Carmichaelia odorata

COMMON NAMES
Scented broom, leafy broom

BIOSTATUS
Native – Endemic taxon

CURRENT CONSERVATION STATUS
2023 | Not Threatened
Jump to previous conservation statuses

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 × l-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, exserted 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.

GENUS

Carmichaelia

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

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.

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

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/

PDF DATE
09 July 2026