

# Alsophila kermadecensis

## COMMON NAME

Kermadec tree fern

## SYNONYMS

*Cyathea kermadecensis* W.R.B. Oliv.;

## FAMILY

Cyatheaceae

## AUTHORITY

*Alsophila kermadecensis* (W.R.B.Oliv.) R.M.Tryon

## FLORA CATEGORY

Vascular – Native

## ENDEMIC TAXON

Yes

## ENDEMIC GENUS

No

## ENDEMIC FAMILY

No

## STRUCTURAL CLASS

Ferns

## NVS CODE

CYAKER

## CHROMOSOME NUMBER

2n = 138

## CURRENT CONSERVATION STATUS

2017 | At Risk – Naturally Uncommon | Qualifiers: IE, OL

## PREVIOUS CONSERVATION STATUSES

2012 | At Risk – Naturally Uncommon | Qualifiers: IE, OL

2009 | At Risk – Naturally Uncommon | Qualifiers: RC, IE, SO

2004 | Range Restricted

## BRIEF DESCRIPTION

Tall tree fern with green-stalked soft leaves to 4 m long inhabiting Raoul Island in the Kermadec Islands. Trunk to 20 m tall, slender, old leaves fall off whole. Leaf stems covered in small star-tipped scales and pointed scales (lens needed). Sporangia arranged in small half capsules underneath fronds.

## DISTRIBUTION

Endemic. Kermadec Islands, Raoul Island only

## HABITAT

Confined to the higher parts of Raoul Island where it is a locally conspicuous component of ravine, gully, gorge and cliff forest in the wetter part of the island.



Raoul island, crater rim. Photographer: Bec Stanley, Licence: CC BY-SA.



Adult noted on road from Moumoukai Track to Accommodation House (Kermadec Islands, northern Kermadec Islands group, Raoul Island Fishing Rock to Boat Cove Road). Photographer: Peter J. de Lange, Date taken: 08/05/2009, Licence: CC BY.

## DETAILED DESCRIPTION

Gracile tree fern up to 20 m tall. **Trunk** slender, often curved, covered with diamond-shaped stipe scars. **Stipes** slender, copiously invested in woolly hairs and pale brown to brown scales lacking marginal spines. **Fronds** arching from crown, up to 4 × 2 m, 3-pinnate; dead fronds falling. **Primary pinnae** up to 400 mm long, dark green to yellow-green above, subcoriaceous to membranous, undersides paler, bearing numerous scales; scale apices terminated by single or stellate spines. **Indusia** cucullate.

## SIMILAR TAXA

On Raoul Island this species is sympatric with *Alsophila milnei*, from which it is easily distinguished by its taller, more slender trunk which lacks a persistent skirt of dead frond and bears numerous rhomboid stipe scars; by the soft rather than coriaceous, raching rather than horizontal fronds, and hood-shaped rather than cup-shaped indusia. The scales on the underside of the pinnae in *A. kermadecensis* are not curled and are terminated by a single or stellate spine. *Alsophila kermadecensis* is very closely related to *A. cunninghamii*, which is common in New Zealand proper and Australia. From that species *Alsophila kermadecensis* is best distinguished by its clean trunks which lack persistent stipe bases, less divided fronds and by the absence of stellate hairs on the frond undersides.

## PROPAGATION TECHNIQUE

Easily grown from spores. Young plants are very cold sensitive and will not tolerate any frost, wind or drought. They are best planted in a warm, sheltered, permanently damp site. Once established this species is very fast growing.

## THREATS

Not Threatened. Listed because it is a narrow range naturally confined to Raoul Island. In the past it had been regarded as highly threatened but in recent years numerous plants of all different age classes have been found.

## ETYMOLOGY

**kermadecensis**: From the Kermadec Islands

## WHERE TO BUY

Occasionally available from specialist native and general plant nurseries.

## ATTRIBUTION

Fact sheet prepared for NZPCN by P.J. de Lange July 2009. 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.

## NZPCN FACT SHEET CITATION

Please cite as: de Lange, P.J. (Year at time of access): *Alsophila kermadecensis* Fact Sheet (content continuously updated). New Zealand Plant Conservation Network.

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

## MORE INFORMATION

<https://www.nzpcn.org.nz/flora/species/alsophila-kermadecensis/>