

Polystichum oculatum

SYNONYMS

Aspidium oculatum Hook.

FAMILY

Dryopteridaceae

AUTHORITY

Polystichum oculatum (Hook.) J.B.Armstr.

FLORA CATEGORY

Vascular – Native

ENDEMIC TAXON

Yes

ENDEMIC GENUS

No

ENDEMIC FAMILY

No

STRUCTURAL CLASS

Ferns

NVS CODE

POLOCU

CHROMOSOME NUMBER

$2n = c.164$

CURRENT CONSERVATION STATUS

2017 | Not Threatened

PREVIOUS CONSERVATION STATUSES

2012 | Not Threatened

2009 | Not Threatened

2004 | Not Threatened

HABITAT

Coastal and lowland forest and scrub margins, usually on hillsides and on colluvium and alluvium soils under scrub. It has also extended its range into urban situations where it sometimes a feature of roadside banks and cuttings.

DETAILED DESCRIPTION

Rhizomes short, erect. **Stipes** 90–300 mm long. Stipes and rachises moderately to only sparsely scaly. **Scales** large; often pentagonal, such that they are widest near mid length; those from the stipe-rachis junction $770\text{--}2280\text{ }\mu\text{m}$ (usually $> c. 1000\text{ }\mu\text{m}$) wide at mid length; pale brown to dark brown, sometimes bicolorous but never with a dark centre completely enclosed by a pale margin; apex often appearing quite blunt because of dehiscence of apical cell(s); almost always with marginal projections which often taper to cilia-like apices; underlain by smaller scales, including 'arachnioid' scales with fimbriate bases, but these only sparse, such that stipe and rachis never appear completely clothed in indumentum. **Lamina** $180\text{--}410 \times 80\text{--}200\text{ mm}$, bipinnate (with the lower primary pinnae of some large fronds being tripinnate); usually blue-green and almost concolorous with blackish blue primary and secondary costae. **Primary pinnae** in 11–22 pairs, the longest $43\text{--}105 \times 16\text{--}43\text{ mm}$. **Secondary pinnae** stalked and free towards the base of primary pinnae, becoming sessile and adnate towards the apex of primary pinnae; never entire, with sharply pointed apices and usually additional marginal teeth and/or crenulations. **Sori** round. **Indusia** peltate, \pm flat, \pm round, with entire, although often undulate and/or scalloped, margins; persistent; central dark area always significant and obvious (5–50% of surface area).



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



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

SIMILAR TAXA

Polystichum oculatum is recognised by its broad, often pentagonal scales, widely inserted and relatively broad pinnae, indusia with obvious dark centres, and relatively small spores. However it is superficially similar to *P. neozelandicum* subsp. *zerophyllum*, with which it often grows. *Polystichum neozelandicum* subsp. *zerophyllum* differ by its narrower scales and larger spores. The often stark contrast in colour between the primary costae (blackish blue) and the remaining lamina (forest green) in *P. neozelandicum* subsp. *zerophyllum* compared with the more uniform colouring (blackish blue to dark blue-green) in *P. oculatum* can be a useful initial field character. Hybrids may further complicate identification, although these can be recognised by their aborted spores.

PROPAGATION TECHNIQUE

Easily grown from fresh spores and transplants. However, often slow to establish. Does best in a shaded site planted within a deep, free draining humus-enriched fertile soil. *Polystichum oculatum* is also an excellent pot plant.

ETYMOLOGY

polystichum: Many rows (of sori); from the Greek polus and stikhos; parallel rows of spore cases

WHERE TO BUY

Not Commercially Available.

ATTRIBUTION

Fact sheet prepared for NZPCN by P.J. de Lange (13 November 2012). Description adapted from Perrie et al. (2003).

REFERENCES AND FURTHER READING

Perrie LR, Brownsey PJ, Lockhart PJ, Large MF. 2003. Evidence for an allopolyploid complex in New Zealand *Polystichum* (Dryopteridaceae). *New Zealand Journal of Botany* 41(2): 189–215.
<https://doi.org/10.1080/0028825X.2003.9512841>.

NZPCN FACT SHEET CITATION

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

MORE INFORMATION

<https://www.nzpcn.org.nz/flora/species/polystichum-oculatum/>