

Alsophila colensoi

COMMON NAMES

rough tree fern, mountain tree fern

BIOSTATUS

Native – Endemic taxon

CURRENT CONSERVATION STATUS

2023 | Not Threatened

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CATEGORY

Vascular

STRUCTURAL CLASS

Ferns

SIMPLIFIED DESCRIPTION

Small tree fern with green-stalked roughish leaves to 1.5 m long. Trunk to 1 m tall or not present. Leaf stems covered in small red and white star-shaped hairs, star-tipped scales and pointed scales (lens needed). Sporangia arranged in small round hairy clusters underneath fronds.

FLOWER COLOURS

No flowers

DETAILED DESCRIPTION

Trunks prostrate, or erect (up to 1 m tall). **Stipes** slender, pale brown, finely rugose, bearing numerous scales. **Scales** pale brown to red-brown, lacking margin spines. **Fronds** up to 1.5 m long, held upright, 3-pinnate, soft; dead fronds falling (not persistent). **Longest primary pinnae** 150–400 mm long, adaxially hairy, abaxially covered in red stellate hairs and scales ending in single or stellate spines. **Indusia** absent; long hairs present amongst sporangia. (Description adapted from Brownsey & Smith-Dodsworth (2000)).

SIMILAR TAXA

Most often confused with young *Alsophila smithii* with which it sometimes grows but distinguished by its prostrate to shortly erect trunk, finely and copiously hairy upper frond surface, absence of an indusia, and by the long hairs protruding from the sorus.

DISTRIBUTION

Endemic. North Island (from Mt Pirongia and the Kaimai Range south), South Island, Stewart Island/Rakiura.

HABITAT

Montane to subalpine in dense forest, along stream courses, often near the bush line, sometimes extending into subalpine scrub.

GENUS

Alsophila

FAMILY

Cyatheaceae

AUTHORITY

Alsophila colensoi Hook.f.

SYNONYMS

Cyathea colensoi (Hook.f.) Domin



Tararua Forest Park. Photographer: Jeremy R. Rolfe, Date taken: 23/02/2008, Licence: CC BY.



Mount Climie, Upper Hutt. Photographer: Jeremy R. Rolfe, Date taken: 02/02/2013, Licence: CC BY.

ENDEMIC TAXON

Yes

ENDEMIC GENUS

No

ENDEMIC FAMILY

No

FLOWERING

Not applicable—spore producing

FRUITING

Not applicable—spore producing

PROPAGATION TECHNIQUE

Difficult to grow and probably best left well alone. Some success has been had planting specimens into a rich, permanently damp soil within a shaded situation. Dislikes humidity and heat.

CULTIVATION

Occasionally available from specialist native plant nurseries.

ETYMOLOGY

colensoi: Named after William Colenso (7 November 1811 - 10 February 1899) who was a Cornish Christian missionary to New Zealand, and also a printer, botanist, explorer and politician.

NVS CODE

CYACOL

CHROMOSOME NUMBER

$2n = 138$

PREVIOUS CONSERVATION STATUSES

2017 | Not Threatened

2012 | Not Threatened

2009 | Not Threatened

2004 | Not Threatened

[Jump to current conservation status](#)

REGIONAL CONSERVATION STATUSES

Otago: 2025 | Regionally Not Threatened Help

The regional threat classification system leverages off the national assessments in the NZTCS, providing information relevant for the regional context. Otago conservation status information is sourced from the "[Conservation Status of Indigenous Vascular Plants in Otago, 2025](#)" Jarvie S et al. (2025) report.

REFERENCES AND FURTHER READING

Brownsey PJ, Smith-Dodsworth JC. 2000. New Zealand Ferns and Allied Plants. David Bateman, Auckland, NZ. 168 p.

ATTRIBUTION

Fact sheet prepared for NZPCN by P.J. de Lange 22 March 2011. Description adapted from Brownsey & Smith-Dodsworth (2000).

MORE INFORMATION

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

PDF DATE

25 May 2026