

Nephrolepis brownii

COMMON NAME

rough sword fern

SYNONYMS

Nephrolepis hirsutula (G.Forst.) C.Presl auct. non. New Zealand authors,
Nephrolepis exaltata (L.) Schott auct. non. New Zealand authors

FAMILY

Nephrolepidaceae

AUTHORITY

Nephrolepis brownii (Desv.) Hovenkamp et Miyam.

FLORA CATEGORY

Vascular – Native

ENDEMIC TAXON

No

ENDEMIC GENUS

No

ENDEMIC FAMILY

No

STRUCTURAL CLASS

Ferns

CHROMOSOME NUMBER

$2n = 82$

CURRENT CONSERVATION STATUS

2017 | At Risk – Naturally Uncommon | Qualifiers: RR, SO

PREVIOUS CONSERVATION STATUSES

2012 | At Risk – Naturally Uncommon | Qualifiers: RR, SO

2009 | At Risk – Naturally Uncommon | Qualifiers: SO, OL

2004 | Range Restricted

DISTRIBUTION

Indigenous. Kermadec Islands (Dayrell Island, Raoul Island, Macauley Island, Curtis Island). Common throughout the Pacific and Australia, and extending into Malesia and India. Probably more widespread than this but the exact application of the name outside our region is unclear.

HABITAT

Common throughout the dry and wet forest habitats of Raoul Island and in open shrubland, around thermal vents and the craters of Raoul. Sometimes found as a low epiphyte. On Macauley Island it is much less common but has been collected growing under Kermadec ngaio (*Myoporum rapense* subsp. *kermadecense* Sykes).

DETAILED DESCRIPTION

Stout, rhizomatous fern forming dense patches. **Rhizomes** short-creeping to erect, producing numerous stolons. **Stipes and rachises** pale brown, brittle. **Fronde lamina** elliptic to narrowly elliptic, pinnate 300–2000 × 100–250 mm, dark green or yellow-green. **Pinnae** 40 or more pairs, the longest 50–150 × 8–16 mm, bearing pale brown scales with fringed margins on lower surface, slightly falcate often with a basal acroscopic lobe, tapering to an acute apex, margins irregularly toothed.



Taken in May. Photographer: John Smith-Dodsworth, Licence: CC BY-NC.



Taken in May. Photographer: John Smith-Dodsworth, Licence: CC BY-NC.

SIMILAR TAXA

Not closely related to either *N. flexuosa* Colenso or *N. cordifolia* (L.)C.Presl. On Raoul it is sympatric with *N. flexuosa* from which it differs by the much longer, sickle-shaped pinnae whose undersides are covered by fringed scales. From *N. cordifolia* it further differs by its lack of tubers.

PROPAGATION TECHNIQUE

Easily grown from rooted pieces and fresh spores. Cold sensitive. In ideal conditions a very fast growing fern that can become invasive. An excellent pot plant. Best grown in partial shade, in a rich, moist but free draining soil.

THREATS

No apparent threats. In New Zealand it is confined to the Kermadec Island group where it is abundant on Raoul Island and very local on Macauley Island. It is not regarded as threatened overseas.

ETYMOLOGY

nephrolepis: Kidney scale

WHERE TO BUY

Not commercially available

TAXONOMIC NOTES

Plants from the Kermadecs have been variously referred to as *Nephrolepis exaltata* (L.) Schott and *N. hirsutula* (G.Forst) C.Presl. Hovenkamp & Miyamoto (2005) placed Kermadec material within *N. brownii*. This action was initially followed by de Lange et al. (2006) but on advice from P.J. Brownsey and W.R. Sykes the Kermadecs *Nephrolepis* was then referred back to *N. hirsutula* in de Lange & Rolfe (2010). Recently, it has been decided that the Kermadec islands *Nephrolepis* is indeed *N. brownii* (de Lange 2015; L.R. Perrie pers. comm.). So that name is reinstated here.

ATTRIBUTION

Fact sheet prepared for NZPCN by P.J. de Lange 10 August 2005. Description 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.
- de Lange PJ. 2015. Recent vegetation succession and flora of Macauley Island, Southern Kermadec Islands. *Bulletin of the Auckland Museum* 20: 207–229.
- de Lange PJ, Rolfe JR. 2010. New Zealand indigenous vascular plant checklist. New Zealand Plant Conservation Network, Wellington, NZ. 131 p.
- de Lange PJ, Sawyer JWD, Rolfe JR. 2006. New Zealand indigenous vascular plant checklist. New Zealand Plant Conservation Network, Wellington, NZ. 94 p.
- Hovenkamp, P.H.; Miyamoto, F. 2005: A conspectus of the native and naturalized species of *Nephrolepis* (*Nephrolepidaceae*) in the world. *Blumea* 50: 279–322.

NZPCN FACT SHEET CITATION

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MORE INFORMATION

<https://www.nzpcn.org.nz/flora/species/nephrolepis-brownii/>