

Diplazium australe

SYNONYMS

Allantodia australis R.Br., *Athyrium australe* (R.Br.) C.Presl; *Athyrium umbrosum* subsp. *australe* (R.Br.) C.Chr.; *Athyrium umbrosum* var. *australe* (R.Br.) Domin; *Athyrium brownii* (J.Sm.) J.Sm.; *Athyrium umbrosum* sensu Cheeseman; *Asplenium australe* (R.Br.) Brack.; *Asplenium brownii* J.Sm.; *Asplenium umbrosum* sensu G.M.Thomson; *Allantodia tenera* R.Br.

FAMILY

Athyriaceae

AUTHORITY

Diplazium australe (R.Br.) N.A.Wakef.

FLORA CATEGORY

Vascular – Native

ENDEMIC TAXON

No

ENDEMIC GENUS

No

ENDEMIC FAMILY

No

STRUCTURAL CLASS

Ferns

NVS CODE

DIPAUS

CHROMOSOME NUMBER

2n = 246

CURRENT CONSERVATION STATUS

2017 | Not Threatened | Qualifiers: SO

PREVIOUS CONSERVATION STATUSES

2012 | Not Threatened

2009 | Not Threatened

2004 | Not Threatened

DISTRIBUTION

Indigenous. New Zealand: North Island, South Island (though mostly absent from the drier eastern side of both islands, reaching its apparent southern limits in the west near Greymouth and in the east in the Marlborough Sounds). Also Australia (eastern Queensland, eastern New South Wales, southern Victoria and Tasmania) and Norfolk Island.

HABITAT

Coastal, lowland to montane forested habitats, common in alluvial forest, along river flats, in gullies, or swamp forest. Often found in rough pasture or under willows. Often found in urban areas.

WETLAND PLANT INDICATOR STATUS RATING

FACU: Facultative Upland

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



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



Waihora Stream, Wairarapa. Photographer: Jeremy R. Rolfe, Date taken: 25/02/2014, Licence: CC BY.

DETAILED DESCRIPTION

Terrestrial tufted ferns (often deciduous in cooler areas). **Rhizome** to 80 mm long, erect over time forming a short, woody caudex, initially covered with dull dark brown to black scales. **FronDs** arcuate, glabrous membranous, brittle, dark green, groove of rachis open at junctions with grooves of pinna midribs. **Stipe** 150–800 mm long, black and scaly at the base, deeply 3-grooved. **Lamina** 3-pinnate, 0.25–1.2 × 0.2–0.9 m, broadly deltoid. **Pinnules** 5–25 × 2–10 mm, oblong; base broadly attached to axis; margins bluntly toothed or shallowly lobed less than half-way to costule, abaxially decurrent; apex obtuse. **Sori** 2–3 mm long, 3–5 per pinnule, elongated along one side of a vein, mostly single, sometimes paired along both sides; indusium pale brown, elongated, attached to vein on one side, free edge toothed, fragile.

SIMILAR TAXA

Diplazium australe is sometimes confused with *Deparia petersenii* subsp. *congrua*, with which it often grows, partly because both *Diplazium* and *Deparia* have sori arranged in a herring bone pattern, a pattern which may also lead to confusion with *Asplenium*. However both *Diplazium* and *Deparia* differ from *Asplenium* by the sori which are paired back-to-back along the veins. *Diplazium* differs from *Deparia* by its much larger, more divided, glabrous fronds and by the groove of the rachis which is open and confluent with the grooves of the pinna midribs (rather than not open at junctions with grooves of pinna midribs).

LIFE CYCLE

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

PROPAGATION TECHNIQUE

Easy from spores and rooted pieces. Very fast growing and inclined to become weedy. Prefers a shaded site but copes well in full sun provided it is planted in permanently damp ground. In cooler parts of the country it dies down to the rhizome during winter.

ETYMOLOGY

diplazium: From Greek diplasios 'double', referring to the double covering over the spores

australe: Southern, from the Latin australis

CULTIVATION

Occasionally available from mainline and specialist native plant nurseries

STATUS NOTES

This species was once considered to be very uncommon. It appears to have flourished and expanded its New Zealand range as a result of human disturbance and is now one of our most widespread, weedy, indigenous, urban ferns.

ATTRIBUTION

Fact sheet prepared for NZPCN by P.J. de Lange (18 January 2012). Description adapted from Brownsey & Smith-Dodsworth (2000). Family follows Rothfels et al. (2012).

REFERENCES AND FURTHER READING

Brownsey PJ, Smith-Dodsworth JC. 2000. New Zealand Ferns and Allied Plants. David Bateman, Auckland, NZ. 168 p.

Jones DL. 1998. Athyriaceae. *Flora of Australia 48, Ferns Gymnosperms and allied groups*: 418–429. ABRs/CSIRO Victoria, Australia.

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>.

Rothfels CJ, Sundue MA, Kuo Li-Y, Larsson A, Kato M, Schuettpelz E, Pryer KM. 2012. A revised family-level classification for eupolypod II ferns (Polypodiidae: Polypodiales). *Taxon 61*(3): 515–533. <https://doi.org/10.1002/tax.613003>.

NZPCN FACT SHEET CITATION

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MORE INFORMATION

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

PDF DATE

17 September 2024