

Dendroconche scandens

COMMON NAME

fragrant fern, mokimoki

SYNONYMS

Phymatosorus scandens (G. Forst.) C. Presl; Phymatosorus scandens (G. Forst.) Pic. Serm.; Polypodium pustulatum sensu A.Cunn.; Microsorium pustulatum sensu Dobbie; Phymatodes pustulata sensu Hook.f.; Phymatosorus scandens (G.Forst.) Pic.Serm.; Drynaria scandens (G.Forst.) Fée; Microsorium scandens (G. Forst.) Tindale

FAMILY

Polypodiaceae

AUTHORITY

Dendroconche scandens (G.Forst.) Testo, Sundue et A.R.Field

FLORA CATEGORY

Vascular – Native

ENDEMIC TAXON

No

ENDEMIC GENUS

No

ENDEMIC FAMILY

No

STRUCTURAL CLASS

Ferns

NVS CODE

MICSCN

CHROMOSOME NUMBER

2n = 74

CURRENT CONSERVATION STATUS

2017 | Not Threatened

PREVIOUS CONSERVATION STATUSES

2012 | Not Threatened

2009 | Not Threatened

2004 | Not Threatened

DISTRIBUTION

Indigenous. New Zealand: North Island (widespread), South Island (widespread south to Franz Josef (Westland)), Chatham Islands. Also Australia (eastern Australia (Queensland, New South Wales and Victoria), Lord Howe Island).

HABITAT

Coastal to lowland, in forest. A common creeping fern covering rock piles, tree and tree fern trunks and bare ground. Unlike the superficially similar *Zealandia pustulata*, *Dendroconche scandens* is much less drought tolerant and so prefers less open, shaded and damper situations.

WETLAND PLANT INDICATOR STATUS RATING

UPL: Obligate Upland

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



Microsorium scandens. Photographer: Department of Conservation, Licence: Public domain.



Microsorium scandens. Photographer: Jeremy R. Rolfe, Licence: CC BY.

DETAILED DESCRIPTION

Epiphytic or rupestral scrambling or climbing fern. **Rhizomes** long-creeping, 2–4 mm diameter, rather slender, flexuose (wiry), densely invested in persistent scales. **Scales** 2.0–8.0 × 1.0–2.2 mm, dark brown to purple-brown, ovate to narrowly ovate, squarrose, acuminate, minutely dentate near base. **Fronds** 75–580 × 10–30 mm (simple fronds 45–39 × 6–31 mm), dull green. **Stipes** 6–160 mm long, slender, pale, glossy, sparsely scaly. **Lamina** membranous, deeply pinnatifid or simple, strongly, pleasantly scented when fresh or recently dried. **Pinnae** in 1–20 pairs, 8–100 × 2.5–18 mm, falcate, strongly ascending, tapering toward apices, base adnate, tapering into stipe; margins often undulose; veins reticulate, usually forming only 1 series of areoles between costa (midrib in simple fronds) and lobe margin, glabrous part from a few scattered scales on midrib and costae. **Sori** in 1 row close to margin on each side of costa of laminal lobe or midrib in simple fronds, rounded or sometimes elongated or oval, impressed into abaxial lamina, forming low protuberances on the adaxial lamina surface. **Spores** orange-brown.

SIMILAR TAXA

Easily distinguished from the two other New Zealand Microsoroideae polypodiaceous ferns in the genus *Zealandia* by the narrow, long-creeping, dorsiventrally flattened rhizomes which are rarely pruinose, have laterally inserted climbing roots, and by the sori which are not deeply impressed in the lamina. The rhizome scales of *Dendroconche scandens* are also erect, membranous, coloured dark brown to purple-brown, and the fronds are dull green, narrower, and usually bear more pinnae. When crushed the fronds of *Dendroconche scandens* are pleasantly aromatic.

PROPAGATION TECHNIQUE

Easily grown from rooted pieces of rhizome. Excellent in a hanging basket, large pot, or trained to grow over rocks, and logs but requires a shaded site and needs frequent watering. Once established it rarely requires much attention and has the advantage of being mostly disease and pest free.

ETYMOLOGY

scandens: Climbing; from the Latin scandere; groth habit

ETHNOBOTANY

The scented fronds of *Dendroconche scandens* known as “mokimoki” were much used by Maori to mask unpleasant odours.

TAXONOMIC NOTES

The treatment of Testo et al. (2019) in which the New Zealand ferns previously treated by New Zealand authors as *Microsorum* (see Brownsey & Smith-Dodsworth 2000) are segregated into two genera, *Dendroconche* and *Zealandia* is followed here.

ATTRIBUTION

Fact sheet prepared for NZPCN by P.J. de Lange (13 January 2012). Description adapted from Brownsey & Smith-Dodsworth (2000) and Bostock & Spokes (1998).

REFERENCES AND FURTHER READING

- Bostock PD, Spokes TM. 1998. Polypodiaceae. *Flora of Australia* 48, *Ferns Gymnosperms and allied groups*: 468–495. ABRS/CSIRO Victoria, Australia.
- Brownsey PJ, Smith-Dodsworth JC. 2000. New Zealand Ferns and Allied Plants. David Bateman, Auckland, NZ. 168 p.
- Testo WL, Field AR, Sessa EB, Sundue M. 2019. Phylogenetic and morphological analyses support the resurrection of *Dendroconche* and the recognition of two new genera in Polypodiaceae Subfamily Microsoroideae. *Systematic Botany* 44(4): 1–16. <https://doi.org/10.1600/036364419X15650157948607>.

NZPCN FACT SHEET CITATION

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

MORE INFORMATION

<https://www.nzpcn.org.nz/flora/species/dendroconche-scandens/>