

Carex calcis



COMMON NAME

sedge

SYNONYMS

None (first described in 2007)

FAMILY

Cyperaceae

AUTHORITY

Carex calcis K.A.Ford

FLORA CATEGORY

Vascular – Native

ENDEMIC TAXON

Yes

ENDEMIC GENUS

No

ENDEMIC FAMILY

No

STRUCTURAL CLASS

Sedges

CHROMOSOME NUMBER

2n = c.68

CURRENT CONSERVATION STATUS

2017 | At Risk – Naturally Uncommon | Qualifiers: RR, Sp

PREVIOUS CONSERVATION STATUSES

2012 | At Risk – Naturally Uncommon | Qualifiers: RR, Sp

2004 | Sparse

2003 | At Risk – Naturally Uncommon

DISTRIBUTION

.Endemic. New Zealand: South Island. North-West Nelson from about the Garibaldi Ridge south to the Matiri Plateau

HABITAT

Upper montane to alpine. Exclusive to soils derived from weathered limestone and calcareous mudstone/siltstone. *Carex calcis* is a plant of open shrubland and *Chionochloa* tussock grassland. It is also common in the grasslands and shrublands developed on colluvial deposits at the base and lower slopes of the escarpments and slips scars.

DETAILED DESCRIPTION

Perennial herb, tufts stout, rigid, spreading; occasionally shortly rhizomatous. **Culms** (40)–150–300–(575) × 1.5–2.0 mm, stout, ascending to spreading, trigonous, striated, smooth, rarely scabrid above, longer than, similar to, or shorter than leaves when mature. **Leaves** (115)–150–300–(380) × 2.5–6.0 mm; leaf sheaths loose, dull brown, becoming stringy with age, nerves distinct; leaf blades channelled, occasionally double-folded, stiff, green; leaf margins and keel thickened, scabrid; apex trigonous, scabrid, acuminate. **Inflorescence** of 4–6–(7) densely flowered separate male and female spikes, brown, erect, borne singly at nodes, mostly sessile, closely contiguous towards the top of the culm, often lower spike remote and sometimes on a short peduncle; terminal spike male, 7.0–30 × 2.0–3.7 mm, clavate, cylindrical, brown, occasionally distal part female; remaining spikes female 6.0–35 × 5.0–7.0 mm, stout, oblong, cylindrical, brown, sometimes with a few terminal male flowers above, particularly on upper female spike. **Lowermost inflorescence bract** leaflike, (60)–100–200–(350) × 2.5–5.5 mm, longer than inflorescence. **Male glumes** 4.0–6.4 × 1.6–2.0 mm long, speckled brown, obovate, concavo-convex, subcoriaceous, mid-region 3-veined, green fading to white at maturity; margins membranous, entire, scabrid towards apex; apex emarginate, midvein often failing, sometimes mid-vein excurrent then apex acute or shortly awned, awn scabrid. **Female glumes** 2.1–4.0 × 1.6–2.2 mm, shorter or similar length to utricles, speckled brown, ovate, concavo-convex, subcoriaceous, mid-region green fading to white; margins membranous, fimbriate towards apex; apex acute sometimes shortly awned. **Stamens** 3, anthers 1.5–2.5 mm long. **Utricles** 2.5–3.7 × 1.2–2.3 mm, spreading at maturity, trigonous to subtrigonous, obovate to elliptic, sometimes slightly winged, abruptly narrowed to a distinct white beak, speckled brown to dark brown above (except for beak), usually with distinct broad, pale nerves; beak 0.4–0.5–(0.7) mm long, bidentate, white, margins occasionally scabrid; orifice slightly oblique, scabrid. **Stigmas** 3, 0.8–1.2 mm long. **Nut** 1.3–1.6 × 0.9–1.2 mm, trigonous, brown.

SIMILAR TAXA

Carex calcis is perhaps most closely allied to *C. dolomitica* Heenan et de Lange, from which it differs by the loose brown and often shredding sheaths; female spikes cylindrical and brown; and by the utricles which are 2.5–3.7 × 1.2–2.3 mm, speckled brown to dark-brown above, with a white beak, obovate-elliptic in shape, the apex narrowed abruptly to a beak; and trigonous to subtrigonous to cross-section. *Carex dolomitica* differs by the tufts bearing clasping dark brown sheaths (these rarely shredding); female spikes which are tapered, dark brown or red; utricles which are 3.2–4.2 × 1.3–1.9 mm, shiny black above, with a red or white beak; broad-ovoid to ovoid, elliptic or narrow-elliptic, tapering to a beak, and plano-convex to subtrigonous in cross-section.

FLOWERING

November

FRUITING

January–March

LIFE CYCLE

Nuts surrounded by inflated utricles are dispersed by granivory and wind (Thorsen et al., 2009).

PROPAGATION TECHNIQUE

Easily grown from fresh seed and by division of established plants. Prefers full sun in a permanently moist but free draining soil enriched with lime. Dislikes humidity.

THREATS

Not threatened—but biologically sparse over its entire range.

ETYMOLOGY

carex: Latin name for a species of sedge, now applied to the whole group.

WHERE TO BUY

Not Commercially Available

ATTRIBUTION

Fact Sheet prepared for NZPCN by P.J. de Lange (1 January 2008). Description from Ford (2007)

REFERENCES AND FURTHER READING

- Ford KA. 2007. Carex (Cyperaceae) – two new species from the calcareous mountains of North-West Nelson, New Zealand. *New Zealand Journal of Botany* 45(4): 721–730. <https://doi.org/10.1080/00288250709509747>
- 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.

NZPCN FACT SHEET CITATION

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MORE INFORMATION

<https://www.nzpcn.org.nz/flora/species/carex-calcis/>