

Anthosachne solandri

COMMON NAME

native wheatgrass, blue wheatgrass

SYNONYMS

Triticum solandri Steud., *T. squarrosus* Hook.f., *T. youngii* Hook.f.,
Agropyron youngii (Hook.f.) P. Candargy; *Elymus solandri* (Steud.) Connor

FAMILY

Poaceae

AUTHORITY

Anthosachne solandri (Steud.) Barkworth et S.W.L.Jacobs

FLORA CATEGORY

Vascular – Native

ENDEMIC TAXON

Yes

ENDEMIC GENUS

No

ENDEMIC FAMILY

No

STRUCTURAL CLASS

Grasses

NVS CODE

ANTSOL

CHROMOSOME NUMBER

2n = 42

CURRENT CONSERVATION STATUS

2017 | Not Threatened | Qualifiers: DP

PREVIOUS CONSERVATION STATUSES

2012 | Not Threatened

2009 | Not Threatened

2004 | Not Threatened

DISTRIBUTION

Endemic to New Zealand. North and South Islands. Uncommon north of the Waikato.

HABITAT

Coastal to alpine (1 to 1500 m), often on rocky ground such as talus slopes, cliff faces and scree, but also a component of tussock grassland.

DETAILED DESCRIPTION

Glaucous to green grass forming loose to open, somewhat floppy tufts. **Leaf-sheath** 50 mm, keeled, pubescent, hairy or glabrous. **Ligule** 0.5 mm, truncate. **Leaf-blade** 210 × 2–4 mm, glaucous or green, flat, folded or inrolling, under side ribbed, upper surface short hairy or with prickle-teeth on ribs, margin involute, glabrous or faintly toothed. **Culm** 0.4–1 m, spreading, erect, suberect or drooping. **Inflorescence** 80–200 mm, of 3–15 spikelets. **Spikelets** 25–80 mm, of 4–10 florets. **Glumes** unequal, keeled, sometimes produced to a point or awned, lower 3–11 mm, 3-nerved, upper 5–12 mm, 3–5-nerved. **Lemma** with central nerve prominent, this extending into a recurved awn 35–75 mm long. **Palea** 9–12 mm, apex pointed, bifid. **Rachilla** 1.5–3 mm, covered with short, stiff, hairs. **Callus** 0.75 mm, hairs just reaching lemma. **Anthers** 3–5 mm.



Elymus solandri. Photographer: Alan Stewart, Licence: CC BY-NC.



Seatoun, Wellington. Mar 2011. Photographer: Jeremy R. Rolfe, Licence: CC BY.

MANAAKI WHENUA ONLINE INTERACTIVE KEY

Key to the grasses of New Zealand

SIMILAR TAXA

Anthosachne solandri has long been confused with the introduced Australian wheatgrass *A. scabra* (long known in New Zealand as *Elymus rectisetus* and then, more recently as *E. scaber*), from which it differs by the usually glaucous leaf-blades whose undersides are glabrous (though green in shaded plants, strongly recurved awn (though on some spikes the awn may be only slightly curved), and by the palea apex being pointed and bifid. Recognition in the field is complicated by the wide range of leaf and flower stalk sizes. When in flower/fruit, the spikes are held close to the main stem and the awns are often distinctly curved. A form of *A. solandri* with long drooping culms found in dryland eastern South Island is sometimes confused with *Connorochloa tenuis*. However, the finer culms of *Connorochloa* lie flat along the ground and are easily detached (the detached culm is the easiest way of identifying *C. tenuis*). In contrast the culm of *Anthosachne solandri* is difficult to detach from the plant. The transfer of *Elymus solandri* to *Anthosachne* was undertaken by Barksworth & Jacobs (2011).

FLOWERING

September–February

FRUITING

October–May

LIFE CYCLE

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

PROPAGATION TECHNIQUE

Very easy from fresh seed or rooted pieces; often self sows into gardens but not invasive, and short-lived in humid or wet climates. Does best in full sun, in a dry or airy place. Excellent on rock walls where the foliage can hang.

ETYMOLOGY

solandri: Named after Daniel Carlsson Solander (19 February 1733 - 13 May 1782) who was a Swedish naturalist and an apostle of Carl Linnaeus.

WHERE TO BUY

Commonly sold by most retail plant nurseries, often under the name *Elymus* cv. Blue

NOTES

Anthosachne solandri is very variable with respect to the leaf colouration, which ranges from dark blue-grey through to light green, and there have been some attempts to split this species into discrete entities. One form with inrolled, channelled leaves, known by the tag name *Elymus* 'Channel', occurs locally in Marlborough and Otago. Though often sympatric with *A. solandri*, it is not stable, and in cultivation soon reverts to the typical form. Another short-culmed, few-flowered form is found on alpine screes.

ATTRIBUTION

Fact sheet prepared for NZPCN by P.J. de Lange (June 2005). Features description adapted from Edgar & Connor (2000).

REFERENCES AND FURTHER READING

Barksworth ME, Jacobs SWL. 2011: The Triticeae (Gramineae) in Australasia. *Telopea* 13: 37–56.
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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MORE INFORMATION

<https://www.nzpcn.org.nz/flora/species/anthosachne-solandri/>