

Austroderia turbaria

COMMON NAME

Chatham Island toetoe

SYNONYMS

Cortaderia turbaria Connor

FAMILY

Poaceae

AUTHORITY

Austroderia turbaria (Connor) 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

AUSTUR

CHROMOSOME NUMBER

2n = 90

CURRENT CONSERVATION STATUS

2017 | Threatened – Nationally Endangered | Qualifiers: CD, IE, RF, RR

PREVIOUS CONSERVATION STATUSES

2012 | Threatened – Nationally Endangered | Qualifiers: CD, IE, RF, RR

2009 | Threatened – Nationally Endangered | Qualifiers: CD, RF, IE, RR

2004 | Threatened – Nationally Critical

DISTRIBUTION

Endemic to the Chatham Islands. Found on both Chatham and Pitt Islands.

HABITAT

A species usually found on the margins of slowly flowing streams draining peat bogs, or on lake margins. It has also been found in light wells created by tree falls within swamp forest.



Adult plant in full flower, Harold Pierce Reserve, Waitangi West, Rekohu (Chatham Island).
Photographer: Gillian M. Crowcroft, Date taken: 01/02/1996, Licence: All rights reserved.



In cultivation ex Pitt Island. Oct 2007.
Photographer: Jeremy R. Rolfe, Licence: CC BY.

DETAILED DESCRIPTION

Tall, hermaphrodite, tussock of wetlands. **Leaf-sheath** inter-nerves and margins conspicuously hairy. **Ligule** 2 mm. **Collar** underside glabrous, top side sparsely hairy. **Leaf-blade** up to 1.5 × 0.15 m, glaucous, tapering to long, thin point; under surface with long inter-rib hairs, upper surface with conspicuous, dense, weft of hairs at base otherwise glabrescent; lamina margins scabrid. **Culm** to 2 m, internodes glabrous. **Inflorescences** 400–800 mm, dense, plumose, drooping, branches and pedicels covered in copious long hairs, these longer than spikelet. **Spikelets** with 2 florets. **Glumes** equal, 25 mm or less, 1-nerved, thin; upper with 10 mm or less hairs, lower less hairy or glabrous. **Lemma** 9 mm. **Palea** 7 mm, long-hairy, apex hair-tipped, keels ciliate. **Callus** hairs 3 mm. **Rachilla** 1 mm, glabrous. **Anthers** 1.7–2.6 mm. **Gynoeceium** with ovary to 0.8 mm, stigma-styles 2.5 mm. **Seeds** ovate, rugose, 3 mm.

MANAAKI WHENUA ONLINE INTERACTIVE KEY

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

SIMILAR TAXA

Austroderia turbaria is the only species of the genus native to the Chatham islands. It is allied to *A. splendens* Connor, which is endemic to the northern North Island. From that species it can be distinguished by its long-hairy leaf-sheaths, and hermaphrodite flowers. *Austroderia fulvida* and *A. richardii* have also been planted on the Chatham Islands, again *A. turbaria* is easily distinguished from these by its hairy leaf-sheaths and hermaphrodite flowers.

FLOWERING

October–January

FRUITING

December–July

LIFE CYCLE

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

PROPAGATION TECHNIQUE

Austroderia turbaria is easily cultivated and does best in a sunny, sheltered site on permanently damp, peaty or acid soil. It is inclined to be rather short-lived (2–5 years) and will not tolerate drought. It is easily grown from fresh seed which germinates readily. Seed appears to have little viability if stored for longer than a year.

THREATS

This plant is one of the most threatened in the Chathams archipelago. As of 2005 there are ten wild populations and 344 mature plants known. These occur in often small and widely fragmented locations and so remain highly vulnerable to catastrophic events. Browsing and trampling by cattle is a major problem, and the species is also greedily devoured wherever sheep and pigs can reach it. There is some indication that fungal diseases such as Fusarium wilt may have been responsible for the recent near loss of this species from the northern part of Chatham Island. Fire, floods and competition from other vegetation are also threats. The species is also at some risk through hybridism with species of New Zealand toetoe that have been introduced to the Chatham Islands.

WHERE TO BUY

Occasionally sold by some specialist native plant nurseries.

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-turbaria/>