Lepidium oblitum

COMMON NAME scurvy grass

SYNONYMS None (first described in 2013)

FAMILY Brassicaceae

AUTHORITY Lepidium oblitum Houliston, Heenan et de Lange

FLORA CATEGORY Vascular – Native

ENDEMIC TAXON Yes

ENDEMIC GENUS No

ENDEMIC FAMILY

STRUCTURAL CLASS Herbs - Dicotyledons other than Composites

NVS CODE LEPOBL

CURRENT CONSERVATION STATUS 2017 | Threatened – Nationally Critical | Qualifiers: CD, DP, IE, RR

PREVIOUS CONSERVATION STATUS 2012 | Threatened – Nationally Critical | Qualifiers: CD, DP, IE, RR

BRIEF DESCRIPTION

Perennial herb arising from stout tap-root. Plants with untidy, suberect to sprawling, leafy branches. Leaves dark green to yellow green, with toothed margins, smelling of cress when crushed. Inflorescences at branch tips, Flowers white with two-four stamens. Fruits circular, splitting cleanly into two valves, seeds orange-brown or red-brown.

DISTRIBUTION Endemic. Chatham Islands (Mangere and Rabbit Islands)

HABITAT

Coastal. Known only from coastal cliffs, ridge lines and gulches - in the latter two habitat sit often grows in and around petrel burrows.





Cultivated plant of Lepidium oblitum showing rosette leaves. Photographer: Peter B. Heenan, Licence: CC BY-NC.



Upper stem leaves and inflorescence of Lepidium oblitum. Photographer: Peter B. Heenan, Licence: CC BY-NC.

DETAILED DESCRIPTION

Tap-rooted, strongly pungent, sprawling, laxly though much-branched, leafy perennial shrub, forming patches up to 1.0×0.9 m. Plants usually dying down to rootstock and/or previous seasons stem nodes, towards end of growing season. Stems arising from rootstock base and basal portion of main central stem, widely and unevenly spaced or closely packed, woody, lax and sprawling, sometimes arching and subascendent, weakly angled to ± terete, glabrous; mature stems 2.1-4.6 mm diameter, 0.3-0.8 m long; brittle, devoid of leaves for at least the first twothirds with the final third distinctly leafy and often much branched when vegetative, leaves shedding at flowering and fruiting; upper stems similar, though distinctly leafy and pliant. Leaves coriaceous, fleshy, green to dark green, often glossy. Rosette leaves 5-20, mostly present in autumn - early spring usually not persisting (very rarely so) at fruiting; petioles distinct, up to 40×2 mm, flat or slightly concave in cross-section, succulent; lamina oblanceolate, cuneiform, obovate-oblong to spathulate up to 60 × 22 mm, margins finely to deeply incised in upper guarter to one third, teeth in 3-8 pairs running to praemorse apex, basal few teeth pair usually asymmetric, base narrowly attenuate. Middle stem leaves mostly persisting at fruiting; petiole up to 32 mm long, mostly flat in cross-section, sometimes slightly concave, usually winged; lamina narrowly oblanceolate, oblanceolate, spathulate, oblong, obdeltoid, 15.0–56.2 × 12.0–18.6 mm; margins finely to deeply incised in distal one quarter to one third, teeth in 3–8 pairs running to the usually praemorse apex, basal few teeth pairs usually asymmetric, lamina base narrowly attenuate, extending as a wing (0.8–1.2 mm wide) usually to petiole base. Upper stem leaves petiolate, petiole 12 mm long, flat or slightly concave, usually broadly winged; lamina narrowly oblanceolate, narrowly lanceolate, narrowly spathulate, to linear-cuneiform, $10.2-29.0 \times 2.4-4.8$ mm; margins entire or deeply dentate, if dentate then usually asymmetrically tridentate (rarely with 1-4 teeth), lamina base narrowly attenuate, extending as a wing (0.3–1.7 mm wide) almost to petiole base. Racemes 30–76 mm long, usually congested, elongating up to 100 mm at fruiting, terminal and axillary; rachis and pedicels glabrous (pedicels very rarely bearing a few minute, caducous, glandular hairs near base); pedicels, erecto-patent to patent, 0.4–1.0 mm long, elongating to 0.8–2.0 mm long at fruiting. Flower buds dark green to green, apex glabrous. Flowers 1.6-2.0 mm diameter. Sepals 4, saccate, pale to dark green with a broad white, ± undulose margin, pale to dark green with a broad white, ± undulose margin, deeply concave, adaxially weakly keeled or not; lateral sepals 0.9 × 0.6 mm, broadly ovate to oblong, ± overlapping at base, apex rounded to obtuse, adaxial surface glabrous (sometimes diffusely papillate), abaxial surface usually glabrous, sometimes hairy near base, hairs patent, weakly flexuous, 0.1-0.3 mm long, eglandular, shedding at anthesis; median sepals 1.0 × 0.9 mm, broadly ovate to oblong, apex rounded to obtuse, adaxial surface glabrous, abaxial surface glabrous. Petals over-topping sepals, white, 0.9-1.3 × 0.5-0.8 mm, patent, clawed; limb broadly obovate, apex weakly retuse. Stamens 2-4, equal. Anthers c. 0.10 mm long. Pollen bright yellow. Nectaries 2, subulate, 0.3–0.42 mm long. Silicles cartilaginous when fresh, coriaceous when dry, orbicular, orbicular-ovate to ± rhomboid, 2.8–3.3 × 2.4–3.0 mm, margin winged, notably more so toward apex, apex notched, base obtuse, valves green maturing yellow-green, glabrous, dried surface ± coarsely reticulate; style 0.1–0.3 mm long, free from the narrow wing, usually exceeding the notch; stigma 0.18-0.22 mm diameter, capitate. Seeds 2, ovoid to ellipsoid, orange-brown to dark red-brown, not winged, 1.8-1.9 × 0.9-0.93 mm.

