

Gleichenia alpina

COMMON NAMES

alpine tangle fern

BIOSTATUS

Native

CATEGORY

Vascular

STRUCTURAL CLASS

Ferns

DETAILED DESCRIPTION

Rhizome 0.8–2.0 diameter, at first with scattered appressed dark brown rounded prominently ciliate scales. **Fron**ds of 1–8 tiers of branches, 100–220–(420) mm long, rarely more than 0.6 m wide, at first completely covered with red-brown scales, glabrescent; lower tiers often branched 1–3×. **Stipes** clustered along rhizomes, 40–420 mm long, initially bearing dark brown scales with long white matted ciliate margins, glabrescent, smooth; rachis and undersurfaces of upper branches with persistent, red-brown scales with paler ciliate margins, completely obscuring undersurface of pinnules. **Pinnules** with brown hairs along costae on upper side, with dense reddish scales at first completely obscuring the undersurface; ultimate segments 0.7–1.0 mm long, 0.6–1.1 mm wide, round, obtuse, strongly convex above, puched below; undersurface usually white. **Sori** of 2 sporangia.

SIMILAR TAXA

Gleichenia alpina is very similar to *G. dicarpa* from which it differs by its consistently smaller fronds (rarely > 60 mm wide, and rounded rather than lanceolate scales. Recently it has been shown that *G. alpina* is present in New Zealand, though its exact distribution is still unclear (Perrie *et al.* 2007; Perrie *et al.* 2012).

DISTRIBUTION

Indigenous. New Zealand: North Island, South Island. Exact distribution still unclear but plants matching *G. alpina* are known from the Central Volcanic Plateau, Takaka, and Denniston Plateau, and plants sharing the same haplotype as limited sampling of Tasmanian *G. alpina* are known from Mt Somers (Perrie *et al.* 2007). Currently the status of *G. alpina* in New Zealand requires further study as some reduced forms of *G. dicarpa* can be easily confused with it.

HABITAT

Lowland to alpine. In peat bogs, on the margins of tarns and in poor drained fellfield.

CURRENT CONSERVATION STATUS

2023 | Not Threatened | Qualifiers: SO

DETAILED TAXONOMY

FAMILY

Gleicheniaceae

AUTHORITY

Gleichenia alpina R.Br.



Unfurling young frond; Whakapapa, Tongariro NP. Photographer: Colin C. Ogle, Date taken: 20/12/2016, Licence: CC BY-NC.



Unfurling young frond; Whakapapa, Tongariro NP. Photographer: Colin C. Ogle, Date taken: 20/12/2016, Licence: CC BY-NC.

SYNONYMS

Mertensia alpina (R.Br.) Poir.; *Platyzoma alpinum* (R.Br.) Desv.; *Calymella alpina* (R.Br.) C.Presl, *Gleichenia dicarpa* var. *alpina* (R.Br.) Hook.f.

ENDEMIC TAXON

No

ENDEMIC GENUS

No

ENDEMIC FAMILY

No

ECOLOGY

FLOWERING

Not applicable—spore producing

FRUITING

Not applicable—spore producing

PROPAGATION TECHNIQUE

Fickle. Probably best left alone. Transplants have been successfully grown when planted into a half peat and pumice mix within pots kept partially immersed in water. But results vary and plants tend to resent any root disturbance.

WETLAND PLANT INDICATOR STATUS RATING

FACW: Facultative Wetland

Usually is a hydrophyte but occasionally found in uplands (non-wetlands).

OTHER INFORMATION

ETYMOLOGY

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

alpina: From the Latin *alpes* 'the Alps', refers to plants growing in mountainous areas

NVS CODE

GLEALP

PREVIOUS CONSERVATION STATUSES

2017 | Not Threatened | Qualifiers: SO

2012 | Not Threatened | Qualifiers: SO

2009 | Not Threatened

2004 | Not Threatened

REFERENCING AND CITATIONS

REFERENCES AND FURTHER READING

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

de Lange PJ, Rolfe JR. 2010. New Zealand indigenous vascular plant checklist. New Zealand Plant Conservation Network, Wellington, NZ. 131 p.

Perrie LR, Bayly MJ, Lehnebach CA, Brownsey PJ. 2007. Molecular phylogenetics and molecular dating of the New Zealand Gleicheniaceae. *Brittonia* 59(2): 129–141.

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Perrie LR, Shephard LD, Brownsey PJ. 2012. *Gleichenia inclusisora*, a new and uncommon tangle fern from New Zealand. *New Zealand Journal of Botany* 50(4): 401–410. <https://doi.org/10.1080/0028825X.2012.724015>.

ATTRIBUTION

Fact Sheet Prepared for NZPCN by P.J. de Lange (15 March 2011). Description adapted from Chinnock & Bell (1998).

NZPCN FACT SHEET CITATION

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MORE INFORMATION

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

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13 October 2024