Fimbristylis velata

COMMON NAME
fimbristylis

SYNONYMS
Fimbristylis squarrosa Vahl

FAMILY
Cyperaceae

AUTHORITY
Fimbristylis velata R.Br.

FLORA CATEGORY
Vascular – Native

ENDEMIC TAXON
No

ENDEMIC GENUS
No

ENDEMIC FAMILY
No

STRUCTURAL CLASS
Sedges

CURRENT CONSERVATION STATUS
2017 | At Risk – Naturally Uncommon | Qualifiers: EF, SO, Sp

PREVIOUS CONSERVATION STATUSES
2012 | At Risk – Naturally Uncommon | Qualifiers: EF, SO, Sp
2009 | At Risk – Naturally Uncommon | Qualifiers: SO
2004 | Sparse

Fimbristylis velata specimen. Photographer: Bec Stanley, Licence: CC BY-SA.

Lake Whangape. Mar. Photographer: John Smith-Dodsworth, Licence: CC BY-NC.

DISTRIBUTION
Indigenous. North Island from Ngawha Springs, the Bay of Islands, Pouto Peninsula and Great Barrier Island south to Lake Taupo. Most common in the Huntly Basin, particularly around Lakes Whangape, Rotongaro and Rotongaroiti. It is present near Ohinemutu and Whakarewarewa Geothermal Fields, near Rotorua and at Karapiti near Wairakei. Present in Australia and probably elsewhere.

HABITAT
A strict annual which is most often found along the shoreline or receeding shallow lakes and river margins where it grows in damp mud and organic sediments. It has also been found growing on permanently damp ground around active fumaroles within geothermal areas, and as a sporadic weed in ephemeral wetlands created by urban redevelopment within Hamilton City.

DETAILED DESCRIPTION
Annual sedge forming small pubescent, spreading tufts on freshly exposed sunny, usually damp and/or muddy ground. **Culms** 30–280 × 0.5–0.8 mm, rather flaccid and spreading, finely pubescent. **Leaves** usually < culms, brown-green to glaucous green, filiform to linear-lanceolate, channelled near base; sheaths broader, light brown to pale grey. **Inflorescence** a compound spreading umbel 10–40–80 mm long, sometimes reduced to a few near sessile spikelets; subtending bracts 3–4–(6) leaf-like,1–3 of these > umbel width. **Spikelets** 3.5–8 mm long, stalked, pale brown to glaucous brown. **Glumes** numerous, elliptic, with a prominent, rigid, dark green scabrid keel, often extending to a mucro, and usually recurved in the lowermost glume of each spikelet. **Stamens** 1–(2). **Style** bifid, the bulbous base ringed by fine retrorse cilia, sufficiently copious to cover the ovary, but not (or rarely) extending beyond the mid-point. **Nut** 0.8–1 × 0.5–0.6 mm diameter, cream-coloured, biconvex, orbicular, smooth.

SIMILAR TAXA
None though it could be confused with some annual species of *Juncus*, for example *J. bufonius* L. with which it often grows. From that species it is readily distinguished by its wide spreading, pubescent culms, umbellate inflorescences, and obvious spikelets.

FLOWERING
October–March

FRUITING
October–June

LIFE CYCLE
Nuts are possibly wind dispersed (Thorsen et al., 2009).

PROPAGATION TECHNIQUE
Easy from fresh seed. Can become quite invasive but it is cold sensitive and cannot tolerate much competition from taller plants. Does best in pots or in permanently damp ground in a warm, sheltered, sunny place.

THREATS
Long regarded as seriously at risk of extinction because the few known occurrences were on the brink of extinction this situation changed in the late 1980s following its surprise rediscovery in the Waikato lowlands, where, particularly around Lakes Whangape, Rotongaro and Rotongaroiti it can be one of the dominant species growing on the receding lake shores during summer. Ecologically this is a biologically sparse species which appears to be an opportunistic of freshly disturbed wetland habitats. For example it has even been collected as a wetland weed in parts of Hamilton City.

WHERE TO BUY
Not commercially available

TAXONOMIC NOTES AND COMMENTS
The New Zealand plant was last treated here by the New Zealand Flora series as *F. squarrosa* (Moore & Edgar 1970). However, the New Zealand plant has since been shown by Wilson (1993) to be referrable to *F. velata*.
It has been suggested that this species is naturalised in New Zealand. That suggestion partly stemmed from an imperfect understanding of this species' ecology, distribution, and its confusion with *F. squarrosa*. It is now recognised as quite widespread and its occurrences appear to be quite natural. The species was probably introduced to New Zealand by dabbling waterfowl such as grey teal and other ducks, which frequent its preferred habitats in Australia.

ATTRIBUTION
Fact sheet prepared for NZPCN by P.J. de Lange (6 August 2006). Description adapted from Moore & Edgar (1970).

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.
Wilson KL. 1993. Cyperaceae. *Flora of New South Wales 4*: 378–379.

NZPCN FACT SHEET CITATION
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MORE INFORMATION
https://www.nzpcn.org.nz/flora/species/fimbristylis-velata/