

# Lepidium kirkii

## COMMON NAME

Kirk's scurvy grass, salt pan cress

## SYNONYMS

None

## FAMILY

Brassicaceae

## AUTHORITY

*Lepidium kirkii* Petrie

## FLORA CATEGORY

Vascular – Native

## ENDEMIC TAXON

Yes

## ENDEMIC GENUS

No

## ENDEMIC FAMILY

No

## STRUCTURAL CLASS

Herbs - Dicotyledons other than Composites

## CURRENT CONSERVATION STATUS

2017 | Threatened – Nationally Critical | Qualifiers: CD, EF

## PREVIOUS CONSERVATION STATUSES

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

2009 | Threatened – Nationally Critical | Qualifiers: CD, EF

2004 | Threatened – Nationally Endangered

## DISTRIBUTION

Endemic. South Island. Central Otago, formerly probably widespread on saline/sodic soils from the Ida Valley and Maniototo Plains (Gimberburn District) south to Alexandra in the Manuherikia Valley. Now known from 12 populations mainly centred on Galloway and Springvale area.

## HABITAT

Only known to occur on patches of saline/sodic soils (sometimes referred to as salt pans) in the semi-arid region of Central Otago. This habitat varies from highly weathered bedrock schist (e.g., Galloway) to the gravels and silts of old terrace surfaces (e.g. Patearoa), and usually supports few, if any, other plant species.

## DETAILED DESCRIPTION

A summer-green annual to short-lived perennial herb with slender, prostrate, thread-like, flexuous, glabrous, branching stems up to 100 mm long arising from a stout rootstock. Leaves entire, glabrous or sparsely hairy on margins. Basal leaves 5-30 x 0.3-0.6 mm, dark green to brown-green (almost black), linear, linear-spathulate, with persistent, broad sheathing scarious bases. Stem leaves 1-3 x 0.3-0.5 mm, brown-green, linear, linear-filiform to linear-oblongate. Racemes flexuous, 10-30 mm long; pedicels spreading, 1-2 mm at fruiting. Sepals 0.5-1 x 0.3-0.8 mm. Petals often absent, if present white narrow-spathulate about length of sepals. Stamens 4. Silicle 1.5-2 x 1-1.5 mm, ovate, valves glabrous; style 0.1 mm, free from narrow wing, slightly exceeding the shallow notch. Seeds 1.5 mm, ovoid, pale brown.

## SIMILAR TAXA

None



Plant in cultivation, Ex Cult. Moa Creek, Galloway. Photographer: Gillian M. Crowcroft, Date taken: 01/10/1995, Licence: All rights reserved.



Close up of young *Lepidium kirkii* plants on a salt pan. Photographer: John Barkla, Licence: CC BY.

## FLOWERING

November - March

## FLOWER COLOURS

White

## FRUITING

November - May

## LIFE CYCLE

Mucilaginous seeds are dispersed by attachment and possibly wind and water (Thorsen et al., 2009).

## PROPAGATION TECHNIQUE

Easy from fresh seed. A short-lived species best treated as an annual. It not a particularly attractive plant and is unlikely to be popular in cultivation.

## THREATS

Habitat destruction resulting from cultivation, irrigation and weed invasion (particularly *Plantago coronopus*, and the grasses *Lolium perenne* and *Poa pratensis*) of the minute remaining fragments are probably the main reason for its rarity and the greatest threat to its survival. Many populations are infected with *Albugo* fungus which kills some plants (particularly seedlings) and can reduce the reproductive output of infected adult plants.

## ETYMOLOGY

**lepidium:** Scale-shaped (pods)

**kirkii:** After Thomas Kirk (18 January 1828 - 8 March 1898), a NZ botanist and lecturer in natural sciences and regarded as a leader of botanical enquiry in NZ for over three decades. One of his most significant publications was *Forest flora of NZ* (1889) but he also contributed over 130 papers to the *Transactions and Proceedings of the NZ Institute* and other journals.

## WHERE TO BUY

Not commercially available

## NOTES

*Lepidium kirkii* is one of the very few salt pan endemics. It is an unusual species within the New Zealand members of the genus and is not closely related to the other species.

## ATTRIBUTION

Description adapted from Webb et al. (1988).

## REFERENCES AND FURTHER READING

Allan, H.H. 1961: *Flora of New Zealand. Volume I. Indigenous Tracheophyta: Psilopsida, Lycopsida, Filicopsida, Gymnospermae, Dicotyledones*. Wellington, Government Printer.

Allen, R.B. 200. [Inland Lepidium recovery plan 200-2019. Threatened Species Recovery Plan 32. Department of Conservation](#)

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

Webb, C.J.; Sykes, W.R.; Garnock-Jones, P.J. 1988. *Flora of New Zealand. Volume IV. Naturalised Pteridophytes, Gymnosperms, Dicotyledons*. Botany Division, D.S.I.R, Christchurch, New Zealand.

## MORE INFORMATION

<https://www.nzpcn.org.nz/flora/species/lepidium-kirkii/>