Carmichaelia nana

COMMON NAMES
dwarf broom, dwarf carmichaelia

BIOSTATUS
Native – Endemic taxon

CURRENT CONSERVATION STATUS
2023 | Threatened – Nationally Vulnerable | Qualifiers: DPR, DPS, DPT, RF
Jump to previous conservation statuses

CATEGORY
Vascular

STRUCTURAL CLASS
Trees & Shrubs - Dicotyledons

SIMPLIFIED DESCRIPTION
Hard cushions of short tightly packed green leafless twigs. Twigs flattened, 1.5–2.5mm wide, yellowish to reddish. Flowers small, purple, inconspicuous at the tip of twigs. Fruit a small dry pod containing 1–3 hard yellowish seeds and which only partly opens.

FLOWER COLOURS
Violet/Purple, White



Heron Basin, Ashburton Lakes. Photographer: Melissa Hutchison, Date taken: 30/11/2016, Licence: CC BY-NC.



Carmichaelia nana. Photographer: John Barkla, Licence: CC BY.

DETAILED DESCRIPTION

Dwarf, spreading shrub, 20–60 mm tall, 0.5 m wide, usually forming a dense mat of cladodes. **Branches** short, stout, often below ground level, 10–20 mm diameter. **Cladodes** linear, striate, compressed, usually erect and crowded, green or yellow-green, often hairy when young, glabrous at maturity, 10.0–50.0 × 1.5–2.5 mm; apex subacute, yellow, yellow-green, or red; leaf nodes 2–7. **Leaves** simple, obovate to broad-oblanceolate, fleshy, green, only occasionally present on seedlings and absent on adults, 4–5 × 1–2 mm; both surfaces hairy; apex retuse to obtuse; base cuneate; margins hairy; petiole glabrous or hairy, c. 1 mm long. Leaves on cladodes reduced to a scale, narrow to broad-triangular, glabrous, < 1 mm long; apex subacute to obtuse. **Stipules** free, c. 0.50 × c. 0.25 mm; margin hairy. **Inflorescence** a raceme, 1–2 per node, each with 1–4 flowers. **Peduncle** glabrous to hairy, green, 3–4 mm long. **Bracts** triangular, glabrous, pale green becoming membranous, < 0.5 mm long; apex subacute to obtuse; margin hairy. **Pedicel** glabrous or hairy, pale green, 1–2 mm long. **Bracteoles** on pedicel, glabrous, < 0.5 mm long; apex acute; margin hairy. **Calyx** campanulate, green to green-yellow, 1.5–2.0 × 1.0–2.0 mm; inner surface glabrous; outer surface glabrous to sparsely hairy. **Calyx lobes** narrow- to broad-triangular, c. 0.5 mm long; apex subacute to obtuse, red to green; margin hairy or occasionally glabrous. **Bud** pale purple. **Standard** obovate, spreading horizontally above wings and keel, 4.5–6.5 × 4–5 mm; upper surface purple, with white margins and purple-veined; lower surface white, purple-veined; apex retuse; margin recurved; claw pale green, c. 1.25 mm long. **Wings** oblong, longer than keel, 3.50–5.50 × c. 1.25 mm; both surfaces white, flushed purple, sometimes purple-veined; auricle rounded, pale green or white, < 0.25 mm long; claw pale green, c. 2 mm long. **Keel** 4.50–5.00 × c. 1.25 mm; distal area of both surfaces purple, white in central and proximal areas, sometimes purple-veined; auricle rounded, pale green or white, c. 0.25 mm long; claw pale green, c. 2 mm long. **Stamens** 3.5–5.0 mm long; lower filaments connate for c. ½ length and with outside filaments free for 1.75–2.25 mm. **Pistil** exserted beyond stamens, 4–6 mm long; style glabrous or with few scattered hairs on adaxial surface; ovules 4–8. **Pod** short- or broad-oblong, occasionally broad-elliptic or ovate, laterally compressed, brown, black, or yellow-green, one valve partially dehiscent from upper replum, other valve usually indehiscent or only weakly dehiscent, 5.0–7.0 × 4.5–5.5 mm; beak in a central apical position, straight or slightly curved, 1–3 mm long. **Seeds** oblong-reniform, 1–3 per pod, yellow, yellow-green, green, or black, occasionally with green or black mottling, 2.50–3.00 × 1.75–2.00 mm.

SIMILAR TAXA

Distinguished from all other dwarf *Carmichaelia* species by its smaller flowers, usually short-oblong or broad-oblong pod, and having one valve partially dehiscent from the upper replum.

DISTRIBUTION

Endemic. New Zealand: North Island (Central Volcanic Plateau and adjacent ranges), South Island (Marlborough, Canterbury, and Otago).

HABITAT

Lowland to alpine. Inhabiting stable but unconsolidated alluvial river beds and eyots, river terraces, moraines, shingle slopes, lahar mounds and inland volcanogenic dunes

GENUS

Carmichaelia

FAMILY

Fabaceae

AUTHORITY

Carmichaelia nana (Hook.f.) Hook.f.

SYNONYMS

Carmichaelia ensyii Kirk; Carmichaelia ensyii var. ambigua G.Simpson; Carmichaelia enysii var. orbiculata (Col.) Kirk; Carmichaelia orbiculata Col.; Carmichaelia australis var. nana Hook.f.

ENDEMIC TAXON

Yes

ENDEMIC GENUS

No

ENDEMIC FAMILY
No

FLOWERING
November–February

FRUITING
January–May

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

PROPAGATION TECHNIQUE
Easily grown from seed and hardwood cuttings. An attractive species that deserves wider cultivation. Dislikes humidity.

ETYMOLOGY
carmichaelia: After Carmichael, a botanist
nana: Small

NVS CODE
CARNAN

CHROMOSOME NUMBER
2n = 32

PREVIOUS CONSERVATION STATUSES
2017 | Threatened – Nationally Vulnerable | Qualifiers: DP
2012 | At Risk – Declining | Qualifiers: DP
2009 | Not Threatened
2004 | Not Threatened
Jump to current conservation status

REGIONAL CONSERVATION STATUSES
Otago: 2025 | Regionally Threatened – Regionally Critical | Qualifiers: DPS, DPT, PF, RR Help
The regional threat classification system leverages off the national assessments in the NZTCS, providing information relevant for the regional context. Otago conservation status information is sourced from the "Conservation Status of Indigenous Vascular Plants in Otago, 2025" Jarvie S et al. (2025) report.

REFERENCES AND FURTHER READING
Heenan PB. 1995. A taxonomic revision of *Carmichaelia* (Fabaceae - Galegeae) in New Zealand (part I). *New Zealand Journal of Botany 33(4)*: 455–475. https://doi.org/10.1080/0028825X.1995.10410618.
Thorsen MJ, Dickinson KJM, Seddon PJ. 2009. Seed dispersal systems in the New Zealand flora. *Perspectives in Plant Ecology, Evolution and Systematics 11*: 285–309. https://doi.org/10.1016/j.ppees.2009.06.001.

ATTRIBUTION
Description adapted from Heenan (1995)

MORE INFORMATION
https://www.nzpcn.org.nz/flora/species/carmichaelia-nana/

PDF DATE
09 July 2026