

Doodia australis

COMMON NAME

rasp fern

SYNONYMS

Doodia media subsp. *australis* Parris; *Doodia kunthiana* sensu A.Cunn.;
Doodia australis (Parris) Parris, *Blechnum parrisiae* Christenh.

FAMILY

Blechnaceae

AUTHORITY

Doodia australis (Parris) Parris

FLORA CATEGORY

Vascular – Native

ENDEMIC TAXON

No

ENDEMIC GENUS

No

ENDEMIC FAMILY

No

STRUCTURAL CLASS

Ferns

NVS CODE

DOOAUS

CHROMOSOME NUMBER

2n = 128

CURRENT CONSERVATION STATUS

2017 | Not Threatened | Qualifiers: SO

PREVIOUS CONSERVATION STATUSES

2012 | Not Threatened

2009 | Not Threatened

2004 | Not Threatened

DISTRIBUTION

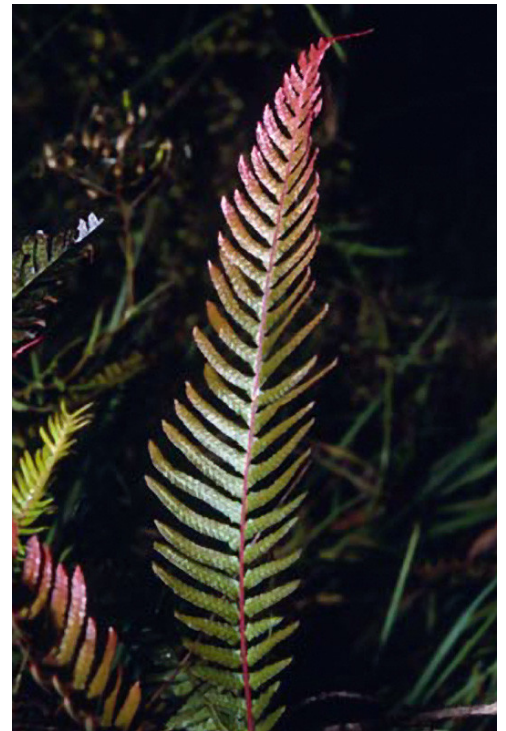
Indigenous. Kermadec Islands (Raoul Island, Macauley Island). New Zealand: Manawatāwhi / Three Kings Islands, North Island (from Te Pahi south to Wellington, abundant north of Waikato, otherwise scarce), South Island (Marlborough Sounds, North-west Nelson and Banks Peninsula). Present in Australia, Norfolk and Lord Howe Islands.

HABITAT

Coastal to lowland in open or forested sites, within light scrub, in rough pasture, and even known as a weedy fern of urban gardens and environments.



Coromandel. Photographer: Jeremy R. Rolfe, Date taken: 11/12/1982, Licence: CC BY.



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DETAILED DESCRIPTION

Vegetative reproduction by stolons or shortly branching rhizome. **Rhizome** rarely prostrate and creeping; clad in dense black scales. **Fronds:** fertile and sterile fronds mostly similar sometimes moderately dimorphic; more or less erect or sterile fronds sometimes inclined to prostrate; harsh; lamina 110–600 mm long. **Stipes and rachis** bearing brown scales, these more persistent at the stipe base though mostly shed at frond maturation; pubescent. **Pinnae** c. 20–50 pairs or subopposite; middle pinnae rounded, acute or acuminate at apex; lower pinnae attached by costae, sometimes with auricles developed, or very rarely adnate to the rachis, lowest pair rarely longer than the pairs immediately above them; middle pinnae usually completely, but often partly, adnate, occasionally decurrent, rarely auriculate; upper pinnae adnate to decurrent; terminal pinna 3–55 mm long (0.02–0.11–(0.33)× frond length). Longest pinnae 5.0–100.0 × 2.5–10 mm. Distance between middle pinnae 1–8 mm (0.5–2× pinna width). **Sori** in one row, a second row often partly to nearly completely developed; discrete to more or less confluent, sometimes covering pinna midrib. **Indusium** c. 2 mm long rarely less, more or less linear.

SIMILAR TAXA

Doodia australis is distinguished from the other allied New Zealand *Doodia* species by the pink to red colour of the young emergent fronds; by the lower pinnae adnate (fused) to an unwidened base (adnate) or stalked (costate); by the pubescent rachis; by the terminal pinna being less than one third the total frond length; and by all or most of the pinnae in middle third of the frond partly or completely adnate to rachis. As currently circumscribed *Doodia australis* remains a variable species with a range of reasonably well marked races known, some of these may yet warrant some level of taxonomic rank.

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

Extremely easily grown from fresh spore (it often self sows around the garden, and in some sites self-establishes through wind blown spores). Reasonably frost-tolerant, and does best in full sun, especially on poorly drained clay soils. Drought tolerant.

ETYMOLOGY

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

australis: Southern

TAXONOMIC NOTES

Perrie et al. (2014) advocated for a broadened circumscription of Blechnaceae whereby a number of genera traditionally recognized 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 (4 March 2012). Description adapted from Parris (1973) where this species was treated as *Doodia media* subsp. *australis*.

REFERENCES AND FURTHER READING

- 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

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MORE INFORMATION

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