

Parablechnum procerum

COMMON NAME

small kiokio

SYNONYMS

Blechnum minus sensu Allan (1961); *Stegania procera* (G.Forst.) R.Br.; *Onoclea procera* (G.Forst.) Spreng.; *Osmunda procera* G.Forst.; *Lomaria duplicata* Potts; *Lomaria latifolia* Colenso; *Lomaria procera* (G.Forst.) Spreng.; *Asplenium procerum* (G.Forst.) Bernh.; *Blechnopteris procera* (G.Forst.) Trevis; *Blechnum minus* sensu Allan; *Blechnum procerum* (G.Forst.) Sw.

FAMILY

Blechnaceae

AUTHORITY

Parablechnum procerum (G.Forst.) C.Presl

FLORA CATEGORY

Vascular – Native

ENDEMIC TAXON

Yes

ENDEMIC GENUS

No

ENDEMIC FAMILY

No

STRUCTURAL CLASS

Ferns

NVS CODE

BLEPRO

CHROMOSOME NUMBER

2n = 112

CURRENT CONSERVATION STATUS

2017 | Not Threatened

PREVIOUS CONSERVATION STATUSES

2012 | Not Threatened

2009 | Not Threatened

2004 | Not Threatened

DISTRIBUTION

Endemic. New Zealand: North Island (from about Mangamuka Forest south), South Island, Stewart Island/Rakiura, Chatham Islands and Sub-antarctic Islands. Becoming more common heading south and reaching sea level in the more southerly part of its range.

HABITAT

Coastal to subalpine (montane to subalpine in northern part of range). Common in mixed forest, subalpine scrub and tussock grassland.

WETLAND PLANT INDICATOR STATUS RATING

FACU: Facultative Upland

Occasionally is a hydrophyte but usually occurs in uplands (non-wetlands).



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



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DETAILED DESCRIPTION

Rhizome short-creeping; scales to 16×2 mm wide, lanceolate, acute or acuminate, brown some bicolorous, entire. **Fronds** dimorphic, erect, 0.08–1.0 m long, 45–220 mm wide, widest mid frond; fertile fronds longer and more erect than sterile fronds. **Stipes** 20–600 mm (stipes up to 180 mm for plants growing in tussock communities, 150–250 for plants growing in open, shaded forest, and up to 0.6 m where plants are competing with a dense ground layer in the forest); stipes of sterile fronds shorter than stipes of fertile fronds, 1–4 mm diameter, stramineous to dark brown, becoming darker reddish brown towards the base; stipes scaly when young, often glabrous at maturity; scales 2–10 mm long, 0.5–1.5 mm wide, mostly lanceolate, brown, reddish brown, or somewhat bicolorous with paler margins, entire. **Lamina** ovate or lanceolate, dark olive green at maturity, 1-pinnate, 2–15 pairs of pinnae (plants suboptimal sites occasionally have as few as 1 terminal and 2 lateral, membranous pinnae), fertile laminae with more pinnae than sterile laminae. **Rachis and costae** dark, reddish, or pale brown (usually pale for specimens from open tussock communities), often blotchy; with sparse to numerous scales (fertile lamina with a more scaly rachis) and some small irregular hairs; scales variable in size, shape, and colour, $3.0\text{--}10.0 \times 0.5\text{--}1.0$ mm, linear to lanceolate, attenuate, more or less entire; conspicuous abaxial costal scales 2.0–3.5 mm long, c. 1 mm wide, of small narrow linear cells, lanceolate, attenuate, shiny dark reddish brown, concolorous or sometimes slightly bicolorous with paler margins (but lacking a “black-spot”), more or less entire. **Sterile pinnae** 25–150 \times 10–35 mm, oblong-lanceolate, apices obtuse to acute, rounded or truncate at rachis; shortly petiolate at base of lamina, basiscopically adnate towards apex; coriaceous in robust specimens to almost membranous in small plants; margins toothed and sometimes crenate; veins simple or once-furcate; small toothed scales often extending on to lower surface of pinnae; basal pinnae as long or slightly 10–35 mm, oblong-lanceolate, apices obtuse to acute, rounded or truncate at rachis; shortly petiolate at base of lamina, basiscopically adnate towards apex; coriaceous in robust specimens to almost membranous in small plants; margins toothed and sometimes crenate; veins simple or once-furcate; small toothed scales often extending on to lower surface of pinnae; basal pinnae as long or slightly shorter than middle pinnae, rarely less than half their length, more obtuse, often reflexed, auricles and auriculate pinnae bases absent; terminal pinna usually longer and acutely pointed. **Fertile pinnae** 20–75 \times 2.0–4.5 mm, linear, shortly petiolate at base of lamina, becoming basiscopically adnate towards apex; basal pinnae usually not reduced; sori covering under surface except at apices; indusium brown, lacinate or entire. **Spores** 56–70 \times 39–52 μm .

SIMILAR TAXA

Parablechnum procerum is most similar to *P. montanum*, with which it sometimes hybridises. From *P. montanum*, *P. procerum* is distinguished by the usually fewer, blunter pinnae, basal pinnae which are not reduced. The pinnae of *Parablechnum montanum* are usually attenuate and falcate, and “black-spot” scales are present.

FLOWERING

Not applicable—spore producing

FLOWER COLOURS

No flowers

FRUITING

Not applicable—spore producing

PROPAGATION TECHNIQUE

Easily grown from fresh spores and whole plants. transplants well and flourishes in most conditions but does best in a shaded site, planted in a fertile, permanently moist soil. Dislikes drought.

ETYMOLOGY

procerum: Long; from the Latin procerus

TAXONOMIC INFORMATION

Perrie et al. (2014) advocated for a broadened circumscription of Blechnaceae whereby a number of genera traditionally recognized as distinct from *Blechnum* were merged within it. However, this view has not met with universal acceptance (see Gasper et al. 2016) and does not seem to be followed worldwide (PPG 2016). From a New Zealand perspective the decision to merge *Doodia* in *Blechnum*, and rejection of *Diploblechnum* has not been universally accepted either e.g., Wilcox & Warden (2017), and as such it is considered appropriate to follow world opinion and accept the taxonomy of Gasper et al. (2016) and recommendations of the PPG (2016). See also the comments by Pyner (2017).

ATTRIBUTION

Fact sheet prepared for NZPCN by P.J. de Lange (7 March 2012). Description adapted Chambers & Farrant (1998)

REFERENCES AND FURTHER READING

- Chambers TC, Farrant PA. 1998. The *Blechnum procerum* ("capense") (Blechnaceae) complex in New Zealand. *New Zealand Journal of Botany* 36(1): 1–19. <https://doi.org/10.1080/0028825X.1998.9512544>.
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- Perrie LR, Wilson RK, Shepherd LD, Ohlsen DJ, Batty EL, Brownsey PJ, Bayly MJ. 2014. Molecular phylogenetics and generic taxonomy of Blechnaceae ferns. *Taxon* 63(4): 745–758. <https://doi.org/10.12705/634.13>.
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- Pyner T. 2017. A new classification of *Blechnum*. British Pteridological Society. <https://ebps.org.uk/new-classification-blechnum/>. Accessed [INSERT DATE ACCESSED].
- Wilcox M, Warden J. 2017. Botany of Hillsborough coast bush reserves, Manukau Harbour, Auckland. *Auckland Botanical Society Journal* 72: 32–46.

NZPCN FACT SHEET CITATION

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<https://www.nzpcn.org.nz/flora/species/parablechnum-procerum/> (Date website was queried)

MORE INFORMATION

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