

Carmichaelia odorata

COMMON NAMES

Scented broom, leafy broom

BIOSTATUS

Native – Endemic taxon

CATEGORY

Vascular

STRUCTURAL CLASS

Trees & Shrubs - Dicotyledons

SIMPLIFIED DESCRIPTION

Shrub with many flattened green twigs in fans. Twigs 1-2mm wide, with wavy edge. Leaves with 1-7 leaflets, scattered along twigs but absent from older branches. Flowers fragrant, pea-like, small, white and purple, clustered in erect short spikes. Fruit a small dry sharp-tipped pod containing 1-3 hard seeds.

FLOWER COLOURS

Violet/Purple, White



Carmichaelia odorata. Photographer: John Barkla, Licence: CC BY.



Carmichaelia odorata. Photographer: John Barkla, Licence: CC BY.

DETAILED DESCRIPTION

Shrub, up to 3-8 × 2-3 m. Branches up to 100 mm diameter, ascending and horizontal. Cladodes 40.0-250.0 × 1.0-2.3 mm, erect and spreading, often divaricate, linear, striate, compressed, green, frequently hairy when young, glabrous when mature, apex subacute; leaf nodes 5-19 mm. Leaves 1-7-foliolate, present on seedlings and adults, terminal leaflet larger; lamina 2-13 × 1-8(-13) mm, obovate to broad-elliptic, rarely orbicular, fleshy, green, surfaces hairy or glabrous, apex emarginate, base cuneate; petiole 5—25 mm long, glabrous or hairy, green; petiolule < 0.3 mm long, glabrous or hairy, light green. Leaves on cladodes reduced to scales, <0.8 mm long, broad-triangular, glabrous, apex acute. Stipules c.1 × c.1 mm, free, triangular, upper surface glabrous, lower surface hairy, apex subacute, margin hairy. Inflorescence a raceme, 1 per node, each with 4-40 flowers. Peduncle 4-10 mm long, glabrous, green. Bracts <0.8 mm long, triangular, glabrous, brown, apex acute to subacute, margins hairy. Pedicel c. 1 mm long, glabrous, green. Bracteoles < 0.5 mm long, at top of pedicel or on receptacle, green and sometimes flushed red, glabrous, apex obtuse, margin hairy. Calyx 1.5-2.0 × 1.0-1.2 mm, campanulate, green, outer surface glabrous. Calyx lobes 0.2-0.3 mm long, triangular, green and usually flushed red, inner surface hairy, appressed to corolla, apex subacute to obtuse. Standard 3.5-4.0 × 2.5-3.5 mm, broad-obovate, patent, positioned towards front of keel, keeled, apex emarginate, margins flattened; central part of inner and outer surfaces purple or red-purple, margins white, sometimes purple-veined; claw c. 1 mm long, pale green. Wings 3.5-4.0 × 0.9-1.1 mm, oblong, similar in length to keel, inner and outer surfaces white, sometimes purple-veined, apex obtuse; auricle 0.2-0.4 mm long, triangular, white, apex obtuse; claw 1.3-1.5 mm long, pale green. Keel 3.5-4 × 1.4-1.7 mm, apex obtuse; distal area of inner surface purple, proximal area white; outer surface white, flushed purple in distal part and sometimes purple-veined; auricle 0.2—0.4 mm long, triangular, white, apex obtuse; claw 1.3-1.5 mm long, pale green. Stamens 3.5-4.0 mm long; dorsal filaments connate for c.7/8 of length, outer stamens free for 0.2-0.5 mm. Pistil 3.7-4.2 mm long, exerted beyond stamens, glabrous; ovules 4-11. Pods 5.0-9.0 × 1.5-3.0 mm, oblong, broad-elliptic or ovate, laterally compressed, erect, light grey or brown, valves dehiscent in distal part; beak 1.0-2.5 mm long, stout, pungent-tipped. Seeds 1-3 per pod, 2.0-3.7 × 1.6-2.4 mm, broad-oblong to broad-elliptic, light brown or tan.

SIMILAR TAXA

Allied to *Carmichaelia arborea* from which it differs in having a longer peduncle and rachis, more, smaller flowers with the keel 3.5-4.0 mm cf. 5-6 mm long, and the standard with obvious red-purple coloration, and smaller pods.

DISTRIBUTION

Endemic. New Zealand: North Island (southern part), South Island (northern and western parts).

HABITAT

Mostly associated with rivers terraces, flats and streams and forest margins.

CURRENT CONSERVATION STATUS

2023 | Not Threatened

[Jump to previous conservation statuses](#)

DETAILED TAXONOMY

FAMILY

Fabaceae

AUTHORITY

Carmichaelia odorata Benth.

SYNONYMS

Carmichaelia pilosa Benth.; *Carmichaelia glabrata* G.Simpson; *Carmichaelia angustata* Kirk; *Carmichaelia angustata* var. *pubescens* G.Simpson

ENDEMIC TAXON

Yes

ENDEMIC GENUS

No

ENDEMIC FAMILY

No

ECOLOGY

FLOWERING

September - February

FRUITING

January - September

LIFE CYCLE AND DISPERSAL

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

PROPAGATION TECHNIQUE

Easily grown from seed and hardwood cuttings.

OTHER INFORMATION

ETYMOLOGY

carmichaelia: After Carmichael, a botanist

odorata: Scented

NVS CODE

CARODO

CHROMOSOME NUMBER

2n = 32

PREVIOUS CONSERVATION STATUSES

2017 | Not Threatened

2012 | Not Threatened

2009 | Not Threatened

2004 | Not Threatened

[Jump to current conservation status](#)

REFERENCING AND CITATIONS

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* 11(4): 285-309.

ATTRIBUTION

Description from Heenan (1996).

MORE INFORMATION

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

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