

Gleichenia microphylla

COMMON NAMES

carrier tangle fern, parasol fern

BIOSTATUS

Native – Endemic taxon

CATEGORY

Vascular

STRUCTURAL CLASS

Ferns

FLOWER COLOURS

No flowers

DETAILED DESCRIPTION

Rhizome 1.5–3.5 mm diameter, clothed at first with appressed dark blackish brown lanceolate scales with stiff erect cilia. **Fron**d 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.

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.

CURRENT CONSERVATION STATUS

2023 | Not Threatened | Qualifiers: SO

[Jump to previous conservation statuses](#)

DETAILED TAXONOMY

GENUS

Gleichenia



Abaxial surface of pinnae. Pinehaven, Upper Hutt. Photographer: Jeremy R. Rolfe, Date taken: 31/08/2013, Licence: CC BY.



Sori and stellate hairs on costae; hairs and scales on rachis. Pinehaven, Upper Hutt. Photographer: Jeremy R. Rolfe, Date taken: 31/08/2013, Licence: CC BY.

FAMILY

Gleicheniaceae

AUTHORITY

Gleichenia microphylla R. Br.

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

ENDEMIC TAXON

Yes

ENDEMIC GENUS

No

ENDEMIC FAMILY

No

ECOLOGY

FLOWERING

Not applicable—spore producing

FRUITING

Not applicable—spore producing

LIFE CYCLE AND DISPERSAL

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.

WETLAND PLANT INDICATOR STATUS RATING

FAC: Facultative

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

OTHER INFORMATION

ETYMOLOGY

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

microphylla: Small leaf

NVS CODE

GLEMIC

CHROMOSOME NUMBER

2n = 40

PREVIOUS CONSERVATION STATUSES

2017 | Not Threatened | Qualifiers: SO

2012 | Not Threatened

2009 | Not Threatened

2004 | Not Threatened

[Jump to current conservation status](#)

REGIONAL CONSERVATION STATUSES

Otago: 2024 | Regionally Data Deficient Help

The regional threat classification system leverages off the national assessments in the NZTCS, providing information relevant for the regional context. Otago conservation status information is sourced from the "[Regional conservation status of indigenous vascular plants in Otago](#)" Jarvie S et al. (2024) report.

Auckland: 2025 | At Risk – Regionally Declining | Qualifiers: DPR, DPS, DPT, SO Help

The regional threat classification system leverages off the national assessments in the NZTCS, providing information relevant for the regional context. Auckland conservation status information is sourced from the "[Conservation status of vascular plant species in Tāmaki Makaurau / Auckland](#)" Simpkins E et al. (2025) report.

REFERENCING AND CITATIONS

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. ABRS/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>.

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).

MORE INFORMATION

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

PDF DATE

24 September 2025