

Veronica odora

COMMON NAME

hebe

SYNONYMS

Hebe odora (Hook.f.) Cockayne, *Leonohebe odora* (Hook.f.) Heads, *Veronica buxifolia* Benth., *Hebe buxifolia* (Benth.) Cockayne et Allan, *Veronica buxifolia* var. *patens* Cheeseman, *Veronica anomala* J.F.Armstr., *Hebe anomala* (J.F.Armstr.) Cockayne, *Veronica haustrata* J.B.Armstr., *Veronica buxifolia* var. *odora* (Hook.f.) Kirk, *Veronica elliptica* var. *odora* (Hook.f.) Cheeseman, *Hebe buxifolia* var. *odora* (Hook.f.) Andersen, *Hebe buxifolia* (Benth.) Andersen var. *buxifolia*

FAMILY

Plantaginaceae

AUTHORITY

Veronica odora Hook.f.

FLORA CATEGORY

Vascular – Native

ENDEMIC TAXON

Yes

ENDEMIC GENUS

No

ENDEMIC FAMILY

No

STRUCTURAL CLASS

Trees & Shrubs - Dicotyledons

NVS CODE

HEBODO

CHROMOSOME NUMBER

2n = 42, 84

CURRENT CONSERVATION STATUS

2012 | Not Threatened

PREVIOUS CONSERVATION STATUSES

2009 | Not Threatened

2004 | Not Threatened

BRIEF DESCRIPTION

Rounded shrub bearing pairs of small oval leaves with a low ridge on the underside inhabiting mountains south from central North Island and Auckland Islands. Leaves 4.5-11.5mm long by 2.3-5.4mm wide, with abrupt shoulder at base. Leaf bud with small gap at base. Several flower spikes at tip of twigs.

DISTRIBUTION

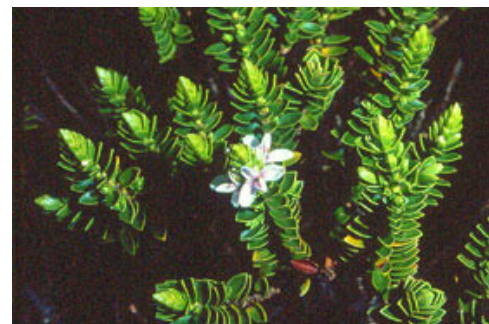
Widespread, south from the Huiarau Range, Lake Waikaremoana, on mountains of North Island, South Island, Stewart Island and the Auckland Islands. (see notes below)

HABITAT

It grows in montane to penalpine grassland, shrubland, bogs and flushes.



In cultivation. Prostrate form. Photographer: Jeremy Rolfe



Mt Taranaki, January. Photographer: John Smith-Dodsworth

FEATURES

Spreading low or bushy shrub (varies from a rounded bush to very lax and open) to 0.9 (-1.7) m tall. Branches spreading or decumbent or ascending or erect, old stems brown or red-brown or grey or black (at least when dry); branchlets green, puberulent or pubescent, hairs bifarious; internodes (0.9-) 1.3-4.5 mm; leaf decurrencies evident and usually swollen; leaves abscising above nodes and lower part of petioles remaining attached to stem. Leaf bud distinct; sinus broad and shield-shaped. Leaves erect to patent; lamina ovate or lanceolate to elliptic or obovate or sometimes almost circular, rigid and coriaceous, concave, (3.6-) 4.5-11.5 x 2.3-5.4 mm; apex subacute; base truncate; midrib thickened below; margin glabrous, usually entire or sometimes minutely crenulate; upper surface dark green, glossy, without evident stomata (usually) or with many stomata (on many plants from Arthur's Pass area), glabrous; lower surface green (paler than upper); petiole 0.5-1.5 (-2.2) mm, glabrous. Inflorescences mostly terminal and lateral but sometimes only terminal, unbranched, (0.6-) 1-2.8 cm; peduncle 0.13-0.36 cm, bifariously hairy or glabrous; rachis 0.5-1.7cm, hairy (usually bifariously). Bracts opposite and decussate, free, ovate, subacute. Flowers hermaphrodite (although E. M. Low (pers. comm. 2005) suggests that some populations include female plants). Pedicels absent. Calyx 3.5-5 mm; lobes elliptic, subacute to obtuse. Corolla tube hairy inside, approximately 3-3.5 x approximately 1.5 mm, narrowly cylindrical, approximately equalling or longer than calyx; lobes white at anthesis, narrowly to broadly elliptic, obtuse, patent to recurved, equalling or longer than corolla tube, sometimes sparsely hairy inside. Stamen filaments 2-3.2 mm; anthers pink, 1.9-2.4 mm. Ovary ovoid or globose, 0.7-1.2 mm; ovules approximately 8-13 per locule; style approximately 5.5-7 mm. Capsules subacute or obtuse, 3.9-4.5 x approximately 3.4-3.6 mm, loculicidal split extending $\frac{1}{4}$ - $\frac{1}{2}$ -way to base. Seeds flattened, ellipsoid (sometimes broadly), not winged to only weakly winged, straw-yellow to pale brown, 1.2-1.8 x 0.9-1.3 mm, micropylar rim 0.3-0.6 mm.

