

# Koeleria novozelandica

## SYNONYMS

*Koeleria novozelandica* var. *typica* Domin, *K. novozelandica* var. *parvula* Domin, *K. superba* Domin, *K. gintlilii* Domin

## FAMILY

Poaceae

## AUTHORITY

*Koeleria novozelandica* Domin

## FLORA CATEGORY

Vascular – Native

## ENDEMIC TAXON

Yes

## ENDEMIC GENUS

No

## ENDEMIC FAMILY

No

## STRUCTURAL CLASS

Grasses

## NVS CODE

KOENOV

## CHROMOSOME NUMBER

$2n = 28$

## CURRENT CONSERVATION STATUS

2017 | Not Threatened

## PREVIOUS CONSERVATION STATUSES

2012 | Not Threatened

2009 | Not Threatened

2004 | Not Threatened

## DISTRIBUTION

.Endemic. North Island, Kaimanawa Mountains only. South Island common except in Westland and Fiordland

## HABITAT

A species of subalpine scrub, alpine fell field, rock outcrops, tussock grassland and stream margins.

On wide range of rock substrates from limestone to ultramafic; (c. 100)–500–2000 m.



In rocky dry streambed, Mount Cook, Canterbury. Photographer: Marley Ford, Date taken: 10/01/2021, Licence: CC BY-NC.



Spikelet, Mount Cook, Canterbury. Photographer: Marley Ford, Date taken: 10/01/2021, Licence: CC BY-NC.

## DETAILED DESCRIPTION

Extremely variable, slender, occasionally lush, tufted or very shortly rhizomatous perennial, of low to medium stature, 4–46–(82) cm, with leaves varying from greyish green to green and from tightly inrolled to flat, with erect culms and usually spike-like panicles, sometimes greatly overtopping leaves; branching extravaginal. **Leaf-sheath** abaxially glabrous, scabrid, pubescent or villous. **Ligule** membranous, truncate, often erose and/or somewhat ciliate, (0.2)–0.3–1.3 mm. **Collar** often thickened and paler near margins, often with long hairs on upper margins. **Leaf-blade** flat, folded or involute, linear to ± filiform, 3–15–(30) cm × 1–1.5 mm diam., or up to 2–(4) mm wide, abaxially glabrous, scabrid, pubescent or villous, adaxially ribbed, scabrid to densely villous, especially on ribs; margins ± scabrid, often with long hairs below, apex acute, hooded. **Culm** to 41–(66) cm, internodes entirely glabrous or frequently minutely pubescent below panicle, often scabrid to villous above and/or below nodes, very occasionally pubescent throughout. **Panicle** (2.0)–3.0–16 × 0.5–1.2 cm, spike-like or occasionally lanceolate, sometimes interrupted, with appressed-ascending branches; branches and pedicels glabrous, scabrid or pubescent to villous; bract subtending panicle glabrous, or often tipped by long hairs, or absent. **Spikelets** (3.8)–4.5–5.8–(7) mm, 2–3–(5)-flowered, light green, often purplish to brownish. **Glumes** subequal, membranous with wide hyaline margins above, oblong-lanceolate to elliptic; lower 3.0–4.8 mm, 1–3-nerved, upper 3.2–5.2 mm, 3–4-nerved. Lemma (3.0)–3.8–4.7–(5.5) mm, 3–5-nerved, oblong, narrow obovate, or lanceolate, acute, acuminate or occasionally obtuse, entire, mucronate or shortly awned (sometimes within one panicle), apex sometimes minutely bidentate; awn apical or subapical, to 1.5–(3.2) mm. **Palea** 3.5–4.3 mm, recurved from base, keel prickly-toothed above. **Callus** hairs (0.1)–0.2–0.5–(0.7) mm. **Rachilla** 0.6–1.5–(1.9) mm, hairs 0.2–1.4 mm; prolongation c. 1 mm, hairs short (0.3 mm). **Lodicules** 0.7–1.1 mm. **Anthers** 0.8–2.5 mm. **Gynoecium**: ovary 0.5–0.8 mm; stigma-styles 1–1.4 mm. **Caryopsis** c. 2 × 0.4 mm.

## MANAAKI WHENUA ONLINE INTERACTIVE KEY

[Key to the grasses of New Zealand](#)

## LIFE CYCLE

Florets are dispersed by wind and possibly attachment (Thorsen et al., 2009).

## PROPAGATION TECHNIQUE

Easy from fresh seed and division of whole plants. Dislikes humidity and does best in a cool, airy, shaded site in well drained, damp soil. Best in an alpine house.

## ETYMOLOGY

**koeleria**: Named after George Ludwig Koeler (1765–1807), 18th century German botanist. Author of a work on the grasses of Germany and France, *Descriptio graminum in Gallia et Germania* (1802).

## WHERE TO BUY

Not commercially available

## TAXANOMIC NOTES

New Zealand *Koeleria* might be better placed in *Trisetum*. *Koeleria novozelandica* is very variable and some forms, especially that from the Awahokomo Valley probably deserve recognition as a separate species.

## ATTRIBUTION

Fact sheet prepared for NZPCN by P.J. de Lange June 2005. Description modified from Edgar and 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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<https://www.nzpcn.org.nz/flora/species/koeleria-novozelandica/> (Date website was queried)

## MORE INFORMATION

<https://www.nzpcn.org.nz/flora/species/koeleria-novozelandica/>