

# Tmesipteris elongata

## COMMON NAMES

fork fern

## SYNONYMS

*Tmesipteris forsteri* sensu A.Cunn. nom. inv., *Tmesipteris elongata* P.A. Dang. subsp. *elongata*, *Tmesipteris elongata* subsp. *robusta* Chinnock, *Tmesipteris lanceolata* M. Sykes, *Tmesipteris tannensis* var. *elongata* (P.A.Dang.) Domin, *Tmesipteris tugana* H.N.Barber

## FAMILY

Psilotaceae

## AUTHORITY

*Tmesipteris elongata* P.A. Dang.

## FLORA CATEGORY

Vascular – Native

## ENDEMIC TAXON

No

## ENDEMIC GENUS

No

## ENDEMIC FAMILY

No

## STRUCTURAL CLASS

Ferns

## NVS CODE

TMEELO

## 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: North Island, South Island, Stewart Island/Rakiura, Chatham Islands (most common in the North Island). Also Australia.

## HABITAT

Coastal to montane (but more common in lowland areas). Mostly epiphytic on a range of tree ferns (especially *Dicksonia*), trees and also emerging from the base of tank lilies (*Astelia* spp.). Less commonly found growing on cliff faces, amongst cracks and crevices in boulders and rock falls, or amongst mosses on the ground.

## WETLAND PLANT INDICATOR STATUS RATING

UPL: Obligate Upland

Rarely is a hydrophyte, almost always in uplands (non-wetlands).



Dehiscent synangia. Silverstream, Upper Hutt.  
Photographer: Jeremy R. Rolfe, Date taken:  
11/10/2006, Licence: CC BY.



Waitakere Ranges. Photographer: Jeremy R.  
Rolfe, Date taken: 07/12/1982, Licence: CC BY.

## DETAILED DESCRIPTION

**Rhizome** brittle, dichotomously branched, 0.8–3.5 mm diameter, densely clad in dark brown rhizoids 1.0–1.5 mm long. **Aerial shoot** developing over one or many years and terminating in a small appendage 0.1–0.5× the size of the largest leaves or in small forms with predominantly distichously arranged leaves terminating in an appendage similar to the largest leaves developed; simple or dichotomously branched 1–2–(3) or more times, pendulous, 80–1180 mm long, ± quadrangular in cross-section; leaves spirally or distichously arranged, sporophylls spirally arranged. **Leaves** 1–5 per 10 mm of stem, sub-coriaceous, flexible, almost isobilateral with stomata distributed over one or both surfaces, surfaces dull mid-green; oblong, lanceolate, falcate to aristate, variable on the same plant; 10–42 mm long, (excluding mucro), 3–9 mm broad; mucro blunt 1–2 mm long. **Sporophylls** developed in regular or irregular zones or throughout most of the length except in the lowermost part, occasionally scattered amongst the leaves; slightly shorter than the leaves, 3–5 per 10 mm of shoot. **Synangium** 2–6 mm long, 1.0–2.5 mm high at point of attachment, greenish yellow to light brown at maturity, testiculate; lobes ± equal, ends obtuse; lying along the sporophyll axis; immature synangia when dried reflex at the ends and then ± lunate; deciduous at maturity. **Spores** pale yellow, often released in a mass.

## SIMILAR TAXA

*Tmesipteris elongata* is easily recognised by the testiculate rather than biconic sporangia (synangia) which have rounded ends and by the long, tapering, lanceolate, falcate or oblong leaves without emarginate apices (cf. *Tmesipteris horomaka* (see Fact Sheet)). *Tmesipteris elongata* subsp. *robusta* described by Chinnock (1975) is usually now regarded as an extreme form of *T. elongata*.

## FLOWERING

Not applicable—spore producing

## FLOWER COLOURS

No flowers

## FRUITING

Not applicable—spore producing

## 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  
**elongata:** Elongated

## WHERE TO BUY

Not commercially available

## ATTRIBUTION

Fact sheet prepared for NZPCN by P.J. de Lange (21 April 2011). 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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## MORE INFORMATION

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

## PDF DATE

17 September 2024