

Gleichenia microphylla

COMMON NAME

carrier tangle fern, parasol fern

SYNONYMS

Gleichenia circinnata var. *microphylla* (R.Br.) Maiden et Betche; *Gleichenia microphylla* var. *semi-vestita* (Labill.) Alderw.; *Gleicheniastrum microphyllum* var. *semi-vestitum* (Labill.) Nakai; *Gleicheniastrum semi-vestitum* (Labill.) C.Presl; *Mertensia microphylla* (R.Br.) Kaulf.; *Gleichenia circinnata* var. *semi-vestita* (Labill.) T.Moore; *Calymella semi-vestita* (Labill.) Ching; *Gleichenia semi-vestita* Labill.; *Gleicheniastrum microphyllum* (R.Br.) C.Presl; *Calymella microphylla* (R.Br.) C.Presl

FAMILY

Gleicheniaceae

AUTHORITY

Gleichenia microphylla R. Br.

FLORA CATEGORY

Vascular – Native

ENDEMIC TAXON

Yes

ENDEMIC GENUS

No

ENDEMIC FAMILY

No

STRUCTURAL CLASS

Ferns

NVS CODE

GLEMIC

CHROMOSOME NUMBER

2n = 40

CURRENT CONSERVATION STATUS

2017 | Not Threatened | Qualifiers: SO

PREVIOUS CONSERVATION STATUSES

2012 | Not Threatened

2009 | Not Threatened

2004 | Not Threatened

DISTRIBUTION

Indigenous. New Zealand: North Island (from North Cape south but often absent from the eastern side, more common north of Kawhia and Mahia Peninsula), South Island (often absent from the eastern side), Stewart Island/Rakiura. Also Australia, Indonesia and south-east Asia.

HABITAT

Coastal to lowland, on impoverished soils, clay pans, serpentinite scree, ferricrete. Also in eutrophic to mesotrophic swamps, and in coastal cliff seepages, as well as on thermally heated ground where it sometimes forms an important ground cover in open scrubland.



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WETLAND PLANT INDICATOR STATUS RATING

FAC: Facultative

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

DETAILED DESCRIPTION

Rhizome 1.5–3.5 mm diameter, clothed at first with appressed dark blackish brown lanceolate scales with stiff erect cilia. **Frond** of 1–3 tiers of branches 0.09–2.00 m long; lower tiers often branching. **Stipe** 0.1–0.55 m long, widely scattered along rhizome, bearing scattered dark brown lanceolate scales with whitish woolly-lanate cilia, soon glabrescent, smooth; rachis bearing red-brown to dark blackish brown stellate hairs and lanceolate ciliate scales, sometimes glabrescent. **Pinnules** glabrous; ultimate segments 1.0–2.5 mm long, 1–2 mm wide, oblong to triangular, obtuse or acute, flat, although sometimes recurved when dry; undersurface green, paler than upper surface (very rarely glaucescent). **Sori** of 2–4 bright yellow sporangia. (Description adapted from Chinnock & Bell (1998) and Brownsey & Smith-Dodsworth (2000)).

SIMILAR TAXA

Distinguished from both *Gleichenia alpina* and *G. dicarpa* by the usually triangular, flat (never pouched) ultimate pinnule segments, and bright yellow sporangia comprised of sori in 2–4 pairs (never strictly 2 pairs). *Gleichenia microphylla* is also the more common species in coastal and lowland situations in the northern part of New Zealand. Differs from *Gleichenia inclusisora* (which also lacks pouched pinnule segments) by the sori which are never embedded in the frond under surfaces.

FLOWERING

Not applicable—spore producing

FLOWER COLOURS

No flowers

FRUITING

Not applicable—spore producing

LIFE CYCLE

Minute spores are wind dispersed (Thorsen et al., 2009).

PROPAGATION TECHNIQUE

Fickle. Probably best left alone. Transplants have sometimes been successfully grown in shaded conditions with plants planted in an acid, poorly drained soil. But results vary and plants tend to resent any root disturbance.

ETYMOLOGY

gleichenia: After the German naturalist and plant physiologist Wilhelm Friedrich (Baron) von Gleichen (1717–1783)

microphylla: Small leaf

ATTRIBUTION

Fact sheet prepared for NZPCN by P.J. de Lange 15 March 2011. Description adapted from Chinnock & Bell (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, R.J.; Bell, G.H. 1998: Gleicheniaceae. *Flora of Australia* 48: 148–162.

Chinnock RJ, Bell GH. 1998. Gleicheniaceae. *Flora of Australia* 48, *Ferns Gymnosperms and allied groups*: 148–162. ABRIS/CSIRO Victoria, Australia.

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/gleichenia-microphylla/> (Date website was queried)

MORE INFORMATION

<https://www.nzpcn.org.nz/flora/species/gleichenia-microphylla/>