

# Parablechnum triangularifolium

## COMMON NAME

kiokio, Green Bay kiokio

## SYNONYMS

Lomaria capense var. carsi Dobbie; Blechnum triangularifolium  
T.C.Chambers et P.A.Farrant

## FAMILY

Blechnaceae

## AUTHORITY

Parablechnum triangularifolium (T.C.Chambers et P.A.Farrant) Gasper et Salino

## FLORA CATEGORY

Vascular – Native

## ENDEMIC TAXON

Yes

## ENDEMIC GENUS

No

## ENDEMIC FAMILY

No

## STRUCTURAL CLASS

Ferns

## NVS CODE

BLETRI

## CHROMOSOME NUMBER

2n = 56

## 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 North Cape (Otou), South Island (to Napenape (North Canterbury) and near Okarito (Westland)), Chatham Islands.

## HABITAT

Coastal to montane, although this species is mostly found in coastal and lowland situations. *Blechnum triangularifolium* is a basicolous species frequenting base-rich substrates such as calcareous silt and mudstones, sandstones, limestone, marble, basalt and basaltic andesite, it also grows on the ultra basic serpentinite rocks at North Cape (Otou). In these habitats it is often found growing within seepages with such plants as *Machaerina sinclairii*. In karst country it may extend a considerable distance inland and it has been collected on a few occasions from calcareous rocks in montane forest.



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



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

## DETAILED DESCRIPTION

**Rhizome** short-creeping to erect; clothed with the bases of old stipes and a dense mass of scales; scales to 12 × 2 mm, lanceolate, acuminate, light brown, reddish brown, or sometimes bicolorous, entire or minutely toothed.

**Fronds** dimorphic, usually pendulous, 0.3–0.900 × 0.09–0.55 m, widest at base of lamina; fertile fronds smaller than sterile fronds. **Stipe** 0.15–0.73 m, fertile stipes similar in length or longer than stipes of sterile fronds, up to 10 mm in diameter at the base, stramineous to pale brown, darkening only at the very base, stipes scaly especially at base, upper stipes almost glabrous at maturity; scales up to 10.0 × 1.0–1.5 mm wide, ovate, cordate or linear, acuminate, often appressed, brown concolorous or “black-spot”, shiny, entire or finely toothed. **Lamina** broadly deltoid, pale green, 1-pinnate, 8–33 pairs of pinnae. **Rachis** and costae pale brown or reddish brown with sparse to moderately dense scales and some irregular small fine hairs; scales mostly small, up to 3.0 × 1.5 mm, ovate to cordate, peltate, appressed, shortly acuminate, shiny and bicolorous with “black-spot”, entire or finely toothed (these scales usually especially conspicuous on abaxial costae); also some larger scales, up to 10 × 1 mm, narrow, linear, acuminate, twisted, concolorous pale brown or reddish brown, entire or finely toothed. **Sterile pinnae** 70–250 × 14–20 mm, lanceolate-linear, slightly falcate, acuminate to attenuate at apices, rounded or tapering acutely to rachis; shortly petiolate or sessile at base of lamina becoming basiscopically adnate then sometimes fully adnate towards the apex of the lamina; coriaceous to papery; margins finely serrate, often crenate or undulate, toothed with glandular vein ending and brown cartilaginous marginal tissue; veins simple or once-furcate; scales on mature pinnae not extending to surface of lamina; basal pinnae slightly longer or similar to pinnae pair above and longer than middle pinnae, sometimes deflexed, auricles and auriculate pinnae bases absent; terminal pinna usually a little longer than subterminal. **Fertile pinnae** 110–240 × 3–6 mm, narrow, linear, shortly petiolate at the base becoming basiscopically adnate and winged towards the apex; basal pinnae not reduced; sori covering under surface except for sterile attenuate apices and small sterile lobes that occur at the base of the lowermost pairs of pinnae in some specimens. **Spores** 46–64 × 29–50 μm.

## SIMILAR TAXA

*Parablechnum triangularifolium* is superficially similar to *P. novae-zelandiae*, from which it is easily distinguished by the deltoid, pale green almost glabrous fronds which lack auricles, and by the pinnae which get longer towards the frond base, and are distinctly falcate and upward-pointing. From *Parablechnum montanum*, *P. triangularifolium* can be distinguished by its ecological preferences and habit of growing at lower elevations, most usually in coastal situations, and by the broadly deltoid, pale green fronds which are 0.09–0.55 m wide at the base, bearing 8–33 pairs of pinnae, and by the acuminate to attenuate pinnae apices. From *Parablechnum procerum* it can be distinguished by the same characters but also by the abaxial costae, rachis, and stipe which are bicolorous abyd by the scales which have prominently black-spotted centres, rather than mostly concolorous, shiny, dark reddish brown (rarely slightly bicolorous with paler margins (though never, ever furnished with a central “black spot”)).

## FLOWERING

Not applicable—spore producing

## FLOWER COLOURS

No flowers

## FRUITING

Not applicable—spore producing

## PROPAGATION TECHNIQUE

Very easily grown from fresh spore and young plants which transplant readily. *Parablechnum triangularifolium* is an attractive fern that does well in a pot or planted in a sunny, moist but free draining fertile soil. It responds well to regular applications of lime. Although reasonably hardy it dislikes long periods of drought and frosts.

## TAXONOMIC NOTES

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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## NZPCN FACT SHEET CITATION

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

## MORE INFORMATION

<https://www.nzpcn.org.nz/flora/species/parablechnum-triangularifolium/>