

Carmichaelia curta

COMMON NAME

Waitaki broom, whip broom

SYNONYMS

Huttonella curta (Petrie) Kirk, *Carmichaelia curta* var. *glabra* G.Simpson, *Carmichaelia diffusa* Petrie

FAMILY

Fabaceae

AUTHORITY

Carmichaelia curta Petrie

FLORA CATEGORY

Vascular – Native

ENDEMIC TAXON

Yes

ENDEMIC GENUS

No

ENDEMIC FAMILY

No

STRUCTURAL CLASS

Trees & Shrubs - Dicotyledons

NVS CODE

CARCUR

CHROMOSOME NUMBER

2n = 32

CURRENT CONSERVATION STATUS

2017 | Threatened – Nationally Critical | Qualifiers: DP, RF

PREVIOUS CONSERVATION STATUSES

2012 | Threatened – Nationally Critical | Qualifiers: De, RF

2009 | Threatened – Nationally Critical | Qualifiers: De, RF

2004 | Threatened – Nationally Endangered

BRIEF DESCRIPTION

Slender yellow-green shrub with erect leafless twigs. Twigs oval in cross section, 2-2.5mm wide, grooved, young growth purplish. Leaves rare, sometimes in shaded parts, with 1-7 leaflets. Flowers small, pea-like, white with dark purple stripes. Fruit a small dry flattened pod containing 1-2 hard seeds, only partly opens.

DISTRIBUTION

Endemic. South Island. Confined to the Waitaki, Clutha and Taieri Catchments. Long been known from near Falls Dam in the Manuhierikia Valley (Clutha) and was recently found (Feb 2005) on the toeslopes of the northern Rock and Pillar Range (Taieri).

HABITAT

A component of grey scrub usually growing on colluvial aprons and alluvium, particularly on river terraces and also on rock outcrops.



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



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

DETAILED DESCRIPTION

Spreading, sprawling, sparsely branched shrub 0.5-1 x 1-2(-2.5) m. Branches slender, whip-like, spreading to erect. Cladodes 150-450 x 2-2.5 mm, linear, striate, slender, olive green to brown-green, glabrescent. Leaves not persistent, 1-7-foliolate, upper surface mottled grey-green or brown-green. Single or terminal leaflet broad-elliptic to ovate 5-12 x 3-7 mm, lateral leaflets broad elliptic, ovate to obovate 3-4 x 1.8-2.5 mm. Inflorescence racemose, 1(-2) per node, each with 9-11 flowers. Calyx tubular, 2.5-3 x 2 mm, glabrous, green flushed red, lobes triangular. Standard obovate, spreading above wings, 3-4 x 3-4 mm, distal and central areas with purple blotch, otherwise pale green sometimes veined purple. Pods 4-6 x 2-2.5 mm, short-obovate or broad-elliptic. Seeds oblong-reniform, 1-2 per pod.

SIMILAR TAXA

Allied to *Carmichaelia compacta* Petrie and *C. juncea* Hook.f. and distinguished from both by the spreading and sprawling habit, sparsely placed and slender cladodes, short-obovate or broad-elliptic pods, intermediate seed size, and by the stamen filaments being almost fused with alternate anthers almost sessile.

FLOWERING

October - February (- July)

FLOWER COLOURS

Violet/Purple, White

FRUITING

January - August

LIFE CYCLE

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

PROPAGATION TECHNIQUE

Easily grown from hardwood cuttings and seed. This species does best in dry climates with little or no humidity. For best results it should be planted in a fertile, free draining soil, in full sun.

THREATS

As an endemic of the highly modified Waitaki Valley and surrounding catchments, most populations of *C. curta* occur within habitats accessible to browsing animals, and so are severely damaged, and of those which are reproductive, recruitment is often limiting due to suppression of seedling germination by weeds. The most secure populations are those which occur on rock outcrops and bluffs, but even then these are vulnerable to scrub fires. very few populations occur on protected land, and many occur on the median strip of roadsides where they are vulnerable to weed spraying and road works.

ETYMOLOGY

carmichaelia: After Carmichael, a botanist

WHERE TO BUY

Not commercially available but plants are held by several Botanic Gardens and specialist growers.

ATTRIBUTION

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

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* 2009 Vol. 11 No. 4 pp. 285-309

NZPCN FACT SHEET CITATION

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MORE INFORMATION

