

Bolboschoenus fluviatilis

COMMON NAME

marsh clubrush, kukuraho, purua grass

SYNONYMS

Scirpus fluviatilis (Torr.) Gray; *Scirpus maritimus* var. *fluviatilis* Torr.;
Scirpus perviridis Cook

FAMILY

Cyperaceae

AUTHORITY

Bolboschoenus fluviatilis (Torr.) Soják

FLORA CATEGORY

Vascular – Native

ENDEMIC TAXON

No

ENDEMIC GENUS

No

ENDEMIC FAMILY

No

STRUCTURAL CLASS

Sedges

NVS CODE

BOLFLU

CHROMOSOME NUMBER

$2n = c.110$

CURRENT CONSERVATION STATUS

2017 | Not Threatened | Qualifiers: SO

PREVIOUS CONSERVATION STATUSES

2012 | Not Threatened

2009 | Not Threatened

2004 | Not Threatened

DISTRIBUTION

Indigenous.

HABITAT

Coastal to lowland in saltmarshes and other poorly drained saline areas, also found along some freshwater rivers and lakes. Sometimes invades pasture abutting tidal streams and estuaries.

WETLAND PLANT INDICATOR STATUS RATING

OBL: Obligate Wetland

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



Whangapoua, Coromandel. April. Photographer: John Smith-Dodsworth, Licence: CC BY-NC.



Whangapoua, Coromandel. April. Photographer: John Smith-Dodsworth, Licence: CC BY-NC.

DETAILED DESCRIPTION

Summer-green, bulbous perennial forming mostly densely clumped patches. **Rhizome** 7–9 mm diameter, woody, long-creeping, very dark brown, apices terminated by globose, ligneous tubers. **Culms** 1.5–2.5 m tall, 6–15 mm diameter, triquetrous, striated, smooth except just below inflorescence where scabrid on angles; basal sheaths loose, membranous, septate, brown to fawn, up to 150 mm long. **Leaves** numerous, \leq or $>$ culms, 500 \times 7–11 mm, double-folded but flattened, grass-like, tapering, coriaceous, margins and midrib scabrid towards apices; sheaths long, closed, coriaceous. **Inflorescence** a terminal, compound, irregular umbel; rays 6–9, unequal, 20–100 mm long, bearing clusters of 1–6 spikelets, a sessile glomerule of spikelets at the base of the rays; involucre subtending bracts similar to leaves, $>$ inflorescence, unequal, 150–250 \times 3–6 mm, as many as, or 1–2 fewer than rays. **Spikelets** 10–25 mm long, ovoid, or cylindric, dull red-brown. **Glumes** membranous, pubescent, apices cleft or lacerate, with a scabrid, recurved awn. **Hypogynous bristles** 6, more or less equal to nut in length, persistent, red-brown, retrorsely scabrid. **Stamens** 3. **Style-branches** 3. **Nut** 3.0–4.0 \times 1.5–2.0 mm, equilaterally 3-angled with acute dorsal angle, obovate, apiculate, pale cream, occasionally black and glossy.

SIMILAR TAXA

Bolboschoenus fluviatilis is the tallest of the three New Zealand species, and the one most likely to be found in freshwater systems. It differs from *B. caldwellii* (Cook.) Soják and *B. medianus* (Cook) Soják by the taller stature, conspicuously umbellate inflorescence with long, through irregular, rays, and distinctly trigonous nuts. *B. fluviatilis* has 3 rather than the 2 or 2–3 style branches typical of the other two species.

FLOWERING

October–January

FRUITING

December–May

LIFE CYCLE

Bristly nuts are dispersed by water and possibly wind (Thorsen et al., 2009).

PROPAGATION TECHNIQUE

Easily grown from fresh seed and rooted pieces. Will grow in almost any soil but prefers a sunny, damp soil. Ideal as a pond plant or for planting along tidal streams.

ETYMOLOGY

bolboschoenus: From Greek: bolbos (swelling or bulb) and schoinos (rush, reed), from the supposed difference from the genus Schoenus in having bulbous tubers

fluviatilis: From the Latin fluvius 'river', meaning growing near rivers

CULTURAL USE/IMPORTANCE

Some inland occurrences in the Hamilton Basin (Waikato) peat lakes suggest that the species was planted deliberately for food by Māori.

ATTRIBUTION

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

REFERENCES AND FURTHER READING

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.

MORE INFORMATION

<https://www.nzpcn.org.nz/flora/species/bolboschoenus-fluviatilis/>