

Leptinella maniototo

SYNONYMS

Cotula maniototo Petrie

FAMILY

Asteraceae

AUTHORITY

Leptinella maniototo (Petrie) D.G.Lloyd et C.J.Webb

FLORA CATEGORY

Vascular – Native

ENDEMIC TAXON

Yes

ENDEMIC GENUS

No

ENDEMIC FAMILY

No

STRUCTURAL CLASS

Herbs - Dicotyledonous composites

NVS CODE

LEPMAN

CHROMOSOME NUMBER

2n = 52

CURRENT CONSERVATION STATUS

2017 | At Risk – Relict

PREVIOUS CONSERVATION STATUSES

2012 | Not Threatened

2009 | Data Deficient

2004 | Not Threatened

DISTRIBUTION

Endemic. New Zealand: North Island (Lake Wairarapa only, where now believed extinct), South Island (mainly eastern from southern Marlborough to Central Otago and Lake Te Anau).

HABITAT

Lowland to upper montane at least (0–1000 m a.s.l.), growing around lake, slow flowing stream, tarn, and kettlehole margins, and also in damp seepages and hollows within tussock grassland. It favours ephemeral wetlands and sites subject to seasonal flooding and drying episodes.

WETLAND PLANT INDICATOR STATUS RATING

FACW: Facultative Wetland

Usually is a hydrophyte but occasionally found in uplands (non-wetlands).



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



Cultivated. Photographer: John Barkla, Licence: CC BY.

DETAILED DESCRIPTION

Monoecious, inconspicuous, perennial or annual herb forming loose patches or low matted turfs around tarn, lake, seepage or stream margins. **Rhizomes** at or near soil surface, slender up to 1 mm diameter, usually hidden within leaves, initially somewhat villous, maturing wiry and glabrous; branches similar to short shoots; leaves crowded, in two rows, more or less horizontal with up to 10 clustered at apex, imbricate or spaced up to 4 mm apart; short shoots at nodes, initially bearing a few reduced leaves, often converting to rhizomes with distant leaves. Sometimes short shoots forming small bulbil like turions, these shedding, giving rise to further plants. Roots numerous, slender, up to 0.5 mm diameter, white. **Leaves** variable, 2–25 × 2 mm long grass-green to purple-red; blade up to 20 mm long, 1-pinnatifid, lanceolate or oblong, or during winter (or sometimes during summer) simple, linear and 0.5 mm wide, membranous, glabrous or covered in dense to sparse silky white villous hairs; midrib not raised on ventral surface; pinnae 0, or as 1-2 minute lobes, or as up to 6 distinct pairs, distant, subequal, shorter than terminal lobe, linear, much narrower than rachis, edentate. **Peduncles** very short up to 1 mm long, ebracteate. **Capitula** subsessile, 2–3 mm diameter; surface convex; involucre campanulate; phyllaries 10, subequally uni- or biseriate, green or purple-red, oblong, membranous, sparsely to densely villous, with a wide brown, reddish-brown or purple-green scarious margin; pistillate florets 15–20 in 1–2 rows, 2 mm long, straight, pale yellow and red-tipped; corolla 4× as long as wide, dentition equal; staminate florets equal in number. **Cypsela** 1 × 0.3 mm, initially green maturing chocolate brown, biconvex, slightly compressed, soft and unwrinkled.

SIMILAR TAXA

None. The narrow linear leaves bearing up to 6 pairs of simply, linear edentate pinnae, heterophyllous habit (distinct winter and summer foliage types), and viviparous nature of at least some populations are unique to this species. It has no obvious close relatives within the New Zealand members of the genus.

FLOWERING

November–February

FLOWER COLOURS

Green, Yellow

FRUITING

December–May

LIFE CYCLE

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

PROPAGATION TECHNIQUE

Easily grown from rooted pieces and fresh seed. This species makes an unusual and singular plant for a rockery or damp spot. However, it can prove short-lived and dislikes too much competition.

THREATS

Not threatened throughout much of its South Island range, but it has apparently gone extinct in the North Island at its sole known location Lake Wairarapa. This species, like many diminutive plants of ephemeral wetlands, is extremely susceptible to being out-competed by taller and more aggressive introduced grasses and flatweeds which are now spreading throughout much its habitat. To gauge this decline it is recommended that some South Island populations spanning its range be selected and monitored.

ETYMOLOGY

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

maniototo: Named after the Maniototo Plain in Central Otago, from the contracted Maori name manaio-o-toto. This name comes from mania 'plain' and toto 'blood', meaning plain of blood. The location name is spelled variously maniototo and maniatoto, the latter being approved by the New Zealand Geographic Board.

WHERE TO BUY

Occasionally sold by specialist native plant nurseries.

TAXANOMIC NOTES

Not very commonly grown. However, the species epithet has stuck as "Maniototo" a misnomer used for the diverse array of *Leptinella* hybrids and forms of *L. traillii* (Kirk) D.G.Lloyd et C.J.Webb grown widely for bowling greens—all under the mistaken belief that they are *L. (Cotula) maniototo*.

ATTRIBUTION

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

REFERENCES AND FURTHER READING

Lloyd DG. 1972. A revision of the New Zealand, Subantarctic, and South American species of *Cotula*, section *Leptinella*. *New Zealand Journal of Botany* 10(2): 277–372. <https://doi.org/10.1080/0028825X.1972.10429156>.
Reed AW. 2002. The Reed Dictionary of New Zealand Place Names. Reed Publishing. Auckland. 621 p.
Thorsen MJ, Dickinson KJM, Seddon PJ. 2009. Seed dispersal systems in the New Zealand flora. *Perspectives in Plant Ecology, Evolution and Systematics* 11: 285–309. <https://doi.org/10.1016/j.ppees.2009.06.001>.

NZPCN FACT SHEET CITATION

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MORE INFORMATION

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