

Sticherus tener

COMMON NAME

silky fan fern

SYNONYMS

Gleichenia tenera R.Br., *Mertensia tenera* (R.Br.) Poir, *Gleichenia flabellata* var. *tenera* (R.Br.) Hook.f.

FAMILY

Gleicheniaceae

AUTHORITY

Sticherus tener (R.Br.) Ching

FLORA CATEGORY

Vascular – Native

ENDEMIC TAXON

No

ENDEMIC GENUS

No

ENDEMIC FAMILY

No

STRUCTURAL CLASS

Ferns

CURRENT CONSERVATION STATUS

2017 | Threatened – Nationally Critical | Qualifiers: DP, RR, SO

PREVIOUS CONSERVATION STATUSES

2012 | Threatened – Nationally Critical | Qualifiers: DP, RR, SO

2009 | Non-resident Native – Vagrant | Qualifiers: SO, DP

2004 | Non-resident Native – Vagrant

DISTRIBUTION

Indigenous. In New Zealand known from the Denniston Plateau (North Westland) and Five Fingers Peninsula, Resolution Island (Fiordland), where it said to be reasonably common (see Brownsey *et al.* 2013). There has been some confusion over the distribution of *Sticherus tener* in New Zealand. Perrie (2013) stated: “Populations of *Sticherus tener* and *Sticherus urceolatus* in the northern South Island had previously been mistakenly attributed to *Sticherus flabellatus*. We now believe that *Sticherus flabellatus* does not occur in the South Island, but it is common in the northern North Island.”

Common in South Eastern Victoria and Tasmania.

HABITAT

According to Brownsey *et al.* (2013), “Observations made from the recent collections indicate that plants occurred mostly around ridge tops in the northern half of Five Fingers Peninsula on slightly poorer soils under a low, semi-open canopy. The vegetation was usually low, mixed forest or scrub with *Leptospermum scoparium*, tall *Halocarpus biformis*, *Lepidothamnus intermedius*, *Metrosideros umbellata* and *Nothofagus solandri* var. *cliffortioides*, but *S. tener* also extended into taller beech/podocarp vegetation. *Sticherus tener* was never found in better soils on slopes.”

In Tasmania, where this species is abundant, it tends to grow in permanently damp soils along water courses and drainage lines within rainforest (often dominated by *Nothofagus cunninghamii*).



Recherche Bay, Tasmania. Photographer: Peter J. de Lange, Licence: CC BY-NC.



In cultivation, ex Denniston Plateau. Photographer: Melissa Hutchison, Date taken: 18/11/2017, Licence: CC BY-NC.

DETAILED DESCRIPTION

Stout fern forming dense colonies. **Rhizome** long creeping (up to 2 m long), 2–3 mm diameter, with dark brown ciliate scales. **Frond** yellow-green to green, composed of 1–4 tiers of opposite primary branches which in turn are divided 1–4 times; ultimate divisions linear to narrowly lanceolate; pinnules of first fork simple or lobed; dormant axillary buds conspicuous. **Stipe** 0.6–0.9 m long, glabrous except for basal scales; rachis bearing brown ciliate scales, glabrescent. **Ultimate segments** 8–20 × 2–3 mm wide, entire or rarely with distal portions irregularly crenate, set at an angle of 75°–90° to axis, glabrous above, with white to pale brown simple and branched hairs along the veins below. **Sori** of 3–6 sporangia set $\frac{1}{3}$ – $\frac{1}{2}$ the distance from the margin to the midrib; sporangia yellow-brown 2–3 mm diameter. (Description adapted from Chinnock & Bell (1998)).

According to Brownsey *et al.* (2013), *S. tener* has “a spreading frond with broad angles (c. 70°) between paired proximal pinnae. The ultimate leaflet is somewhat longer than the proximal costa (mean ratio 4.3 : 1). The proximal costa always bears leafy ultimate segments. The ultimate leaflet is linear or narrowly oblong in outline with the segments arising at almost a right angle (c. 80–85°) to the costa. The segments of the ultimate leaflet are more or less uniform in length, decreasing only at the apex, 8–15 mm long, 2–3 mm wide, entire, and green on the undersides. There are narrow, fimbriate, brown scales along the costae, and hair-like scales on the undersurfaces. Spores measure 33–37 μ m by 17–18 μ m (four samples from Denniston and one from Stockton).”

SIMILAR TAXA

Sticherus urceolatus and *S. flabellatus* are similar. See Brownsey *et al.* (2013) for a comparison of features. In New Zealand this species differs from *S. flabellatus* by the mostly entire ultimate segments set at 75°–90° to the axis, and the smooth rhizomes. *Sticherus tener* and *S. cunninghamii* (Hook.) Ching may be sympatric. *Sticherus cunninghamii* differs from *S. tener* by its usually one tiered, distinctly more umbrella-like frond which is usually dark green above and white below, and has a much shorter more finely divided pinna.

THREATS

Unknown in Fiordland. Threatened by opencast mining on the Denniston Plateau (Perrie 2013).

ETYMOLOGY

sticherus: In rows; from the greek sticheres; arrangement of the spore clusters

WHERE TO BUY

Not commercially available

ATTRIBUTION

Fact sheet prepared for NZPCN by P.J. de Lange (March 2005). Description adapted from Chinnock & Bell (1998). Updated by Melissa Hutchison (19 November 2022), with reference to Brownsey *et al.* (2013).

REFERENCES AND FURTHER READING

- Brownsey PJ, Ewans R, Rance B, Walls S, Perrie LR. 2013. A review of the fern genus *Sticherus* (Gleicheniaceae) in New Zealand with confirmation of two new species records. *New Zealand Journal of Botany* 51(2): 104–115.
<https://doi.org/10.1080/0028825X.2013.773917>
- Chinnock R.J.; and 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.
- Perrie L. 2013. Would you mine a rare population? Blog on the Museum of New Zealand/Te Papa Tongarewa website. <https://blog.tepapa.govt.nz/2013/04/21/would-you-mine-a-rare-population/>

MORE INFORMATION

<https://www.nzpcn.org.nz/flora/species/sticherus-tener/>