Koeleria novozelandica

SYNONYMS

Koeleria novozelandica var. typica Domin, K. novozelandica var. parvula Domin, K. superba Domin, K. gintlii 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

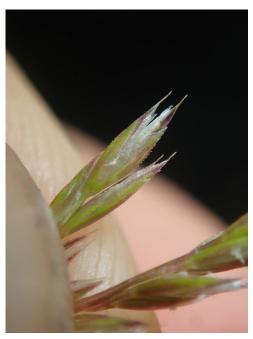
A species of subalpine scrub, alpine fell field, rock outcrops, tussock grassland and stream margins.

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 prickle-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

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