# Hypolepis dicksonioides

## COMMON NAME
giant hypolepis, ground fern (Norfolk Island only)

## SYNONYMS
Hypolepis tenuifolia sensu Hook.f.; Hypolepis tenuifolia var. pellucida (Colenso) Hook.; Cheilanthes dicksonioides Endl.; Cheilanthes pellucida Colenso; Hypolepis endlicheriana C.Presl

## FAMILY
Dennstaedtiaceae

## AUTHORITY
Hypolepis dicksonioides (Endl.) Hook.

## FLORA CATEGORY
Vascular – Native

## ENDEMIC TAXON
No

## ENDEMIC GENUS
No

## ENDEMIC FAMILY
No

## STRUCTURAL CLASS
Ferns

## NVS CODE
HYPDIC

## CHROMOSOME NUMBER
2n = 208

## CURRENT CONSERVATION STATUS
2017 | At Risk – Naturally Uncommon | Qualifiers: EF, SO, Sp

## PREVIOUS CONSERVATION STATUSES
2012 | At Risk – Naturally Uncommon | Qualifiers: EF, SO, Sp
2009 | At Risk – Naturally Uncommon | Qualifiers: SO, EF
2004 | Sparse

November. Photographer: John Smith-Dodsworth, Licence: CC BY-NC.

Macauley Island. Photographer: John Barkla, Licence: CC BY.

## DISTRIBUTION
Indigenous. Kermadec Islands (Raoul, Macauley Islands). New Zealand: Manawatāwhi / Three Kings Islands, North Island, South Island and Chatham Island (Rekohu). Known in the North Island from Te Paki south to Wellington but mainly coastal and absent from large parts of the island (it has also been recorded as a ‘weed’ in Auckland, Hamilton, Tauranga and Wellington). Locally common around geothermal areas of the Taupo Volcanic Zone. In the South Island known only from the coast north-west Nelson and northern Westland. Present on Norfolk, Samoa, Tahiti. Cook and the Marquesas islands.

## HABITAT
A weedy speces of coastal, lowland and geothermal habitats. Naturally short-lived, plants may appear as and when suitable habitat is generated following disturbance. As such this species has also appeared in urban situations and can from time to time be found growing in cities on rock walls, in bark gardens, or even protruding from cracks in asphalt pavements. It has also been recorded as a weed in garden centres.

## WETLAND PLANT INDICATOR STATUS RATING

FACU: Facultative Upland
Occasionally is a hydrophyte but usually occurs in uplands (non-wetlands).

## DETAILED DESCRIPTION

**Rhizome** long-creeping, (3)–4–8 mm diam., densely covered in pale brown hairs near growing apex, more scattered and becoming red-brown elsewhere, giving rise to stipes at intervals of 1.0–2.8 m. **Stipes** (0.15)–0.2–1.0 m long, (2)–5–15 mm diam., red-brown at base, becoming pale red-brown or yellow-brown above, bearing red-brown hairs at very base, soon replaced by colourless glandular and eglandular hairs (up to 5 mm long on uncoiling fronds); two dark, prominent, vertical bands on opposite sides of stipe. **Laminae** broadly ovate or elliptic (0.02)–0.035–1.35 × (0.015)–0.035–1.1 m, bipinnate at apex, 4 or 5-pinnate at base. **Rachis** yellow-brown at base, green at apex, bearing colourless glandular and eglandular hairs (up to 3 mm long). **Primary pinnae** in 15–30 pairs, opposite or subopposite, lower pair arising at 3–50° to stem; longest pair below middle, usually basal, (110)–200–700 × (70)–140–450 mm; lowest ones (50)–100–400 mm apart, middle ones 2–5 mm apart; upper ones narrowly ovate, lower ones ovate. **Secondary pinnae** ovate, (45)–70–300 × 30–150 mm, those on the lower pinnae decreasing markedly in length along the pinnae. **Tertiary pinnae** ovate, (16)–20–80 × (7)–10–35 mm, midrib winged. **Quaternary pinnae** narrowly ovate, 7–16 × 2–6 mm, shallowly incised on smaller specimens, divided into 4–5 pairs of ultimate segments on larger specimens. **Veins** reaching margin at a tooth apex, or sometimes ending just short of margin. **Hairs**: colourless glandular and eglandular hairs on midribs and veins of both lamina j surfaces but absent from margins, 0.3–1.5 mm long. **Sori** on upper margin of each ultimate segment, situated at vein endings, protected by obvious reflexed flaps (green at base, membranous at apex, incised); protected from earliest stages. **Spores** pale brown, echinate.

## SIMILAR TAXA

Could only be confused with *H. ambigua* from which it can be immediately recognised by its very much larger, more finely divided, extremely glandular sticky, deltoid fronds, thicker stipes, and conspicuous reflexed membranous indusia. The fronds are often so sticky that insects, dirt, feathers and hair is trapped on them.

## 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

Easily grown from fresh spores. Inclined to become invasive and weedy in garden situations. Despite this the extremely robust, strongly deltoid, bright green fronds are rather attractive. It is naturally rather short-lived but rapidly establishes by spores in ideal situations. It is frost tender although established plants merely die back during winter.

## THREATS

*Hypolepis dicksonioides* is a short-lived, naturally ephemeral, opportunistic species, which requires frequnet disturbance to create fresh habitats to colonise. As such it is naturally uncommon, and biologically sparse. In the main islands of New Zealand it is usually scarce. However, on the Kermadec Islands, especially Macauley Island, it forms the dominant vegetation.

## ETYMOLOGY

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

## ATTRIBUTION

Fact sheet prepared for NZPCN by P.J. de Lange (1 February 2005). 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

Please cite as: de Lange, P.J. (Year at time of access): Hypolepis dicksonioides Fact Sheet (content continuously updated). New Zealand Plant Conservation Network.
https://www.nzpcn.org.nz/flora/species/hypolepis-dicksonioides/ (Date website was queried)

## MORE INFORMATION

https://www.nzpcn.org.nz/flora/species/hypolepis-dicksonioides/