# Bolboschoenus caldwellii

## Common Name(s):

Purua grass, Caldwells clubrush

#### **Current Threat Status (2012):**

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.

#### Features\*:

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, <, equal to, or > culms, 200-320 x 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 involucral bracts similar to leaves, > inflorescence, unequal, 40-220 x 1.5-2.5 mm. Spikelets 10-20 mm long, ovoid or



**Caption:** Winter foliage. Kai-iwi Stream mouth. Apr 2011. **Photographer:** Colin Ogle



**Caption:** Exposed tubers. Kai-iwi stream mouth. Apr 2011. **Photographer:** Colin Ogle

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 x 2.5 mm, biconvex or obovoid, compressed, with a small depression on each side, smooth, apiculate, maturing cream to dull brown and glossy.

### Flowering: Fruiting:

October - January December - May

### **Threats:**

Not Threatened but uncommon in northern part of range

#### \*Attribution:

Description adapted from Moore and Edgar (1970)

### References and further reading:

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

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 2009 Vol. 11 No. 4 pp. 285-309

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