

# 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 on 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

Please cite as: de Lange, P.J. (Year at time of access): *Carex calcis* Fact Sheet (content continuously updated). New Zealand Plant Conservation Network. <https://www.nzpcn.org.nz/flora/species/carex-calcis/> (Date website was queried)

## MORE INFORMATION

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