

Pteris epaleata

SYNONYMS

None. First described in 2020 (Ohlsen et al. 2020).

FAMILY

Pteridaceae

AUTHORITY

Pteris epaleata D.J.Ohlsen

FLORA CATEGORY

Vascular – Native

ENDEMIC TAXON

No

ENDEMIC GENUS

No

ENDEMIC FAMILY

No

STRUCTURAL CLASS

Ferns

CURRENT CONSERVATION STATUS

Not Evaluated

DISTRIBUTION

Indigenous. Australia (south-east Queensland south to Tasmania), New Zealand (Fiordland)

HABITAT

In Australia reported from from sea-level to around 1100 m a.s.l. within subtropical to cool-temperate rainforest and wet-sclerophyll forests, where it usually is found along creeks or muddy drainage lines, but sometimes also at the base of cliffs or on outcrops in areas of water seepage. New Zealand occurrences are from coastal to lowland forest stations in Fiordland. However, information on this species' ecology and associations there are not well known.

DETAILED DESCRIPTION

Rhizomes erect, scaly. **Rhizome** scales narrowly ovate, 7–8 mm long, c. 2 mm wide, pale brown, concolorous, lacking marginal projections. **FronDs** 0.77–1.74(–2.50) m long. **Stipes** 0.40–1.03–(1.40) m long, 6–11 mm diameter near the base, purplish-brown, red-brown or chestnut-brown proximally, yellow-brown or chestnut-brown distally, occasionally with scattered scales proximally. **Rachises** yellow-brown or chestnut-brown, adaxially sulcate, glabrous. **Laminae** 3–4-pinnate-pinnatifid at base, broadly ovate, 0.33–0.75–(1.10) × 0.30–1.00 m wide, dark green and dull adaxially, paler abaxially, herbaceous, bearing multicellular hairs and occasionally hair-like linear scales 2–3–(4) cells broad on the costae; veins anastomosing. **Primary pinnae** in 5–11 pairs below pinnatifid apex, overlapping; the longest at or near the base, 120–580 × 120–280 mm wide, elliptic or narrowly to broadly ovate, straight; pinna apices acute to acuminate, bases long-stalked. **Longest secondary pinnae** 100–270 × 50–150 mm wide, usually narrowly ovate, sometimes ovate, subopposite at base becoming alternate toward apex of primary pinnae, longest at base to midway along primary pinnae and then becoming gradually smaller toward apex, apices acute to acuminate, bases adnate or stalked. **Longest tertiary segments** 15–90 × 5–30 mm wide, elliptic, ovate or oblong; apices acute to obtuse, margins crenate, serrate or divided to more than halfway, bases adnate or shortly stalked. **Quaternary segments** to 22 mm long, 2–9 mm wide, oblong to triangular, apices acute to obtuse, margins crenate, serrate or divided to more than halfway, bases adnate, occasionally with further divisions to 4 mm long, 1–3 mm wide; ultimate segments 1.0–5.5 mm wide. **Sori** elongated along margins of the ultimate segments, with paraphyses among sporangia; indusia 0.35–0.55 mm wide. **Spores** 25–35 µm in polar diameter, 35.0–47.5 µm in equatorial diameter.



SIMILAR TAXA

Pteris epaleata differs from *P. carsei* by characters of the indumentum and frond division. The indumentum on the abaxial side of the rachis, costae and costules in *Pteris epaleata* comprises uniseriate hairs or sometimes occasional linear scales that are 2–3–(4) cells broad at the base. In *Pteris carsei*, the rachis and costae have uniseriate hairs and some triangular scales that are several cells wide at the base. *Pteris epaleata* can be further distinguished from the other species that have been included in *P. comans* by its more divided fronds that are at least 3-pinnate throughout the lower half of the frond and 3-pinnate-pinnatifid at the base, with the segments adnate to the rachis near the apex being pinnatifid. As such it resembles *P. tremula*, which differs by having free venation. *Pteris epaleata* can be further distinguished from *P. carsei* and from *P. macilenta* and *P. saxatilis* by its dull adaxial frond surface. *Pteris carsei* also usually has broader ultimate segments (4–28 mm wide) than *P. epaleata* (1.0–5.5 mm wide) and *P. carsei* in New Zealand is usually confined to coastal areas (on Raoul Island it extends to 500 m.a.s.l.), whereas *P. epaleata* can extend further inland, including into mountainous areas.

PROPAGATION TECHNIQUE

Not known from cultivation in New Zealand.

THREATS

Ohlsen et al. (2020) suggest a provisional assessment of 'Data Deficient' for the New Zealand occurrences of *Pteris epaleata* and this is probably appropriate. However, that assessment will need to be ratified by the New Zealand Indigenous Vascular Plant Threat Listing panel.

ETYMOLOGY

pteris: A fern known to the ancient Greeks; from the Greek pteris

epaleata: Epaleata means 'without scales'

ATTRIBUTION

Prepared by P.J. de Lange for NZPCN, 4 October 2020. Description from Ohlsen et al. (2020).

REFERENCES AND FURTHER READING

Ohlsen DJ, Brownsey PJ, Shepherd LD, Perrie LR, May EL, Cheng-Wei C, Bayly MJ. 2020. *Pteris epaleata*, a new fern species from Australia and New Zealand segregated from *P. comans* (Pteridaceae). *Muelleria* 39: 17–26.

NZPCN FACT SHEET CITATION

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

MORE INFORMATION

<https://www.nzpcn.org.nz/flora/species/pteris-epaleata/>