



Carmichaelia appressa

Common Name(s):

Prostrate broom

Current Threat Status (2012):

At Risk - Naturally Uncommon

Distribution:

Endemic. New Zealand: South Island (Kaitorete Spit and probably also the mouth of Rakaia River)

Habitat:

A species of gravelly sandy loam, stabilised sand dunes, and ridges of sand developed along the Kaitorete Spit

Features*:

Prostrate, occasionally decumbent, densely branched shrub, 0.25-0.40 × 1.00-2.00 m. Branches 0.3-1.0 m long and up to 30 mm diameter, prostrate or weakly decumbent. Cladodes 50-150 × 1-2 mm, prostrate, sometimes weakly ascending, linear, striate, compressed, weakly plano-convex, light green to green-yellow, sparsely hairy to glabrous, apex subacute or obtuse; leaf nodes 7-11. Leaves 1-3-foliolate, present on seedlings and rarely on adults, terminal leaflet larger; lamina 2.0-5.0 × 1.0-2.5 mm, obovate, fleshy, green, upper and lower surfaces sparsely to moderately hairy, apex emarginate, base cuneate; petiole 1-11 mm long, sparsely hairy, green; petiolule < 0.25 mm long, glabrous, light green. Leaves on cladodes reduced to scales, < 0.5 mm long, broad-triangular, glabrous, apex subacute, margin hairy. Stipules c.0.5 × c.0.5 mm, free, triangular, upper surface glabrous, lower surface glabrous or with a few scattered hairs and becoming glabrous with age, apex acute, margin hairy. Inflorescence a raceme, 1-3 per node, each with 2-13 flowers. Peduncle 1.0-8.5 mm long, glabrous or sparsely hairy, green, occasionally flushed red. Bracts < c.0.5 mm long, triangular, glabrous, apex acute, margin hairy. Pedicel 2-4 mm long, glabrous to sparsely hairy, pale green. Bracteoles on upper part of pedicel, lanceolate, glabrous, green, occasionally flushed red, apex subacute, margin hairy. Calyx c.1.5 × 1.8-2.0 mm, campanulate, green, outer surface glabrous to sparsely hairy. Calyx lobes 0.2-0.3 mm long, triangular, inner surface glabrous, appressed to corolla, apex acute. Bud green or white. Standard 4-5 × 5-6 mm, obovate, patent, positioned in central part of keel, keeled, apex reflexed; inner surface with a purple blotch, white margins, purple-veined; outer surface white, green at base, purple-veined; claw c.1 mm long, pale green. Wings 4.00-5.00 × 1.75-2.00 mm, oblong, longer than keel, apex obtuse; inner and outer surfaces white, and purple-veined; auricle rounded, white; claw c.1.5 mm long, pale green. Keel 3.5-4.0 × c.1.5 mm, apex obtuse; distal part of inner and outer surfaces purple, proximal part white; auricle < 0.5 mm long, rounded, pale green; claw c.1.5 mm long, pale green. Stamens 3.00-3.75 mm long; dorsal filaments connate for 7/8 of length, outer stamens free for c.0.5 mm. Pistil c.4 mm long, exerted beyond the stamens, glabrous; ovules 5-8. Pods 8-12 × 3-4 mm, elliptic to broad-oblong, laterally compressed, spreading, brown or grey, valves dehiscent; beak c.1 mm long, in a central apical position, stout, pungent-tipped. Seeds c.2.0 × c.1.5 mm, reniform, 2-per pod, dark purple or black, usually persistent on replum.

Flowering:

October - January

Fruiting:

December - May

Threats:

The habitat of *C. appressa* is very susceptible to damage by off-road motorbikes and 4WD vehicles and excavation for sand. A large part of its habitat is protected within a scientific reserve. For the time being the species seems secure.

*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=407



Caption: Seed. From cultivated plant

Photographer: John Barkla



Caption: *Carmichaelia appressa*, Kaitorete Spit

Photographer: John Barkla