

Leptinella filiformis

COMMON NAME

slender button daisy

SYNONYMS

Cotula filiformis Hook.f.

FAMILY

Asteraceae

AUTHORITY

Leptinella filiformis (Hook.f.) D.G.Lloyd et C.Webb EW,

FLORA CATEGORY

Vascular – Native

ENDEMIC TAXON

Yes

ENDEMIC GENUS

No

ENDEMIC FAMILY

No

STRUCTURAL CLASS

Herbs - Dicotyledonous composites

NVS CODE

LEPFIL

CHROMOSOME NUMBER

2n = 52

CURRENT CONSERVATION STATUS

2017 | Threatened – Nationally Critical | Qualifiers: CD, DP, OL

PREVIOUS CONSERVATION STATUSES

2012 | Threatened – Nationally Critical | Qualifiers: CD, EW

2009 | Threatened – Nationally Critical | Qualifiers: CD, DP, RR

2004 | Threatened – Nationally Critical

DISTRIBUTION

Endemic. South Island, with records from the upper Awatere Valley, Clarence Valley, Hanmer Plain, and adjacent Balmoral forest. Extinct in all wild locations except one Clarence valley site.

HABITAT

A species of lowland to montane (300-600m a.s.l.) basins, plains, hills and valley floors where it grows in grasslands, open shrubland, and under open Kanuka canopy. In the remaining wild population it lives in mostly open areas of loess substrate which are muddy in Winter but baked dry in Summer. It appears to need disturbance in the form of cattle trampling to reduce weed competition and maintain the population

DETAILED DESCRIPTION

Rhizomatous, monoecious, perennial herb forming a diffuse turf. Rhizomes at soil surface, slender,

SIMILAR TAXA

Closely allied to *L. minor* Hook.f., from which it mainly differs by its consistently smaller state. Leaf dentition is usually absent or infrequent, while *L. minor* always has toothed leaves, the rhizomes of *L. filiformis* are 1 mm rather than 2 mm (or more) diam., whilst the capitula are 2-3 rather than 4-6 mm diam. nrDNA ITS sequences scarcely distinguish *L. filiformis* from *L. minor*.



Growth habit and capitula. In cultivation ex Hanmer Springs. Photographer: Jeremy R. Rolfe, Date taken: 23/09/2001, Licence: CC BY.



Historic habitat of *Leptinella filiformis*, upper Awatere River. Photographer: Cathy Jones, Licence: CC BY.

FLOWERING

Late Spring to mid Summer

FLOWER COLOURS

White

FRUITING

Summer to autumn

LIFE CYCLE

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

PROPAGATION TECHNIQUE

Once believed extinct this species was rediscovered in 1998 in a lawn at Hanmer Springs. Most cultivated material now known stems from that discovery. Easy from rooted pieces and excellent in seasonally dry, poorly drained soils or shaded ground under trees. Dislikes permanently wet ground. An excellent lawn plant, whose small white flower heads are produced in profusion thus making it very attractive

THREATS

Literature records suggest *L. filiformis* was once locally common. Certainly when rabbits were abundant it flourished in the open ground they created. By the 1980s it was believed extinct. Plants were rediscovered in 1998 in a lawn at Hanmer Springs, where by late 1999 they were extinct due to redevelopment of the hotel grounds. Luckily plants were sampled from there in February 1999 and these have been widely distributed to plant nurseries, private gardens and Universities throughout New Zealand. Stock from those gatherings has been used to reintroduce the species to protected sites but it still remains very uncommon and vulnerable to loss. Another few wild populations were discovered near the Clarence River in eastern Molesworth in the 2000s and the species is still present at this site.

SUBSTRATE

Loess

ETYMOLOGY

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

filiformis: From the Latin filum 'thread' and forma 'shape', meaning thread-shaped

CULTURAL USE/IMPORTANCE

The distinction between this species and *L. minor* Hook.f. is slight. *Leptinella minor* is usually regarded as a Banks Peninsula endemic (though herbarium specimens suggest it once grew on the Canterbury Plains).

ATTRIBUTION

Description from Lloyd (1972).

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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<https://www.nzpcn.org.nz/flora/species/leptinella-filiformis/> (Date website was queried)

MORE INFORMATION

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