Lepidium kirkii

COMMON NAMES
Kirk's scurvy grass, salt pan cress

BIOSTATUS
Native – Endemic taxon

CURRENT CONSERVATION STATUS
2023 | Threatened – Nationally Critical | Qualifiers: EF
Jump to previous conservation statuses

CATEGORY
Vascular

STRUCTURAL CLASS
Herbs - Dicotyledons other than Composites

FLOWER COLOURS
White

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-oblanceolate. 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.

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.

SIMILAR TAXA
None

DISTRIBUTION
Endemic. South Island. Central Otago, formerly probably widespread on saline/sodic soils from the Ida Valley and Maniototo Plains (Gimmberburn 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.

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.

GENUS
Lepidium

FAMILY
Brassicaceae

AUTHORITY
Lepidium kirkii Petrie

SYNONYMS
None

TAXONOMIC 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.

ENDEMIC TAXON
Yes

ENDEMIC GENUS
No

ENDEMIC FAMILY
No

FLOWERING
November - March

FRUITING
November - May

LIFE CYCLE AND DISPERSAL
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.

PLANT OF THE MONTH
This plant has been featured as a Plant of the Month – see Trilepidea: NZPCN newsletter for February 2010 for the full story.

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.

PREVIOUS CONSERVATION STATUSES
2017 | Threatened – Nationally Critical | Qualifiers: CD, EF
2012 | Threatened – Nationally Critical | Qualifiers: CD, EF
2009 | Threatened – Nationally Critical | Qualifiers: CD, EF
2004 | Threatened – Nationally Endangered
Jump to current conservation status

REGIONAL CONSERVATION STATUSES
Otago: 2025 | Regionally Threatened – Regionally Critical | Qualifiers: CD, NStr, PF, RE, RF, RR, TL Help
The regional threat classification system leverages off the national assessments in the NZTCS, providing information relevant for the regional context. Otago conservation status information is sourced from the "Conservation Status of Indigenous Vascular Plants in Otago, 2025" Jarvie S et al. (2025) report.

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.

ATTRIBUTION

Description adapted from Webb et al. (1988).

MORE INFORMATION

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

PDF DATE

25 May 2026