# **Austroderia toetoe**

# **COMMON NAME**

toetoe

# **SYNONYMS**

Cortaderia toetoe Zotov

#### **FAMILY**

Poaceae

#### **AUTHORITY**

Austroderia toetoe (Zotov) N.P.Barker et H.P.Linder

#### **FLORA CATEGORY**

Vascular - Native

# **ENDEMIC TAXON**

Yes

# **ENDEMIC GENUS**

Yes

Nο

# **ENDEMIC FAMILY**

# STRUCTURAL CLASS

Grasses

#### **NVS CODE**

**AUSTOE** 

## **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 North Island where it grows from about Carters Beach (western Waikato) south to Wellington. There are reports of it from the Waitakere Ranges that require further investigation. It has been planted and has sparingly naturalised on Waiheke Island. Not naturally occurring in the Tongariro-Taupo region on the Volcanic Plateau, but has naturalised from plantings e.g. on the Pihanga Saddle.

## **HABITAT**

Common in freshwater swamps and wet places from sea level to lower montane habitats. Often growing in association with flax/harakeke (*Phormium tenax*).

#### WETLAND PLANT INDICATOR STATUS RATING

FACW: Facultative Wetland

Usually is a hydrophyte but occasionally found in uplands (non-wetlands).





Ligule. Wainuiomata River mouth. Photographer: Jeremy R. Rolfe, Date taken: 26/12/2006, Licence: CC BY.



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

#### **DETAILED DESCRIPTION**

Stout, tussock-forming grass up to 4 m tall when in flower. **Leaf-sheath** glabrous, ivory with green midrib, copiously covered in white wax. **Ligule** 4 mm. **Collar** dark brown, upper surface clothed in short hairs. **Leaf-blade** 2(–3) m × 3 cm, straw-yellow, light-green, rarely dark-green, undersides long hairy toward margins, upper surface with a thick weft of hairs at base, otherwise minutely hairy through, and rather harsh due to numerous prickle-teeth. **Culm** up to 4 m, inflorescence portion up to 1 m tall, stiff, erect, densely plumose. **Spikelets** numerous, 25 mm with 2–3 florets per spikelet. **Glumes** equal, 25 mm, > florets. **Lemma** 10 mm, 3-nerved, scabrid. **Palea** 6.5 mm, keels ciliate. **Callus** hairs 1.5 mm. **Rachilla** 0.5 mm. **Flowers** either perfect or female. **Anthers** of perfect flowers 4.8 mm, in females 2.8 mm. **Ovary** of perfect flowers 1 mm, stigma-styles 1.8 mm; female flowers with ovary 1.3 mm, stigma-style 3.5 mm. **Seed** 2.5–3 mm.

## MANAAKI WHENUA ONLINE INTERACTIVE KEY

Key to the grasses of New Zealand

#### **SIMILAR TAXA**

Easily identified by the stout, erect, densely plumose inflorescences, and ivory leaf sheaths. Their spring or summer flowering, waxy leaf sheaths, and the dead leaves which fold longitudinally and disarticulate in their entirety separate *Austroderia* species from South American pampas grasses (*Cortaderia* species), which flower in autumn, dead leaves curl up toward the leaf base, ultimately decaying to a state resembling wood shavings. Pampas grasses can always be distinguished by their brittle leaves with a prominent midrib—fold a leaf across and it snaps or can be torn easily. *Austroderia* leaves have multiple ribs and cannot be torn across easily.

#### **FLOWERING**

November-February

#### **FRUITING**

October-March

#### LIFE CYCLE

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

## **PROPAGATION TECHNIQUE**

Easily grown from fresh seed (as a revegation 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.

# WHERE TO BUY

Uncommon in cultivation and generally too robust for urban gardens. Occasionally offered by specialist native plant nurseries.

## **ATTRIBUTION**

Fact sheet prepared for NZPCN by P.J. de Lange 1 October 2003. 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-toetoe/