

# Juncus holoschoenus var. holoschoenus

## SYNONYMS

Verojuncus holoschoenus (R.Br.) Závěská Drábková & Pročková

## FAMILY

Juncaceae

## AUTHORITY

Juncus holoschoenus R.Br. var. holoschoenus

## FLORA CATEGORY

Vascular – Native

## ENDEMIC TAXON

No

## ENDEMIC GENUS

No

## ENDEMIC FAMILY

No

## STRUCTURAL CLASS

Rushes & Allied Plants

## CHROMOSOME NUMBER

2n = 106

## CURRENT CONSERVATION STATUS

2017 | Threatened – Nationally Critical | Qualifiers: DP, EF, OL, SO?

## PREVIOUS CONSERVATION STATUSES

2012 | Threatened – Nationally Critical | Qualifiers: EF, OL, SO

2009 | Threatened – Nationally Critical | Qualifiers: CD, DP, EF, SO

2004 | Threatened – Nationally Endangered

## DISTRIBUTION

Indigenous. Common in Australia—although *J. holoschoenus* is a species complex and, when the segregate entities are fully resolved, it may turn out to be much less common there than currently believed. In New Zealand, though reported widely from North, South and Chatham Islands, critical comparison of herbarium specimens shows that most recent (and historic) records are based on *J. holoschoenus* var. *multiflorus* Carse whose taxonomic status, whilst unclear (see comments made of it in Flora of New Zealand, Vol. 2), is clearly not the same as the older New Zealand collections of *J. holoschoenus* and is probably the result of an Australian introduction of one of their *J. holoschoenus* complex.

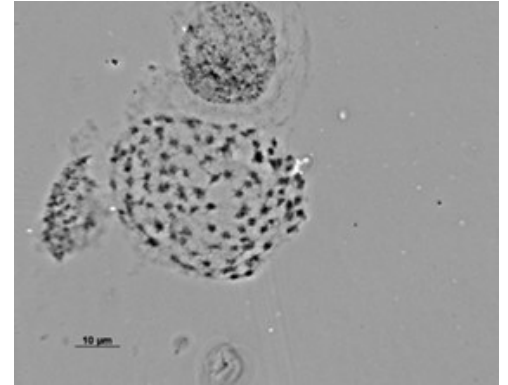
## HABITAT

Coastal and lowland to subalpine eutrophic to oligotrophic wetlands. Always found growing in shallow water.

## WETLAND PLANT INDICATOR STATUS RATING

OBL: Obligate Wetland

Almost always is a hydrophyte, rarely in uplands (non-wetlands).



Mitotic chromosomes (2n = 106). Photographer: Brian G. Murray, Licence: CC BY-NC.



Seed head. Rangitaiki (from a specimen collected by Sarah Beadel). Photographer: Jeremy R. Rolfe, Date taken: 28/03/2009, Licence: CC BY.

## DETAILED DESCRIPTION

Tufted, shortly rhizomatous perennial, bright-green rush up to 750mm tall. **Stems** stout, erect, circular in cross-section, internal transverse septa absent or just evident. **Leaf-sheath** pale green to almost white, 30–50mm long, incompletely septate, auricles 2, obtuse. **Leaves** 5–10, 150–300mm long, linear, erect to curving, circular to semi-compressed, hollow, unitubular, transversely septate across whole width; leaf tip acuminate. **Inflorescence** rather stout, terminal, cymose; 2–5 branched, bearing 2–8, globular, 20–30mm diameter, 10–30-flowered fascicles at branch apices; subtending bract leafy, < inflorescence, septate across whole width. **Flowers** 3.5–5.0mm diameter; tepals equal, acuminate, green to red-green. **Stamens** 6. **Capsules** 4.5 × 1.5mm, more or less equal in length to tepals, ovate-lanceolate, triquetrous, tapered to a distinct, mucronate apex.

