

# 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

Dicotyledonous Herbs - Composites

## NVS CODE

LEPCAL

## CHROMOSOME NUMBER

2n = 104

## CURRENT CONSERVATION STATUS

2012 | At Risk – Naturally Uncommon | Qualifiers: RR

## PREVIOUS CONSERVATION STATUSES

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.

## 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 rhachis, broadly elliptic; teeth on pinnae closet-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.



*Leptinella calcarea*. Photographer: John Barkla



Photo of cultivated plant. Photographer: John Barkla

## 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

## CITATION

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

## MORE INFORMATION

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