

# Doodia squarrosa

## SYNONYMS

*Doodia caudata* Baker; *Doodia caudata* var. *squarrosa* (Colenso) C.Chr.;  
*Blechnum zeelandicum* Christenh.

## FAMILY

Blechnaceae

## AUTHORITY

*Doodia squarrosa* Colenso

## FLORA CATEGORY

Vascular – Native

## ENDEMIC TAXON

Yes

## ENDEMIC GENUS

No

## ENDEMIC FAMILY

No

## STRUCTURAL CLASS

Ferns

## NVS CODE

DOOSQU

## CHROMOSOME NUMBER

2n = 128

## CURRENT CONSERVATION STATUS

2017 | At Risk – Naturally Uncommon | Qualifiers: DP, Sp

## PREVIOUS CONSERVATION STATUSES

2012 | At Risk – Naturally Uncommon | Qualifiers: Sp

2009 | At Risk – Naturally Uncommon

2004 | Gradual Decline

## DISTRIBUTION

Endemic. Kermadec Islands (Macauley Island). New Zealand: North Island from Northland to Wellington.

## HABITAT

Coastal and lowland alluvial forest, river banks (often in the flood zone), near water falls and in geothermal areas, usually in dappled light or sunny situations. Appears to show a strong preference for base-rich substrates such as basalt, limestone, and the apatite-rich facies of greywacke.

## DETAILED DESCRIPTION

Tufted fern arising from shortly erect rhizomes. **Stipes** 50–150–(200) mm long, along with rachises clad in sparse, brown, caducous scales otherwise glabrous. **Fronds** dimorphic, the sterile ones prostrate and smaller than the erect, fertile ones. Fronds 14–450 × 15–80 mm, firmly fleshy, glabrescent, pink when young maturing green to dark green. **Pinnae** in 15–35 pairs, lower and middle pairs stalked, the others fused (adnate) to stipe. Fertile terminal pinna 15–155 mm (conspicuously longer than all other pinnules, up to 1/8 length of entire frond). **Indusia** linear.

## SIMILAR TAXA

Most likely to be confused with *Doodia mollis* whose fronds are also distinctly dimorphic. However the fronds of this species are distinctly hairy, pinnae are up to 20 pairs, and the terminal pinna is scarcely longer than the rest.



In cultivation. Photographer: John Smith-Dodsworth, Licence: CC BY-NC.



Stony bay, Coromandel. Photographer: John Smith-Dodsworth, Licence: CC BY-NC.

## FLOWERING

Not applicable - spore producing

## FLOWER COLOURS

No flowers

## FRUITING

Not applicable - spore producing

## PROPAGATION TECHNIQUE

Easy from fresh spores. Very fast growing and an excellent pot plant. Does well in a variety of soils, light levels and moisture regimes but intolerant of weeds.

## THREATS

Occupying a range of habitats, several of which are vulnerable to the spread of aggressive weeds. Within Auckland City the species has virtually been eliminated by excessive plant collecting, a factor which also threatens it in the Wellington region. Populations within the geothermal fields of the Bay of Plenty are at serious risk from the spread of taller weed species, especially grasses, such as Indian doab (*Cynodon dactylon*).

## ETYMOLOGY

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

**squarrosa**: Rough, with scale-like projections; from the Latin squarrosus; leaves and leaf stalks

## TAXONOMIC NOTES

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) and Brownsey & Smith-Dodsworth (2000)

## REFERENCES AND FURTHER READING

- Brownsey PJ, Smith-Dodsworth JC. 2000. New Zealand Ferns and Allied Plants. David Bateman, Auckland, NZ. 168 p.
- Gasper AL, de Oliveira Dittrich VA, Smith AR, Salino A. 2016. A classification for Blechnaceae (Polypodiales: Polypodiopsida): New genera, resurrected names, and combinations. *Phytotaxa* 275: 191–227. <https://doi.org/10.11646/phytotaxa.275.3.1>.
- Parris BS. 1972. The genus *Doodia* (Blechnaceae: Filicales) in New Zealand. *New Zealand Journal of Botany* 10: 585–610. <https://doi.org/10.1080/0028825X.1972.10430248>.
- Perrie LR, Wilson RK, Shepherd LD, Ohlsen DJ, Batty EL, Brownsey PJ, Bayly MJ. 2014. Molecular phylogenetics and generic taxonomy of Blechnaceae ferns. *Taxon* 63(4): 745–758. <https://doi.org/10.12705/634.13>.
- PPG 1: The Pteridophyte Phylogeny Group 2016. A community-derived classification for extant lycophytes and ferns. *Journal of Systematics and Evolution* 54: 563–603. <https://doi.org/10.1111/jse.12229>.
- Wilcox M, Warden J. 2017. Botany of Hillsborough coast bush reserves, Manukau Harbour, Auckland. *Auckland Botanical Society Journal* 72: 32–46.

## NZPCN FACT SHEET CITATION

Please cite as: de Lange, P.J. (Year at time of access): *Doodia squarrosa* Fact Sheet (content continuously updated). New Zealand Plant Conservation Network. <https://www.nzpcn.org.nz/flora/species/doodia-squarrosa/> (Date website was queried)

## MORE INFORMATION

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