

Bolboschoenus caldwellii

COMMON NAME

purua grass, Caldwell's clubrush

SYNONYMS

Scirpus caldwellii Cook.

FAMILY

Cyperaceae

AUTHORITY

Bolboschoenus caldwellii (Cook.) Soják

FLORA CATEGORY

Vascular – Native

ENDEMIC TAXON

No

ENDEMIC GENUS

No

ENDEMIC FAMILY

No

STRUCTURAL CLASS

Sedges

NVS CODE

BOLCAL

CURRENT CONSERVATION STATUS

2017 | Not Threatened | Qualifiers: SO

PREVIOUS CONSERVATION STATUSES

2012 | Not Threatened

2009 | Not Threatened

2004 | Not Threatened

DISTRIBUTION

Indigenous. North Island from the Kaipara Harbour south, and mainly easterly. In the South Island widespread from Nelson to Otago, mainly eastern. Also in Australia.

HABITAT

Coastal to lowland in saltmarshes and other poorly drained saline areas. 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).



Miranda, November. Photographer: John Smith-Dodsworth, Licence: CC BY-NC.



Miranda, November. Photographer: John Smith-Dodsworth, Licence: CC BY-NC.

DETAILED DESCRIPTION

Summer-green, bulbous perennial forming mostly densely clumped patches. **Rhizome** 3–5 mm diameter, horizontal, long-creeping, brown, apices terminated by globose, ligneous tubers. **Culms** 1–(3) per tuber, 0.3–1.0 m tall, 2–3 mm diameter, triquetrous; basal sheaths 1–2, mostly membranous, with a short channelled lamina. **Leaves** numerous, culms, 200–320 × 2.5–4.0 mm, double-folded but flattened, grass-like, tapering, coriaceous, margins and midrib scabrid towards apices; sheaths short, closed, coriaceous. **Inflorescence** a terminal, compact head of 3–6 spikelets; rays if present 1–3, 10–40 mm long, unequal, subtending involucre bracts similar to leaves, > inflorescence, unequal, 40–220 × 1.5–2.5 mm. **Spikelets** 10–20 mm long, ovoid or cylindrical, red-brown. **Glumes** membranous, pubescent, apices slightly cleft or lacerate, with a scabrid, slightly recurved awn. **Hypogynous bristles** 6, unequal, about half length of nut, deciduous, red-brown, retrorsely scabrid. **Stamens** 3. **Style-branches** 2. **Nut** 3.5–4.0 × 2.5 mm, biconvex or obovoid, compressed, with a small depression on each side, smooth, apiculate, maturing cream to dull brown and glossy.

SIMILAR TAXA

Differs from *Bolboschoenus fluviatilis* (Torr.) Soják and *B. medianus* (Cook) Soják by the smaller size, often glaucescent leaves, fewer sessile to very shortly stalked spikelets, consistently 2 style branches, and circular, biconvex nut with distinctly concave (depressed) sides.

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.

THREATS

Not Threatened but uncommon in northern part of range.

ETYMOLOGY

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

WHERE TO BUY

Not commercially available

ATTRIBUTION

Description adapted from Moore and 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.

MORE INFORMATION

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