

# Hypolepis lactea

## SYNONYMS

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

## FAMILY

Dennstaedtiaceae

## AUTHORITY

*Hypolepis lactea* Brownsey et Chinnock

## FLORA CATEGORY

Vascular – Native

## ENDEMIC TAXON

Yes

## ENDEMIC GENUS

No

## ENDEMIC FAMILY

No

## STRUCTURAL CLASS

Ferns

## NVS CODE

HYPLAC

## CHROMOSOME NUMBER

2n = 104

## CURRENT CONSERVATION STATUS

2017 | Not Threatened | Qualifiers: DP, EF

## PREVIOUS CONSERVATION STATUSES

2012 | Not Threatened

2009 | Not Threatened

2004 | Not Threatened

## DISTRIBUTION

Endemic. New Zealand: North Island, South Island and Chatham Islands. Scarce in the South Island where it is virtually confined to Nelson, Marlborough and North Westland (though with sporadic records extending down the eastern coast to at least Otago).

## HABITAT

Coastal to montane. *Hypolepis* is primarily a forest species, though it also colonises swamps—especially on the ecotone between forest and swamp. However, *H. lactea* is also sometimes found in abundance in restiad bogs, and also perched, epiphytically on the tops of *Carex secta* plants growing on the margins of ponds, lakes and slow-flowing streams and rivers.



Cape Foulwind, January. Photographer: John Smith-Dodsworth, Licence: CC BY-NC.



Cape Foulwind, January. Photographer: John Smith-Dodsworth, Licence: CC BY-NC.

## DETAILED DESCRIPTION

**Rhizome** long-creeping, 1–2 mm diameter, covered in red-brown hairs 2.0–3.5 mm long, giving rise to stipes at intervals of 15–90 mm. **Stipes** 100–450 mm long, 15–35 mm diameter, dark purple-red to red-brown, bearing red-brown hairs up to 3 mm long, numerous at base, more scattered above, becoming replaced by abundant colourless glandular hairs which are very variable in length but generally shorter than the brown hairs. **Laminae** angular-ovate, 200–600–(900) × 125–350–(500) mm, pinnate at apex, tripinnate at base (almost quadripinnate in largest specimens), exuding white milky substance from upper surface with age. **Rachis** red-brown at base, becoming pale yellow brown at apex, densely covered in short glandular hairs (0.1–0.8 mm) and more scattered longer red-brown hairs (up to 2 mm long, but mostly c. 0.5 mm). **Primary pinnae** in 20–35 pairs + tapering pinnatifid terminal portion, opposite or subopposite, lower arising at 35–80°, upper ones at nearly 90°, longest ones below the middle and usually basal 65–380 × 40–150 mm; lowest ones 30–150–(200) mm apart, middle ones 10–50 mm apart; upper ones narrowly ovate or triangular to almost linear, lowest ovate or triangular, all with long tapering pinnatifid terminal portion. Secondary pinnae narrowly ovate, longest 24–90 × 9–30 mm, those on the lower pinnae decreasing markedly in length along the pinnae. **Tertiary pinnae** ovate, 5.0–16.0 × 3.0–7.5 mm, divided into 2–4 pairs of ultimate segments, broadly winged. **Veins** reaching margin at a tooth apex, often very slightly excurrent. **Hairs**: lamina margins, undersurfaces, veins, and midribs densely covered in short colourless glandular hairs (0.1–0.3 mm long on laminae, up to 0.4 mm on midribs), interspersed with occasional non-glandular hairs of same length; equal mixture of short colourless glandular and eglandular hairs on upper surface; occasional longer red-brown non-glandular hairs on midribs. **Sori**: usually one on acroscopic edge of each ultimate segment, sometimes second on basiscopic edge, originating away from margin, virtually unprotected. **Spores** pale brown, echinate.

## SIMILAR TAXA

*Hypolepis lactea* is superficially similar to *Hypolepis amaurobachis* and *H. rufobarbata*. From *H. rufobarbata* it can be distinguished by the distinctive, deltoid fronds, often covered in a fine white, milky, sticky exudate and by the frond lamina margins bearing colourless glandular hairs. From *H. amaurobachis* it is distinguished by the glandular hairs of the abaxial lamina surfaces and margins being 0.1–0.3 mm long and by the stipe and rachis coloured dark purplish-red for at least three-quarters of their length.

## LIFE CYCLE

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

## PROPAGATION TECHNIQUE

Easily grown from fresh spore and by division of established plants. Inclined to be short-lived. *Hypolepis lactea* prefers a moist, humus-rich soil and semi-shade.

## ETYMOLOGY

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

## ATTRIBUTION

Fact sheet prepared for NZPCN by P.J. de Lange (8 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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## MORE INFORMATION

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