

Juncus edgariae

COMMON NAME

wiwi, Edgar's rush

SYNONYMS

Juncus gregiflorus L.A.S.Johnson (now an Australian endemic), *Agathryon edgariae* (L.A.S. Johnson & K.L.Wilson) Závěská Drábková & Pročková

FAMILY

Juncaceae

AUTHORITY

Juncus edgariae L.A.S.Johnson et K.L.Wilson

FLORA CATEGORY

Vascular – Native

ENDEMIC TAXON

Yes

ENDEMIC GENUS

No

ENDEMIC FAMILY

No

STRUCTURAL CLASS

Rushes & Allied Plants

NVS CODE

JUNEDG

CHROMOSOME NUMBER

2n = 40

CURRENT CONSERVATION STATUS

2017 | Not Threatened

PREVIOUS CONSERVATION STATUSES

2012 | Not Threatened

2009 | Not Threatened

2004 | Not Threatened

DISTRIBUTION

Endemic. Kermadec, North, South, Stewart and Chatham Islands.
Naturalised in Britain

HABITAT

Easily the most common indigenous species. Coastal to alpine (1600 m a.s.l.) but mainly coastal to montane. Usually in open shrubland, fringing wetlands, and in seasonally damp sites. Often found invading pasture and in urban areas.

WETLAND PLANT INDICATOR STATUS RATING

FACW: Facultative Wetland

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



Juncus edgariae. Photographer: John Smith-Dodsworth, Licence: CC BY-NC.



Close up of *Juncus edgariae*. Photographer: John Smith-Dodsworth, Licence: CC BY-NC.

DETAILED DESCRIPTION

Bright to dark green, orange-green to red-green (drying glossy yellow-green) rather variable perennial forming compact to diffuse tussocks 0.6–2.5 m tall. **Rhizome** at or just below ground, 5 mm diameter, horizontal, difficult to pull from the soil. **Flowering culms** 1–3 mm diameter, erect, rather wiry (very hard when dry), smooth, shining; striations 22–60; internal culm pith interrupted irregularly or occasionally continuous; leaves absent; basal bracts dark red-brown below, straw-coloured above, tightly sheathing the stem or the upper-most loosely sheathing. **Inflorescence** apparently lateral, variable, either many or few-flowered, open with few to many branches bearing flowers in small clusters at the tips of branchlets, or condensed to a compact, central cluster with a few pedunculate side clusters, or a single spherical compact head wider than 10 mm. **Flowers** 1.5–2.0 mm long; tepals 6, brownish green, later becoming brown, acute to acuminate or mucronate; outer tepals 1.7–2.6 mm long, with fine hyaline margins, inner tepals slightly shorter with broad hyaline margins. **Stamens** 3, shorter than tepals; anthers 0.4–0.6 mm long < or equal in length to filaments. **Capsule** 1.5–2.3 mm long, equal to or < tepals, ellipsoid, obovoid, dark golden brown, with a dark brown, obtuse, almost retuse, apiculate tip. **Seeds** 0.4–0.6 mm long.

SIMILAR TAXA

Distinguished from the other indigenous species with the flowers usually clustered at the branchlet apices, by the capsules 1.5–2.3 mm long. Moore & Edgar (1970) describe the stems of this species as bright green but in practice it is more usually dark green, orange-green or red-green, usually drying glossy yellow-green. Within the Central Volcanic Plateau of the North Island plants ascribed to this species often have extremely condensed, compact inflorescences. Of those species naturalised to New Zealand, *J. edgariae* is perhaps most similar to *J. continuus* L.A.S.Johnson, still a relatively uncommon species of mainly Northland habitats, and from which it differs by the usually interrupted (rarely continuous) bright white, dense stem pith and capsules < or more or less equal in length to the tepals. Long confused with *Juncus gregiflorus* L.A.S.Johnson which is now regarded as endemic to Australia (Johnson & Wilson 2000).

FLOWERING

October–December

FRUITING

November–April

LIFE CYCLE

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

PROPAGATION TECHNIQUE

Easy from fresh seed and by the division of whole plants. Can be invasive.

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

Occasionally available from retail plant and specialist native plant nurseries

CULTURAL USE/IMPORTANCE

Plants referred to this species from the Central Volcanic Plateau and adjacent mountain ranges of the North Island have a densely clustered inflorescence, quite distinct from lowland forms and this is retained in cultivation. They may warrant taxonomic recognition.

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 NZPCN by P.J. de Lange (1 September 2006). Description based on Moore & Edgar (1970) (as *J. gregiflorus*) supplemented by notes taken from Johnson & Wilson (2000).

REFERENCES AND FURTHER READING

Johnson, L.A.S.; Wilson, K.L. 2000: *Juncus edgariae* (Juncaceae) - a new species from New Zealand. *Telopea* 9: 399-402,

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,* Wellington, Government Printer.

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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MORE INFORMATION

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