

# Botrychium australe

## COMMON NAME

parsley fern, pātotara

## SYNONYMS

*Botrychium ternatum* var. *australe* (R.Br.) Domin; *Botrychium australe* var. *erosum* (Milde) Prantl; *Botrychium cicutarium* var. *virginicum* (Hook.f.) Linds.; *Botrychium ternatum* var. *erosum* (Milde) Milde; *Botrychium virginicum* sensu Hook.f.; *Sceptridium australe* (R.Br.) Lyon; *Botrychium australe* var. *typicum* R.T.Clausen; *Botrychium cicutarium* sensu Hook.f.; *Botrychium erosum* Milde; *Botrychium ternatum* sensu F.Muell.

## FAMILY

Ophioglossaceae

## AUTHORITY

*Botrychium australe* R.Br.

## FLORA CATEGORY

Vascular – Native

## ENDEMIC TAXON

No

## ENDEMIC GENUS

No

## ENDEMIC FAMILY

No

## STRUCTURAL CLASS

Ferns

## NVS CODE

BOTAUS

## CHROMOSOME NUMBER

2n = 90

## CURRENT CONSERVATION STATUS

2017 | At Risk – Naturally Uncommon | Qualifiers: DP, EF, SO, Sp

## PREVIOUS CONSERVATION STATUSES

2012 | At Risk – Naturally Uncommon | Qualifiers: DP, EF, SO

2009 | At Risk – Naturally Uncommon | Qualifiers: DP, SO, EF

2004 | Sparse

## DISTRIBUTION

Indigenous. North Island, South Island throughout, with one old Chatham Island record. Present in Australia, Papua New Guinea and South America.

## HABITAT

Lowland to alpine. A species of open ground, short and tall tussock grassland, forest clearings, shrubland, river flats, reverting pasture and seasonally flooded ground. It has also been collected from the margins of peat bogs in the Huntly Basin, lower Waikato.



*Botrychium australe*. Photographer: John Smith-Dodsworth, Licence: CC BY-NC.



Kuratau. Photographer: Jeremy R. Rolfe, Date taken: 18/01/2009, Licence: CC BY.

## DETAILED DESCRIPTION

Red-green (bronze) to bright green, fleshy to succulent plant. **Roots** thick, fleshy, distinctly ridged and contracted. **Sterile laminae** 1–(2), stalked, broadly ovate or 5-angled, divided 3–5-times, 30–250 × 30–150 mm, the ultimate segments blunt-ended, 1–7 mm wide. **Fertile laminae** 1–(2) borne on a narrower but longer stalk, fertile portion shorter and narrower than sterile laminae, divided 3–5-times, bearing numerous, spherical, yellow-brown sporangia up to c. 10 mm diameter.

## SIMILAR TAXA

Closest to *Botrychium biforme* Colenso *Botrychium biforme* Colenso from which it differs mainly by its less divided, blunt-ended sterile frond segments. The roots of *B. australe* are distinctly ridged and contracted. Those of *B. biforme* are not.

## FLOWERING

Not applicable—spore producing

## FLOWER COLOURS

No flowers

## FRUITING

Not applicable—spore producing

## LIFE CYCLE

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

## PROPAGATION TECHNIQUE

Difficult. Should not be removed from the wild.

## THREATS

Generally uncommon and of sporadic distribution. In some habitats it can be locally abundant, but in many places it is now scarce. There is some evidence of losses happening in the northern part of its range but as yet this seems insufficient to warrant a worse conservation status.

## ETYMOLOGY

**botrychium:** Bunch of grapes; from the Greek botrus; grape like spore clusters

**australe:** Southern, from the Latin australis

## ATTRIBUTION

Fact Sheet by P.J. de Lange 6 June 2005. Description from Brownsey & Smith-Dodsworth (2000).

## REFERENCES AND FURTHER READING

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>.

## NZPCN FACT SHEET CITATION

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## MORE INFORMATION

<https://www.nzpcn.org.nz/flora/species/botrychium-australe/>