

Hymenophyllum frankliniae

COMMON NAME

rusty filmy fern

SYNONYMS

Hymenophyllum ferrugineum Colla of New Zealand authors,
Sphaerocionium ferrugineum (Colla) Copel.; *Hymenophyllum aeruginosum*
var. *franklinianum* (Colenso) Hook.; *Hymenophyllum subtilissimum* Kunze;
Sphaerocionium frankliniae (Colenso) K.Iwats.; *Hymenophyllum*
aeruginosum sensu Hook.f.; *Hymenophyllum frankliniae* Colenso;
Hymenophyllum franklinianum Colenso

FAMILY

Hymenophyllaceae

AUTHORITY

Hymenophyllum frankliniae Colenso

FLORA CATEGORY

Vascular – Native

ENDEMIC TAXON

Yes

ENDEMIC GENUS

No

ENDEMIC FAMILY

No

STRUCTURAL CLASS

Ferns

NVS CODE

HYMFRA

CHROMOSOME NUMBER

$2n = 72$

CURRENT CONSERVATION STATUS

2017 | Not Threatened

PREVIOUS CONSERVATION STATUSES

2012 | Not Threatened

2009 | Not Threatened

2004 | Not Threatened

DISTRIBUTION

Endemic. New Zealand: North Island, South Island, Stewart Island/Rakiura.

HABITAT

Coastal to montane. In closed forest where it is usually found epiphytic on the trunks of tree ferns (especially species of *Dicksonia*) and kamahi (*Pterophylla racemosa*). Occasionally (especially in very wet forest) it may be found growing on clay banks or amongst mosses on damp boulders.



Eastbourne hills. Photographer: Jeremy R. Rolfe, Date taken: 22/04/1984, Licence: CC BY.



Stellate hairs. Stokes Valley, Lower Hutt. Photographer: Jeremy R. Rolfe, Date taken: 16/08/2006, Licence: CC BY.

DETAILED DESCRIPTION

Epiphytic (rarely terrestrial) fern forming dense patches usually on tree ferns. **Rhizomes** finely hairy, long creeping, gracile. **Stipes** 20–90 mm long, thin, brittle, not winged, covered in minute stellate hairs; rachises narrowly winged in upper part. **Laminae** narrowly elliptic to narrowly ovate, 2–3-pinnate, 50–200 × 20–50 mm, dull olive-green to brown-green, densely invested in yellow-brown to red-brown stellate hairs. **Ultimate segments** oblong, crowded, margins smooth. **Sori** terminating ultimate segments, slightly sunk in lamina, many on each primary pinna. **Indusial flaps** with smooth margins, abaxially stellate-hairy. (Description adapted from Brownsey & Smith-Dodsworth (2000)).

SIMILAR TAXA

A very distinctive species readily recognised by its penchant for growing on the trunks of tree ferns, and by the dull olive-green to brown-green fronds that are densely covered in yellow-brown or red-brown stellate hairs. It is unlikely to be confused with any other species in New Zealand with the possible exception of *Hymenophyllum malingii*. *Hymenophyllum malingii* is a montane to subalpine species that is usually found on the trunks of kaikawaka (*Libocedrus bidwillii*) and has fronds that are superficially similar to *H. frankliniae* because they too are densely invested in stellate hairs. It is however, easily distinguished from *H. frankliniae* by its habitat preferences and by the narrow, tubular ultimate segments of the 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

WHERE TO BUY

Not commercially available.

TAXONOMIC NOTES

Hymenophyllum frankliniae has long been known as *H. ferrugineum* in New Zealand. However, it is now recognised that *H. ferrugineum* is endemic to southern South America and the Juan Fernandez Islands.

ATTRIBUTION

Fact Sheet Prepared for NZPCN by P.J. de Lange (18 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-frankliniae/> (Date website was queried)

MORE INFORMATION

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