

Carmichaelia carmichaeliae

COMMON NAME

pink broom

SYNONYMS

Notospartium carmichaeliae Hook.f.

FAMILY

Fabaceae

AUTHORITY

Carmichaelia carmichaeliae (Hook.f.) Heenan

FLORA CATEGORY

Vascular – Native

ENDEMIC TAXON

Yes

ENDEMIC GENUS

No

ENDEMIC FAMILY

No

STRUCTURAL CLASS

Trees & Shrubs - Dicotyledons

NVS CODE

CARCAR

CHROMOSOME NUMBER

$2n = 32$

CURRENT CONSERVATION STATUS

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

PREVIOUS CONSERVATION STATUSES

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

2004 | Threatened – Nationally Vulnerable

BRIEF DESCRIPTION

Rare small tree with untidy, greenish-yellow leafless twigs inhabiting valleys in Marlborough. Twigs oval in cross section, smooth, tending to droop. Flowers small, pink with darker streaks, clustered into conspicuous sprays. Fruit in a 1-4cm long dry flattened pod containing up to 10 hard black mottled seeds.

DISTRIBUTION

Endemic. South Island, Marlborough, north of the Awatere fault.

HABITAT

Lowland to montane. A species of alluvial terraces, gorges, cliff faces and steep valley sides.



Flowering adult specimen of *Carmichaelia carmichaeliae*. Photographer: Cathy Jones



Close up of the flowers of *Carmichaelia carmichaeliae*. Photographer: Cathy Jones

FEATURES

Leafless, spreading to upright, shrub or small tree up to 5 m tall. Branchlets slender, 120–400 × 1.8–4.0 mm, drooping, green, compressed. Leaves on branchlets reduced to a triangular scale, glabrous, < 0.8 mm long. Inflorescence a raceme, up to 30 mm long, with up to 20 flowers; pedicel 1.0–3.5 mm long, sparsely hairy. Calyx 1.5–2.4 × 1.5–2.4 mm, outer surface sparsely hairy to glabrescent, or glabrous, green; lobes 0.4–0.6 mm long, triangular. Flowers pink with dark pink veins, up to 8 mm long. Standard 7.0–7.5 × 6.3–6.6 mm, obovate, recurved; wings 5.3–7.8 × 1.0–1.7 mm, oblong, shorter than keel; keel 6.6–8.5 × 2.1–3.2 mm. Stamens 6.0–7.5 mm long. Pistil 7.8–8.4 mm long, exerted beyond stamens, ovary glabrous. Pods 10.0–36.0 × 2.5–4.0 mm, linear, laterally compressed, constricted between the seeds, the seed outline often visible through the dry fruit wall, and the lower filaments are usually persistent on mature fruits, indehiscent; beak up to 4 mm long, narrowly triangular, tapering to the persistent style; with up to 10 seeds. Seeds 2.0–3.5 mm long, reniform to reniform-triangular, light green-yellow, buff or orange-brown, often with black mottling.

SIMILAR TAXA

Carmichaelia carmichaeliae and *C. glabrescens* have a similar growth habit, branchlets, and flowers. *Carmichaelia carmichaeliae* differs from *C. glabrescens* by the pods being weakly constricted between the seeds, the seed outline often visible through the dry fruit wall, and the lower filaments are usually persistent on mature fruits. *C. glabrescens* pods are shorter and broader, there are no constrictions between seeds, the seed outline is not visible through the fruit wall, and the lower filaments are usually absent from mature fruits. *C. glabrescens* grows south of the Awatere fault.

FLOWERING

November to January

FLOWER COLOURS

Red/Pink

FRUITING

January to December

LIFE CYCLE

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

PROPAGATION TECHNIQUE

Easy from fresh seed. Semi hardwood cuttings can be struck with difficulty. An excellent species for a steep, free draining bank, cliff face or rock wall. Does well in any soil provided it is free draining. This species should be planted in full sun. It is intolerant of heavy shade and humidity.

THREATS

Threatened by aerial spraying for gorse (*Ulex europaeus* L.) and broom (*Cytisus scoparius* (L.) Link), browsing animals, (especially goats, cattle, possums and deer) and habitat loss through competition from weeds.

ETYMOLOGY

carmichaelia: After Carmichael, a botanist

WHERE TO BUY

Occasionally available from specialist native plant nurseries.

ATTRIBUTION

Fact Sheet prepared for NZPCN by P.J. de Lange 1 July 2007. Description by P.B. Heenan based on Allan (1961) and published in de Lange et al. (2010)

REFERENCES AND FURTHER READING

Allan, H.H. 1961: Flora of New Zealand. Vol. I. Wellington, Government Printer.

de Lange, P.J.; Heenan, P.B.; Norton, D.A.; Rolfe, J.R.; Sawyer, J.W.D. 2010: Threatened Plants of New Zealand. Canterbury University Press, Christchurch.

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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<https://www.nzpcn.org.nz/flora/species/carmichaelia-carmichaeliae/> (Date website was queried)

MORE INFORMATION

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