

# Dicksonia squarrosa

## COMMON NAMES

wheki, rough tree fern, harsh tree fern

## BIOSTATUS

Native – Endemic taxon

## CURRENT CONSERVATION STATUS

2023 | Not Threatened

[Jump to previous conservation statuses](#)

## CATEGORY

Vascular

## STRUCTURAL CLASS

Ferns

## SIMPLIFIED DESCRIPTION

Tree fern up to 8 m tall. Usually forming colonies. Trunks covered in dead, black stipe ends, not dense, and often bearing aerial buds. Live fronds often untidy and tattered, usually falling when dead, or forming an irregular, messy skirt.

## DETAILED DESCRIPTION

Tree ferns up to 8 m tall. Rhizomatous usually forming colonial stands. **Rhizomes** numerous spreading from main stock 1–2 m or more distant, giving rise to subsidiary erect caudices. **Trunk** slender, solitary, bifurcated (sometimes several times over), up to c. 200 mm diam., composed of long-persistent, black stipe bases, interwoven dark brown to black rootlets, red-brown hairs and dormant or active aerial buds. **Fronds** numerous, persistent or not in death, either falling or forming an untidy, tattered skirt (especially on young plants); in life erect, arching, forming an often tattered, untidy crown, 1.0–2.0–(2.6) m long, 0.5–1.0 m wide. **Stipes** (180)–280–300–(320) mm long, black, ± rugose, base densely clad deciduous dark red-brown to brown filiform hairs 30–40–(55) mm long; rachises initially clad in dark reddish brown hairs when young, becoming rugose with age. **Lamina** (0.68)–1.6–(2.28) m long, oblong-lanceolate, (2)–3–4-pinnate, adaxially light to dark glossy green, abaxially paler, harshly coriaceous; primary pinnae 250–500 mm long, deltoid-ovate to lanceolate, acuminate; secondary pinnae close-set to ± overlapping, 50–80 mm long, acute. **Barren pinnules** 10–18 mm, acute, often sharply toothed, widened and confluent at base, shallowly concave; fertile pinnules close-set, narrowly confluent at base, 10–15 mm long; lobes strongly concavo-convex c. 5 mm. long, rounded, each bearing a sorus. **Sorus** ± rounded, terminating veins at fertile pinnae margins; sporangia on raised receptacle, partially obscured by in rolled pinnae margin, and delicate, submembranous inner indusium. **Spores** golden brown to red-brown.

## SIMILAR TAXA

*Dicksonia squarrosa* is easily recognised by the rhizomatous growth habit; the plants forming interconnected colonial stands of tree ferns up to 7 m tall and with slender trunks, up to 200 mm diameter. The trunks of this species are not dense, and are made up of persistent, dead, black stipe bases, interwoven with dark brown to black rootlets, and bearing aerial buds. The dead fronds of *D. squarrosa* are not persistent, or if so, they form an untidy skirt. The fresh stipes of this species are distinctly rough to the touch.

## DISTRIBUTION

Endemic. New Zealand: North Island, South Island, Stewart Island/Rakiura, Chatham Islands.



*Dicksonia squarrosa*. Photographer: Wayne Bennett, Licence: CC BY-NC.



Stipe, abaxial surface; Whakarewarewa Forest, Rotorua. Photographer: Colin C. Ogle, Date taken: 09/05/2016, Licence: CC BY-NC.

## GENUS

Dicksonia

## FAMILY

Dicksoniaceae

## AUTHORITY

Dicksonia squarrosa (G.Forst.) Swartz

## SYNONYMS

Trichomanes squarrosum G.Forst., Dicksonia gracilis Colenso; Dicksonia squarrosa var. gracilis (Colenso) C.Chr.; Balantium squarrosum (G.Forst.) Kunze;

## ENDEMIC TAXON

Yes

## ENDEMIC GENUS

No

## ENDEMIC FAMILY

No

## PROPAGATION TECHNIQUE

Easily grown from fresh spores, by division of plantlets and by transplanting the mature trunks. Tolerant of a wide range of situations and soil types. *Dicksonia squarrosa* needs room to spread and can become aggressive in some garden situations. This species often naturally appears in garden situations.

## WETLAND PLANT INDICATOR STATUS RATING

FACU: Facultative Upland

Occasionally is a hydrophyte but usually occurs in uplands (non-wetlands).

## CULTIVATION

Commonly available from mainstream and specialist native plant nurseries.

## ETYMOLOGY

**dicksonia**: After James Dickson (1738-1822), British botanist and nurseryman

**squarrosa**: Rough, with scale-like projections; from the Latin squarrosus; leaves and leaf stalks

## NVS CODE

DICSQU

## CHROMOSOME NUMBER

2n = 130

## PREVIOUS CONSERVATION STATUSES

2017 | Not Threatened

2012 | Not Threatened

2009 | Not Threatened

2004 | Not Threatened

[Jump to current conservation status](#)

## REGIONAL CONSERVATION STATUSES

Auckland: 2025 | Regionally Not Threatened | Qualifiers: DPS, DPT Help

The regional threat classification system leverages off the national assessments in the NZTCS, providing information relevant for the regional context. Auckland conservation status information is sourced from the "[Conservation status of vascular plant species in Tāmaki Makaurau / Auckland](#)" Simpkins E et al. (2025) report.

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.

## **ATTRIBUTION**

Fact Sheet Prepared for NZPCN by P.J. de Lange (10 November 2012). Description by P.J. de Lange.

## **NZPCN FACT SHEET CITATION**

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## **MORE INFORMATION**

<https://www.nzpcn.org.nz/flora/species/dicksonia-squarrosa/>

## **PDF DATE**

27 May 2026