

# 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 Pahi 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.



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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

Please cite as: de Lange, P.J. (Year at time of access): *Tmesipteris lanceolata* Fact Sheet (content continuously updated). New Zealand Plant Conservation Network.

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

## MORE INFORMATION

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