

Simplicia buchananii

COMMON NAME

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

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

PREVIOUS CONSERVATION STATUSES

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. Plants from the North Island are somewhat intermediate between *S. buchananii* and *S. laxa* and require further study.

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 de Lange



North-west Nelson.

FEATURES

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 100.0-200.0 x 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 (in north-west Nelson, often sparingly branched or pyramidal in North Island); 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.

SIMILAR TAXA

Simplicia laxa mainly differs by its more or less pyramidal rather than mostly linear inflorescence, spreading to reflexed rather than contracted inflorescence branches, and by the lemma which is shortly pubescent rather than scabrid. These distinguishing characters separate north-west Nelson populations of *S. buchananii* from other South Island populations of *S. laxa* but North Island found near Taihape are clearly intermediate. These plants may have scabrid or pubescent lemma, and may have linear, pyramidal, or intermediate inflorescences. Further research on whether *S. buchananii* is truly distinct from *S. laxa* is now underway.

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.

COMMENTS ON TAXONOMY

nrDNA ITS sequences show that both *S. buchananii* and *S. laxa* have hybrid origins. Recently discovered plants in the southern North Island have variously branched, contracted and sub-pyramidal panicles, thus further diminishing the distinctions between either species.

ATTRIBUTION

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

REFERENCES AND FURTHER READING

Zotov, V. D. 1971. *Simplicia* T. Kirk (Gramineae). *New Zealand Journal of Botany* 9: 539-544.

CITATION

Please cite as: de Lange, P.J. (Year at time of access): *Simplicia buchananii* Fact Sheet (content continuously updated). New Zealand Plant Conservation Network. <https://www.nzpcn.org.nz/flora/species/simplicia-buchananii/> (Date website was queried)

MORE INFORMATION

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