SIMILAR TAXA

Lepidium oblitum is superficially similar to L. panniforme with which it grows, and sometimes hybridise, and from which it is best separated by the rosette, basal and upper stem leaves which while toothed are never lacerate-serrate. Both species though closely allied are also genetically distinct (see de Lange et al. 2013).

FLOWERING

November - March

FRUITING

January - June

PROPAGATION TECHNIQUE

Easily grown from seed but fickle to maintain in cultivation. Prone to white rust (Albugo candida) which in cultivation may kill plants. Cultivated plants have proved difficult to flower.

THREATS

Known only from two sites, the privately owned Rabbit Island, and Mangere Island Nature Reserve. Although the more common of the three *Lepidium* species on Mangere, hybrids between *L. oblitum* and *L. panniforme* have been located at several sites, suggesting that hybridism may be a threat. The species is also threatened by successional changes in the vegetation of that island. *Lepidium oblitum* is scarce on Rabbit Island. It should be searched for on Little Mangere island.

ETYMOLOGY

lepidium: Scale-shaped (pods)

oblitum: The epithet "oblitum" is derived from the Latin meaning "forgotten, disregarded or neglected"

ATTRIBUTION

P.J. de Lange (15 August 2013). Description from de Lange et al. (2013) - see references for free download link for that paper.

REFERENCES AND FURTHER READING

de Lange, P.J.; Heenan, P.B.; Houliston, G.; Rolfe, J.R.; Mitchell, A.D. 2013: New *Lepidium* (Brassicaceae) from New Zealand. Phytokeys 24:1-147pp., doi: 10.3897/phytokeys.24.4375.

NZPCN FACT SHEET CITATION

Please cite as: de Lange, P.J. (Year at time of access): Lepidium oblitum Fact Sheet (content continuously updated). New Zealand Plant Conservation Network. <u>https://www.nzpcn.org.nz/flora/species/lepidium-oblitum/</u> (Date website was queried)

MORE INFORMATION

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