

Leptinella calcarea

SYNONYMS

Cotula calcarea D.G.Lloyd

FAMILY

Asteraceae

AUTHORITY

Leptinella calcarea (D.G.Lloyd) D.G.Lloyd et C.Webb

FLORA CATEGORY

Vascular – Native

ENDEMIC TAXON

Yes

ENDEMIC GENUS

No

ENDEMIC FAMILY

No

STRUCTURAL CLASS

Herbs - Dicotyledonous composites

NVS CODE

LEPCAL

CHROMOSOME NUMBER

2n = 104

CURRENT CONSERVATION STATUS

2017 | At Risk – Naturally Uncommon | Qualifiers: RR

PREVIOUS CONSERVATION STATUSES

2012 | At Risk – Naturally Uncommon | Qualifiers: RR

2009 | At Risk – Naturally Uncommon

2004 | Range Restricted

DISTRIBUTION

Endemic. South Island, north-west Nelson from Cape Farewell south to Kahurangi Point.

HABITAT

Coastal, on consolidated sand dunes, calcareous mudstones, limestones and conglomerate rock. A turf forming species occupying sites with minimal vegetation cover.



Puponga Farm Park, NW Nelson Coast.
Photographer: Simon Walls



Leptinella calcarea. Photographer: John Barkla

FEATURES

Dioecious, perennial, tufted herb forming loose to compact mats. Rhizomes buried, pale, wiry and glabrous; branches uncommon, usually single at flowering nodes; leaves spirally arranged, 3-8 in clusters on short shoots covered in reduced scales, these set 5-20 mm apart. Roots slender and weak, up to 0.5 mm diameter. Leaves 1-pinnatifid, 10-40 x 3-6 mm, blade 10-40 mm, oblong to elliptic, thick, fleshy, and rigidly stiff, yellow-green (sometimes grey-green), usually moderately to densely covered in long woolly hairs, midrib prominently raised along ventral surface; pinnae 12-20 pairs, close-set and overlapping, cut to rachis, broadly elliptic; teeth on pinnae close-set, narrowly triangular, obtuse. Peduncle borne on short shoots, equal to leaves in length, 10-40 mm, ebracteate or with 1 bract, villous hairy. Pistillate capitula 3-5 mm diameter, widening to 10 mm in fruit; surface convex; involucre ureceolate; involucral bracts 20-40, usually unequally triseriate, broadly elliptic, green, villous, with a broad, scarious, brown-tipped margin; inner involucral bracts elongating after anthesis to enclose fruiting head; at maturity involucral bracts partially reflexing to expose fruit; florets 25-120, 2 mm long, curved, yellow-green; corolla more or less longer than wide, unequally toothed. Staminate heads 4-6 mm diameter; involucre hemispherical; involucral bracts 8-15 in 1-2-seriate, subequal rows; florets numerous. Cypsela 1.6 x 0.8 mm, brown, slightly compressed, initially pale, covered in a chartaceous membrane, maturity smooth.

SIMILAR TAXA

Perhaps closest to *L. pusilla* Hook.f. from which it is allopatric. *L. pusilla*, *L. calcarea*, *L. intermedia* (D.G.Lloyd) D.G.Lloyd et C.Webb and *L. serrulata* (D.G.Lloyd) D.G.Lloyd et C.Webb all possess deeply buried, pale and wiry, rhizomes bearing few or no leaves. Their short-shoots grow up from the rhizomes, and they usually have densely hairy leaves. *L. calcarea* differs from the other three species by its distinctly subfleshy to fleshy, stiffly rigid leaves which lack any brown pigmentation. From *L. pusilla* it differs by its rigid, densely hairy, rather than glabrous to hairy, fleshy yellow-green to grey-green, rather than purple-green to brown-green membranous leaves, bearing closely-set rather than widely separated, overlapping pinnae.

FLOWERING

August - November

FLOWER COLOURS

Green, Yellow

FRUITING

September - January

LIFE CYCLE

Papery cypselae are dispersed by wind and possibly attachment (Thorsen et al., 2009).

PROPAGATION TECHNIQUE

Easily grown by division of whole plants. Fresh seed probably germinates easily but it is rarely available as most cultivated material is of a single sex-type, so seed is not formed. Does well in a free draining, fertile soil in full sun. An excellent rock garden plant.

THREATS

A naturally uncommon, range restricted species which appears to be locally common within its only known habitats. There is no evidence that it has declined but most populations are rather small and could be at risk if current land use management practices in the area it occupies change.

ETYMOLOGY

leptinella: From the Greek word leptos (meaning slender, thin or delicate), referring to the ovary

calcarea: From the Latin calx 'limestone', meaning growing on limestone

ATTRIBUTION

Fact sheet prepared for NZPCN by P.J. de Lange 31 August 2006. Description from Lloyd (1972) - as *Cotula calcarea*.

REFERENCES AND FURTHER READING

Lloyd, D.G. 1972: A revision of the New Zealand, Subantarctic, and South American species of *Cotula*, section *Leptinella*. *New Zealand Journal of Botany* 10: 277-372.

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

NZPCN FACT SHEET CITATION

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MORE INFORMATION

<https://www.nzpcn.org.nz/flora/species/leptinella-calcarea/>