinna, usually set at 90° to plane of frond. **Indusium** connate, tubular; flaps margins entire, sometimes also undulose, receptacle usually exerted. (Description adapted from Brownsey & Smith-Dodsworth (2000)).

SIMILAR TAXA

Except for reduced specimens, *Hymenophyllum multifidum* is easily recognised by the deeply toothed pinnae, and prominent sori bent at right-angles to the plane of the frond, by the tubular indusia, entire often undulose indusial flaps and exerted recaptacle. Reduced states can be confused with *Hymenophyllum minimum* which is easily distinguished by the solitary sori terminating the rachises, and by the toothed indusial flaps and spinose abaxial surfaces of the indusia, and from *H. cupressiforme* by the stipe which is only partially winged rather than winged throughout, and by the sori which are bent at right-angles to the plane of the frond. The indusial flaps of *Hymenophyllum cupressiforme* are often slightly 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

multifidum: Much divided; from the Latin multus and findere; the leaf

WHERE TO BUY

Not commercially available

ATTRIBUTION

Fact Sheet Prepared for NZPCN by P.J. de Lange (20 April 2011). Description adapted from Brownsey & Smith-Dodsworth (2000).

REFERENCES AND FURTHER READING

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-multifidum/> (Date website was queried)

MORE INFORMATION

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