

# Notogrammitis billardierei

## COMMON NAMES

common strap fern

## SYNONYMS

*Polypodium billardieri* (Willd.) C.Chr.; *Grammitis australis* R.Br.; *Grammitis humilis* Hombr.; *Polypodium australe* (R.Br.) Mett.; *Grammitis billardierei* Willd.; *Grammitis meridionalis* Parris

## FAMILY

Polypodiaceae

## AUTHORITY

*Notogrammitis billardierei* (Willd.) Parris

## FLORA CATEGORY

Vascular – Native

## ENDEMIC TAXON

No

## ENDEMIC GENUS

No

## ENDEMIC FAMILY

No

## STRUCTURAL CLASS

Ferns

## NVS CODE

GRABIL

## 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: North Island (from Warawara Forest south, not common north of Auckland on the Northland Peninsula), South Island, Stewart Island/Rakiura, Chatham Islands, Antipodes Islands, Auckland Islands. Also Australia (New South Wales, Victoria, Tasmania).

## HABITAT

Coastal to subalpine, though usually montane in the northern part of its range. A common low epiphyte in mostly closed forest on a range of trees and tree ferns, also commonly seen growing on mossy hummocks, rotting logs, clay banks, cliff faces, boulders and rubble slopes in dense forest.



Wellington. Photographer: Jeremy R. Rolfe, Licence: CC BY.



Stokes Valley, Lower Hutt. Photographer: Jeremy R. Rolfe, Date taken: 01/08/2006, Licence: CC BY.

## DETAILED DESCRIPTION

Epiphytic, terrestrial or rupestral fern. **Rhizome** erect to short-creeping, rarely long-creeping; paleae light brown, lanceolate to narrowly lanceolate, acute to broadly acute, 2.2–6.3 × 0.48–1.5 mm. **Stipes** indistinct, winged almost to base; stipe hairs whitish to pale red-brown, sparse to common, 0.3–1.5 mm. **Lamina** (26)–56–136–(245) × (3)–3.9–6.9–(11) mm; linear-oblongate, rarely elliptic to oblanceolate, acute or rarely obtuse, lamina hairs to 1.0 mm; sparse to absent on margin, midrib and lamina, similar to those on the stipe; texture thinly coriaceous to coriaceous; veins visible or invisible, rarely raised on upper and lower surface in dried material, endings not darkened; midrib raised below, usually darker than lamina. **Sori** oblong to linear, oblique, in upper and middle part of frond, 2–27 pairs, 1.5–7.5 × 1.0–2.0 mm; soral vein ending within the sorus or extending a little beyond it, shorter than basicopic vein, neither reaching the margin. **Sporangia** (150)–177.5–208.9–(260) µm long; indurated cells of annulus (9)–10.4–12.4–(15). **Spores** (18)–23.3–26.1–(31) µm diameter.

## SIMILAR TAXA

Easily distinguished by the tufted growth habit, erect or very shortly creeping rhizomes, fronds that are 56–135 mm long, more or less exstipitate, and bearing unicellular hairs (at least on the stipe), and by the absence of hairs from the soral area.

## 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*.

**billardierei**: Named after Jacques Houttou de Labillardiere (1755-1834), 19th century French botanist who described several New Zealand plants

## 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 now been transferred to a new genus, *Notogrammitis* Parris (Perrie & Parris 2012). *Notogrammitis crassior* is the fern that has been known in New Zealand for some time, incorrectly (see Perrie & Parris 2012) as *Grammitis poepiggiana*.

## ATTRIBUTION

Fact sheet prepared for NZPCN by P.J. de Lange (Updated 25 April 2011). Description from Parris & Given (1976).

## REFERENCES AND FURTHER READING

Parris BS. 1998. Grammitidaceae. *Flora of Australia 48, Ferns Gymnosperms and allied groups*: 450–468.

ABRS/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-billardierei/> (Date website was queried)

## MORE INFORMATION

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

**PDF DATE**

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