Pellaea falcata

COMMON NAME
sickle fern, Australian cliff brake

SYNONYMS
Pteris falcata R.Br., Platyloma falcata (R.Br.) J.Smith, Allosorus falcatus
(R.Br.) Kunze, Pteris seticaulis Hook.

FAMILY
Pteridaceae

AUTHORITY
(R.Br.) Fée

FLORA CATEGORY
Vascular – Native

ENDEMIC TAXON
No

ENDEMIC GENUS
No

ENDEMIC FAMILY
No

STRUCTURAL CLASS
Ferns

NVS CODE
PELFAL

CHROMOSOME NUMBER
2n = 116

CURRENT CONSERVATION STATUS
2017 │ At Risk – Naturally Uncommon │ Qualifiers: DP

PREVIOUS CONSERVATION STATUSES
2012 │ At Risk – Declining │ Qualifiers: PD, SO
2009 │ At Risk – Relict │ Qualifiers: SO, DP
2004 │ Gradual Decline

Matapaua, Coromandel. Photographer: John Smith-Dodsworth, Licence: CC BY-NC.

Close up at Matapaua (July). Photographer: John Smith-Dodsworth, Licence: CC BY-NC.

DISTRIBUTION
Indigenous. New Zealand: North Island (primarily a species of northern offshore islands but also known from a few locations in Northland, Auckland and Coromandel). Common in eastern Australia.

HABITAT
Coastal in short scrub, on cliff faces and in open forest. Often on small islands, also inland on scoria and basalt rocks around Auckland City.

DETAILED DESCRIPTION
Shortly rhizomatous, tufted fern. **Stipes** 70–250 mm, stipes and rachises erect, dark brown, densely clad in spreading scales. **Frond** linear, pinnate, 200–500 × 30–70 mm. **Pinnae** shortly stalked, oblong-falcate to distinctly falcate, 15–40 × 7–15 mm, evenly spaced, margins smooth, glossy green above, paler below. **Sori** in two marginal bands reaching toward but not meeting at pinna apices.

SIMILAR TAXA
Differs from *P. calidirupium* by a more northerly habit, has larger, distinctly falcate pinnules, smaller less offset terminal pinna, spreading stipe and frond scales, and by the sori which are not continuous along the margin of the pinna. Differs from *P. rotundifolia* by oblong-falcate pinnules. Inland intermediates are frequent but seem to represent another form or complex of forms allied to *P. rotundifolia*. True *P. falcata* is rarely seen in NZ except on some northerly offshore islands.

LIFE CYCLE
Spore-bearing fronds may be found throughout the year.

PROPAGATION TECHNIQUE
Easy from fresh spores. Very fast growing and an excellent pot plant. Does well in a variety of soils, light levels and moisture regimes but intolerant of weeds.

THREATS
Its status has been confused due to the occurrence of intermediate forms between it and *P. rotundifolia*. Some appear to be stable, apomictic races requiring further study. Excluding these forms means the typical species is very uncommon primarily confined to northern offshore islands, on several of which it is now threatened by weeds. It has also been collected from mainland stations as far south as Kawhia and Thames. Many mainland sites are threatened by weeds and coastal development. In some places it is or has recently been threatened by over-collection. Herbarium evidence shows this species was once common on the volcanic cones of Auckland City, but due to targeted collection, the species has all but vanished from this area within the last forty years.

ETYMOLOGY
pellaea: Dark fern; from the greek pellos; dark leaf and leaf stalk
falcata: From the Latin falx 'scythe' or 'sickle', meaning sickle-shaped

WHERE TO BUY
Occasionally available from some specialist native plant nurseries. However, most nursery stock seems to be of Australian origin.

ATTRIBUTION
Fact sheet prepared for NZPCN by P.J. de Lange (21 April 2006). Description adapted from Brownsey & Smith-Dodsworth (2000).

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

NZPCN FACT SHEET CITATION
Please cite as: de Lange, P.J. (Year at time of access): Pellaea falcata Fact Sheet (content continuously updated). New Zealand Plant Conservation Network. https://www.nzpcn.org.nz/flora/species/pellaea-falcata/ (Date website was queried)

MORE INFORMATION
https://www.nzpcn.org.nz/flora/species/pellaea-falcata/