



Carmichaelia arborea

Common Name(s):

South Island broom, tree broom, swamp broom

Current Threat Status (2012):

Not Threatened

Distribution:

Endemic. New Zealand: South Island (west of the Main Divide in Westland, Canterbury, Otago, and Southland; uncommon to the east of the Main Divide in Canterbury)

Habitat:

Lowland to montane. Inhabiting glacial moraine, river terraces, subalpine scrub, rock outcrops and cliffs, forest margins, and recently disturbed ground.

Features*:

Shrub, up to 2 × 2 m; sometimes suckering and forming broad patches up to 1 m tall. Branches up to 80 mm diameter, stout, ascending and spreading. Cladodes 70.0-150.0 × 1.5-3.0 mm, erect to spreading, sometimes drooping, rarely divaricate, linear, striate, compressed, green to dark green, sometimes hairy when young, glabrous when mature, apex obtuse; leaf nodes 4-11. Leaves 1-5-foliolate, present on seedlings and on adult plants, terminal leaflet larger; lamina 2.0-7.0 × 1.5 mm, obovate, broad-obovate to broad-elliptic, fleshy, green, upper surface glabrous, lower surface glabrescent, apex emarginate, base cuneate; petiole 7-11 mm long, glabrous except for a tuft of hairs at petiolule base, green; petiolule < 0.5 mm long, glabrous, light green. Leaves on cladodes reduced to scales, < 0.8 mm long, broad-triangular, glabrous, apex subacute. Stipules 0.9-1.3 × 1.0-1.4 mm, free, triangular, glabrous, apex subacute with a tuft of hairs, margin hairy. Inflorescence a raceme, 1 per node, each with 5-10 flowers clustered on upper third of raceme. Peduncle c.8 mm long, glabrous, green. Bracts < 1 mm long, triangular, pale brown, upper surface hairy, lower surface glabrous, apex acute to subacute, margin hairy. Pedicel 1-1.5 mm long, glabrous, green. Bracteoles < 0.5 mm long, on upper part of pedicel or on receptacle, pale brown, upper surface hairy, lower surface glabrous, apex subacute to obtuse and with tuft of hairs. Calyx 3.0-3.5 × 2.0-2.5 mm, campanulate, green, outer surface glabrous. Calyx lobes 0.5-1.0 mm long, triangular, inner surface hairy, appressed to corolla, apex acute. Standard 6.0-6.5 × 7.0-8.0 mm, broad-obovate, patent, positioned towards front of keel, keeled, apex retuse or obtuse with an apiculate tip; white or with a pale central blotch, veins sometimes weakly flushed red-purple; claw c.1 mm long, pale green. Wings 6.0-7.0 × 1.5-2.0 mm, oblong, longer than keel, white, apex obtuse; auricle 0.2-0.3 mm long, triangular; claw 1.8-2.0 mm long, pale green. Keel 5.0-6.0 × 1.5-1.8 mm, white, apex obtuse; auricle 0.3-0.5 mm long, triangular, white; claw 2-2.5 mm long, pale green. Stamens 4.5-5.0 mm long; dorsal filaments connate for c. ¾ of length, outer stamens free for c.0.8 mm. Pistil 5-6 mm long, exserted beyond stamens, glabrous; ovules 8-11; stigma with a ring of hairs at base. Pods 7.0-15.0 × 2.7-4.5 mm, oblong or broad-oblong, laterally compressed, erect, light grey or pale brown, both valves dehiscent at distal end; beak 2.0-2.5 mm long, in a central apical position, 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.

Flowering:

December - March

Fruiting:

January - December

Threats:

Not Threatened

*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

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

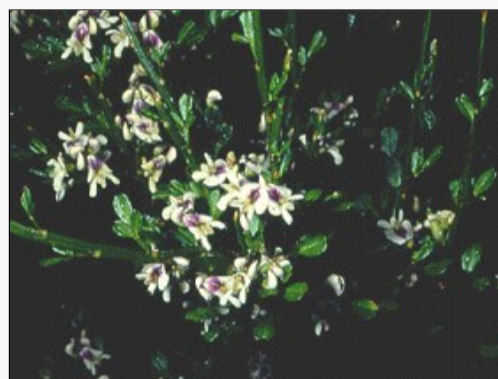
For more information, visit:

http://nzpcn.org.nz/flora_details.asp?ID=1595



Caption: Tutoko Valley, Fiordland

Photographer: Jesse Bythell



Caption: Homer tunnel, February

Photographer: John Smith-Dodsworth