

Microschizaea fistulosa

COMMON NAME

comb fern

SYNONYMS

Acrostichum fistulosum (Labill.) Poir.; *Schizaea fistulosa* Labill.

FAMILY

Schizaeaceae

AUTHORITY

Microschizaea fistulosa (Labill.) C.F.reed

FLORA CATEGORY

Vascular – Native

ENDEMIC TAXON

No

ENDEMIC GENUS

No

ENDEMIC FAMILY

No

STRUCTURAL CLASS

Ferns

NVS CODE

SCHFIS

CHROMOSOME NUMBER

2n = 380, 540

CURRENT CONSERVATION STATUS

2017 | Not Threatened

PREVIOUS CONSERVATION STATUSES

2012 | Not Threatened

2009 | Not Threatened

2004 | Not Threatened

DISTRIBUTION

Indigenous. New Zealand: Manawatāwhi / Three Kings Islands, North Island (widespread from North Cape south to about Waikato thence scarce), South Island (confined to North-west Nelson), Chatham Islands. Also present in Australia, Malaysia, Indonesia, New Guinea, New Caledonia, Fiji and Samoa.

HABITAT

Coastal to lowland on clay pans, podzols, in gumland scrub, open scrub or forest, kauri forest (and then especially along ridged lines) and also in restiad peat bogs in Waikato and the Chatham Islands.

WETLAND PLANT INDICATOR STATUS RATING

FAC: Facultative

Commonly occurs as either a hydrophyte or non-hydrophyte (non-wetlands).



Waikawau bay. Photographer: John Smith-Dodsworth, Licence: CC BY-NC.



Albany, Auckland. Photographer: Jeremy R. Rolfe, Date taken: 27/10/2008, Licence: CC BY.

DETAILED DESCRIPTION

Rhizomatous, tufted fern. **Rhizome** short creeping, densely clothed with dark brown hairs. frond clustered, erect, undivided, 10–500 mm long, c. 0.5–1.0 mm wide, wiry, terete or subterete, furrowed on 1 side, green or pale brown with scattered hairs, smooth; sterile fronds similar to sporogenous fronds but much shorter; sporogenous heads 7–30 mm long, usually 5–12× longer than wide, narrowly triangular to linear-oblong, broadest at or near the base, tapering distally, straight or slightly curved; segments 2–5 mm long, smooth, glabrous or with sparse hairs.

Sporangia not mixed with hairs. (Description adapted from Chinnock (1998) and Brownsey & Smith-Dodsworth (2000)).

SIMILAR TAXA

Morphologically similar to *Microschizaea australis* (which some botanists (e.g., Chinnock 1998, as *Schizaea australis*) had regarded as merely a reduced state of what is here called *Microschizaea fistulosa*). *Microschizaea fistulosa* differs from *Microschizaea australis* by its usually large size (stipe 100–500 cf. 20–150 mm mm long in *M. australis*), larger fertile sporogenous frond (7–30 mm cf. 4–15 mm in *M. australis*), slightly larger pinnae (1–5 mm cf. 1–4 mm long in *M. australis*), ecological preference for coastal and lowland habitats, and perhaps most convincingly by its different chromosome number ($2n = 388, 540$ cf. $2n = 188$ in *M. australis*).

Microschizaea is genetically distinct from *Schizaea* s.s. though morphologically the chief difference is that *Microschizaea fistulosa* is said to have no hairs (i.e. glabrous) amongst the sporangia (Ke et al. 2022).

FLOWERING

Not applicable—spore producing

FLOWER COLOURS

No flowers

FRUITING

Not applicable—spore producing

PROPAGATION TECHNIQUE

Difficult—should not be removed from the wild

ETYMOLOGY

fistulosa: From the Latin fistula ‘pipe’, referring to a cylindrical or terete shape which is closed at each end

Where To Buy

Not commercially available

ATTRIBUTION

Fact sheet prepared for NZPCN by P.J. de Lange (14 March 2011). Description adapted from Chinnock (1998) and 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.

Chinnock RJ. 1998. Schizaeaceae. *Flora of Australia 48, Ferns Gymnosperms and allied groups*: 177–187.

ABRS/CSIRO Victoria, Australia.

Ke B-F, Wang G-J, Labiak PH, Rouhan G on behalf of the GoFlag Consortium; Chen C-W, Shepherd LD, Ohlsen DJ, Renner MAM, Karol KG, Li F-W, Kuo L-Y. 2022. Systematics and Plastome Evolution in Schizaeaceae. *Frontiers in Plant Science* 3: 885501. <https://doi.org/10.3389/fpls.2022.885501>.

NZPCN FACT SHEET CITATION

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

MORE INFORMATION

<https://www.nzpcn.org.nz/flora/species/microschizaea-fistulosa/>