

Carex applanata

SYNONYMS

None—first described in 2016.

FAMILY

Cyperaceae

AUTHORITY

Carex applanata Thorsen et de Lange

FLORA CATEGORY

Vascular – Native

ENDEMIC TAXON

Yes

ENDEMIC GENUS

No

ENDEMIC FAMILY

No

STRUCTURAL CLASS

Sedges

CHROMOSOME NUMBER

$2n = c.68-70$

CURRENT CONSERVATION STATUS

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

PREVIOUS CONSERVATION STATUS

2016 | At Risk – Naturally Uncommon | Qualifiers: DP, RR

DISTRIBUTION

.Endemic. South Island, Central Otago and Northern Southland Mountains (Pisa, Old Man, Old Woman, The Remarkables and Umbrella Mountains)

HABITAT

Carex applanata is an alpine species of eroding gravel slopes and, less frequently, snowbanks.

DETAILED DESCRIPTION

Perennial herb forming patches to 200 mm diameter, tufts rather rigid, usually matted and flattened, spreading, surrounded by persistent dead leaves. **Culms** 8–60 × 1.3–2.0 mm, spreading, ± trigonous, edges faintly and usually discontinuously scabrid on one or two edges. **Leaves** falcate, 10–60 mm long; leaf sheaths stramineous, distinctly wider than leaves, closely sheathing culm; leaf blades channelled, yellow-green, green to bronze green, leaf margins and keel minutely scabrid, tapering to a weakly triquetrous acute tip, this mostly dried and eroded in mature leaves leaving a lacerate sometimes weakly cirrhose stub. **Inflorescence** a congested cluster of 2–4–(7) dark brown to chestnut-brown similar spikes, the lowermost subtended by a single leaf-like bract; spikes sessile or rarely shortly stalked, erect, 4.2–6.3 × 4.2–6.8 mm, usually globose to ovoid, broadly cylindrical when immature, male flowers below female flowers. **Glumes** = to or slightly exceeding utricles, membranous, concavo-convex to concave; lower glumes narrowly ovate to ovate, acute, usually strongly keeled, keel apex prolonged, acute with keel prolongation extended as a minute scabrid awn; upper glumes ovate to broadly ovate, acute, mostly weakly keeled, keel failing just short of or flush with apex. **Stamens** 3, anthers 0.8–1.2 mm long, dark golden-yellow. **Utricles** 2.2–2.4–(2.7) × (1.2)–1.4–(1.9) mm, spreading at maturity, plano-convex, elliptic, elliptic-ovoid to ovoid, smooth, both surfaces weakly nerved, lower portion golden-brown or honey-coloured, upper portion darker golden-brown to brown, weakly winged, margins strongly scabrid in upper $\frac{1}{2}$ – $\frac{1}{3}$. **Stigmas** 2; 0.9–1.2–(2.6) mm long. **Achenes** (1.0)–1.2 × 0.9–(1.0) mm, ovate to circular, biconvex, smooth, honey-brown; styles persistent.



SIMILAR TAXA

Carex applanata is likely to be confused with *Carex lachenalii* subsp. *parkeri*, *C. kirkii*, and *C. pterocarpa*, species with which it is sympatric. *Carex lachenalii* subsp. *parkeri* is distinguished from *C. applanata* by its rhizomatous growth habit, glaucous foliage and culms, mostly erect to weakly divergent, narrower leaves whose leaf bases have a serrate margin, and whose apex is distinctly flattened, and also by the culm, which is distinctly longer than the leaves. *Carex kirkii* differs from *C. applanata* by its different flowering and fruiting time (December–March), distinctly awned elongate glume, rhizomatous habit; narrower foliage and by the lower leaves, which are only weakly divergent. *Carex pterocarpa* differs from *C. applanata* in its papillose utricles, female flowers above the male in the spikes, its strongly tristichous, shorter, rapidly tapering, erect leaves. Both *C. kirkii* and *C. pterocarpa* have the male flowers above the female in the spikes.

FLOWERING

January–April

FRUITING

February–May

PROPAGATION TECHNIQUE

Carex applanata has been cultivated but as a newly described species its cultivation needs are still poorly known.

THREATS

Carex applanata does not seem to be threatened. Beyond observations of browsing from hares (*Lepus europaeus occidentalis*), which does not seem to cause the ill-thrift of plants the species seems secure in its alpine habitats. In those areas exotic plants are scarce, the most commonly seen is the hawkweed (*Pilosella officinarum*), which is not known to co-occur with *C. applanata*. Although the total area occupied by *Carex applanata* is believed to be small (c. 4 ha spread over 10 sites), the total number of plants is believed to number in the 1000s. For this reason it is recommended that the conservation status of species be assessed as 'At Risk / Naturally Uncommon' qualified 'Range Restricted' and 'Data Poor'.

ETYMOLOGY

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

ATTRIBUTION

Fact Sheet prepared by P.J. de Lange (16 May 2016). Description adapted from Thorsen & de Lange (2016)

REFERENCES AND FURTHER READING

Thorsen MJ, de Lange PJ. 2016. *Carex applanata* (Cyperaceae), a new species from southern New Zealand. *New Zealand Journal of Botany* 54(3): 335–343. <https://doi.org/10.1080/0028825X.2016.1167092>.

NZPCN FACT SHEET CITATION

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MORE INFORMATION

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