

# Puccinellia chathamica

## COMMON NAME

Chatham Islands salt grass

## SYNONYMS

*Atropis chathamica* Cheeseman; *Puccinellia walkeri* subsp. *chathamica* (Cheeseman) Edgar

## FAMILY

Poaceae

## AUTHORITY

*Puccinellia chathamica* (Cheeseman) Allan et Jansen

## FLORA CATEGORY

Vascular – Native

## ENDEMIC TAXON

Yes

## ENDEMIC GENUS

No

## ENDEMIC FAMILY

No

## STRUCTURAL CLASS

Grasses

## NVS CODE

PUCCHA

## CHROMOSOME NUMBER

2n = 42

## CURRENT CONSERVATION STATUS

2017 | At Risk – Naturally Uncommon | Qualifiers: EF, RR

## PREVIOUS CONSERVATION STATUSES

2012 | At Risk – Naturally Uncommon | Qualifiers: EF, RR

2009 | At Risk – Naturally Uncommon | Qualifiers: DP

2004 | Sparse

## DISTRIBUTION

Endemic. Confined to the Auckland, Campbell and Chatham Islands. On the Chatham Islands it occurs on Chatham, Pitt, South-East and Rabbit Island.

## HABITAT

Coastal cliffs, clay faces, rocky shores and islets. Usually it is found growing within the zone of heavy salt influence very near the shore, frequently in seepages and mostly out of stock reach.



Chatham (Rekohu) Island. Photographer: Geoff Walls, Licence: CC BY-NC.



*Puccinellia walkeri* subsp. *chathamica* plant showing growth habit. Photographer: Peter J. de Lange, Licence: CC BY-NC.

## DETAILED DESCRIPTION

Erect, densely tufted, glaucous to dark green, pliant but rigidly firm grass 60–500 mm tall. Upper most leaves overtopping culms; branching intravaginal. **Leaf-sheath** light greenish brown, dark brown or purple glabrous, firmly membranous, striate. **Ligule** 0.6–3 mm, obtuse or truncate, glabrous, entire. **Leaf-base** 50–300 × 5–10 mm, folded, rarely flat, abaxially glabrous, adaxially finely ribbed, ribs finely scabrid, apex acute, smooth, rarely subobtusate and apiculate. **Culm** usually hidden by sheaths, internodes glabrous. **Panicle** usually overtopped by leaves, 20–130 × 6–20 mm, linear-lanceolate, erect, very contracted, dense; branches stiff, smooth, subacute-angled. **Spikelets** 3–9 mm, 2–5-flowered, glaucous or brown-green. **Glumes** unequal, narrow lanceolate to elliptic-oblong, subacute; lower 1.5–4.5 mm, 1–3-nerved, elliptic-oblong, usually with a few hairs at base and on nerves near base to about midway. **Lemma** usually 5-nerved (rarely 7-nerved); apex minutely ciliate-scabrid, obtuse with slightly excurrent midnerve, rarely entire. **Palea** ≤ lemma, keel scabrid in upper 1/3 rarely slightly ciliate below, reaching only to apex. **Rhacilla** 0.8–1.8 mm. **Anthers** 0.6–1.5 mm, purple. **Seed** 1.5–2.6 × 0.4–0.8 mm, brown or grey-brown.

## MANAAKI WHENUA ONLINE INTERACTIVE KEY

Key to the grasses of New Zealand

## SIMILAR TAXA

Endemic to the Chatham and Auckland Islands where it is the only *Puccinellia* Parl. present. Herbarium specimens may be distinguished from *P. walkeri* Kirk and *P. antipoda* (Petrie) Allan et Jansen by the very narrow, condensed panicle and smooth panicle branches. *P. walkeri* tends to have a rather open, spreading almost pyramidal inflorescence when mature.

## FLOWERING

September–January

## FRUITING

December–May

## PROPAGATION TECHNIQUE

Can be grown from fresh seed and rooted pieces. In humid climates such as Auckland it is difficult to maintain and does not flower.

## THREATS

Sheep, cattle and goats pose the greatest threats to those populations on the two main, and farmed islands of the Chatham Island group, Chatham and Pitt. However, this grass is secure on many of the outer offshore islands of that archipelago, including the remote Forty-fours. Some of the main Chatham Island populations are vulnerable to coastal erosion. On the Auckland Islands its exact status is unknown but recent visits suggest that it is locally common in suitable habitats.

## ETYMOLOGY

**puccinellia**: After the Italian botanist Benedetto Puccinelli (1808 - 1850).

**chathamica**: From the Chatham Islands

## WHERE TO BUY

Not commercially available

## TAXONOMIC NOTES

Edgar (1996) treated this species (and *P. antipoda*) as a subspecies of *P. walkeri*. Since then further research has elucidated that *P. chathamica* and *P. walkeri* have very different chromosome numbers and nrDNA ITS sequences. Subspecies rank therefore is rejected. On the Auckland Islands there is cytological support for the recognition of two taxa within *P. chathamica*—this needs further study. It is not clear whether Campbell Island plants are *P. chathamica* s.s. either, and this again needs further study.

## ATTRIBUTION

Description modified from Edgar and Connor (2000).

## REFERENCES AND FURTHER READING

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

## MORE INFORMATION

<https://www.nzpcn.org.nz/flora/species/puccinellia-chathamica/>