

Pyrrosia serpens

FAMILY

Polypodiaceae

AUTHORITY

Pyrrosia serpens (G.Forst.) Ching

FLORA CATEGORY

Vascular – Native

ENDEMIC TAXON

No

ENDEMIC GENUS

No

ENDEMIC FAMILY

No

STRUCTURAL CLASS

Ferns

INTERIM CONSERVATION STATUS

2021 | Data Deficient | Interim

BRIEF DESCRIPTION

Creeping fern with simple, leathery, lanceolate to oblong fronds, with sori arranged in one row either side of frond midrib.

DISTRIBUTION

Indigenous. New Zealand: northern Kermadec Islands (Dayrell Island, Herald Islets). Otherwise Fiji, Cook Islands, Society Islands, Austral Islands, Gambier Islands, Pitcairn Island, Henderson Island.

HABITAT

In the New Zealand Botanical Region known only from the Kermadec Islands from a single collection made from the basal trunk of *Metrosideros kermadecensis*.

DETAILED DESCRIPTION

Low epiphytic fern. **Rhizomes** long-creeping, 1–1.5 mm diameter, densely scaly. **Rhizome scales** peltate, ovate, 2–2.8 mm long, 0.7–0.9 mm wide, appressed, dark brown centrally, becoming orange-brown and colourless on the margin; margins dentate to ciliate. **FronDs** undivided; the sterile narrowly elliptic, 90–110 mm long (including stipe), 9–15 mm wide; the fertile narrowly elliptic to narrowly ovate or narrowly oblong, 115–175 mm long (including stipe), 7–10 mm wide; apex acute to obtuse, margins entire, base attenuate to an indistinct stipe, dark green, coriaceous to succulent, scattered stellate hairs on adaxial surface, densely covered in mostly silver-coloured stellate hairs on abaxial surface. **Sori** slightly elongate, 3–5 mm long, sunken in the lamina and sometimes protuberant on adaxial surface, arranged in one row either side of midrib, not confluent, confined to distal part of lamina, exindusiate, paraphyses present as stellate hairs. (Description from Brownsey et al. (2021)).



Pyrrosia serpens. Abaxial from surface showing sori. Avarua, Rarotonga. Photographer: Peter J. de Lange, Date taken: 27/09/2017, Licence: CC BY.



Growth habit of *Pyrrosia serpens*. This plant noted as an epiphyte on 'utu (*Barringtonia asiatica*), Avarua, Rarotonga. Photographer: Peter J. de Lange, Date taken: 27/09/2017, Licence: CC BY.

SIMILAR TAXA

The fronds of *Pyrrosia serpens* are narrowly oblong whereas those of *P. elaeagnifolia* are broadly ovate or elliptic. The rhizome scales of *P. serpens* are appressed, ovate in outline, 2–2.8 mm long, slightly ciliate, and have a conspicuous dark centre, whereas those of *P. elaeagnifolia* are squarrose, narrowly ovate in outline, 2–7 mm long, entire, and concolorous. Critically, the arrangement of the sori differ. In *P. serpens*, they are large, arranged in one row either side of the midrib, often partly sunken into the lamina and somewhat protuberant on the adaxial surface, whereas in *P. elaeagnifolia* they are in 2–5 rows, superficial on the abaxial surface and not protuberant on the adaxial side.

THREATS

Brownsey et al. (2021) reported the presence of this species in the New Zealand Botanical Region on the basis of one collection made from Dayrell Island, Herald Islets, northern Kermadec Islands group (de Lange & Blanchon 2021). That specimen was collected in 2011 and at the time it was not recognised as being distinct from *P. elaeagnifolia*. As very little is known about it, for now the species was assessed as 'Data Deficient' in the region. It may yet be present on the other Kermadec Islands though critical collecting of *Pyrrosia* in 2009 and 2011 failed to find further populations of this species.

ETYMOLOGY

pyrrosia: Flame coloured; from the Greek purros; the colour of the hairs on its leaves

serpens: Derived from Latin 'serpens', present active participle of serpo ("crawl, creep").

ATTRIBUTION

Fact Sheet prepared for NZPCN by P.J. de Lange (12 October 2022). Description based on Brownsey et al. (2021).

REFERENCES AND FURTHER READING

Brownsey PJ, Shepherd LD, de Lange PJ, Perrie LR. 2021. *Pyrrosia serpens* (G.Forst.) Ching, a new record for the fern flora of the Kermadec Islands. *New Zealand Journal of Botany* 59(2): 229–243.

<https://doi.org/10.1080/0028825X.2020.1796716>.

de Lange PJ, Blanchon DJ. 2021. The flora and vegetation of Dayrell Island, Herald Islets, northern Kermadec Island group. *Records of the Auckland Museum* 55: 37–52.

NZPCN FACT SHEET CITATION

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MORE INFORMATION

<https://www.nzpcn.org.nz/flora/species/pyrrosia-serpens/>