

# Adiantum formosum

## COMMON NAME

giant maidenhair, plumed maidenhair

## SYNONYMS

None

## FAMILY

Pteridaceae

## AUTHORITY

*Adiantum formosum* R.Br.

## FLORA CATEGORY

Vascular – Native

## ENDEMIC TAXON

No

## ENDEMIC GENUS

No

## ENDEMIC FAMILY

No

## STRUCTURAL CLASS

Ferns

## NVS CODE

ADIFOR

## CHROMOSOME NUMBER

2n = 116

## CURRENT CONSERVATION STATUS

2017 | At Risk – Relict | Qualifiers: RR, SO

## PREVIOUS CONSERVATION STATUSES

2012 | At Risk – Relict | Qualifiers: RR, SO

2009 | At Risk – Relict | Qualifiers: SO, RR

2004 | Non-resident Native – Vagrant

## DISTRIBUTION

Indigenous. North Island only, with historic records from near Ahipara (Reef Point), Herekino, and the North Wairoa River near Dargaville. The only extant populations now known occur along either side of the Manawatū Gorge, and in forest near the eastern and western ends, as well as around Woodville.

Also present in Eastern Australia (Queensland, New South Wales and Victoria), where it is abundant and under no threat.

## HABITAT

A species of alluvial forest and gorge sides. Usually found in shaded sites amidst drifts of leaf litter with little (if any) associated vegetation. It rarely grows in full sun.



Taken at Ashurst. Photographer: John Smith-Dodsworth, Licence: CC BY-NC.



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

## DETAILED DESCRIPTION

Tall, widely creeping fern forming diffuse patches up to 3 x 1.8 m. **Rhizome** buried (rarely at surface), long-creeping, much-branched to 10 mm diameter; scales golden brown with an acuminate apex and blunt marginal teeth. **Fronds** usually widely and irregularly placed along rhizome, up to 1.8 m tall. **Stipe** up to 0.9 m, wiry, basally dull black, distally glossy black, scabrous, finely tuberculate. **Frond lamina** 0.15–1 × 0.15–0.9 m, 2–4-pinnate, deltoid to pentagonal, firmly membranous to subcoriaceous; adaxial surfaces of rachises and pinna stalks clad with dense antrorse red-brown hairs. Higher order segments of frond (except pinnules) elliptic or triangular. **Primary pinnae** progressively reducing in size and degree of branching from base to apex. **Pinnules** symmetric, flabellate or dimidiate and rectangular to trapeziform, undersides glabrous or sparsely clothed with pale divergent (patent) hairs; distal margins irregularly lobed, dentate when sterile. **Sori** 1–10 on distal margins only, 1 or 2 per lobe; soral flaps lunate to subreniform, glabrous.

## SIMILAR TAXA

Easily recognised by the long creeping usually buried rhizomes, and very tall (up to 1.8 m) 3–4-pinnate fronds.

## LIFE CYCLE

Minute spores are wind dispersed (Thorsen et al., 2009).

## PROPAGATION TECHNIQUE

Easily grown from rooted pieces. Does best in a fertile, free draining, moist but not excessively wet soil in filtered light (semi-shade). Once established specimens should not be disturbed. A very attractive plant which is an excellent subject to plant under tall trees in a woodland garden setting.

## THREATS

It would appear that this species is spreading vegetatively as preliminary studies on spore germination suggest that while viable spores are produced they cannot germinate within the typical range of New Zealand temperatures (J. E. Braggins & S. Van der Mast pers. comm.). The only known wild populations are thriving but are rather localised and vulnerable to weeds.

## ETYMOLOGY

**adiantum**: From the Greek a- 'without, lacking' and diantos 'moistened', the fronds of this fern are supposed to remain dry after submersion in water

**formosum**: From the Latin formosus 'beautiful'

## ATTRIBUTION

Fact Sheet Prepared for NZPCN by P.J. de Lange (Updated July 2004). Description adapted from Bostock (1998).

## REFERENCES AND FURTHER READING

Bostock PD. 1998. Adiantaceae. *Flora of Australia 48, Ferns Gymnosperms and allied groups*: 248–263. ABRS/CSIRO Victoria, Australia.

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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## MORE INFORMATION

<https://www.nzpcn.org.nz/flora/species/adiantum-formosum/>