

Sphaeropteris medullaris

COMMON NAME

mamaku, black tree fern

SYNONYMS

Cyathea medullaris (G. Forst.) Sw.; *Cyathea medullaris* var. *polyneuron* (Colenso) C.Ch.; *Cyathea medullaris* var. *integra* Hook.; *Cyathea polyneuron* Colenso; *Polypodium medullare* G.Forst.;

FAMILY

Cyatheaceae

AUTHORITY

Sphaeropteris medullaris (G.Forst.) Bernh.

FLORA CATEGORY

Vascular – Native

ENDEMIC TAXON

No

ENDEMIC GENUS

No

ENDEMIC FAMILY

No

STRUCTURAL CLASS

Ferns

NVS CODE

CYAMED

CHROMOSOME NUMBER

2n = 138

CURRENT CONSERVATION STATUS

2017 | Not Threatened

PREVIOUS CONSERVATION STATUSES

2012 | Not Threatened

2009 | Not Threatened

2004 | Not Threatened

BRIEF DESCRIPTION

Large tree fern with black-stalked leaves to 5 m long. Trunk with obvious scars from old leaves, to 20 m tall. Leaf stems covered in small scales that have a spiny edge (lens needed). Sporangia arranged in small round capsules underneath leaves.

DISTRIBUTION

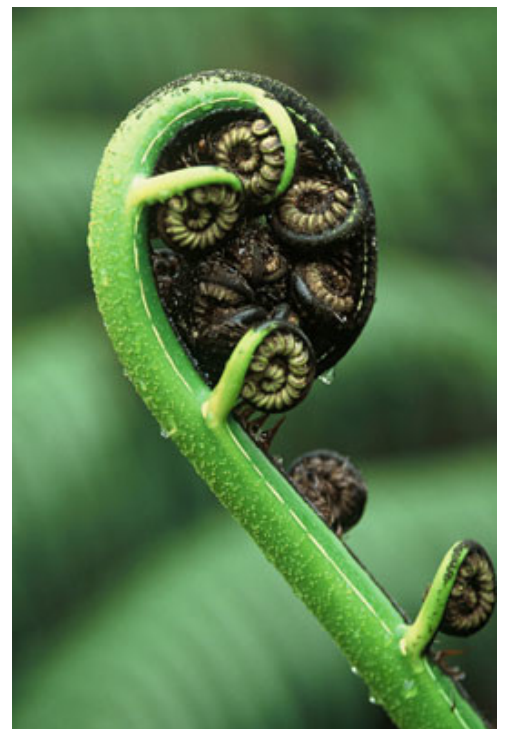
Indigenous. New Zealand: Manawatāwhi / Three Kings Islands, North Island, South Island (uncommon in the drier eastern portion, and apparently absent from Canterbury and Otago), Stewart Island/Rakiura, Chatham Islands (Chatham Island (Rēkohu), Pitt Island (Rangiauria)). Also Pacific Islands from Fiji to Picairn.

HABITAT

Common in lowland forest throughout the North Island. Primarily in wetter coastal areas of the South Island.



Stokes Valley, Lower Hutt. Photographer: Jeremy R. Rolfe, Date taken: 25/12/2004, Licence: CC BY.



Mamaku. Photographer: Department of Conservation, Licence: Public domain.

WETLAND PLANT INDICATOR STATUS RATING

FACW: Facultative Wetland

Usually is a hydrophyte but occasionally found in uplands (non-wetlands).

DETAILED DESCRIPTION

Tree fern up to 20 m tall. **Trunk** black covered with hexagonal stipe bases. **Stipes** thick, black, harsh to touch, covered in black scales. **Scales** with marginal spines. **Fronds** up to 5 m long, arching upwards from crown, 3-pinnate, leathery, dead fronds falling (except in very young plants). **Longest primary pinnae** 0.4–1 m long, undersurfaces bearing scales with marginal spines. Indusia completely covering sori at maturity, splitting irregularly.

SIMILAR TAXA

Easily recognised by trunk with its distinctive hexagonal stipe scars and by the scales which possess marginal spines.

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

Can be grown from fresh spores (but slow). Young plants transplant easily and freshly felled trunks will usually resprout if planted and carefully watered. Easy, once established in a variety of conditions. Should not be removed from the wild unless with landowner permission.

ETYMOLOGY

medullaris: Pithy (trunk)

WHERE TO BUY

Commonly cultivated. Not as freely available from nurseries as other tree ferns because it is slow from spores and sporelings are notorious for failing following transplants.

ATTRIBUTION

Fact sheet prepared for NZPCN by P.J. de Lange March 2004. Description adapted from 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.

Esler, W.R. 1976. Succession of fronds of mamaku (*cyathea medullaris*). *Wellington Botanical Society Bulletin* 39: 41–43.

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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<https://www.nzpcn.org.nz/flora/species/sphaeropteris-medullaris/> (Date website was queried)

MORE INFORMATION

<https://www.nzpcn.org.nz/flora/species/sphaeropteris-medullaris/>