

Doodia aspera

COMMON NAME

prickly rasp fern

SYNONYMS

Woodwardia aspera (R.Br.) Fée; *Blechnum neohollandicum* Christenh.

FAMILY

Blechnaceae

AUTHORITY

Doodia aspera R. Br.

FLORA CATEGORY

Vascular – Native

ENDEMIC TAXON

No

ENDEMIC GENUS

No

ENDEMIC FAMILY

No

STRUCTURAL CLASS

Ferns

NVS CODE

DOOASP

CHROMOSOME NUMBER

2n = 64

CURRENT CONSERVATION STATUS

2017 | Non-resident Native – Vagrant | Qualifiers: EW, SO

PREVIOUS CONSERVATION STATUSES

2012 | Non-resident Native – Vagrant | Qualifiers: EW, SO

2009 | Non-resident Native – Vagrant | Qualifiers: EW, SO

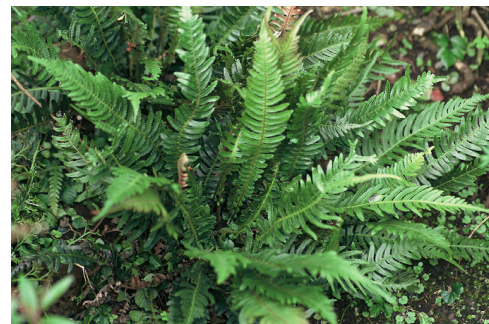
2004 | Non-resident Native – Vagrant

DISTRIBUTION

Indigenous. Probably now extinct in New Zealand, said to have occurred at one site near Waiomio, Kawakawa, in Northland. Other records from Takapaukura / Tom Bowling Bay are based on hybrids.

HABITAT

The species has been recorded only from Northland where it once grew in coastal scrub and inland under rawirinui (*Kunzea robusta*) forest.



Doodia aspera x *D. australis* in cultivation ex Tomokanga Pa, Tom Bowling Bay, Te Pahi. Photographer: Gillian M. Crowcroft, Licence: All rights reserved.



Doodia aspera plants (single clone) ex Waiomio, St Andrews, Hamilton. Photographer: Peter J. de Lange, Date taken: 03/09/2006, Licence: CC BY-NC.

DETAILED DESCRIPTION

Terrestrial fern with New Zealand examples forming dense carpets due to long creeping rhizomes which form thick and rather extensive networks above and below soil. **Rhizomes** up to 10 mm diameter, covered in persistent, dark black stipe remnants, widely spreading up to or exceeding 1 m in length; more or less ascending at apices; with or without fronds, sometimes with fronds more or less evenly spaced along stolon. **Stipes** 100–300 mm long; clad in black to blackish-brown scales, sometimes also finely hairy. **Fronde**s not dimorphic, lamina narrowly-elliptic to elliptic, pinnate, 120–400 × 25–100 mm, at first pink or pinkish-green, maturing dark green, or in poor conditions yellow-green, scaly along rachis, rather harshly textured. **Pinnae** in 15–38 pairs, fused (adnate) to rachis, except on occasion the lower pair which may be stalked. Terminal pinna 7–21 mm long (c. less than 1/8 of total frond length); longest pinnae 15–60 × 4–6 mm. Indusia and sorus reniform, sori 0.8–2 × 0.8–1.5 mm, discrete, in 1–2 rows on either side of pinna midvein.

SIMILAR TAXA

Best distinguished from *Doodia australis* by the stoloniferous habit, and pinnae which, with the infrequent exception of the basal pair, are adnate (fused) to the rachis. *Doodia aspera* is cold sensitive and even in Auckland will slow down growth and die back during winter, *D. australis* is not so cold sensitive and continues growth even when partially frosted.

FLOWERING

Not applicable—spore producing

FLOWER COLOURS

No flowers

FRUITING

Not applicable—spore producing

PROPAGATION TECHNIQUE

Easy from spores and rooted pieces. Once established it is rather fast growing, and makes an excellent ground cover under tall trees, or on exposed, hard clay soils. The species is cold sensitive—much nursery stock is of Australian origin, and specimens from Tomakanga Pa, Takapaukura / Tom Bowling Bay are now known to be hybrids with *Doodia australis*—they make a fine garden plant and being sterile cannot cross with other *Doodia* species.

THREATS

The last reported wild population was said to have been destroyed when the habitat was planted over in pines. As a vagrant species *Doodia aspera* could potentially reappear elsewhere in New Zealand at any time. It should be looked for.

ETYMOLOGY

doodia: Named for Samuel Doody, 17th century London apothecary and curator

aspera: From the Latin asper 'rough', meaning rough or covered with hard short rigid points

WHERE TO BUY

Occasionally available from mainline and specialist native plant nurseries, though it is unclear if the plants available are of New Zealand or Australian origin

TAXONOMIC NOTES

Two of the images provided here by the NZPCN are from plants that had been referred to *Doodia aspera* in the past (Parris 1973) but which are now known to be hybrids between that species and *D. australis* (de Lange et al. 2004). These hybrids are common in one area near Takapaukura / Tom Bowling Bay, Te Pahi. They resemble *Doodia aspera* closely except that they have irregular meiosis, produce aborted spores, and have an intermediate chromosome number ($2n = 96$) (see comments by de Lange et al. 2004). As far as is known there are now no longer any genuine wild occurrences of *D. aspera* s.s. in New Zealand, although there are many garden plants said to have originated from a wild source in northern New Zealand. This is a claim which remains to be substantiated, as much Australian *D. aspera* was bought into New Zealand by fern growers in the late 1970s and early 1980s (P.J. de Lange unpubl. data).

Perrie et al. (2014) advocated for a broadened circumscription of Blechnaceae whereby a number of genera traditionally recognised as distinct from *Blechnum* were merged within it. However, this view has not met with universal acceptance (see Gasper et al. 2016) and does not seem to be followed worldwide (PPG 2016). From a New Zealand perspective the decision to merge *Doodia* in *Blechnum*, and rejection of *Diploblechnum* has not been universally accepted either e.g., Wilcox & Warden (2017), and as such it is considered appropriate to follow world opinion and accept the taxonomy of Gasper et al. (2016) and recommendations of the PPG (2016).

ATTRIBUTION

Fact sheet prepared for NZPCN by P.J. de Lange (2 February 2005). Description adapted from Parris (1973, 1998) and Brownsey & Smith-Dodsworth (2000).

REFERENCES AND FURTHER READING

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NZPCN FACT SHEET CITATION

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MORE INFORMATION

<https://www.nzpcn.org.nz/flora/species/doodia-aspera/>