

# Asplenium chathamense

## COMMON NAME

Chatham Island spleenwort

## SYNONYMS

None (feschcribed in 1985)

## FAMILY

Aspleniaceae

## AUTHORITY

Asplenium chathamense Brownsey

## FLORA CATEGORY

Vascular – Native

## ENDEMIC TAXON

Yes

## ENDEMIC GENUS

No

## ENDEMIC FAMILY

No

## STRUCTURAL CLASS

Ferns

## NVS CODE

ASPCA

## CHROMOSOME NUMBER

2n = 144

## CURRENT CONSERVATION STATUS

2017 | At Risk – Naturally Uncommon | Qualifiers: IE

## PREVIOUS CONSERVATION STATUSES

2012 | At Risk – Naturally Uncommon | Qualifiers: IE

2009 | At Risk – Naturally Uncommon | Qualifiers: IE

2004 | Range Restricted

## DISTRIBUTION

Endemic. Chatham Islands (Rēkohu / Wharekauri / Chatham Island, Rangihau / Rangiauria / Pitt Island, Maunga're / Mangere Island, Tapuaenuku / Little Mangere Island, Hokoreore / Rangatira / South East Island, Motuho / 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.



At Maunganui, Chatham Islands (January).  
Photographer: John Smith-Dodsworth, Licence: CC BY-NC.



Maunganui, Chatham Islands (January).  
Photographer: John Smith-Dodsworth, Licence: CC BY-NC.

## 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. flaccidium* 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).

## 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

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.

## THREATS

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

## 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

## ATTRIBUTION

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

## REFERENCES AND FURTHER READING

Brownsey P.J. 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 M.J., Dickinson K.J.M., Seddon P.J. 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

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/>