



Carmichaelia compacta

Common Name(s):

Cromwell broom

Current Threat Status (2012):

At Risk - Naturally Uncommon

Distribution:

Endemic. New Zealand: South Island (Central Otago (centred on the Kawarau and Cromwell Gorges and immediate surrounding area, also near Alexandra, Omakau, and Cromwell))

Habitat:

A schist endemic. Colonising rock and debris slopes, rock outcrops, and associated steep tussock grassland, and river gorges.

Features*:

Erect or spreading shrub, up to 1-2 x 1-2 m, with densely placed branches and cladodes. Branches erect and spreading from base, 10-60 mm diameter. Cladodes linear, striate, compressed, erect to spreading, green, glabrous, often crowded at ends of branches, 60-220 x 1.5-2.5 mm; apex subacute, yellow; leaf nodes 4-9. Leaves 1-9-foliolate, fleshy, obovate or sometimes ovate, hairy; upper surface mottled; lower surface green; apex emarginate to retuse; margin hairy; leaflets sessile or with short petiolule, 1.5-7.0 x 1.0-6.5 mm; petiole hairy, 8-16 mm long. Leaves on cladodes reduced to a scale, triangular, glabrous, < 0.5 mm long; apex acute. Stipules clasping shoot, triangular, 0.4-0.5 x 0.4-0.5 mm; adaxial surface glabrous; abaxial surface hairy, becoming glabrous with age; apex subacute to obtuse; margin hairy. Inflorescence a raceme, 1 per node, each with 3-6 flowers. Peduncle glabrous to sparsely hairy, green, 7-16 mm long. Bracts triangular to narrow-triangular, pale green becoming membranous, 0.5-1 mm long; apex acute to subacute; margin hairy. Pedicel glabrous, pale green, 2-4 mm long. Bracteoles at base of receptacle or on upper part of pedicel, narrow rounded, white, c. 0.25 mm long; claw pale green, c. 2 mm long. Stamens 3.0-3.5 mm long; lower filaments connate for c. 1/3 length and with outside filaments free for 0.3-0.5 mm. Pistil exerted beyond stamens, c. 4 mm long; style with a ring of hairs below stigma; ovules 6-7. Pod obovate, broad at distal part, dorsally compressed, brown, pale grey, or straw-coloured, indehiscent, with inflated valves, 5.0-5.5 x 3.0-4.0 mm; beak on upper suture, slightly curved, stout, pungent, c. 1 mm long. Seeds oblong-reniform, 1-2 per pod, light olive green or yellow-green with black mottling, 2.0-2.5 x 1.5-2.0 mm.

Flowering:

October - February

Fruiting:

December - July

Threats:

A narrow range endemic that is known from many sites but with an combined overall small population. Seedlings and juveniles are scarce, and there appears to be little recruitment. At accessible sites it is heavily browsed by sheep, goats, hares, and rabbits and these animals are probably the main reason for the lack of recruitment. Further, browsing pressure may be causing early senescence of older plants.

*Attribution:

Description from Heenan (1996)

References and further reading:

Heenan, P.B. 1995: A taxonomic revision of *Carmichaelia* (Fabaceae - Galegeae) in New Zealand (part I). *New Zealand Journal of Botany* 33: 455-475

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=409



Caption: Seeds. From cultivated plant

Photographer: John Barkla



Caption: Kawarau Gorge

Photographer: John Barkla