

Notogrammitis heterophylla

COMMON NAME

taupeka, comb fern

SYNONYMS

Grammitis heterophylla Labill.; *Xiphopteris heterophylla* (Labill.) Spreng.; *Gymnogramma billardierei* Kaulf.; *Polypodium billardierei* Fée; *Polypodium grammitidis* R.Br.; *Ctenopteris grammitidis* (R.Br.) J.Sm.; *Grammitis grammitidis* (R.Br.) Keyserl.; *Polypodium grammitidis* R.Br.; *Ctenopteris heterophylla* (Labill.) Tindale

FAMILY

Polypodiaceae

AUTHORITY

Notogrammitis heterophylla (Labill.) Parris

FLORA CATEGORY

Vascular – Native

ENDEMIC TAXON

Yes

ENDEMIC GENUS

No

ENDEMIC FAMILY

No

STRUCTURAL CLASS

Ferns

NVS CODE

NOTHET

CHROMOSOME NUMBER

2n = 74

CURRENT CONSERVATION STATUS

2017 | Not Threatened | Qualifiers: SO

PREVIOUS CONSERVATION STATUSES

2012 | Not Threatened

2009 | Not Threatened

2004 | Not Threatened

DISTRIBUTION

Indigenous. New Zealand: Manawatāwhi / Three Kings Islands, North Island, South Island, Stewart Island/Rakiura, Chatham Islands, Auckland Islands. Also Australia.

HABITAT

Coastal to subalpine. Usually epiphytic but also common on cliff faces, boulders in forest and on sheltered rocks within talus and scree.

WETLAND PLANT INDICATOR STATUS RATING

UPL: Obligate Upland

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



Mount Thomas, Canterbury. March 1980.
Photographer: Jeremy R. Rolfe, Licence: CC BY.



Puffer Track, Kaitoke. Photographer: Jeremy R. Rolfe, Date taken: 15/09/2006, Licence: CC BY.

DETAILED DESCRIPTION

Epiphytic or rupestral shortly rhizomatous fern forming tufted patches. **Fron**d produced in two rows. **Lamina** (25)–87–191–(300) mm long, (3)–18–57–(100) mm wide. **Pinnae** (3)–12–21–(36) pairs; longest pinnae (1)–10–40–(63) mm long, 1.5–7.5 mm wide, apically truncate to acuminate, herbaceous to thickly coriaceous; margins entire or with primary and secondary lobules; hairs 0.2–0.8 mm long, whitish to pale red-brown, catenate, simple, glandular to eglandular, or whitish to pale red-brown, forked, abaxially on rachis, sometimes on both surfaces of lamina and margins. **Sori** on (2)–8–15–(22) pairs of pinnae.

FLOWERING

Not applicable—spore producing

FLOWER COLOURS

No flowers

FRUITING

Not applicable—spore producing

LIFE CYCLE

Minute spores are wind dispersed (Thorsen et al., 2009).

PROPAGATION TECHNIQUE

Difficult—should not be removed from the wild

ETYMOLOGY

notogrammitis: From the Greek noto- 'southern' and gramma 'line', referring to this new genus of southern strap ferns which were previously in Grammitis.

heterophylla: Varied leaves; from the Greek heteros and phullon

WHERE TO BUY

Not commercially available

NOTES ON TAXONOMY

As *Ctenopteris heterophylla*, *Notogrammitis heterophylla* was always regarded as very similar to New Zealand *Grammitis* (all now *Notogrammitis*) from which it was largely distinguished by its divided frond. However, occasional hybrids between *Ctenopteris heterophylla* and both *Grammitis billardierei* and *G. ciliata* (now *Notogrammitis billardierei* and *N. ciliata* respectively), both with varying levels of fertility (i.e. not completely sterile) have been recorded from the wild (Parris 1977; de Lange & Rolfe 2011), and these suggested a very close relationship between *Ctenopteris heterophylla* and what is now *Notogrammitis*.

Subsequently the New Zealand species of *Grammitis* along with *Ctenopteris heterophylla* and one Australian *Grammitis* (*G. garrettii*) were transferred to a new genus, *Notogrammitis* Parris (Perrie & Parris 2012).

ATTRIBUTION

Fact sheet prepared for NZPCN by P.J. de Lange (Updated 10 April 2011). Description from Parris (1998)

REFERENCES AND FURTHER READING

- de Lange PJ, Rolfe JR. 2011. Vascular flora of Maungaraho Rock. *Wellington Botanical Society Bulletin* 53: 11–22.
- Parris BS. 1977. A naturally occurring intergeneric hybrid in Grammitidaceae (Filicales): *Ctenopteris heterophylla* × *Grammitis billardieri*. *New Zealand Journal of Botany* 15(4): 597–599. <https://doi.org/10.1080/0028825X.1977.10429633>.
- Parris BS. 1998. Grammitidaceae. *Flora of Australia* 48, *Ferns Gymnosperms and allied groups*: 450–468. ABRS/CSIRO Victoria, Australia.
- Perrie LR, Parris BS. 2012. Chloroplast DNA sequences indicate the grammitid ferns (Polypodiaceae) in New Zealand belong to a single clade, *Notogrammitis* gen. nov. *New Zealand Journal of Botany* 50(4): 457–472. <https://doi.org/10.1080/0028825X.2012.735247>.
- Thorsen MJ, Dickinson KJM, Seddon PJ. 2009. Seed dispersal systems in the New Zealand flora. *Perspectives in Plant Ecology, Evolution and Systematics* 11: 285–309. <https://doi.org/10.1016/j.ppees.2009.06.001>.

NZPCN FACT SHEET CITATION

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

MORE INFORMATION

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