

# Veronica perbella

## COMMON NAME

Bartlett's koromiko

## SYNONYMS

Hebe perbella de Lange

## FAMILY

Plantaginaceae

## AUTHORITY

Veronica perbella (de Lange) Garn.-Jones

## FLORA CATEGORY

Vascular – Native

## ENDEMIC TAXON

Yes

## ENDEMIC GENUS

No

## ENDEMIC FAMILY

No

## STRUCTURAL CLASS

Trees & Shrubs - Dicotyledons

## CHROMOSOME NUMBER

2n = 40

## CURRENT CONSERVATION STATUS

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

## PREVIOUS CONSERVATION STATUSES

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

2004 | Threatened – Nationally Vulnerable

## BRIEF DESCRIPTION

Bushy shrub bearing pairs of narrow leaves and spikes of pinkish flowers on reddish stems inhabiting upland western Northland. Leaves dark green, to 110mm long by 25mm wide, tapering to a rounded tip. Leaf bud without a gap at base. Flower spikes to 15cm long.

## DISTRIBUTION

Endemic. North Island. Known only from the west coast of Northland from Kaitaia to the Waima Forest

## HABITAT

Montane cloud forest where it grows on rock outcrops and cliff faces, also at the base of scrub fringing steep sided streams and gorges, and in one site growing from dense *Astelia* colonies on an exposed rock outcrop.



Mt Hauturu, Waima (November). Photographer: John Smith-Dodsworth



Mt Hauturu, Waima (November). Photographer: John Smith-Dodsworth

## FEATURES

Erect shrub, up to 1 m tall in exposed sites, occasionally reaching 1.8 m in dense vegetation. Mature branchlets purple-grey, fading to grey on 2–3-year-old wood; branchlets fleshy, green, greenish-purple, sometimes spotted red, drying purple-black, flattened and ridged, minutely puberulent, hairs bifarious; leaf decurrencies prominent as a narrow medial ridge, this often tinged pink or red; internodes 2–10× diameter. Leaf bud strongly flattened, olive-green, midrib and lamina margin pink; sinus absent. Leaves (63–)87–110(–220) × (9–)10–14(–23) mm, patent to erecto patent, lamina lanceolate or oblanceolate, firmly fleshy, adaxial surface dark green, midrib orange green or pale green above, usually pink below, minutely eglandular/glandular hairy, adaxial lamina surface glossy, ± glabrous, except for sparse minute eglandular hairs at leaf base, abaxial surface dull pale green, apex cream, obtuse to subacute, base attenuate; margin entire, glabrous, often tinged pink. Inflorescences with 15–80 flowers, lateral, racemose, simple, occasionally double branched from basal bracts, rarely ternate, 60–100(–150) mm long, flowers usually crowded on rachis, sometimes widely spaced, spiraled. Peduncle and rachis with minute spreading eglandular hairs, usually reddish brown, fading to pinkish green at fruit maturation, sometimes yellow-green, peduncle 40–100 mm long. Basal bracts foliose, olive-green, usually falcate, lanceolate 7–19 mm long, upper bracts 3–4 mm long, violet-maroon, linear, acute, margins involute, minutely puberulent. Pedicels spreading 2–5 mm long, reddish brown, rarely pink. Flowers protandrous, hermaphrodite, faintly sweet-scented, usually single but occasionally peloric near raceme apex. Calyx 4–5-lobed, 2.6–3.3 mm long, violet fading to lilac, narrowly lanceolate to lanceolate, acuminate, overlapping at edges, outer surface with scattered minute sessile glands; margin ± alternating glandular-eglandular ciliolate. Corolla violet-red, violet, occasionally pink or dark carmine, maturing mauve, usually fading to off white following anthesis, tube 1.8–2.2 × 1.8–2.8 mm, narrow, usually included within calyx lobes, inner surface ± glabrous, lobes (4.8–)5.0–6.5 × (2.0–)2.5–3.0 mm, erect to suberect, becoming reflexed following anthesis, narrowly lanceolate, lanceolate to narrowly ovate, subauriculate and minutely ciliolate at base, acute. Stamen filaments 7–10 mm long, pink or violet-red fading to white with age, curving outwards after dehiscence, base minutely puberulent; anthers 2.0–2.8 mm long, blue to purple, acute, pollen cream. Nectarial disc glabrous, fleshy, dark green. Style 8–10 mm long, violet-red, glabrous, stigma capitate, pink. Ovary 1.0 × 0.6 mm, pale pink, cylindrical, sparsely to distinctly puberulent especially in lower third and along septal grooves; hairs eglandular. Peloric flowers scarce, confined to distal portion of racemes; in structure similar to single flowers but fused for length of calyx and corolla tube, otherwise with 8 corolla lobes, 2 stamens, 2 fused pistils, and 2 fused ovaries. Capsule latiseptate, 7–8 × 5–6 mm, amber to amber-brown, rhombic to ovate, sharply acute, sparsely to distinctly hairy, septicidal to base, loculicidal for 1/3–1/2 length. Seeds 1.8 × 2.0 mm, amber, ovate, slightly papillate with a narrow marginal wing.

## SIMILAR TAXA

*Veronica saxicola* is a closely related species (see de Lange & Rolfe 2008). From *V. perbella*, *V. saxicola* is distinguished by its ecology, smaller stature, shorter and wider leaves with dull rather than glossy upper leaf surfaces, less colourful flowers that open pale lavender or lilac soon fading to white, shorter corolla tube, broader lanceolate to ovate, subacute corolla lobes, mostly glabrous ovaries, and glabrous capsules. *Veronica saxicola* also has a different flavonoid chemistry to *V. perbella*. *Veronica perbella* is superficially similar to *V. adamsii* from which it differs by its diploid ( $2n = 40$ ) rather than tetraploid ( $2n = 80$ ) chromosome number, absence of a leaf-bud sinus, and sparsely pubescent ovaries.

## FLOWERING

March to December (often with two distinct peaks in April and October)

## FLOWER COLOURS

Lavender, White

## FRUITING

April to February

## LIFE CYCLE

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

## PROPAGATION TECHNIQUE

Very easily grown from fresh seed and semi hardwood cuttings.

## THREATS

This species is very uncommon throughout its range. A detailed assessment of the threats facing this species is given by de Lange & Rolfe (2008). Often the habitats it occupies are a few square metres in extent, and so it is very vulnerable to weed invasion, animal browse, and because it colonises freshly disturbed ground within forest, natural succession to forest can be a threat in some locations. In many of its habitats it is threatened by goat browse. Some northern populations are threatened by weeds and residential development.

## 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'.

**perbella:** From the Latin per 'very, exceedingly' and bellus 'beautiful'

## TAXONOMIC NOTES

Plants from Maungarahō Rock previously included in *Veronica (Hebe) perbella* (de Lange 1998) were later described as a new, allied species, *Veronica (Hebe) saxicola* (de Lange & Rolfe 2008).

## ATTRIBUTION

Fact sheet prepared for NZPCN by P.J. de Lange (13 October 2008). Description from de Lange & Rolfe (2008).

## REFERENCES AND FURTHER READING

de Lange, P.J. 1998: *Hebe perbella* (Scrophulariaceae) - a new and threatened species from western Northland, North Island, New Zealand. *New Zealand Journal of Botany* 36: 399-406.

de Lange, P.J.; Rolfe, J.R. 2008: *Hebe saxicola* (Plantaginaceae) – a new threatened species from western Northland, North Island, New Zealand. *New Zealand Journal of Botany* 46: 531-545.

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

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

## MORE INFORMATION

<https://www.nzpcn.org.nz/flora/species/veronica-perbella/>