

Histiopteris incisa

COMMON NAMES

histiopteris, water fern, mātātā, bat's wing fern

BIOSTATUS

Native

CURRENT CONSERVATION STATUS

2023 | Not Threatened | Qualifiers: SO

[Jump to previous conservation statuses](#)

CATEGORY

Vascular

STRUCTURAL CLASS

Ferns

DETAILED DESCRIPTION

Terrestrial often summer green fern (deciduous in cooler areas).

Rhizomes long-creeping, scaly. **Stipe and rachis** chestnut-brown at base otherwise mostly yellow-brown (sometimes glaucescent), glabrous except for basal scales, glossy; stipe 0.15–1.2 m long, 5–10 mm diameter.

Lamina 0.3–2.3 × 0.15–1.2 m, yellow-green, glaucescent or glaucous (irrespective distinctly glaucous when young), glabrous, ovate, 3–4-pinnate at base. **Pinnae** sessile, basal pinnules reduced, stipuliform; veins reticulate. **Primary pinnae** in opposite pairs; longest 130–600 × 70–350 mm, arising at narrow angles, sessile. **Secondary pinnae** opposite, arising at wide angles; longest 40–200 × 20–90 mm, with basal pair sometimes reduced to stipules. **Tertiary pinnae** opposite; longest 10–45 × 6–15 mm, sometimes divided into quaternary pinnae. **Ultimate pinnules** adnate to midribs; margins entire or crenate; apices obtuse. **Sori** ± continuous around margins, borne on connecting vein, bearing paraphyses; indusia absent, sori protected by reflexed membranous lamina margin. **Spores** pale, tuberculate.

SIMILAR TAXA

Easily recognised by the glabrous, yellow-green glaucescent or glaucous fronds (always glaucous when emergent), pinnae with reticulate venation, by the continuous marginal sori and the absence of an indusia, and by the basal pair of secondary pinnae on the primary pinnae overlapping the rachis.

DISTRIBUTION

Indigenous. New Zealand: Also eastern and south-eastern Australia and Tasmania, Lord Howe and Norfolk and throughout the tropics and southern temperate regions.

HABITAT

Coastal to subalpine. Usually in open sites. Histiopteris is typically a primary coloniser of disturbed ground such as in clearings caused by tree falls, or in forest that has been seriously damaged by browsing animals. It is often common in pine forest, on roadside cuttings, and sometimes may be found in urban areas.

GENUS

Histiopteris

FAMILY

Dennstaedtiaceae



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



Emerging frond. Western Hutt hills. Photographer: Jeremy R. Rolfe, Date taken: 24/08/2013, Licence: CC BY.

AUTHORITY

Histiopteris incisa (Thunb.) J. Sm.

SYNONYMS

Pteris incisa Thunb.; *Pteris montana* Colenso; *Pteris vespertilionis* Labill.; *Phegopteris incisa* (Thunb.) Keyserl.; *Pteris alpina* Field; *Pteris brunoniana* Endl.; *Histiopteris vespertilionis* (Labill.) J.Sm.; *Litobrochia incisa* (Thunb.) C.Presl; *Litobrochia vespertilionis* (Labill.) C.Presl

ENDEMIC TAXON

No

ENDEMIC GENUS

No

ENDEMIC FAMILY

No

FLOWERING

None (spore bearing)

FRUITING

None (spore bearing)

LIFE CYCLE AND DISPERSAL

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

PROPAGATION TECHNIQUE

Very easily grown from fresh spores and young plants. Inclined to be weedy. Does best in an open site planted in a deep, fertile, moist soil.

WETLAND PLANT INDICATOR STATUS RATING

FAC: Facultative

Commonly occurs as either a hydrophyte or non-hydrophyte (non-wetlands).

ETYMOLOGY

histiopteris: Webbed fern; from the greek histion and pteris; netted veins of the leaves

incisa: Incised or cut in two; from the Latin incidere; incised leaf

NVS CODE

HISINC

CHROMOSOME NUMBER

2n = 192, 208

PREVIOUS CONSERVATION STATUSES

2017 | Not Threatened | Qualifiers: SO

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.

REFERENCES AND FURTHER READING

Brownsey PJ. 1998. Dennstaedtiaceae: *Flora of Australia* 48: 214–228.

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

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>.

ATTRIBUTION

Fact Sheet Prepared for NZPCN by P.J. de Lange 11 January 2011. Description adapted from Brownsey (1998) and Brownsey & Smith-Dodsworth (2000)

MORE INFORMATION

<https://www.nzpcn.org.nz/flora/species/histiopteris-incisa/>

PDF DATE

27 May 2026