Doodia mollis

COMMON NAMES
mokimoki, mukimuki

BIOSTATUS
Native – Endemic taxon

CURRENT CONSERVATION STATUS
2023 | At Risk – Naturally Uncommon | Qualifiers: Sp, DPR
Jump to previous conservation statuses

CATEGORY
Vascular

STRUCTURAL CLASS
Ferns

FLOWER COLOURS
No flowers

DETAILED DESCRIPTION
Small, tufted fern. **Rhizomes** erect. **Stipes** 30–150 mm long, clad in pale brown scales; rachises finely hairy. **Frond** faintly, sweetly scented when crushed. Sterile fronds spreading to prostrate with short, broad pinnae. Fertile fronds erect with longer narrower pinnae. Frond laminae narrowly elliptic to linear, pinnate, pinnules usually basally and broadly lobed, 80–260 × 15–50 mm, firmly fleshy, hairy or glabrous, pink or pinkish-green when young, maturing pale yellow-green to green. **Pinnae** in 10–20 pairs, the lower and middle ones stalked, the upper adnate. Terminal pinna 7–25 mm long (usually less than ⅛ of the total frond length). Longest pinnae 8–30 × 2–3 mm. **Sori** usually running together at maturity. **Indusia** linear, occasionally hairy.

Aorangi Forest Park. Photographer: Jeremy R. Rolfe, Date taken: 14/02/2009, Licence: CC BY.

SIMILAR TAXA
Superficially similar to *Doodia squarrosa* to which it seems to be closely related. For example both species have markedly dimorphic fronds, i.e., the sterile fronds have broader pinnules and are usually spreading and prostrate while the fertile fronds have narrower, linear pinnules and are held erect. However, *D. squarrosa* is usually much larger, it also tends to grow in drier and more exposed conditions, such as on basalt lava fields, scoria cones, and in the flood zone of creeks, streams and rivers. The terminal pinna of *D. squarrosa* is rather longer than in *D. mollis* (up to about half the total length of the frond) and the rachis is distinctly scaly rather than hairy as in *D. mollis*. Some apparently sterile, intermediate collections made from sites around Awanui where both species are sympatric suggests that they may hybridise.


Kitekite Falls (February). Photographer: John Smith-Dodsworth, Licence: CC BY-NC.

DISTRIBUTION
Endemic. New Zealand: Kermadec Islands (Macauley Island), North Island from Awanui south to the Hamilton Basin, Hauraki Plains, coastal portion of the Bay of Plenty and from Hawke's Bay, and southern Wairarapa.

HABITAT
Usually found in coastal to lowland forest, often along river margins or in alluvial forest, especially in damp sites or in deep highly fertile forest soils (especially overlying basalt, andesite or alluvium). Occasionally found under light scrub on damp clay banks. This species has also been gathered from the margins of drains running through alluvial forest. Often found in association with *Doodia australis*, with which it forms sterile hybrids known as *D.* ×*digena* Parris. More rarely found sympatric with *D. squarrosa*, with which it may also hybridise.

THREATS
An apparently naturally uncommon, biologically sparse species. Although some populations have been lost through land development the species remains rather widespread, and can at times be locally common.

GENUS
Doodia

FAMILY
Blechnaceae

AUTHORITY
Doodia mollis Parris

SYNONYMS
Doodia caudata sensu Allan (1961), Doodia caudata sensu A.Rich.; Doodia media var. caudata G.M.Thomson; Blechnum molle (Parris) Christenh.

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).

ENDEMIC TAXON
Yes

ENDEMIC GENUS
No

ENDEMIC FAMILY
No

FLOWERING
Not applicable—spore producing

FRUITING
Not applicable—spore producing

PROPAGATION TECHNIQUE
Easily grown from fresh spores. An attractive fern that does well in dappled light on free draining, fertile but damp soil. Makes an excellent pot plant. Despite its apparently delicate nature it can be very drought tolerant.

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

NVS CODE
DOOMOL

CHROMOSOME NUMBER
2n = c.192

PREVIOUS CONSERVATION STATUSES
2017 | At Risk – Naturally Uncommon | Qualifiers: DP, Sp
2012 | At Risk – Naturally Uncommon | Qualifiers: Sp
2009 | At Risk – Naturally Uncommon
2004 | Sparse
Jump to current conservation status

REGIONAL CONSERVATION STATUSES

Auckland: 2025 | Regionally Threatened – Regionally Endangered | Qualifiers: DPR, DPS, DPT, PF, Sp Help
The regional threat classification system leverages off the national assessments in the NZTCS, providing information relevant for the regional context. Auckland conservation status information is sourced from the "Conservation status of vascular plant species in Tāmaki Makaurau / Auckland" Simpkins E et al. (2025) report.

REFERENCES AND FURTHER READING

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ATTRIBUTION

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

NZPCN FACT SHEET CITATION

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MORE INFORMATION

https://www.nzpcn.org.nz/flora/species/doodia-mollis/

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