

# Hypolepis rufobarbata

## SYNONYMS

*Polypodium punctatum* var. *rugosulum* sensu G.M.Thomson; *Polypodium rufobarbatum* Colenso; *Polypodium rugosulum* sensu Hook.f.; *Polypodium viscidum* Colenso; *Dryopteris punctata* sensu Cheeseman; *Hypolepis rugosula* sensu Dobbie; *Polypodium punctatum* sensu Cheeseman

## FAMILY

Dennstaedtiaceae

## AUTHORITY

*Hypolepis rufobarbata* (Colenso) N.A. Wakef.

## FLORA CATEGORY

Vascular – Native

## ENDEMIC TAXON

Yes

## ENDEMIC GENUS

No

## ENDEMIC FAMILY

No

## STRUCTURAL CLASS

Ferns

## NVS CODE

HYPRUF

## CHROMOSOME NUMBER

2n = 104

## CURRENT CONSERVATION STATUS

2017 | Not Threatened | Qualifiers: EF

## PREVIOUS CONSERVATION STATUSES

2012 | Not Threatened

2009 | Not Threatened

2004 | Not Threatened

## DISTRIBUTION

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

## HABITAT

Coastal to montane. Usually in wet forest and wet, open, often peaty ground. Also on exposed though damp clay banks, along stream sides or on rotten logs, in scrub, along bush margins or in plantation forestry



Te Moehau, December. Photographer: John Smith-Dodsworth, Licence: CC BY-NC.



Te Moehau, December. Photographer: John Smith-Dodsworth, Licence: CC BY-NC.

## DETAILED DESCRIPTION

**Rhizome** long-creeping, 1–2 mm diam., covered in dark red-brown hairs up to 4 mm long, giving rise to stipes at intervals of 20–80 mm. **Stipes** 45–300 mm long, 0.7–2.5(–3.0) mm diam., dark purple-red to red-brown, bearing abundant red-brown eglandular hairs (to 3 mm long) and shorter red-brown glandular hairs. **Laminae** narrowly ovate to ovate, (60)–150–550–(650) × (20)–50–250 mm, pinnate or bipinnate at apex, tripinnate at base (occasionally bipinnate in very small specimens). **Rachis** red-brown at base becoming pale yellow-brown only near apex, densely covered in red-brown hairs of various lengths with some widely-spaced eglandular hairs up to 3 mm long but the majority shorter (< 1 mm) and either glandular or eglandular. **Primary pinnae** in 17–25 pairs + pinnatifid apex, opposite or subopposite, the lower arising at (30)–40–70–(90)°, upper ones at nearly 90°, longest ones below middle 25–190 mm; lowest pairs 35–120 mm apart, middle ones 10–50 mm; upper ones parallel sided or narrowly ovate, lower ovate or triangular. **Secondary pinnae** ovate or narrowly ovate, longest 8–40 × 4–17 mm, those on the lower pinnae decreasing markedly in length along the pinnae. **Tertiary pinnae** 3–8 × 1.5–5.0 mm, slightly incised, bearing 1–3 pairs sori (deeply incised in very large specimens). **Veins** reaching the margin at a tooth apex. **Hairs** brown, bristly (mostly 0.25–0.5 mm) abundant on margins and both surfaces (especially upper) of lamina (often rather pale in young specimens), interspersed with pale glandular and eglandular hairs on lamina undersurface (few also on top surface); pinna midribs similar to rachis with longer red-brown bristly hairs and some red-brown short glandular and non-glandular hairs. **Sori** in pairs on ultimate pinnules, originating away from margin, unprotected. **Spores** pale brown.

## SIMILAR TAXA

Most likely to be confused with *Hypolepis amaurobachis* and *H. lactea*. From *Hypolepis amaurobachis* it is best separated by the lamina margins of the fronds which bear numerous red-brown (rarely colourless) bristly, eglandular hairs. The lamina hairs of *H. amaurobachis* are glandular rather than bristly, but otherwise both species are superficially very similar, and as they appear to be hybridise, arriving at an accurate identification is not always easy. From *H. lactea*, *H. rufobarbata* is distinguished by its narrowly ovate to ovate fronds covered in bristly red-brown, eglandular hairs. The fronds of *H. lactea* are deltoid, and covered in glandular hairs, these often burst leaving milky white exude on the frond surfaces (hence the species epithet “lactea”).

## FLOWERING

Not applicable—spore producing

## FLOWER COLOURS

No flowers

## FRUITING

Not applicable—spore producing

## LIFE CYCLE

Minute spores are wind dispersed (Thorsen et al., 2009).

## PROPAGATION TECHNIQUE

Often difficult though once established usually thrives. Best grown from fresh spores. Prefers an open, but shady, deep, damp, peaty soil.

## ETYMOLOGY

**hypolepis**: From the greek hypo (under) and lepis (scale), referring to the position of the sori on the ferns

**rufobarbata**: Red bearded; from the Latin rufus and barba; reddish hairs on its leaves and leaf stalks

## ATTRIBUTION

Fact sheet prepared for NZPCN by P.J. de Lange (7 November 2012). Description from Brownsey & Chinnock (1984).

## REFERENCES AND FURTHER READING

Brownsey PJ, Chinnock RJ. 1984. A Taxonomic revision of the New Zealand species of *Hypolepis*. *New Zealand Journal of Botany* 22(1): 43–80. <https://doi.org/10.1080/0028825X.1984.10425234>.

Thorsen MJ, Dickinson KJM, Seddon PJ. 2009. Seed dispersal systems in the New Zealand flora. *Perspectives in Plant Ecology, Evolution and Systematics* 11: 285–309. <https://doi.org/10.1016/j.ppees.2009.06.001>.

### **NZPCN FACT SHEET CITATION**

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

### **MORE INFORMATION**

<https://www.nzpcn.org.nz/flora/species/hypolepis-rufobarbata/>