

Asplenium chathamense

COMMON NAMES

Chatham Island spleenwort

BIOSTATUS

Native

CATEGORY

Vascular

STRUCTURAL CLASS

Ferns

FLOWER COLOURS

No flowers

DETAILED DESCRIPTION

Rhizome short, erect, bearing blackish-brown subulate scales up to 25 × 3 mm. **Stipes** 50–350 mm long, 2–4 mm diameter, stiff, pale brown at the base, green above, bearing scattered subulate scales 1–4 mm long.

Laminae elliptic or rhombic to ovate, 50–450 × 35–200 mm, dark shiny green on upper surface, lighter on undersurface, stiff, erect, glabrous except for a few scattered scales, bipinnate to often tripinnate at base.

Rachis green, or occasionally pale brown on undersurface, bearing a few small scattered scales. **Primary pinnae** in 6–17 pairs, the upper ones narrowly elliptic to narrowly ovate decreasing regularly in size towards the apex, the lower ones narrowly ovate to ovate, the longest below the middle 25–150 × 10–70 mm. **Secondary pinnae** on the upper primary pinnae ± linear, undivided, with obtuse apices; those on the lower primary pinnae narrowly elliptic or ovate and divided into tertiary pinnae, the longest 10–60 × 6–20 mm. **Tertiary pinnae** usually linear, undivided, up to 10 × 2 mm, occasionally larger and divided into 2–4 ultimate segments, apices obtuse. **Sori** extending along ultimate pinnules, 2–10 mm long, margins of indusia entire. **Spores** 34–52 × 21–37 µm; perispores prominently winged, sometimes with a few ridges.

SIMILAR TAXA

Most similar to *A. appendiculatum* (Labill.) C.Presl. which is not known from the Chatham Islands. However, *A. chathamense* is a tetraploid species whereas *A. appendiculatum* is octoploid, and the spores of the two have a rather different pattern of ridges. On the Chatham Islands it is most similar to *A. flaccidum* G.Forst. from which it differs by its terrestrial habitat preferences, erect rather than pendulous, more heavily divided glossy fronds, much longer secondary pinnae, and rather larger spores (40.0–50.0 × 26–33 µm cf. 36.0–43.0 × 23.0–26.5 µm).

DISTRIBUTION

Endemic. Chatham Islands (Rēkohu / Wharekauri / Chatham Island, Rangihau / Rangiauria / Pitt Island, Manga're / Mangere Island, Tapuaenuku / Little Mangere Island, Hokoreoro / Rangatira / South East Island, Motuhope / Star Keys, Motchu Hara / The Forty Fours, Rabbit Island, and on most other smaller islets and rock stacks).

HABITAT

Primarily found on coastal rocks and cliffs in rock crevices or on the ground. Also found in coastal scrub, open coastal forest and along creeksides.

CURRENT CONSERVATION STATUS

2023 | At Risk – Naturally Uncommon | Qualifiers: IE



At Maunganui, Chatham Islands (January).
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Chatham Islands. Photographer: John Sawyer,
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THREATS

No apparent threats. A naturally Uncommon, Range Restricted endemic abundant on all the main Chatham Islands and surrounding islets and rock stacks.

DETAILED TAXONOMY

FAMILY

Aspleniaceae

AUTHORITY

Asplenium chathamense Brownsey

SYNONYMS

None (described in 1985)

ENDEMIC TAXON

Yes

ENDEMIC GENUS

No

ENDEMIC FAMILY

No

ECOLOGY

FLOWERING

Not applicable—spore producing

FRUITING

Not applicable—spore producing

LIFE CYCLE AND DISPERSAL

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

PROPAGATION TECHNIQUE

Easy from spores and rooted pieces. Very attractive but can be rather slow growing. Best in a large pot or planted in a deep, rich, moist soil in semi-shade. Prone to getting scale infections.

OTHER INFORMATION

ETYMOLOGY

asplenium: From the Greek a- 'without' and splene 'spleen', a northern hemisphere species, the black spleenwort (*Asplenium adiantum-nigrum*), was once believed to be a cure for diseases of the spleen.

chathamense: From the Chathams

NVS CODE

ASPCHA

CHROMOSOME NUMBER

2n = 144

PREVIOUS CONSERVATION STATUSES

2017 | At Risk – Naturally Uncommon | Qualifiers: IE

2012 | At Risk – Naturally Uncommon | Qualifiers: IE

2009 | At Risk – Naturally Uncommon | Qualifiers: IE

2004 | Range Restricted

REFERENCING AND CITATIONS

REFERENCES AND FURTHER READING

- Brownsey PJ. 1985. *Asplenium chathamense* – a new fern species from the Chatham Islands, New Zealand. *New Zealand Journal of Botany* 23(1): 135–140. <https://doi.org/10.1080/0028825X.1985.10425314>.
- 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>.

ATTRIBUTION

Fact Sheet prepared for NZPCN by P.J. de Lange (3 February 2006). Description from Brownsey (1985)

NZPCN FACT SHEET CITATION

Please cite as: de Lange, P.J. (Year at time of access): *Asplenium chathamense* Fact Sheet (content continuously updated). New Zealand Plant Conservation Network.
<https://www.nzpcn.org.nz/flora/species/asplenium-chathamense/> (Date website was queried)

MORE INFORMATION

<https://www.nzpcn.org.nz/flora/species/asplenium-chathamense/>

PDF DATE

13 October 2024