

# Bolboschoenus caldwellii

## COMMON NAMES

purua grass, Caldwell's clubrush

## BIOSTATUS

Native

## CURRENT CONSERVATION STATUS

2023 | Not Threatened | Qualifiers: SO

[Jump to previous conservation statuses](#)

## CATEGORY

Vascular

## STRUCTURAL CLASS

Sedges

## 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 cylindric, 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.

## 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.

## THREATS

Not Threatened but uncommon in northern part of range.

## GENUS

*Bolboschoenus*

## FAMILY

Cyperaceae



Nuts, showing longitudinal depression on dorsal surface. Photographer: Jeremy R. Rolfe, Date taken: 29/05/2010, Licence: CC BY.



Tokatoka, Kaipara. Photographer: Jeremy R. Rolfe, Date taken: 08/03/2016, Licence: CC BY.

## AUTHORITY

*Bolboschoenus caldwellii* (Cook.) Soják

## SYNONYMS

*Scirpus caldwellii* Cook.

## ENDEMIC TAXON

No

## ENDEMIC GENUS

No

## ENDEMIC FAMILY

No

## FLOWERING

October–January

## FRUITING

December–May

## LIFE CYCLE AND DISPERSAL

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.

## WETLAND PLANT INDICATOR STATUS RATING

OBL: Obligate Wetland

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

## WHERE TO BUY

Not commercially available

## ETYMOLOGY

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

## NVS CODE

BOLCAL

## PREVIOUS CONSERVATION STATUSES

2017 | Not Threatened | Qualifiers: SO

2012 | Not Threatened

2009 | Not Threatened

2004 | Not Threatened

[Jump to current conservation status](#)

## REGIONAL CONSERVATION STATUSES

Auckland: 2025 | Regionally Threatened – Regionally Critical | Qualifiers: DPR, DPS, DPT, PF, RR, SO, Sp Help

The regional threat classification system leverages off the national assessments in the NZTCS, providing information relevant for the regional context. Auckland conservation status information is sourced from the [“Conservation status of vascular plant species in Tāmaki Makaurau / Auckland”](#) Simpkins E et al. (2025) report.

Otago: 2025 | Regionally Threatened – Regionally Endangered | Qualifiers: CI, DPS, DPT, NR, RR Help

The regional threat classification system leverages off the national assessments in the NZTCS, providing information relevant for the regional context. Otago conservation status information is sourced from the [“Conservation Status of Indigenous Vascular Plants in Otago, 2025”](#) Jarvie S et al. (2025) report.

## 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.

## ATTRIBUTION

Description adapted from Moore and Edgar (1970)

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## MORE INFORMATION

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

## PDF DATE

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