

Ophioglossum petiolatum

COMMON NAMES

stalked adder's tongue fern

BIOSTATUS

Native

CURRENT CONSERVATION STATUS

2023 | Threatened – Nationally Vulnerable | Qualifiers: RF, SO, Sp

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CATEGORY

Vascular

STRUCTURAL CLASS

Ferns

FLOWER COLOURS

No flowers

DETAILED DESCRIPTION

Perennial, seasonally dormant, firmly fleshy plants forming extensive patches in ideal conditions. **Rhizomes** erect, glabrous, loosely covered in fleshy white to pale yellow sheaths. **Roots** fleshy, proliferous. **Sterile blade** on short stalk up to 30 mm long, yellow-green to dark green. **Lamina of sterile blade** 15–150 × 6–40 mm, yellow-green to dark green, broadly to narrowly ovate, elliptic, undivided, base truncate to slightly attenuate, venation usually darker than rest of lamina, distinctly reticulate. **Fertile spike** 14–60 mm long, on stalk 40–200 mm long, bearing 15–48 pairs of sequentially ripening, long-persistent sporangia.

SIMILAR TAXA

Ophioglossum coriaceum A.Cunn. which is generally smaller and has a narrower, oval-shaped and stalk-less sterile blade. The fertile spike is much shorter and carries fewer (7–15) pairs of spore-bearing capsules. However the distinction is not quite as clear cut and some populations with the sterile blade form of *O. coriaceum* but sporangia pairs of up to 25 are known. Further work on the status of plants referred to *O. petiolatum* in New Zealand is needed (see comments by de Lange & Rolfe 2010).

DISTRIBUTION

Indigenous. Manawatāwhi / Three Kings Islands (Manawatāwhi / Great Island), North Island, South Island, Chatham Islands. Not recently recorded from the South Island. Last recorded from Chatham Island (Rēkohu) in 2007. Still present on Manawatāwhi / Great Island, and locally from Te Pahi to Kawhia and Arohaki Lagoon. Probably now extinct at Hokio, near Levin. New Zealand plants appear to belong to a widespread and common tropical species which reaches its southern limits in this country.

HABITAT

Recorded from coastal and lowland habitats. A seasonally dormant species of ephemeral wetlands, moist talus and grassy areas, sandy margins of coastal lagoons, herbfields near lake margins, swamps and streams, and damp hollows within podocarp forest. Plants are most conspicuous between spring and late summer, dying down in autumn and winter.



In cultivation. Photographer: Jeremy R. Rolfe, Date taken: 28/02/2009, Licence: CC BY.



In cultivation ex Hokio. Photographer: Jeremy R. Rolfe, Date taken: 19/10/2007, Licence: CC BY.

THREATS

May be overwhelmed by other plants or pigs. Destruction of suitable habitat or taking over of habitat by adventive species more able to tolerate changing nutrient status or with greater competitive ability. In cultivation this species is devastated by exotic snails and slugs and this maybe one of the problems for the species in the wild. Plants from two populations (Opuatia and Hokio) proved to be sterile.

GENUS

Ophioglossum

FAMILY

Ophioglossaceae

AUTHORITY

Ophioglossum petiolatum Hook.

SYNONYMS

Ophioglossum pedunculosum sensu Allan (1961), *O. reticulatum* L.

ENDEMIC TAXON

No

ENDEMIC GENUS

No

ENDEMIC FAMILY

No

FLOWERING

October—December

FRUITING

November—January

PROPAGATION TECHNIQUE

Easily grown by the division of whole plants. Does best in a fertile soil kept permanently moist (but not saturated). Will tolerate full sun but does better in semi-shade. Intolerant of competition from taller faster growing plants and very vulnerable to slug and snail browsing. This species makes an interesting and unusual pot plant. So far most New Zealand plants that have been investigated in detail have proved sterile. The sterility of the plants examined brings into question the exact status of plants attributed to this species in New Zealand.

WETLAND PLANT INDICATOR STATUS RATING

FACW: Facultative Wetland

Usually is a hydrophyte but occasionally found in uplands (non-wetlands).

ETYMOLOGY

ophioglossum: Snake's tongue; from the Greek ophis and glossa; appearance of the fertile leaf

NVS CODE

OPHPET

CHROMOSOME NUMBER

Meiosis irregular

PREVIOUS CONSERVATION STATUSES

2017 | Threatened – Nationally Critical | Qualifiers: RF, SO, Sp

2012 | Threatened – Nationally Critical | Qualifiers: RF, SO, Sp

2009 | Threatened – Nationally Critical | Qualifiers: RF, SO, Sp

2004 | Threatened – Nationally Endangered

[Jump to current conservation status](#)

REGIONAL CONSERVATION STATUSES

Auckland: 2025 | Regionally Threatened – Regionally Vulnerable | Qualifiers: Sp, DPR, DPS, DPT, EF, PF, SO? Help
The regional threat classification system leverages off the national assessments in the NZTCS, providing information relevant for the regional context. Auckland conservation status information is sourced from the “Conservation status of vascular plant species in Tāmaki Makaurau / Auckland” Simpkins E et al. (2025) report.

REFERENCES AND FURTHER READING

- Brownsey PJ. 1985. *Ophioglossum petiolatum* at Hokio beach. *Wellington Botanical Society Bulletin* 42: 33–34.
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- de Lange PJ, Heenan PB, Norton DA, Rolfe JR, Sawyer JWD. 2010. Threatened Plants of New Zealand. Canterbury University Press, Christchurch. 471 p.
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ATTRIBUTION

Fact sheet prepared by P.J. de Lange 2004 (Updated 21 March 2011). Description based on de Lange et al. (2010).

NZPCN FACT SHEET CITATION

Please cite as: de Lange, P.J. (Year at time of access): *Ophioglossum petiolatum* Fact Sheet (content continuously updated). New Zealand Plant Conservation Network.

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

MORE INFORMATION

<https://www.nzpcn.org.nz/flora/species/ophioglossum-petiolatum/>

PDF DATE

25 May 2026