

# Carmichaelia australis

## COMMON NAME

common broom

## SYNONYMS

*Carmichaelia violacea* Kirk; *Carmichaelia solandri* G.Simpson; *Carmichaelia subulata* Kirk; *Carmichaelia rivulata* G.Simpson; *Carmichaelia robusta* Kirk; *Carmichaelia silvatica* G.Simpson; *Carmichaelia ovata* G.Simpson; *Carmichaelia hookeri* Kirk; *Carmichaelia cunninghamii* Raoul; *Carmichaelia flagelliformis* Benth.; *Carmichaelia egmontiana* (Cockayne et Allan) G. Simpson; *Carmichaelia aligera* G.Simpson; *Carmichaelia arenaria* G.Simpson

## FAMILY

Fabaceae

## AUTHORITY

*Carmichaelia australis* R.Br.

## FLORA CATEGORY

Vascular – Native

## ENDEMIC TAXON

Yes

## ENDEMIC GENUS

No

## ENDEMIC FAMILY

No

## STRUCTURAL CLASS

Trees & Shrubs - Dicotyledons

## NVS CODE

CARAUS

## CHROMOSOME NUMBER

$2n = 32$

## CURRENT CONSERVATION STATUS

2017 | Not Threatened

## PREVIOUS CONSERVATION STATUSES

2012 | Not Threatened

2009 | Not Threatened

2004 | Not Threatened

## BRIEF DESCRIPTION

Common small tree with many flattened green twigs clustered at the top of grey-brown branches. Twigs flattened, grooved, 2-8mm wide with scattered small inconspicuous leaves. Leaves with three leaflets. Flowers small, white with a purple centre, clustered along twigs. Fruit a small dry pointed pod containing 1-3 hard orange seeds.

## DISTRIBUTION

Endemic. New Zealand: North and South Islands (except southern South Island)

## HABITAT

Coastal to montane, on river terraces, stream banks, colluvium, rock outcrops, talus and fan toe slopes, among tussock grassland and grey scrub, on the edge and margins of dense bush, forest, and in swamps



Flowers. Opito, March. Photographer: John Smith-Dodsworth, Licence: CC BY-NC.



Opito. March. Photographer: John Smith-Dodsworth, Licence: CC BY-NC.

## WETLAND PLANT INDICATOR STATUS RATING

FACU: Facultative Upland

Occasionally is a hydrophyte but usually occurs in uplands (non-wetlands).

## DETAILED DESCRIPTION

Shrub, 2-8 × 2-5 m. Branches up to 100 mm diameter, ascending and spreading. Cladodes 30.0-200.0 × 1.5-8.0 mm, ascending or spreading, linear, striate, weakly plano-convex to strongly flattened and compressed, green, yellow-green, or brown-green, glabrous to sparsely hairy, apex obtuse to subacute; leaf nodes 4-15. Leaves 1-3-foliolate, present on seedlings and rarely on adults, terminal leaflet larger; lamina 3.0-22.0 × 1.3-16.0 mm, obovate to oblong, fleshy, green, sometimes with dark mottling, surfaces glabrous to moderately hairy, apex emarginate, base cuneate; petiole 1-10 mm long, glabrous to moderately hairy, green; petiolule < 0.25 mm long, glabrous or sparsely hairy, light green. Leaves on cladodes reduced to scales, < 0.5 mm long, broad-triangular, glabrous, apex subacute, margin hairy. Stipules c.1.0 × c.1.5 mm, free, broad-triangular, upper surface glabrous, lower surface glabrous or glabrescent, apex subacute, margin hairy. Inflorescence a raceme, 1-3 per node, each with 4-15 flowers. Peduncle 1-10 mm long, glabrous to moderately hairy, green, occasionally flushed red. Pedicel 2-4 mm long, glabrous to sparsely hairy, pale green. Calyx 1.3-1.7 × 1.7-2.2 mm, campanulate, green, outer surface glabrous to moderately hairy. Calyx lobes 0.2-0.4 mm long, triangular, inner surface glabrous, appressed to corolla or rarely weakly spreading, apex acute. Standard 4.0-6.0 × 5.0-6.5 mm, obovate, patent, positioned in central part of keel, keeled, apex retuse; inner surface white, sometimes with a purple blotch, purple-veined; outer surface white, green at base, purple-veined; claw c.1 mm long, pale green. Wings 4.0-5.0 × 1.7-2.2 mm, oblong, longer than keel, apex obtuse; inner and outer surfaces white, purple-veined; auricle rounded, white; claw c. 1.5 mm long, pale green. Keel 3.2-4.2 × c.1.5 mm, apex obtuse; distal part of inner and outer surfaces purple, proximal part white; auricle < 0.5 mm long, rounded, pale green; claw c.1.5 mm long, pale green. Stamens 3-4 mm long. Pistil c.4 mm long, exserted, glabrous. Pods 6.5-15 × 2.0-5.5 mm, oblong, broad-oblong, elliptic, broad-elliptic, or sometimes orbicular, laterally compressed, erect or spreading, brown, grey, or black, valves dehiscent; beak 0.5-2.5 mm long, in a central apical position, stout, pungent-tipped. Seeds 1-5 per pod, 2.2-4.0 × 1.7-2.8 mm, oblong to reniform, orange, red, green, or yellow-green and often with black mottling, usually persistent on replum.

## SIMILAR TAXA

Recognised by the upright or spreading shrub with erect, spreading or drooping pods; the pod valves usually dehiscent when mature and the seeds remaining attached to the replum. For more details see Heenan (1996).

## FLOWERING

October - February

## FLOWER COLOURS

Violet/Purple, White

## FRUITING

November - May

## LIFE CYCLE

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

## PROPAGATION TECHNIQUE

Easily grown from seed and hardwood cuttings.

## ETYMOLOGY

**carmichaelia**: After Carmichael, a botanist

**australis**: Southern

## ATTRIBUTION

Description from Heenan (1996)

## REFERENCES AND FURTHER READING

Heenan, P.B. 1996: A taxonomic revision of *Carmichaelia* (Fabaceae - Galegeae) in New Zealand (part II). New Zealand Journal of Botany 34: 157-177. For full synonymy see this paper.

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

**MORE INFORMATION**

<https://www.nzpcn.org.nz/flora/species/carmichaelia-australis/>