

# Lachnagrostis pilosa subsp. pilosa

## COMMON NAME

Robust wind grass

## SYNONYMS

Deyeuxia pilosa Buchanan, Lachnagrostis richardii Zotov, Agrostis pilosa A.Rich.

## FAMILY

Poaceae

## AUTHORITY

Lachnagrostis pilosa (Buchanan) Edgar subsp. pilosa

## FLORA CATEGORY

Vascular – Native

## ENDEMIC TAXON

Yes

## ENDEMIC GENUS

No

## ENDEMIC FAMILY

No

## STRUCTURAL CLASS

Grasses

## NVS CODE

LACPSP

## CHROMOSOME NUMBER

2n = 56, 98

## CURRENT CONSERVATION STATUS

2012 | Not Threatened

## PREVIOUS CONSERVATION STATUSES

2009 | Not Threatened

2004 | Not Threatened

## DISTRIBUTION

Endemic. In the North Island it is mainly found in mountainous areas but it also occurs on Cuvier Island and around the South Wellington Coast

## HABITAT

Coastal to alpine (sea level to 1600 m a.s.l.). Often on rock outcrops, cliff faces, talus slopes, on boulders within braided river systems, amongst grey scrub or fringing wetlands (mostly on the Chatham Islands)



## FEATURES

Usually a robust, wide-leaved, perennial forming tufts 50-900 mm tall, rarely more gracile. Leaves usually harsh, dull green drying dark green. Inflorescences paniculate, usually rather large, firm, pale green and many flowered. Branching intravaginal. Leaf-sheath harsh textured, firm, striate, smooth or finely scabrid above, green to light brown. Ligule 1.3-6.0 mm, tapered, rounded, becoming denticulate, undersides finely scabrid. Leaf-blade 20-280 x 0.5-10 mm, usually flat, sometimes rather harsh and involute above, undersides with numerous fine, finely scabrid ribs, midrib prominent near base, upper surface finely ribbed and finely scabrid on ribs; margins finely scabrid, apex subobtusate. Culm 200-660 mm, erect, internodes usually entirely smooth, sometimes with a few prickly-teeth just below panicle, or rarely scabrid. Panicle 20-280 x 10-200 mm, at first stiff and contracted with erect branches, at maturity often more lax and ovate-elliptic; rachis smooth below, scabrid above, primary branches sparsely scabrid, filiform, very long, erect, secondary branchlets much shorter, very numerous, capillary, scaberulous, tipped by several clustered spikelets. Spikelets 3-6 mm, light green (rarely purple-green). Glumes  $\pm$  equal, smooth and membranous, rarely sparsely scabrid in upper half, acute to acuminate; lower elliptic-lanceolate, scabrid on upper 2/3 of keel, upper linear-lanceolate, scabrid on upper 1/2 of keel. Lemma 2.0-2.8 mm long,  $<$  2/3 length of glumes, elliptic-oblong, truncate, bearing long hairs in the lower 2/3, lateral nerves shortly excurrent; awn 3.0-8.5 mm long, geniculate, mid-dorsal. Palea elliptic-oblong one-half to three-fifths length of lemma, nerves scarcely evident, 0.2 mm apart, apex shallowly bifid. Callus hairs conspicuous, to 1.5 mm long, to 1/2 length of lemma. Rachilla prolongation  $<$  0.5 mm with hairs to c.1 mm, or absent. Lodicules c.0.5 mm long, lanceolate, acute. Anthers 0.6-1.8 mm long. Seed 1.3-1.8 x 0.4-0.6 mm.

## SIMILAR TAXA

Distinguished from the other New Zealand *Lachnagrostis* by the generally robust, stout growth habit and wide, grey-green, harsh textured leaves. Of those species with intravaginal branching it is immediately distinguished by wide leaves (2-10 mm wide cf. 0.5-3.0 mm wide), firm, robust panicle, and by the scattered to densely hairy lemma. Two subspecies are recognised, subsp. *pilosa* differs from subsp. *nubifera* by the longer (3.0-8.5 mm in subsp. *pilosa* cf. 0.5-3.0 mm long in subsp. *nubifera*), geniculate rather than straight awns, and by the palea, which is one-half to three-fifths the length of lemma, rather than almost equal or equal in length.

## FLOWERING

October - January

## FRUITING

December - May

## PROPAGATION TECHNIQUE

Easy from fresh seed and rooted pieces. A very robust grass that is easily grown and flowered in a variety of situations.

## 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).

## TAXONOMIC NOTES

As currently circumscribed *Lachnagrostis pilosa* subsp. *pilosa* may comprise two taxa. Two cytotypes have been recognised (Murray et al. 2005). Morphologically the cytotypes differ in their stature and the size of their floral parts, they also have different DNA amounts (as ascertained by Flow Cytometry). Those plants with  $2n = 56$  may therefore, be better treated as a different, distinct, and apparently unnamed species. Also the status of *L. pilosa* subsp. *nubifera* needs clarification, as that subspecies probably warrants species rank.

## ATTRIBUTION

Fact Sheet prepared for NZPCN by P.J. de Lange 27 June 2006. Description modified from Edgar and Connor (2000)

## REFERENCES AND FURTHER READING

- Edgar, E.; Connor, H.E. 2000: Flora of New Zealand. Vol. V. Grasses. Christchurch, Manaaki Whenua Press. 650 pp.
- Gardner, R.O. 2014: Notes on the wind grass *Lachnagrostis filiformis* (Poaceae). *Auckland Botanical Society Journal* 69: 168-170.
- Murray, B.G.; de Lange, P.J.; Ferguson, A.R. 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, C.B. 1820: *Fundamenta Agrostographiae*. J.G.Huebner, Vienna.

## NZPCN FACT SHEET CITATION

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

## MORE INFORMATION

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