

Todea barbara

COMMON NAMES

royal fern, hard todea, king fern

BIOSTATUS

Native

CURRENT CONSERVATION STATUS

2023 | Threatened – Nationally Vulnerable | Qualifiers: DPT, SO

[Jump to previous conservation statuses](#)

CATEGORY

Vascular

STRUCTURAL CLASS

Ferns

FLOWER COLOURS

No flowers

DETAILED DESCRIPTION

Extremely, robust, coriaceous ferns producing trunks up to 1 m tall. **Stipes** smooth, 150–600 mm, yellow brown, with ear-like lobes at base. **Fronds** persistent, coriaceous, 0.25–0.65 × 1.2–3.5 m, ovate, elliptic to lanceolate, 1-pinnate-pinnatifid to 2-pinnate, glabrous or finely pubescent along veins, glossy, upper surface pale green, yellow-green to golden yellow, undersides similar but paler. **Pinnae** 20–60 × 4–10 mm, lanceolate, narrowly oblong, to ovate; pinnules broadly attached at base, 15–80 × 4–9 mm, oblong-elliptic, apex acute, margins toothed; sporogenous pinnae occasionally shorter than sterile ones, restricted to lower part of frond, on lower pinnules of primary pinnae, at first in discrete groups, then confluent, green turning reddish brown.

SIMILAR TAXA

A well marked species quite unlike any other indigenous or cultivated species of fern present in New Zealand. However, there has been some confusion with the introduced royal fern, *Osmunda regalis* L., perhaps because both species share the same vernacular. *Osmunda regalis* is an aggressive species, which is readily distinguished from *Todea* by the deciduous habit, softer pale-green to blue-green fronds, and by the fertile portion of the frond occurring as a distinct branchlet at the apex of the frond.

DISTRIBUTION

Indigenous. New Zealand: North Island (Poor Knights Islands and locally from Te Pahi south to about Dargaville and the Bay of Islands). Common in South Africa and Australia.

HABITAT

Coastal to lowland areas. A species of gumland scrub, coastal shrublands, and streamside margins in open forest, occasionally found on coastal cliffs or on serpentinite. Often found on bare claybanks or fringing sinkholes in gumland scrub.

THREATS

Threatened by habitat loss through land clearance and competition from weeds such as *Hakea* spp. and pampas grass (*Cortaderia selloana* (Schult. et Schult.f.) Asch. et Graebn.). Some populations have been eliminated by people collecting plants for the horticultural trade. At least one major population, that on Aorangi Island, Poor Knights Islands group is threatened by natural succession from open shrubland to coastal forest.



Todea barbara with spores at Coopers Beach. Photographer: Bill Campbell, Date taken: 02/09/2007, Licence: CC BY-NC.



Todea barbara on Inland Road, Karikari Peninsula. Photographer: Bill Campbell, Date taken: 27/03/2008, Licence: CC BY-NC.

GENUS

Todea

FAMILY

Osmundaceae

AUTHORITY

Todea barbara (L.) T. Moore

SYNONYMS

Acrostichum barbarum L., Osmunda barbara Thunberg, Todea africana Willd.

ENDEMIC TAXON

No

ENDEMIC GENUS

No

ENDEMIC FAMILY

No

FLOWERING

Not applicable—spore producing

FRUITING

Not applicable—spore producing

PROPAGATION TECHNIQUE

Very easily grown in any sunny, frost-free site. Will tolerate quite extreme conditions including very dry and very wet habitats but does best in a sunny, free draining soil.

PLANT OF THE MONTH

This plant has been featured as a Plant of the Month – see [Trilepidea: NZPCN newsletter for August 2021](#) for the full story.

NVS CODE

TODBAR

CHROMOSOME NUMBER

2n = 44

PREVIOUS CONSERVATION STATUSES

2017 | Threatened – Nationally Vulnerable | Qualifiers: SO

2012 | Threatened – Nationally Endangered | Qualifiers: SO

2009 | Threatened – Nationally Endangered | Qualifiers: SO

2004 | Threatened – Nationally Endangered

[Jump to current conservation status](#)

REFERENCES AND FURTHER READING

Chinnock R.J. 1998. Osmundaceae. *Flora of Australia 48, Ferns Gymnosperms and allied groups*: 112–115.

ABRS/CSIRO Victoria, Australia.

de Lange P.J., Heenan P.B., Norton D.A., Rolfe J.R., Sawyer J.W.D. 2010. Threatened Plants of New Zealand. Canterbury University Press, Christchurch. 471 p.

ATTRIBUTION

Fact Sheet prepared for NZPCN by P.J. de Lange 1 August 2003. Description based on Chinnock (1998) but see also de Lange et al. (2010)

NZPCN FACT SHEET CITATION

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MORE INFORMATION

<https://www.nzpcn.org.nz/flora/species/todea-barbara/>

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