Lepidium naufragorum

BIOSTATUS
Native – Endemic taxon

CURRENT CONSERVATION STATUS
2023 | Threatened – Nationally Vulnerable | Qualifiers: CD, DPS, DPT, RR
Jump to previous conservation statuses

CATEGORY
Vascular

STRUCTURAL CLASS
Herbs - Dicotyledons other than Composites

FLOWER COLOURS
Green, White

DETAILED DESCRIPTION
Stout perennial herb. Stems 150-600 mm long, glabrous, ascending to erect or decumbent, usually dying back to ground during winter, very rarely rooting at nodes and persisting for a second or third season. Rosette and lower stem leaves 60-120(-180) x 15-30 mm, bright grass-green to dark green or yellow-green, narrow-oblong, narrow-oblanceolate, usually pinnatifid through sometimes all simple and sharply serrate, glabrous, rather fleshy, pinnae 3-7 pairs, sharply toothed at apex and distal margins. Middle stem leaves similar through trending to shallow pinnatifid or sharply serrate. Upper stem leaves 10-50 x 2-10 mm, narrow-obovate to linear-oblanceolate, pinnatifid to simply, sharply toothed at apex, and/or pinnae apices if present, cuneate at base. Racemes 30-120 mm, terminal and axillary; rachis glabrous or sparsely hairy; pedicels 3-5 mm long at fruiting, sparsely hairy, erecto-patent. Flowers c.3 mm diameter. Sepals 1 x 1 mm, glabrous or sparsely hairy, often mixed within the same flower, green with scarious margins. Petals white, slightly longer than sepals, spreading, clawed; limb obovate, emarginate. Stamens 4, equal. Nectaries 4, 0.25 mm long. subulate. Silicles 2.8-4 x 2.3-3.2 mm; yellow-green, bright green to dark green, broadly elliptic; style 0.1-0.2 mm, persistent. free from narrow wing, equal or exceeding the shallow notch; stigma 0.4 mm diameter; valves glabrous. Seed 1.7-2 mm, obovoid, orange-brown, not winged, distinctly mucilaginous when wet.

In cultivation. Photographer: John Barkla, Licence: CC BY.

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

SIMILAR TAXA
Lepidium naufragorum was initially regarded as part of the natural variation seen in L. flexicaule Kirk, however, its usually erect rather than decumbent trailing stems, sharply serrated pinnate to simple leaves, much longer, less obviously leaf-opposed racemes, larger flowers with clawed emarginate petals longer than the sepals, 4 rather than 2 stamens, large nectaries and narrower, longer silicles readily distinguish it from L. flexicaule. DNA sequences (nrDNA and cpDNA) suggest L. naufragorum has a hybrid origin and that this may not have involved L. flexicaule.

DISTRIBUTION
Known from nine sites; abundant at two (Taumaka and Popotai, Open Bay Islands) but uncommon to very uncommon at the others (perhaps 5000 plants in total).

HABITAT
Strictly coastal (0-20 m a.s.l.), on rock stacks, offshore islands, boulder beaches, cliff faces and rock ledges, and in or near seal haul outs and sea bird roosts and nesting grounds. Usually found in sites free from taller vegetation, and evidently requiring frequent disturbance to maintain a healthy population structure.

THREATS
This species was formally described in 1995, although it was collected several times prior to its formal recognition. This species reaches its greatest abundance on the Open Bay Islands. The majority of Lepidium naufragorum populations are subject to yearly monitoring to ascertain population health and trends.

GENUS
Lepidium

FAMILY
Brassicaceae

AUTHORITY
Lepidium naufragorum Garn.-Jones et D.A.Norton

SYNONYMS
None

TAXONOMIC NOTES
Has many features suggestive of a hybrid origin between a rossette forming, pinnatifid-leaved species and a leafy species.

ENDEMIC TAXON
Yes

ENDEMIC GENUS
No

ENDEMIC FAMILY
No

FLOWERING
September - April

FRUITING
October - May

LIFE CYCLE AND DISPERSAL
Mucilaginous seeds are dispersed by attachment and possibly wind and water (Thorsen et al., 2009).

PROPAGATION TECHNIQUE
Easily grown from fresh seed. The pinnatifid form (which is the more commonly seen type in cultivation) is rather attractive, though like all New Zealand lepidia this species is very prone to Albugo candida (J.F.Gmel.) Kuntze infections which soon disfigure and in some cases kill plants. Like the other lepidia species the leaves of this plant are edible and make an excellent addition to any summer salad.

ETYMOLOGY
lepidium: Scale-shaped (pods)

CHROMOSOME NUMBER
2n = c.144

PREVIOUS CONSERVATION STATUSES

2017 | Threatened – Nationally Vulnerable | Qualifiers: CD, RR
2012 | Threatened – Nationally Vulnerable | Qualifiers: CD, RR
2009 | Threatened – Nationally Vulnerable | Qualifiers: CD, RR
2004 | Sparse
Jump to current conservation status

REFERENCES AND FURTHER READING

Norten, D.A. and P.J. de Lange. 1999. Coastal cress (Nau) recovery plan. Threatened Species Recovery Plan 26. Department of Conservation

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

ATTRIBUTION

Fact sheet prepared by P.J. de Lange for NZPCN (1 June 2013)

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MORE INFORMATION

https://www.nzpcn.org.nz/flora/species/lepidium-naufragorum/

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