SIMILAR TAXA

Distinguished from similar species of "Buxifoliatae" (see Bayly & Kellow 2006) by the combination of: bracts not extending beyond tips of calyces; inflorescences that consist of a terminal spike, beneath which there are usually also lateral spikes in the axils of the uppermost leaf pairs; no stomata on the upper leaf surface, except in many specimens from the Arthurs Pass area; leaves that are sharply keeled beneath (along the midrib) throughout their length; leaf buds that are usually not closely surrounded by several imbricate leaf pairs (particularly when compared with *V. masoniae* and *V. pauciramosa*); free anterior calyx lobes; and corolla lobes that are comparatively narrow relative to their length (particularly when compared with *V. masoniae* and *V. mooreae*). Leaves are variable in shape and size. *V. odora* is sometimes confused with *V. venustula* and *H. brachysiphon* with which it may co-occur in subalpine shrubland on North Island and South Island, respectively. It is readily distinguished from both these species by: its shield-shaped leaf bud sinus; terminal clusters of inflorescences; and flowers and fruits that are sessile and subtended by coriaceous and comparatively larger bracts.

FLOWERING

(November-) December-January (-March)

FLOWER COLOURS

White

FRUITING

December-April (-November)

LIFE CYCLE

Seeds are wind dispersed (Thorsen et al., 2009).

ETYMOLOGY

veronica: Named after Saint Veronica, who gave Jesus her veil to wipe his brow as he carried the cross through Jerusalem, perhaps because the common name of this plant is 'speedwell'. The name Veronica is often believed to derive from the Latin *vera* 'truth' and *iconica* 'image', but it is actually derived from the Macedonian name Berenice which means 'bearer of victory'.

odora: Latin. (*odorus* = having a smell, usually sweet-smelling), presumably refers to the flowers, which Hooker (1844), when naming the species, described as having a "delicious fragrance" (this feature is apparently not, however, always found in the species).

TAXONOMIC NOTES

Its distribution may extend, in the north, to the Raukumara Ra. (as implied by Druce 1980; Eagle 1982), but there are no specimens from this area at WELT, CHR or AK.

Some botanists regard *Hebe anomala* (J.F.Armstr.) Cockayne / *Veronica anomala* J.F.Armstr. as a species distinct from *Veronica odora*.

Two chromosome races in *V. odora* were treated by Druce (1980, 1993) and Eagle (1982) as distinct species. Diploid plants, assumed to be typical *V. odora*, are recorded from North Island, northern South Island and the Auckland Islands, while tetraploids are recorded at a range of South Island localities (from Island Pass, Nelson, southwards) and on Stewart Island (Dawson & Beuzenberg 2000). Although there is possibly a correlation between ploidy and flavonoid profile (Markham *et al.* 2005), no consistent morphological differences between the two chromosome races have been identified.

ATTRIBUTION

Description adapted by M. Ward from Bayly & Kellow (2006).

REFERENCES AND FURTHER READING

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- Dawson, M. I. and Beuzenberg, E. J. 2000. Contributions to a chromosome atlas of the New Zealand Flora - 36. Miscellaneous families. *New Zealand Journal of Botany*38: 1-23.
- Druce, A. P. 1980. Trees, shrubs, and Lianes of New Zealand (including wild hybrids). Unpublished checklist held at Landcare Research, Lincoln, New Zealand. (Copy also held in the library of the Museum of New Zealand Te Papa Tongarewa, Wellington.)
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- Hooker, J. D. 1844. The Botany of the Antarctic Voyage of H. M. Ships Erebus and Terror, in the Years 1839-1843. *Flora Antarctica*. Part I. Botany of Lord Auckland's Group and Campbell's Island. London: Reeve Brothers. (Part 1 comprises pages up to p. 208 in combined volumes. Although publication of this part was not complete until May 1845, the sections covering *Veronica* species were published by October 1844.)
- Markham, K.R., Mitchell, K. A., Bayly, M. J., Kellow, A. V., Brownsey, P. J. and Garnock-Jones, P. J. 2005. Composition and taxonomic distribution of leaf flavonoids in *Hebe* and *Leonohebe* (Plantaginaceae) in New Zealand - I. "Buxifoliatae", "Flagriformes" and *Leonohebe*. *New Zealand Journal of Botany* 43: 165-203.
- Thorsen, M. J.; Dickinson, K. J. M.; Seddon, P. J. 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

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