

# Notogrammitis rawlingsii

## COMMON NAME

Rawlings's strapfern

## SYNONYMS

*Grammitis rawlingsii* Parris

## FAMILY

Polypodiaceae

## AUTHORITY

*Notogrammitis rawlingsii* (Parris) Parris

## FLORA CATEGORY

Vascular – Native

## ENDEMIC TAXON

Yes

## ENDEMIC GENUS

No

## ENDEMIC FAMILY

No

## STRUCTURAL CLASS

Ferns

## NVS CODE

NOTRAW

## CURRENT CONSERVATION STATUS

2017 | At Risk – Naturally Uncommon | Qualifiers: Sp

## PREVIOUS CONSERVATION STATUSES

2012 | At Risk – Naturally Uncommon | Qualifiers: Sp

2009 | At Risk – Naturally Uncommon

2004 | Sparse

## DISTRIBUTION

Endemic. New Zealand: North Island (from Herekino and Puketi Forests south to the Coromandel Peninsula (Waikawau Bay), upper Kauaeranga Valley and Mt Pirongia. Locally common around Warkworth and in some kauri remnants in North Shore, Auckland), Te Hauturu-o-Toi / Little Barrier Island, Great Barrier Island (Aotea Island).

## HABITAT

This species is characteristically associated with kauri (*Agathis australis*) forest, or forest remnants, where it invariably grows amongst mosses, on rotting logs, exposed roots or as a low epiphyte.



Photo by John Smith-Dodsworth.  
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Brick Bay, Matakana. Photographer: Jeremy R. Rolfe, Date taken: 28/10/2008, Licence: CC BY.

## DETAILED DESCRIPTION

Terrestrial, rupestral (or rarely a low epiphyte) fern. **Rhizome** short-creeping; paleae pale brown, lanceolate, acute to broadly acute, 4.0–4.5 × 1.0 mm. **Stipe** indistinct, winged nearly to base; stipe hairs whitish, sparse to common, to 1.5 mm long. **Lamina** linear-oblongate, acute, (103)–104–137–(143) × (4)–4.5–5.5–(6) mm; hairs around and within the sori dark red-brown, stout, sometimes hooked, common to abundant, to 0.5 mm long; lamina hairs elsewhere rare, on margins and midrib, reddish brown, to 0.4 mm; texture thinly coriaceous; veins invisible, endings not darkened; midrib raised on lower surface, concolorous with lamina. **Sori** oblong, oblique, in upper half of frond, 12–22 pairs, 3–5 × 1 mm; soral vein ending within sorus or extending a little beyond it, shorter than basiscopic vein, neither usually reaching margin. **Sporangia** (160)–163.6–203.0–(210) µm long; indurated cells of annulus (10)–10.8–13.6–(14). **Spores** (23)–23.3–25.9–(27) µm diameter.

## SIMILAR TAXA

Perhaps most frequently confused with *Notogrammitis billardierei*, which is superficially similar in that it has linear to narrowly elliptic fronds with blunt apices. However, the sori of *Notogrammitis billardierei* are glabrous lacking the encircling red-brown hairs diagnostic of *N. rawlingsii*.

## LIFE CYCLE

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

## PROPAGATION TECHNIQUE

Difficult. Should not be removed from the wild.

## THREATS

Although this species is now recognised as being more widespread than when it was first described in the 1970s, it is still rather local, and surprisingly absent from some areas of seemingly suitable habitat (e.g., the Waitakere Ranges). As a rule populations tend to be very localised and small so this species is especially prone to over collection by zealous fern hunters and botanists. The species is now very close to extinction at its type locality at Waipoua, and there is some evidence that this has arisen because of illegal fern collection, though gradual drying out of the forest may also be responsible (B.S. Parris pers. comm.).

## ETYMOLOGY

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

## WHERE TO BUY

Not commercially available

## TAXONOMIC NOTES

The New Zealand species of *Grammitis* along with *Ctenopteris heterophylla* and one Australian *Grammitis* (*G. garrettii*) one Lord Howe (*G. diminuta*) and one species endemic to the Moluccas and Indonesian (*G. kairatuensis*) have traditionally been placed in *Grammitis* (Parris & Given 1976; Parris 1998). However, these species (with the exception of *G. diminuta*, *G. kairatuensis* and *G. stenophylla*; B.S.Parris pers. comm. to P.J. de Lange January 2011) have been transferred to a new genus, *Notogrammitis* Parris (Perrie & Parris 2012).

## ATTRIBUTION

Fact sheet prepared for NZPCN by P.J. de Lange (January 2005). Description from Parris & Given (1976).

## REFERENCES AND FURTHER READING

- Parris BS. 1998. Grammitidaceae. *Flora of Australia 48, Ferns Gymnosperms and allied groups*: 450–468. ABRIS/CSIRO Victoria, Australia.
- Parris BS, Given DR. 1976. A taxonomic revision of *Grammitis* Sw. (Grammitidaceae: Filicales) in New Zealand. *New Zealand Journal of Botany 14(1)*: 85–111. <https://doi.org/10.1080/0028825X.1976.10428655>.
- 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-rawlingsii/> (Date website was queried)

### **MORE INFORMATION**

<https://www.nzpcn.org.nz/flora/species/notogrammitis-rawlingsii/>