

Puccinellia walkeri

COMMON NAME

Walker's saltgrass

SYNONYMS

Atropis walkeri (Kirk) Cheeseman; *Glyceria novae-zelandiae* Petrie;
Atropis novae-zealandiae (Petrie) Hack.; *Puccinellia novae-zealandiae*
(Petrie) Allan et Jansen; *Puccinellia walkeri* (Kirk) Allan subsp. *walkeri*

FAMILY

Poaceae

AUTHORITY

Puccinellia walkeri (Kirk) Allan

FLORA CATEGORY

Vascular – Native

ENDEMIC TAXON

Yes

ENDEMIC GENUS

No

ENDEMIC FAMILY

No

STRUCTURAL CLASS

Grasses

NVS CODE

PUCWAL

CHROMOSOME NUMBER

2n = 35

CURRENT CONSERVATION STATUS

2017 | At Risk – Naturally Uncommon | Qualifiers: DP, Sp

PREVIOUS CONSERVATION STATUSES

2012 | At Risk – Naturally Uncommon | Qualifiers: DP, Sp

2009 | At Risk – Naturally Uncommon

2004 | Range Restricted

DISTRIBUTION

Endemic. New Zealand: South (Cook Strait (Brothers Islands), thence from Banks Peninsula to Riverton) and Stewart Islands.

HABITAT

On small islets and rock stacks (especially near sea bird nests) and in salt meadow, salt marsh and on saline ground in estuaries; also on sandy and stony ground at high tide level.



DETAILED DESCRIPTION

Erect, bluish green or light green to pale brownish green, stiff, dense, very leafy tufts, 95–500 mm, with uppermost leaves usually overtopping culms; branching intravaginal. **Leaf-sheaths** straw-coloured to light greenish brown or grey-brown, sometimes purplish smooth, firmly membranous, finely nerved; ligule 0.6–3.0 mm, obtuse or truncate, or sometimes tapered at centre and acute, smooth, entire; leaf-blades 50–250 mm long, folded and then 5–10 mm wide, or sometimes almost flat, undersides smooth, upper shallowly ridged and sparsely scabrous on ridges, margins scabrous, tip smooth, ± firmly acute, sometimes subobtuse and ± apiculate. **Culms** smooth, usually enclosed by sheaths. **Panicle** 30–170 × 5–110 mm, initially overtopped by leaves usually expanding well above them at maturity, linear-lanceolate, erect, contracted, dense; branches stiff, erect, acute-angled and scabrous, spreading at maturity. **Spikelets** 3–9 mm, 2–5-flowered, bluish green or sometimes purplish. **Glumes** ± unequal, narrow-lanceolate to elliptic-oblong, subacute; lower glume 1.5–4.2 mm, 1–3-nerved; upper glume 2–5 mm, 3–5-nerved. **Lemma** 3–5 mm, 5–7-nerved, elliptic-oblong, apex subobtuse to obtuse, midnerve not excurrent, apex minutely ciliate-scabrous, otherwise with a few hairs on basal nerves and at base, sometimes with hairs on nerves to c. ½ way. **Palea** < or occasionally = lemma, keels scabrous in upper ½ , reaching only to palea. **Rachilla** 0.8–1.8 mm. **Anthers** 0.6–1.5 mm. **Seed** 1.5–2.6 × 0.4–0.8 mm.

MANAAKI WHENUA ONLINE INTERACTIVE KEY

Key to the grasses of New Zealand

SIMILAR TAXA

Distinguished from *P. antipoda* (Petrie) Allan et Jansen and *P. chathamica* (Cheeseman) Allan et Jansen by the usually more robust growth habit, larger panicles with scabrous, acute-angled branches which when mature overtop the leaves, and from *P. chathamica* by the chromosome number ($2n = 35$ in *P. walkeri*, $2n = 42$ in *P. chathamica*, *P. antipoda* is as yet uncounted). Differentiating between *Puccinellia stricta* and *Puccinellia walkeri* (which sometime co-occur) can be difficult: the size of the lemma (3–5 mm in *P. walkeri*, usually less or = 3 mm in *P. stricta*) is a good guide. The panicle of *P. stricta* also tends to open out post-flowering so that obvious branches are visible rather than remaining closely and erectly branched. The palea keel in *P. stricta* is scabrid but is ciliate in *P. walkeri* (though, this difference can be small).

FLOWERING

October–December

FRUITING

November–January (seed is absent in some populations)

PROPAGATION TECHNIQUE

Easily grown from rooted pieces and fresh seed—when produced. Plants cultivated at the University of Auckland from several South Island locations proved to be pentaploid and did not produce viable seed.

THREATS

Naturally Uncommon, range-restricted, sparse endemic. Very little is known about its ecology, and at least some populations appear to be sterile. However no obvious threats are known and the species is abundant in the southern part of its range.

ETYMOLOGY

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

WHERE TO BUY

Not commercially available

NOTES

Edgar (1996) treated this species *P. chathamica* and *P. antipoda* as a subspecies of *P. walkeri*. Since that revision further research has elucidated that *P. chathamica* and *P. walkeri* have very different chromosome numbers and nrDNA ITS sequences. Although *P. antipoda* has not been available for study it would seem that subspecies rank is unjustified.

ATTRIBUTION

Description modified from Edgar (1996).

REFERENCES AND FURTHER READING

Edgar E. 1996. *Puccinellia* Parl. (Gramineae: Poeae) in New Zealand. *New Zealand Journal of Botany* 34: 17–32.

MORE INFORMATION

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