**Tmesipteris sigmatifolia**

**COMMON NAME**
fossil fern, fork fern

**SYNONYMS**
Tmesipteris tannensis var. elongata Sahni

**FAMILY**
Psilotaceae

**AUTHORITY**
Tmesipteris sigmatifolia Chinnock

**FLORA CATEGORY**
Vascular – Native

**ENDEMIC TAXON**
No

**ENDEMIC GENUS**
No

**ENDEMIC FAMILY**
No

**STRUCTURAL CLASS**
Ferns

**NVS CODE**
TMESIG

**CHROMOSOME NUMBER**
2n = 208

**CURRENT CONSERVATION STATUS**
2017 | Not Threatened | Qualifiers: SO

**PREVIOUS CONSERVATION STATUSES**
2012 | Not Threatened
2009 | Not Threatened
2004 | Sparse

**DISTRIBUTION**
Indigenous. North Island (from Te Paki south to about Thames in the east and near Wanganui in the west), South Island (from Nelson, North-west Nelson and Westland). Present also in New Caledonia.

**HABITAT**
Coastal and lowland forest. Usually epiphytic on tree fern trunks but also found growing terrestrially in deep leaf litter. In the northern part of its range it grows mostly within kauri (*Agathis australis* (D.Don.) Lindl.) forest.

**DETAILED DESCRIPTION**
Plants usually epiphytic sometimes terrestrial. **Rhizomes** far-creeping, buried within host bark or tissue, or buried within leaf litter, branched, lacking roots. **Aerial stems** pendulous, 60–280 mm long, undivided. **Lamina** spirally arranged, 10–20 mm long, bright green to dark green, distinctly sigmoid or narrow-oblong, coriaceous, apices blunt, midrib distinct, prolonged beyond lamina as a fine mucro. **Sporangia** (synangia) yellow-green, confined to the base of the upper side of the lamina, somewhat inconspicuous, unequal, testiculate with rounded apices, usually confined to upper portion of stem.
SIMILAR TAXA
Distinguished from the other New Zealand species by the sigmoid (sigma-shaped), mucronate, leaf-like lamina and small, rather inconspicuous, unequally sized, testiculate pairs of sporangia.

PROPAGATION TECHNIQUE
Difficult—should not be removed from the wild

THREATS
A naturally uncommon and biologically sparse species. It is never common at any particular site and is often known from only a few specimens over wide parts of its range. It would be fair to say that it is undercollected and so in part our knowledge of this species is inadequate. Nevertheless it does not seem to be threatened, partly because it requires mature forest, much of which is already protected over large parts of its known range.

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

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

NZPCN FACT SHEET CITATION
Please cite as: de Lange, P.J. (Year at time of access): Tmesipteris sigmatifolia Fact Sheet (content continuously updated). New Zealand Plant Conservation Network. https://www.nzpcn.org.nz/flora/species/tmesipteris-sigmatifolia/ (Date website was queried)

MORE INFORMATION