

Simplicia buchananii

COMMON NAMES

simplicia

SYNONYMS

Poa uniflora Buchanan, *Simplicia laxa* var. *buchananii* Zotov

FAMILY

Poaceae

AUTHORITY

Simplicia buchananii (Zotov) Zotov

FLORA CATEGORY

Vascular – Native

ENDEMIC TAXON

Yes

ENDEMIC GENUS

Yes

ENDEMIC FAMILY

No

STRUCTURAL CLASS

Grasses

NVS CODE

SIMBUC

CHROMOSOME NUMBER

$2n = 28$

CURRENT CONSERVATION STATUS

2017 | Threatened – Nationally Critical | Qualifiers: DP, RR, Sp

PREVIOUS CONSERVATION STATUSES

2012 | Threatened – Nationally Critical | Qualifiers: DP, RR, Sp

2009 | Threatened – Nationally Critical | Qualifiers: DP, RR, Sp

2004 | Range Restricted

DISTRIBUTION

Endemic to New Zealand. Known from three sites in the southern North Island near Taihape, and from North West Nelson, in the South Island.

HABITAT

Exact preferences unclear, though a preference for base-rich substrates and semi-shaded situations in forest or near rock overhangs is evident. In the South Island it has usually been collected on or near limestone or marble outcrops in lowland to montane forest. The recently (2005) discovered North Island site differs somewhat in that plants grow in and around the bases of titoki (*Alectryon excelsus* Gaertn. subsp. *excelsus*) trees on river terraces. However, even here the underlying substrate is calcareous mudstones and siltstones



Close up - ex. Honeycomb Cave. Photographer: Peter J. de Lange, Licence: CC BY-NC.



North-west Nelson. Photographer: Jeremy R. Rolfe, Date taken: 17/03/2016, Licence: CC BY.

DETAILED DESCRIPTION

Weakly erect to scrambling or loosely tufted, slender grass forming patches up to 1 m across and 0.5 m tall. **Leaf-sheath** membranous, strongly ribbed, mostly scabrid on ribs; basal sheaths dark brown, pubescent, upper sheaths glabrous or pubescent. **Ligule** 2–4 mm, erose, undersides glabrous. **Leaf-blade** 100–200 × 1.5–4.0 mm, smooth or finely scabrid on ribs; margins finely scabrid, apex acuminate. **Culm** internodes glabrescent or finely pubescent. **Panicle** 40–180 mm long, ± linear; rachis glabrous, branches short or long, mostly erect, basal 1 or 2 sometimes reflexed, sometimes basal branches widely spreading; glabrous, bearing spikelets almost to base, pedicels short, glabrous, ± appressed to branchlets. **Spikelets** 2.8–3.0 mm, 1–(2)-flowered, lanceolate, light green. **Glumes** glabrous, ovate-lanceolate to ovate, acute to subacute, margins ciliate; lower 0.7–1.0 mm, upper 1.0–1.5 mm. **Lemma** mostly equivalent in length to spikelet, scabrid or shortly pubescent, 3-nerved or with 2 additional fainter lateral nerves, ovate-lanceolate, acute to mucronate, or with a subapical awnlet. **Palea** 2.3–2.7 mm, 1–2-nerved, scabrid. **Rachilla prolongation** 0.5 mm long, glabrous. **Anthers** 0.7–1.3 mm long, purplish or yellow. **Seed** 1.5 mm long.

MANAAKI WHENUA ONLINE INTERACTIVE KEY

Key to the grasses of New Zealand

SIMILAR TAXA

Simplicia laxa and *S. felix* mainly differ by their more or less pyramidal rather than mostly linear inflorescence of *S. buchananii*. *Simplicia laxa* and *S. felix* have spreading to reflexed rather than contracted inflorescence branches. The lemma of *S. buchananii* is scabrid, in *S. laxa* it is shortly pubescent and in *S. felix* it is minutely scabrid.

FLOWERING

(September)–November–(February)

FLOWER COLOURS

Green

FRUITING

(October)–January– (May)

PROPAGATION TECHNIQUE

Very easy from fresh seed and rooted pieces. Can be grown from node cuttings. Does best in pots. Unlike *S. laxa*, this species flowers easily in cultivation, setting abundant seed, which in turn germinates easily. However, it is very short-lived, and plants need to be divided and repotted frequently to maintain them.

THREATS

A local endemic which can apparently be locally common but most sites are very small. However, only one South Island population is currently known and the status of other populations in NW Nelson needs examination.

ETYMOLOGY

buchananii: Named after John Buchanan (13 October 1819–1898) who was a New Zealand botanist and scientific artist and fellow of the Linnean Society.

TAXONOMIC NOTES

nrDNA ITS sequences show that both *S. buchananii* and *S. laxa* have hybrid origins.

ATTRIBUTION

Fact Sheet prepared for NZPCN by P.J. de Lange (27 October 2009). Description adapted from Zotov 1971.

REFERENCES AND FURTHER READING

de Lange PJ, Smitsen RD, Rolfe JR, Ogle CC. 2016. Systematics of *Simplicia* Kirk (Poaceae, Agrostidinae) – an endemic, threatened New Zealand grass genus. *PhytoKeys* 75: 119–144.
Zotov, V. D. 1971. *Simplicia* T. Kirk (Gramineae). *New Zealand Journal of Botany* 9: 539–544.

NZPCN FACT SHEET CITATION

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MORE INFORMATION

<https://www.nzpcn.org.nz/flora/species/simplicia-buchananii/>

PDF DATE

17 September 2024