

Tmesipteris lanceolata

COMMON NAME

fork fern

SYNONYMS

Tmesipteris forsteri sensu A.Cunn. nom. inv., *Tmesipteris tannensis* sensu Sahni nom. inv., *Tmesipteris tannensis* var. *lanceolata* (P.A.Dang.) Domin

FAMILY

Psilotaceae

AUTHORITY

Tmesipteris lanceolata P.A. Dang.

FLORA CATEGORY

Vascular – Native

ENDEMIC TAXON

No

ENDEMIC GENUS

No

ENDEMIC FAMILY

No

STRUCTURAL CLASS

Ferns

NVS CODE

TMELAN

CHROMOSOME NUMBER

$2n = 208$

CURRENT CONSERVATION STATUS

2017 | Not Threatened | Qualifiers: SO

PREVIOUS CONSERVATION STATUSES

2012 | Not Threatened

2009 | Not Threatened

2004 | Not Threatened

DISTRIBUTION

Indigenous. New Zealand: Kermadec Islands (Raoul Island) North Island (from Te Paki to about Gisborne and Tataraimaka on the Taranaki Coast), Chatham Islands. Also present in Australia (Queensland—scarce) and New Caledonia

HABITAT

Coastal to montane, though mostly lowland. Epiphytic, mostly on tree ferns (especially *Alsophila* spp.), very rarely on tree trunks.



Coromandel. Photographer: John Smith-Dodsworth, Licence: CC BY-NC.



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DETAILED DESCRIPTION

Rhizome brittle, dichotomously branched, 1–2 mm diameter, covered with dark brown rhizoids. **Aerial shoot** simple, pendulous, 40–200 mm long; sporophylls spirally arranged, leaves distichously arranged, terminating in a large appendage slightly shorter, equal to, or longer than the largest leaves developed. **Leaves** subcoriaceous to coriaceous, margin often thickened; dorsiventral, upper surface shiny or glossy deep green or pale green, lower surface dull green covered with stomata; shape ovate to ovate-oblong, apex acute or sometimes ± obtuse, mucro short, thick, 1.0–1.5 mm long; 6–25 × 2–8 mm broad. **Sporophylls** 3–6 per 10 mm of stem usually restricted to the lower ½ of the shoot although in small specimens they may occur throughout. **Synangium** 2–4 × 1–2 mm; lobes equal or the proximal one slightly smaller ± globular, yellowish brown at maturity, persistent. **Spores** pale yellow released in a mass, anisopolar, bilateral, monolete, foveolate, concavo-convex, 50–72 × 17–30 µm.

SIMILAR TAXA

Distinguished from the three other named fork ferns by the combination of: testiculate synangia; sterile leaves distichously arranged; leaves ovate to ovate-oblong, coriaceous, apex acute; sporophylls restricted to the lower half of the shoot.

PROPAGATION TECHNIQUE

Difficult—should not be removed from the wild.

ETYMOLOGY

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

WHERE TO BUY

Not commercially available

ATTRIBUTION

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

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>.

NZPCN FACT SHEET CITATION

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<https://www.nzpcn.org.nz/flora/species/tmesipteris-lanceolata/> (Date website was queried)

MORE INFORMATION

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