## SIMILAR TAXA

*Juncus holoschoenus* var. *multiflorus* is similar but this is a species of very open, disturbed habitats dominated by naturalised species. From *J. holoschoenus* var. *holoschoenus* it differs by its more slender, weakly tufted almost trailing stems, rather than the stout, erect, much taller, few-stemmed growth form typical of var. *holoschoenus*, and by the more numerous (up to 40, up to 8 in var. *holoschoenus*), smaller flower clusters.

*J. holoschoenus* var. *holoschoenus* is similar to the indigenous *J. prismatocarpus* and the introduced *J. fockei*. From *J. prismatocarpus* it can be distinguished by its rolled, rather than flat leaves with transverse septa only, and flowers with 6 rather than three stamens. From *J. fockei* it can be distinguished by the shorter, slightly tapered capsule which is more or less equal in length to the tepals, and much denser, more robust and fewer-flowered inflorescences.

## FLOWERING

October–December

## FLOWER COLOURS

Green, Red/Pink

## FRUITING

December–May

## LIFE CYCLE

Mucilaginous seeds are dispersed by attachment, wind and water (Thorsen et al., 2009).

## PROPAGATION TECHNIQUE

Easily grown from division of whole plants and from fresh seed.

## THREATS

Not clear. This rush has declined rapidly over the last 120 years and is now only known with certainty from relatively weed-free sub-alpine mires and frost flats. It seems plausible that it declined through competition from other similar introduced rushes or a host of other exotic wetland weeds that now dominate many wetland systems that this species once occupied. Examination of herbarium specimens suggests this rush might never have been common in New Zealand. Perhaps it was a recent trans-Tasman arrival, which was in the process of establishing itself, when other exotic weeds were introduced into the wetland systems it evidently favours. One thing is clear, *J. holoschoenus* var. *holoschoenus* is now seriously at risk of extinction in this country.

## ETYMOLOGY

**juncus**: From the Latin *jungere* 'to tie or bind', the stems of some species being used to make cord (Johnson and Smith)

## WHERE TO BUY

Not commercially available. Some plants are held by specialist growers.

## TAXONOMIC NOTES

Proćków et al. (2023) proposed a taxonomic segregation of *Juncus* into six genera based on molecular and morphological evidence. Whilst it has long been recognised that the current circumscription of *Juncus* includes morphologically divergent taxa—reflected in the recognition of numerous subgenera and sections—the consensus view of the NZPCN website taxonomy subcommittee, taking into consideration advice from Australian *Juncus* expert Dr Karen Wilson (NSW Herbarium) and others in Europe is that the generic segregations proposed need further consideration and testing. Accordingly, it has been decided to maintain the current broad circumscription of *Juncus*, but to include all new names as synonyms in factsheets. We thank, in particular, Dr Wilson for her helpful comments.

## ATTRIBUTION

Fact Sheet prepared for the NZPCN by P.J. de Lange 1 September 2006. Description by P.J. de Lange and subsequently published in de Lange et al. (2010) - see also Moore & Edgar (1970) - a description which also includes var. multiflorus.

## REFERENCES AND FURTHER READING

de Lange, P.J.; Heenan, P.B.; Norton, D.A.; Rolfe, J.R.; Sawyer, J.W.D. 2010: Threatened Plants of New Zealand. Canterbury University Press, Christchurch.

Johnson, A. T. and Smith, H. A. 1986. Plant Names Simplified: Their pronunciation, derivation and meaning. Landsman Bookshop Ltd, Buckenhill, UK.

Moore, L.B.; Edgar, E. 1970: Flora of New Zealand. Vol. II. Government Printer, Wellington.

Proćków, J., Záveská Drábková, L. 2023. A revision of the Juncaceae with delimitation of six new genera: nomenclatural changes in *Juncus*. *Phytotaxa* 622(1): 17–41.

Thorsen, M. J.; Dickinson, K. J. M.; Seddon, P. J. 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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<https://www.nzpcn.org.nz/flora/species/juncus-holoschoenus-var-holoschoenus/> (Date website was queried)

## MORE INFORMATION

<https://www.nzpcn.org.nz/flora/species/juncus-holoschoenus-var-holoschoenus/>