



Carmichaelia uniflora

Common Name(s):

dwarf Broom

Current Threat Status (2012):

At Risk - Declining

Distribution:

Endemic. New Zealand: South Island (Nelson, Canterbury, Otago, and Southland).

Habitat:

Inhabiting stable but unconsolidated, sparsely vegetated river bed gravels, outwash fans, terraces, and stony ground.

Features*:

Dwarf, rhizomatous shrub, up to 20-60 mm tall and 1 m wide, forming a dense mat or tufts of cladodes. Rhizomes becoming increasingly stout and woody with age, 50.0-200.0 × 1.0-2.5 mm. Cladodes filiform, linear, striate, compressed, erect to spreading, green to green-yellow, glabrous, 20.00-60.00 × 0.75-2.00 mm; apex subacute, yellow to yellow-green; leaf nodes 2-14. Leaves simple, broad-obovate to broad-elliptic, fleshy, entire, green, present on seedlings, absent on mature plants, 5.5-8.0 × 3.0-5.0 mm; both surfaces with scattered hairs; apex emarginate to retuse; base cuneate to narrow-obtuse; petiole sparsely hairy, 2.0-2.5 mm long. Leaves on cladodes reduced to a scale, triangular, glabrous, 0.6-1.5 × 0.8-1.4 mm; apex acute. Inflorescence a raceme, 1 per node, each with 1-2 flowers. Peduncle glabrous, occasionally sparsely hairy, green, 4-15 mm long. Bracts, triangular, glabrous, pale green, 0.5-0.8 × 0.5-0.8 mm; apex acute; margin hairy. Pedicel glabrous, occasionally sparsely hairy, pale green, 3.0-7.5 mm long. Bracteoles at top of pedicel, triangular to narrow triangular, glabrous, green and occasionally flushed red, 0.2-0.3 × 0.1-0.2 mm; apex acute; margin hairy. Calyx campanulate, c.2.5 × c.2.5 mm; inner surface glabrous, green; outer surface glabrous or sparsely hairy, green. Calyx lobes triangular, flushed red, c.0.5 mm long; apex acute; margin hairy or glabrous. Bud green. Standard obovate, patent, 8-10 × 6-8 mm; upper surface white, central area purple, sometimes purple-green veined; lower surface green, margin cream-green, sometimes purple-green veined; apex retuse; claw pale green, c. 1.5 mm long. Wings oblong, shorter than keel, 5.0-6.5 × c.2.0 mm; distal area of adaxial surface purple, proximal area green; abaxial surface white, sometimes purple-veined; auricle triangular, pale green, apex obtuse, c.1.25 mm long; claw pale green. Keel 6.0-8.0 × 2.5-3.0 mm; distal area of adaxial surface purple, proximal area pale green; distal area of abaxial surface dark, proximal area pale green; auricle triangular, pale green, c. 0.75 mm long, with obtuse apex; claw pale green, 2.0-2.5 mm long. Stamens 7.5-9.0 mm long; lower filaments connate for c. 2A length and outside filaments free for 1.5-2.5 mm. Pistil exerted beyond stamens, c.10 mm long; style with a ring of hairs below stigma; ovules 9-11. Pod elliptic-oblong, laterally compressed, weakly falcate, black, brown, or grey, one valve dehiscent from base, 7.5-13.0 × 3.0-4.0 mm; beak on adaxial suture, slightly upturned, stout, pungent, 1.5-2 mm long. Seeds oblong-reniform, 2-9 per pod, black, brown, tan, or olive green, 1.2-2.0 × 1.0-1.5 mm.

Flowering:

October - March

Fruiting:

November - May

Threats:

Probably threatened. However, there is insufficient data available to make an accurate assessment. It is known to be at risk from browsing animals and through competition from weeds such as pasture grasses.

*Attribution:

Description adapted from Heenan (1995)

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=1603



Caption: Waimakariri river, January

Photographer: John Smith-Dodsworth