

# Austroderia richardii

## COMMON NAME

toetoe

## SYNONYMS

*Arundo richardii* Endl.; *Arundo kakao* Steud.; *Arundo australis* A.Rich.; *Gynerium zeelandicum* Steud.; *Cortaderia richardii* (Endl.) Zotov

## FAMILY

Poaceae

## AUTHORITY

*Austroderia richardii* (Endl.) N.P.Barker et H.P.Linder

## FLORA CATEGORY

Vascular – Native

## ENDEMIC TAXON

Yes

## ENDEMIC GENUS

Yes

## ENDEMIC FAMILY

No

## STRUCTURAL CLASS

Grasses

## NVS CODE

AUSRIC

## CHROMOSOME NUMBER

2n = 90

## CURRENT CONSERVATION STATUS

2017 | Not Threatened

## PREVIOUS CONSERVATION STATUSES

2012 | Not Threatened

2009 | Not Threatened

2004 | Not Threatened

## DISTRIBUTION

Endemic. Confined to the South Island. Possibly in the North Island, east of Cape Palliser. Naturalised in Tasmania.

## HABITAT

Abundant, from the coast to subalpine areas. Common along stream banks, river beds, around lake margins, and in other wet places. Also found in sand dunes, especially along the Foveaux Strait.

## WETLAND PLANT INDICATOR STATUS RATING

FAC: Facultative

Commonly occurs as either a hydrophyte or non-hydrophyte (non-wetlands).



*Cortaderia richardii*. Photographer: John Smith-Dodsworth, Licence: CC BY-NC.



Southland Plains. Photographer: Gillian M. Crowcroft, Licence: All rights reserved.

## DETAILED DESCRIPTION

Tall, gracile, slender tussock-forming grass up to 3 m tall when flowering. **Leaf-sheath** glabrous, green, covered in white wax. **Ligule** 3.5 mm. Collar brown, basally glabrous, upper surface with short, stiff hairs surmounting ribs. **Leaf-blade** 2–3 × 0.25 m, green, dark-green, often somewhat glaucous, upper side with thick weft of hairs at base, otherwise sparsely hairy up midrib with abundant, minute prickle teeth throughout; undersurface with 5 mm long hairs near leaf margins, otherwise harshly scabrid. **Culm** up to 3 m, inflorescence portion up to 1 m tall, pennant-shaped, drooping, narrowly plumose. **Spikelets** numerous, 25 mm with 3 florets per spikelet. **Glumes** equal, > or equal to florets, 1- or 3-nerved. **Lemma** 10 mm, scabrid. **Palea** 6 mm, keels ciliate. **Callus hairs** 2 mm. **Rachilla** 1 mm, glabrous. **Flowers** either perfect (anthers 4.5 mm) or female (3 mm). **Ovary** of perfect flowers 1 mm, stigma-styles 2.5 mm; ovary of female flowers 1.3 mm, stigma-style 4 mm. **Seed** 3–4 mm.

## MANAAKI WHENUA ONLINE INTERACTIVE KEY

[Key to the grasses of New Zealand](#)

## SIMILAR TAXA

Closest to [Austroderia toetoe](#) from which it is best distinguished by the green rather than ivory leaf-sheaths, and by the green rather than ivory culm internodes. Also recognisable by the very slender, gracile leaves, culms and inflorescences. The inflorescences in this species are rather beautiful and resemble fine, narrow, pennants. Around the Foveaux Strait area and at Mason Bay, Stewart Island, some populations of *A. richardii* are distinctly rhizomatous.

## FLOWERING

September–November

## FRUITING

October–March

## LIFE CYCLE

Florets are wind dispersed (Thorsen et al., 2009).

## PROPAGATION TECHNIQUE

Easily grown from fresh seed (as a revegetation exercise ripe seed heads can be pinned to soil surface, and if kept damp, soon germinate) and division of established plants.

## THREATS

Abundant and not threatened. Often naturalising in suitable habitats.

## ETYMOLOGY

**richardii**: Named after Achille Richard (1794–1852) - a French botanist who described several New Zealand plant species

## WHERE TO BUY

Commonly cultivated in the South Island, and offered by many specialist native plant nurseries. Not commonly cultivated in the North Island.

## ATTRIBUTION

Fact sheet prepared for NZPCN by P.J. de Lange 1 October 2006. Description adapted from Edgar & Connor (2000).

## REFERENCES AND FURTHER READING

Edgar E, Connor HE. 2000. Flora of New Zealand. Vol. V. Grasses. Christchurch, Manaaki Whenua Press. 650 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.

## NZPCN FACT SHEET CITATION

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## MORE INFORMATION

<https://www.nzpcn.org.nz/flora/species/austroderia-richardii/>