Carmichaelia juncea

COMMON NAMES
a native broom

BIOSTATUS
Native – Endemic taxon

CURRENT CONSERVATION STATUS
2023 | Threatened – Nationally Vulnerable | Qualifiers: DPS, DPT, EF, PF
Jump to previous conservation statuses

CATEGORY
Vascular

STRUCTURAL CLASS
Trees & Shrubs - Dicotyledons

SIMPLIFIED DESCRIPTION
Rare sprawling leafless brownish shrub inhabiting gravel flats. Twigs flattened, 1.5-2mm wide, grooved, lying flat along ground. Flowers small, pea-like, white or with purple streaks. Fruit a very small dry pod containing up to 6 very small mottled seeds and which does not split open.

FLOWER COLOURS
Violet/Purple, White

DETAILED DESCRIPTION
Prostrate, sprawling, virtually leafless, shrub forming flat dull grey-green, yellow-green to very dark green mats up to 0.2 x 1.5 m. Branches up to 0.8 m, completely flat, rarely ascending. Cladodes linear, striate, compressed, green, grey-green, yellow-green to light brown, sparsely hairy, prostrate, 55-160 x 1.5-2 mm; apex subacute. Leaf nodes 8-15. Leaves 1-3(-5)-foliolate, somewhat fleshy; upper surface mottled brown, brown-green or green; undersides green; apex emarginated or retuse, base cuneate to obtuse, lamina margin sparsely hairy or glabrous. Terminal leaflet 5.5-14 x 2-4 mm, oblong, lateral leaflets 3-5 x 1-2.5 mm, obovate. Leaves on cladodes reduced to a triangular scale < 1 mm long. Stipules free, 0.5-0.8 x 1mm, broad-triangular, initially herbaceous, drying membraceous. Inflorescence a raceme, 1(-2) per node, bearing 4-6 flowers. Peduncle 2-4 mm long, hairy, green. Pedicel 1-1.5 mm, hairy, pale green flushed with red. Calyx 1.5 x 1.25 mm, campanulate, green, glabrous. Calyx lobes 0.1 mm long, broad-triangular to triangular. Bud pale green. Standard 4-5 x 4-5 mm, obovate, erect; distal and central portions of undersides purple, margins and proximal areas white or purple-veined,; distal and central areas of upper surface white, proximal portion green or purple-veined; apex retuse, margins recurved; claw, c.1.5 mm long, pale green. Wings 3.5-4 x 1-1.5 mm, oblong, longer than keel, both surfaces white, sometimes purple-veined; claw 1-1.5 mm long, pale green. Keel 4.5 x 1.5 mm; distal area purple, white or purple-veined in central and proximal areas; claw 1.5-2 mm, pale green. Stamens 3.5 mm long. Pistil of similar length. Style with a ring of hairs below stigma. Pod, persistent, 3.5-6 x 1.75-2 mm, oblong, valves inflated, yellow-grey, dark grey, dark grey-black, usually indehiscent; beak 0.25-0.5 mm, slightly curved, stout, pungent. Seeds (1-)4(-6) per pod, 1.25-1.5 x 1 mm, oblong-reniform, brick red, orange, olive green, or green-yellow, usually mottled with black.

Pilch Point, NW Nelson. Photographer: Simon Walls, Date taken: 01/12/2005, Licence: CC BY-NC.

Seed pods. In cultivation ex Lake Lyndon. Photographer: Jeremy R. Rolfe, Date taken: 16/02/2009, Licence: CC BY.

SIMILAR TAXA
Carmichaelia juncea is somewhat similar to *Carmichaelia compacta* Petrie and *C. curta* Petrie but is easily distinguished from these species by its sprawling, prostrate growth habit and rather slender, wiry branchlets.

DISTRIBUTION
Endemic. North and South Islands. In the North Island it was collected once in the 1840s from the Ngaruroro River, and has not been seen since. In the South Island it was formerly known from North West Nelson, Marlborough, Canterbury, Westland, Otago and Southland. It is now only known from a small area near Puponga in North West Nelson, and in scattered sites from Franz Josef Glacier south to near Haast.

HABITAT
Occurs on stable but unconsolidated river bed gravels and stony, sandy and grassy edges of lakes, where competition from other plants is limited, or in coastal shrubland and turfland on weathered conglomerate rock.

THREATS
An apparently biologically sparse species, it is now extinct over much of its former range. Now presumed extinct in the North Island. Its near loss from the South Island can be attributed to its natural rarity, thereby increasing its vulnerablity to over-collection. The flat creeping habit and requirement for open ground, means it is highly vulnerable to weed competition. It is browsed by rabbits, possums, and livestock.

GENUS
Carmichaelia

FAMILY
Fabaceae

AUTHORITY
Carmichaelia juncea Hook.f.

SYNONYMS
Carmichaelia prona Kirk, C. fieldii Cockayne, C. lacustris G.Simpson, C. nigrans G.Simpson var. nigrans, C. nigrans var. tenuis G.Simpson, C. floribunda G.Simpson

ENDEMIC TAXON
Yes

ENDEMIC GENUS
No

ENDEMIC FAMILY
No

FLOWERING
October - January

FRUITING
November - March

LIFE CYCLE AND DISPERSAL
Seeds are possibly dispersed by wind and granivory (Thorsen et al., 2009).

PROPAGATION TECHNIQUE
Easy from seed or semi-hardwood cuttings. Interesting plant for rock-gardens, and tolerant of exposed, dry conditions. Prefers free-draining soils, in full sun. An excellent pot plant. Like many South Island *Carmichaelia*, it does better in drier, less humid climates.

PLANT OF THE MONTH
This plant has been featured as a Plant of the Month – see Trilepidea: NZPCN newsletter for July 2018 for the full story.

ETYMOLOGY
carmichaelia: After Carmichael, a botanist
juncea: Rush-like

NVS CODE
CARJUN

CHROMOSOME NUMBER
2n = 32

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

REGIONAL CONSERVATION STATUSES
Otago: 2025 | Regionally Extirpated | Qualifiers: HR, 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
Heenan, P. B. 1995: A taxonomic revision of *Carmichaelia* (Fabaceae - Galegeae) in New Zealand (Part I). *New Zealand Journal of Botany 33*: 455–75.
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(4)*: 285-309.

ATTRIBUTION
Fact Sheet prepared for NZPCN by P.J. de Lange (30 November 2005). Description modified from Heenan (1995).

MORE INFORMATION
https://www.nzpcn.org.nz/flora/species/carmichaelia-juncea/

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27 May 2026