

Hymenophyllum pluviatile

COMMON NAME

filmy fern

SYNONYMS

None - first described in 2013

FAMILY

Hymenophyllaceae

AUTHORITY

Hymenophyllum pluviatile Perrie et Brownsey

FLORA CATEGORY

Vascular – Native

ENDEMIC TAXON

Yes

ENDEMIC GENUS

No

ENDEMIC FAMILY

No

STRUCTURAL CLASS

Ferns

CURRENT CONSERVATION STATUS

2009 | At Risk – Naturally Uncommon

PREVIOUS CONSERVATION STATUS

2004 | Sparse

DISTRIBUTION

Endemic. New Zealand: North and South Islands from about the Waima Forest, Hokianga south, and mainly in the west

HABITAT

Coastal to montane. Usually on base-rich rocks in dark but dry places – though often in the vicinity of waterfalls, streams or rivers. Sometimes epiphytic in cloud forest. This species is often found growing with *Hymenophyllum demissum* and *H. flexuosum*.



Flexuose rachis and sori viewed from above. *Pirongia*, from a specimen collected by Peter de Lange. Photographer: Jeremy Rolfe



A posed specimen from *Pirongia* collected by Peter de Lange. Photographer: Jeremy Rolfe

FEATURES

Epiphytic, terrestrial or rupestral ferns. Rhizomes brown, long-creeping, 360–840 microns in diameter, glabrous or with colourless hairs clustered around stipe bases. Stipes brown to dark brown, 30–90 mm long, 330–800 microns in diameter; wings poorly developed, often obvious only in the distal half of the stipe, with each wing usually less than 170 microns wide at mid-stipe and less than 500 microns at the stipe–rachis junction. Laminae 45–130 mm long, 20–67 mm wide; ovate or rarely triangular; apex attenuate to acute; base obtuse to truncate; green; glabrous; planate, or rachis wings and sometimes proximal axes flexuous; 4–5 pinnatifid, with 3–14–19 primary axes bearing quaternary axes, and the basal primary axis with 5–12 secondary axes bearing tertiary axes; primary pinnae 11–50 × 6–25 mm; axis-branching divaricate; segments entire, apices round or truncate, or sometimes shallowly emarginate. Sori orbicular or ovate. Indusial flaps 750–1340 × 660–1170 microns; apices round, truncate, or acute; apex usually irregularly dentate, or sometimes subentire.

SIMILAR TAXA

Hymenophyllum pluviatile is distinguished from *H. flexuosum* by its smaller size, narrower wings on the stipe and rachis, flatter lamina, narrower sori and usually irregularly dentate (cf. subentire) indusial flaps. *Hymenophyllum pluviatile* is distinguished from New Zealand populations of *H. australe* by its epiphytic, rupestral or terrestrial habitat (cf. growing in or around streams), its generally broader and more divided fronds, divaricating (cf. incurved) lamina axes, less developed stipe wings, and at most shallowly emarginate segment apices.

FLOWERING

Not applicable - spore producing

FLOWER COLOURS

No flowers

FRUITING

Not applicable - spore producing

PROPAGATION TECHNIQUE

Difficult - should not be removed from the wild

THREATS

An extremely uncommon and localised fern threatened by its small population sizes, and at one site - Mt Burnett - by dolomite mining. Previously regarded (as *Hymenophyllum* aff. *flexuosum* (AK 177370; Mt Burnett)) and treated either as 'Sparse' by de Lange et al. (2004) or 'Naturally Uncommon' by de Lange et al. (2009).

ETYMOLOGY

hymenophyllum: Membranous leaf, from the Greek humen and phullon

pluviatile: From the Latin pluviatilis, meaning of rain or pertaining to rain.

ATTRIBUTION

Fact Sheet prepared by P.J. de Lange 11 December 2013. Description from Perrie et al. (2013)

REFERENCES AND FURTHER READING

de Lange, P.J.; Norton, D.A.; Heenan, P.B.; Courtney, S.P.; Molloy, B.P.J.; Ogle, C.C.; Rance, B.D.; Johnson, P.N.; Hitchmough, R. 2004: Threatened and uncommon plants of New Zealand. *New Zealand Journal of Botany* 42: 45–76.

de Lange, P.J.; Norton, D.A.; Courtney, S.P.; Heenan, P.B.; Barkla, J.W.; Cameron, E.K.; Hitchmough, R.; Townsend, A.J. 2009: Threatened and uncommon plants of New Zealand (2008 revision). *New Zealand Journal of Botany* 47: 61–96.

Perrie, L.R.; Shepherd, L.D.; de Lange, P.J.; Batty, E.L.; Ohlsen, D.J.; Bayly, M.J.; Brownsey, P.J. 2013: *Hymenophyllum pluviatile*, a new and uncommon fern from New Zealand. *New Zealand Journal of Botany* 51: 308–320.

NZPCN FACT SHEET CITATION

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

MORE INFORMATION

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