

Carex virgata

COMMON NAMES

swamp sedge, pukio, toitoi, toetoe

BIOSTATUS

Native – Endemic taxon

CURRENT CONSERVATION STATUS

2023 | Not Threatened

[Jump to previous conservation statuses](#)

CATEGORY

Vascular

STRUCTURAL CLASS

Sedges

DETAILED DESCRIPTION

Rhizomatous, densely clumped to tussock-forming sedge. **Rhizome** 5 mm. diameter. **Culms** 150–900 mm. × c. 1.5 mm, trigonous, grooved, harshly scabrid; basal sheaths shining, grey-brown to dark brown, sometimes black. **Leaves** much > culms, 0.5–1.2 m tall, 1.5–4.5 mm wide, channelled, light green, harsh and rigid, keel and margins strongly scabrid. **Inflorescence** a narrow 100–260 mm long panicle with stiff erect branchlets, the lower-most quite distant. **Spikes** androgynous, 4–6 mm. long, sessile, grey- or yellow-brown, male flowers terminal, lower spikes on each branchlet subtended by a pale membranous bract with a long scabrid awn often > spike. **Glume** ± = or slightly < utricles, membranous, ovate, acute, dull brown, with a prominent pale midrib, this often scabrid in lowermost glumes. **Utricles** 2.0–2.5 × c. 1.0 mm, plano-convex, ovoid, light grey with distinct brown nerves; tapering to a brown beak c. 0.5 mm long with a bifid orifice and conspicuously denticulate margins; abruptly contracted to a narrow stipe c. 0.2 mm. long. **Stigmas** 2. **Nut** slightly > 1 mm. long, biconvex, ovoid, dark brown.

SIMILAR TAXA

Carex virgata most closely resembles *C. appressa* R.Br., especially as the inflorescence of both species is a stiff contracted panicle, further, both species have similar distinctly nerved utricles. However, *C. virgata* has more slender culms, narrower leaves and paler brown, less dense-flowered panicles. Plants of *C. virgata* could also be confused with *C. secta* Boott as they can occasionally become elevated on trunks formed by matted rhizomes and semi-decayed culms. However, in such rare examples of *C. virgata*, plants never attain the height reached by *C. secta*. Further, the inflorescences of *C. virgata* are never drooping, and obviously branched, with the basal branchlets often distant.

DISTRIBUTION

Indigenous. New Zealand: North, South, Stewart and Chatham Islands.

HABITAT

Widespread from sea level to about 1000 m a.s.l. in open, swampy conditions and also in damp sites within lowland forest. In parts of the country this sedge is often the dominant carice of lowland alluvial forest.

GENUS

Carex

FAMILY

Cyperaceae

AUTHORITY

Carex virgata Sol. ex Boott



Bushy Park pond. Photographer: Colin C. Ogle, Date taken: 29/03/2014, Licence: CC BY-NC.



Flower of *Carex virgata*. Photographer: Wayne Bennett, Licence: CC BY-NC.

SYNONYMS

Carex paniculata var. *virgata* (Boott) Cheeseman; *Carex appressa* var. *virgata* (Boott) Kük.

TAXONOMIC NOTES

On the Chatham Islands *C. virgata* either hybridises, or appears to intergrade, with *C. appressa*.

ENDEMIC TAXON

Yes

ENDEMIC GENUS

No

ENDEMIC FAMILY

No

FLOWERING

October–December

FRUITING

December–May

LIFE CYCLE AND DISPERSAL

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

PROPAGATION TECHNIQUE

Easily grown from fresh seed and by the division of established plants. A fast growing sedge often popular in wetland restoration and riparian plantings.

WETLAND PLANT INDICATOR STATUS RATING

FACW: Facultative Wetland

Usually is a hydrophyte but occasionally found in uplands (non-wetlands).

ETYMOLOGY

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

virgata: Twiggy

MANAAKI WHENUA ONLINE INTERACTIVE KEY

[Key to indigenous and naturalised *Carex* in New Zealand](#)

NVS CODE

CARVIR

PREVIOUS CONSERVATION STATUSES

2017 | Not Threatened

2012 | Not Threatened

2009 | Not Threatened

2004 | Not Threatened

[Jump to current conservation status](#)

REGIONAL CONSERVATION STATUSES

Auckland: 2025 | Regionally Not Threatened | Qualifiers: DPS, DPT Help

The regional threat classification system leverages off the national assessments in the NZTCS, providing information relevant for the regional context. Auckland conservation status information is sourced from the [“Conservation status of vascular plant species in Tāmaki Makaurau / Auckland”](#) Simpkins E et al. (2025) report.

Otago: 2025 | Regionally Not Threatened 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

- Moore LB, Edgar E. 1970. Flora of New Zealand, Volume II. Indigenous Tracheophyta: Monocotyledones except Gramineae. Government Printer, Wellington, NZ. 354 p.
- 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.

ATTRIBUTION

Fact Sheet prepared by P.J. de Lange (10 August 2006). Description adapted from Moore and Edgar (1970) Some of this factsheet information is derived from [Flora of New Zealand Online](#) and is used under a [Creative Commons Attribution 3.0 New Zealand](#) licence.

MORE INFORMATION

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

PDF DATE

25 May 2026