Lepidium oleraceum

COMMON NAMES
nau, Cook's scurvy grass

BIOSTATUS
Native – Endemic taxon

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

CATEGORY
Vascular

STRUCTURAL CLASS
Herbs - Dicotyledons other than Composites

FLOWER COLOURS
White, Yellow

DETAILED DESCRIPTION
Glabrous, much-branched, perennial, herb up to 1 x 1 m, usually less. All parts strongly pungent when bruised. Stems erect to decumbent, stout, somewhat woody near base, flexuous. Petioles winged of variable length. Leaves 20-100 x 15-40 mm, decreasing in size toward stem apices, dark green to green, fleshy, somewhat succulent, narrow-oblanceolate, obovate to elliptic, margins, deeply and evenly serrated, cuneately narrowed at base. Inflorescences racemose, terminal and lateral, usually leaf-opposed 30-150 mm at fruiting; pedicels erecto-patent, 3-10 mm long at fruiting. Flowers fragrant. Sepals 1-2 x 0.5-1 mm. Petals white, 2.5-3.5 x 0.5-2 mm, obovate-spathulate. Stamens 4, yellow. Silicles 3-5 x 2.5-5 mm, broadly ovate, truncate at base, apex acute, not winged; style 0.1-0.2 mm; seeds 1.5-2 mm, ovoid, orange-brown

Lepidium oleraceum. Photographer: Wayne Bennett, Licence: CC BY-NC.

Silicles and seeds. In cultivation. Photographer: Jeremy R. Rolfe, Date taken: 15/05/2011, Licence: CC BY.

SIMILAR TAXA
Distinguished from all other indigenous and exotic Lepidium species by the glabrous stems, persistent, toothed, stem leaves, glabrous pedicels, flowers with four stamens and by the acute silicles which lack a marginal wing.

DISTRIBUTION
Endemic. New Zealand, Kermadec Island group, Three Kings Island group, North, South, Stewart Islands and the Bounty Islands group.

HABITAT
Now strictly coastal, L. oleraceum is usually found in friable well manured soils, guano deposits, or rock crevices associated with seabird roosts and nesting sites. Occasionally it grows under taller vegetation, and then usually near petrel or shear water burrows. The species is now mainly found on rock stacks, islets, and windshorn headlands on rodent free offshore islands. In some places it has been found growing on sand or gravel beaches, and in one location it grows on boulders and clay that are part of an artificial sea wall. Historically this species was also known from the upper Waitaki Valley, well inland from the sea. This suggests that before human occupation it was once more widespread away from coastal situations.

THREATS
Seriously threatened by loss of indigenous sea bird nesting grounds because it is dependent on high-fertility soils and regular cycles of animal induced disturbance. It is susceptible to a range of introduced pests and diseases, including rodents, snails, aphids, leaf miner, diamond back moth and cabbage white butterfly, and is browsed by cattle and other livestock. A fungus-like disease (Albugo candida (J.F.Gmel.) Kuntze) is also a problem; and the plant has been and continues to be over-collected by people.

GENUS
Lepidium

FAMILY
Brassicaceae

AUTHORITY
Lepidium oleraceum Sparrm. ex G.Forst.

SYNONYMS
Lepidium oleraceum var. acutidentatum Kirk, L. oleraceum var. frondosum Kirk, L. oleraceum var. serrulatum Thell.

TAXONOMIC NOTES
Chatham, Antipodes, Snares and Auckland Island plants differ from L. oleraceum s.s. Their taxonomic status is under review. Cooks scurvy grass or nau, played a vital role in preventing scurvy in ship crews visiting New Zealand during the late 1700s and early 1800s. All parts of the plant are edible. The Maori name nau is of ancient derivation and is found in varying forms throughout Polynesia. Many Pacific Island peoples have traditions of harvesting and/or cultivating related lepidia as a vegetable food and suggests NZ Maori may well have used L. oleraceum and allied species in the same way.

ENDEMIC TAXON
Yes

ENDEMIC GENUS
No

ENDEMIC FAMILY
No

FLOWERING
Flowers appear year-round, but mainly from September to March.

FRUITING
Fruiting occurs from December to April. Seed production is rapid so flowers, immature and ripe seed capsules are often found on the same plant.

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

PROPAGATION TECHNIQUE
Easy from fresh seed. Can be grown from semi-hardwood cuttings. Fast growing. Does best in friable soils enriched with N, P, K, in full sun. This species, and indeed all other representatives of the genus in New Zealand are very prone to fungal diseases and insect attack, and can be difficult to maintain. Lepidium oleraceum is best treated as an annual.

PLANT OF THE MONTH
This plant has been featured as a Plant of the Month – see Trilepidea: NZPCN newsletter for October 2005 for the full story.

ETYMOLOGY
lepidium: Scale-shaped (pods)
oleraceum: As a vegetable

NVS CODE
LEPOLE

CHROMOSOME NUMBER
2n = c.72

PREVIOUS CONSERVATION STATUSES

2017 | Threatened – Nationally Endangered | Qualifiers: CD, DP, EF, RR, Sp
2012 | Threatened – Nationally Endangered | Qualifiers: CD, DP, EF, RR, Sp
2009 | Threatened – Nationally Vulnerable | Qualifiers: CD, EF, RR, Sp
2004 | Threatened – Nationally Endangered
Jump to current conservation status

REGIONAL CONSERVATION STATUSES

Auckland: 2025 | Regionally Threatened – Regionally Critical | Qualifiers: CD, DPS, DE, EF, PF, RR Help
The regional threat classification system leverages off the national assessments in the NZTCS, providing information relevant for the regional context. Auckland conservation status information is sourced from the "Conservation status of vascular plant species in Tāmaki Makaurau / Auckland" Simpkins E et al. (2025) report.

REFERENCES AND FURTHER READING

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Sawyer, J.W.D., de Lange, P.J. 2007. *Lepidium oleraceum* - a threatened herb of coastal Wellington. Wellington Botanical Society Bulletin, 50: 30-36
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
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ATTRIBUTION

Description adapted from Webb et al. (1988).
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MORE INFORMATION

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

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