

Tmesipteris tannensis

COMMON NAMES

fork fern

BIOSTATUS

Native – Endemic taxon

CURRENT CONSERVATION STATUS

2023 | Not Threatened

[Jump to previous conservation statuses](#)

CATEGORY

Vascular

STRUCTURAL CLASS

Ferns

DETAILED DESCRIPTION

Rhizome dichotomously branched, brittle, 2.0–3.5 mm diameter. **Aerial shoot** developing over one to many years, but eventually terminating in a small appendage 0.1–0.5× the length of the largest leaves, simple, erect, suberect, or pendulous, 50–1200 mm long, triangular in cross-section, leaves and sporophylls spirally arranged. **Leaves** coriaceous, brittle, one surface deep glossy green, occasionally with a few stomata towards the far end, other surface dull green covered with stomata; shape variable often on same shoot, oblong, lanceolate, falcate, or ovate, 6–30 mm long × 2.5–9.0 mm broad; apex of leaf very variable often on the same plant, acute, obtuse to truncate, mucronate; mucro 1–2 mm long. **Sporophylls** developed in regular or irregular zones or throughout most of the shoot except for the lowermost part, equal to or slightly shorter than the leaves; 5–7 per 10 mm of shoot. **Synangium** 4.0–8.0 × 1.5–2.5 mm at point of attachment, biconic, persistent. **Spores** yellow, released in a mass, anisopolar, bilateral, monolete, foveolate, concavo-convex, 67–92 × 27–45 µm broad (longitudinal plane).

SIMILAR TAXA

Easily distinguished from all other named New Zealand species of fork fern by the biconic synangia. *Tmesipteris horomaka* Perrie, Brownsey, et Lovis, which is endemic to Banks Peninsula, is rather similar, differing mainly by its octoploid rather than tetraploid chromosome number and less distinctly biconic synangia.

DISTRIBUTION

Endemic. New Zealand: North Island, South Island, Stewart Island/Rakiura, Chatham Islands, Auckland Islands.

HABITAT

Coastal to subalpine. Terrestrial or epiphytic on a wide range of hosts and often sympatric with *Tmesipteris elongata* (less frequently with *T. lanceolata* and *T. sigmatifolia*). Less common in coastal and lowland areas in the far north where it is mostly known from higher elevation forest. However, steadily becoming more common from about Whangarei south.

GENUS

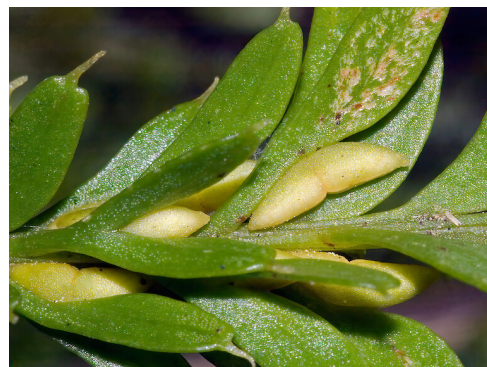
Tmesipteris

FAMILY

Psilotaceae



Dome Walkway. Photographer: Jeremy R. Rolfe, Date taken: 15/07/2006, Licence: CC BY.



Synangium. Stokes Valley, Lower Hutt. Photographer: Jeremy R. Rolfe, Date taken: 08/07/2006, Licence: CC BY.

AUTHORITY

Tmesipteris tannensis (Spreng.) Bernh.

SYNONYMS

Lycopodium tannense Spreng.; *Tmesipteris fowerakeri* H.N.Barber, *Tmesipteris forsteri* sensu A.Cunn. nom. inv.,

ENDEMIC TAXON

Yes

ENDEMIC GENUS

No

ENDEMIC FAMILY

No

PROPAGATION TECHNIQUE

Difficult— should not be removed from the wild.

WHERE TO BUY

Not commercially available.

ETYMOLOGY

tmesipteris: From the Greek *tmesis* (cutting) and *pteris* (fern), alluding to the forked appendages on fertile fronds

tannensis: Growing at Tanna, New Hebrides, where the species was first collected

NVS CODE

TMETAN

CHROMOSOME NUMBER

2n = 208

PREVIOUS CONSERVATION STATUSES

2017 | Not Threatened

2012 | Not Threatened

2009 | Not Threatened

2004 | Not Threatened

[Jump to current conservation status](#)

REGIONAL CONSERVATION STATUSES

Auckland: 2025 | Regionally Not Threatened | Qualifiers: DPR, DPS, DPT 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.

Otago: 2025 | Regionally Not Threatened 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 "[Conservation Status of Indigenous Vascular Plants in Otago, 2025](#)" Jarvie S et al. (2025) report.

REFERENCES AND FURTHER READING

Chinnock R.J. 1975. The New Zealand Species of *Tmesipteris* (Psilotaceae). *New Zealand Journal of Botany* 13(4): 743–768. <https://doi.org/10.1080/0028825X.1975.10430356>.

ATTRIBUTION

Fact sheet prepared for NZPCN by P.J. de Lange (June 2009). Description adapted from Chinnock (1975).

MORE INFORMATION

<https://www.nzpcn.org.nz/flora/species/tmesipteris-tannensis/>

PDF DATE

08 June 2026