

Achnatherum petriei

SYNONYMS

Stipa petriei Buchanan

FAMILY

Poaceae

AUTHORITY

Achnatherum petriei (Buchanan) S.W.L.Jacobs et J.Everett

FLORA CATEGORY

Vascular – Native

ENDEMIC TAXON

Yes

ENDEMIC GENUS

No

ENDEMIC FAMILY

No

STRUCTURAL CLASS

Grasses

NVS CODE

ACHPET

CHROMOSOME NUMBER

2n = 42

CURRENT CONSERVATION STATUS

2017 | At Risk – Declining | Qualifiers: DP, EF, Sp

PREVIOUS CONSERVATION STATUSES

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

2009 | At Risk – Naturally Uncommon | Qualifiers: CD

2004 | Range Restricted

DISTRIBUTION

Endemic. New Zealand: South Island (South Canterbury to Central Otago).

HABITAT

Montane to subalpine (up to 1000 m a.s.l.). On dry stony ground and on rock outcrops (especially limestone and schist).

DETAILED DESCRIPTION

Erect, wiry, yellow-green to brownish-grey perennial frequently branching at nodes. **Branching** extravaginal; cataphylls short. **Leaf-sheath** to 30 mm, usually glabrous, sometimes retrorsely pubescent. **Ligule** to 0.5 mm, auriculate, auricular lobes to 1 mm long, symmetrical or asymmetrical, usually finely pubescent. **Collar** thickened, occasionally with a very small tuft of hairs. **Leaf-blade** to 300 × 0.8 mm, narrow, involute, rigid, acicular, undersides glabrous, upper surface bearing short, stiff, white hairs. **Culm** to 600 mm long, wiry, internodes smooth, nodes purple, glabrescent. **Panicle** to 250 mm long, narrow; rachis smooth below, scabrid above, branches and pedicels scabrid. **Glumes** ± equal, to 7 mm long, hyaline, glossy, pink-suffused, produced into an awn-like process up to 0.5 mm long, or split at apex, < awn column; lower 1-nerved, upper 3-nerved. **Lemma** to 5.0 mm long, cylindrical, 3–5-nerved, margins contiguous, fulvous, clothed in white, ± appressed hairs; coma to 0.5 mm long, lobes short and inconspicuous; awn to 40 mm long, ± straight or weakly 1-geniculate, short and stiffly hairy, column loose twisted to 10 mm in length, arista to 30 mm long. **Palea** = lemma, clothed in long white hairs, apex ciliate, 2-nerved. **Callus** short (to 0.3 mm long), oblique, hairs white, to 1 mm long. **Lodicules** 3, one usually emarginate, or entire, 1-nerved, to 1 mm. **Anthers** to 2.7 mm long, weakly penicillate and shortly caudate. **Seed** 2.5–3.5 mm; hilum linear.



Awahokomo Bluffs, St Mary, Waitaki.
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Limestone. Photographer: Melissa Hutchison,
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MANAAKI WHENUA ONLINE INTERACTIVE KEY

Key to the grasses of New Zealand

SIMILAR TAXA

One of the five stipoid grass genera known in New Zealand. From the other four genera it is distinguished by the margins of the 3-nerved lemma contiguous, by the persistent awn, and long hairs on the palea. From *Achnatherum caudatum* (Trin.) S.W.L.Jacobs et J.Everett it is distinguished by the extravaginal rather than intravaginal branching; by the upper surface of the leaf-blade clothed in hairs rather than finely prickly-toothed; by the glume nerves being obscure rather than conspicuous; by the completely hairy lemma (in *A. caudatum* the hairs are confined to the lemma keel and outer margin); by the minute, obscure rather than conspicuous coma; prominent long awn (40 cf. 20 mm long), and free flowering rather than mostly cleistogamous flowering habit.

FLOWERING

November–February

FRUITING

January–May

LIFE CYCLE

Floret dispersed by wind (Thorsen *et al.*, 2009).

PROPAGATION TECHNIQUE

Easy from fresh seed and the division of whole plants. Requires full sun, and excellent drainage, on a fertile soil to grow well. Will not tolerate humidity or damp conditions.

THREATS

Rather widespread but localised in its occurrences. Probably better qualifies as Sparse because this is a naturally biologically sparse species. However, its survival now also depends on effective weed control. In some parts of its range it might be at risk from the spread of wild thyme (*Thymus vulgaris* L.) and stonecrop (*Sedum acre* L.).

ETYMOLOGY

petriei: Named after Donald Petrie (1846 -1925), Scottish born Otago botanist

WHERE TO BUY

Not commercially available

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. <https://doi.org/10.1016/j.ppees.2009.06.001>.

MORE INFORMATION

<https://www.nzpcn.org.nz/flora/species/achnatherum-petriei/>