

Lachnagrostis littoralis subsp. salaria

COMMON NAME

southern coastal wind grass

SYNONYMS

None

FAMILY

Poaceae

AUTHORITY

Lachnagrostis littoralis subsp. salaria Edgar

FLORA CATEGORY

Vascular – Native

ENDEMIC TAXON

Yes

ENDEMIC GENUS

No

ENDEMIC FAMILY

No

STRUCTURAL CLASS

Grasses

CHROMOSOME NUMBER

2n = 56

CURRENT CONSERVATION STATUS

2017 | Not Threatened

PREVIOUS CONSERVATION STATUSES

2012 | Data Deficient

2009 | Not Threatened

2004 | Not Threatened

DISTRIBUTION

Endemic. Restricted to the South Island where it is known from estuaries near Christchurch south to the Foveaux Strait and Stewart Island. It also occurs inland at the Sutton Salt Lakes, near Middlemarch, Otago.

HABITAT

Mainly coastal, where it inhabits estuaries and saltmarshes. Usually on open mud flats or on shell beds in places often flooded during spring or King tides. Very rarely found inland around salt pans and lakes.



DETAILED DESCRIPTION

Densely tufted, light green to greyish green or glaucous, coarse, stiffly erect annual to short-lived perennial grass 30–400 mm tall, whole plant often withering early and culms not breaking up below panicle. **Branching** intravaginal. **Leaf-sheath** firmly membranous, glabrous. **Ligule** 1.5–3.0 mm, oblong, tapered, subobtuse or denticulate, sometimes lacerate, undersides smooth. **Leaf-blade** firm 40–150 × 0.5 mm, often involute, or flat, up to 2 mm wide, underside smooth or minutely papillose, rarely scabrid, upper surface minutely scabrid on ribs and margins, leaf tip acute to subobtuse. **Culm** 70–300 mm, included within leaf-sheaths, internodes finely scabrid below panicle, rarely visible until culm breaks up at maturity. **Panicle** 40–200 × 10–180 mm, delicate, ± contracted, later spreading (sometimes remaining contracted), enclosed at base by sheath of uppermost culm-leaf; branches and branchlets ± erect, all ± equal in length, slender, scabrid, naked for much of their length, the ultimate branchlets tipped by 1–2 spikelets. **Spikelets** 3–4 mm, light green or greenish brown, slender. **Glumes** unequal; lower slightly shorter, elliptic-lanceolate, acute 1-nerved; upper elliptic-ovate ± acuminate, 3-nerved, smooth, keel scabrid, margins hyaline, finely scabrid above. **Lemma** 2.5–3.0 mm long, elliptic-lanceolate; 5-nerved with scattered to rather dense short silky hairs, often glabrous above, lateral nerves shortly excurrent, faintly scabrid; awn 2.5–4.0 mm long, ± mid-dorsal, straight or curved, slightly twisted near base. **Palea** slightly < lemma, nerves 0.1–0.2 mm apart, keels 0.3 mm apart, minutely excurrent, faintly scabrid at apex. **Callus** hairs dense, very short, to 0.5 mm long covered one-fifth of lemma. **Rachilla prolongation** 0, or up to 0.9 mm long, with hair tuft to 1.2 mm long. **Lodicules** 0.8–0.9 mm long, linear, acute. **Anthers** 0.5–0.7 mm. **Seed** 1.3–1.6 × 0.4 mm.

MANAAKI WHENUA ONLINE INTERACTIVE KEY

Key to the grasses of New Zealand

SIMILAR TAXA

This subspecies often keys to *Lachnagrostis ammobia* in the Flora, a species which is also found within part of the range of *L. littoralis* subsp. *salaria*. In contrast, *L. ammobia* is usually found on sandy areas (rather than estuarine salt meadow), the inflorescence is open and usually lies close to the ground (rather than contracted then opening and erect) and has larger spikelets (> 4mm) and hairier lemma. Distinguished from *L. littoralis* (Hack.) Edgar subsp. *filiformis* by the curved rather than geniculate awn, and generally larger size and taller stature. *Lachnagrostis littoralis* subsp. *salaria* is allopatric from subsp. *littoralis*, being confined to the eastern South Island (from North Canterbury south) and Stewart Island. It is also a much coarser grass than subsp. *littoralis*. From *L. filiformis* it differs by the ± equal lengths of the naked primary and secondary panicle branches, and by the lemma usually 1.8–3.0 mm (cf. 1.3–2.0 mm long in *L. filiformis*) and anthers 0.4–0.7 rather than 0.2–0.5 mm long. *Lachnagrostis littoralis* subsp. *littoralis* further differs from *L. filiformis* in that it is strictly coastal and usually a much smaller, more delicate, annual grass.

FLOWERING

October–February

FRUITING

November–May

PROPAGATION TECHNIQUE

Easy from fresh seed. Prefers to grow in full sun within a damp soil.

ETYMOLOGY

lachnagrostis: From “lachne” (wool) referring to the distinctive callus hairs of this genus and “agrostis” by which Trinius (1820) actually meant “a grass” (not an Agrostis). So the generic name means “a hairy (woolly) grass” not “a hairy (woolly) Agrostis” as is often incorrectly stated (see Gardner 2014).

littoralis: From the Latin littus ‘shore’, meaning shore-loving or growing on the shore

TAXONOMIC NOTES

Lachnagrostis littoralis subsp. *salaria* warrants elevation to species rank (see Murray et al. 2003, Murray et al. 2005).

ATTRIBUTION

Fact Sheet prepared for NZPCN by P.J. de Lange 14 April June 2005. Description modified from Edgar & 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.
- Gardner RO. 2014. Notes on the wind grass *Lachnagrostis filiformis* (Poaceae). *Auckland Botanical Society Journal* 69: 168–170.
- Murray BG, Weir I, Ferguson AR, de Lange PJ. 2003. Variation in DNA C-value and genome size in New Zealand native grasses. *New Zealand Journal of Botany* 41: 63–69.
- Murray BG, de Lange PJ, Ferguson AR. 2005. Nuclear DNA Variation, Chromosome Numbers and Polyploidy in the Endemic and Indigenous Grass Flora of New Zealand. *Annals of Botany* 96: 1293–1305.
- Trinius CB. 1820. *Fundamenta Agrostographiae*. J.G.Huebner, Vienna.

NZPCN FACT SHEET CITATION

Please cite as: de Lange, P.J. (Year at time of access): *Lachnagrostis littoralis* subsp. *salaria* Fact Sheet (content continuously updated). New Zealand Plant Conservation Network.

<https://www.nzpcn.org.nz/flora/species/lachnagrostis-littoralis-subsp-salaria/> (Date website was queried)

MORE INFORMATION

<https://www.nzpcn.org.nz/flora/species/lachnagrostis-littoralis-subsp-salaria/>