

# Veronica macrocarpa var. macrocarpa

## COMMON NAME

hebe

## SYNONYMS

*Panoxis macrocarpa* (Vahl) Raf., *Hebe macrocarpa* (Vahl) Cockayne et Allan var. *macrocarpa*

## FAMILY

Plantaginaceae

## AUTHORITY

*Veronica macrocarpa* Vahl var. *macrocarpa*

## FLORA CATEGORY

Vascular – Native

## ENDEMIC TAXON

Yes

## ENDEMIC GENUS

No

## ENDEMIC FAMILY

No

## STRUCTURAL CLASS

Trees & Shrubs - Dicotyledons

## NVS CODE

HEBMCM

## CHROMOSOME NUMBER

2n = 80

## CURRENT CONSERVATION STATUS

2017 | Not Threatened

## PREVIOUS CONSERVATION STATUSES

2012 | Not Threatened

2009 | Not Threatened

2004 | Not Threatened

## BRIEF DESCRIPTION

Bushy shrub bearing pairs of narrow leaves and spikes of small white or pinkish flowers inhabiting the wider Auckland area. Leaves to 163mm long, m-shaped in cross section. Leaf bud without gap at base. Flowers closely spaced, with longish threads (anthers), in spikes around equal leaf length.

## DISTRIBUTION

North Island, from near Whangarei to near Kawhia, including islands of Hauraki Gulf and the Mercury Islands.

## HABITAT

It occurs in coastal to upland areas, in scrub, at forest margins or in open areas in forest, and on rocky sites



Leaf buds from one plant, with and without sinus. Specimen collected by Peter de Lange. Photographer: Jeremy R. Rolfe, Date taken: 01/05/2008, Licence: CC BY.



Coromandel, August. Photographer: John Smith-Dodsworth, Licence: CC BY-NC.

## DETAILED DESCRIPTION

Bushy shrub to 3 m tall. Branches erect, old stems brown or grey; branchlets green, pubescent or glabrous, hairs bifarious or uniform; internodes (2-) 5-41 mm; leaf decurrencies obscure or weakly evident (with a faint ridge along medial line). Leaf bud distinct; sinus absent. Leaves erecto-patent to recurved; lamina lanceolate or linear or oblong or oblanceolate or elliptic (often narrowly), coriaceous, m-shaped in transverse section, (23-) 45-110 (-163) x (5-) 9-22 (-32) mm; apex acute to obtuse or apiculate or sometimes acuminate; base cuneate or truncate; brochidodromous secondary veins sometimes evident in fresh leaves; margin narrowly cartilaginous, ciliolate or glabrous; upper surface green or dark green, usually glossy, without evident or rarely with few stomata, hairy along midrib (usually) or glabrous; lower surface light green. Juvenile leaves crenate, ciliolate (and with scattered hairs above midrib). Inflorescences with (13-) 25-85 flowers, lateral, unbranched, 3-13.2 cm, shorter to longer than subtending leaves; peduncle 0.6-1.9 (-3.6) cm; rachis (2-) 3-11.3 cm. Bracts alternate (apart from lowermost pair in most cases), lanceolate or deltoid (sometimes narrowly) or oblong, obtuse to acute or acuminate. Flowers hermaphrodite. Pedicels 1.5-5.5 mm, sometimes recurved in fruit. Calyx (2-) 2.5-3.7 (-4.2) mm; lobes lanceolate or elliptic or ovate or deltoid, acute to obtuse, very rarely hairy outside. Corolla tube hairy inside, (2.2-) 3.2-5.5 x 2.8-4.2 mm, funnel form and contracted at base, at least slightly longer than calyx; lobes white or tinged with pink or mauve at anthesis, white with age, ovate or elliptic, obtuse, erect to patent (usually only posterior lobe patent), shorter to longer than corolla tube, sometimes ciliolate or hairy inside; corolla throat white or violet. Stamen filaments white, 5.5-12.2 mm; anthers mauve or pink or violet or yellow, 2.3-3 mm. Ovary very rarely hairy, 1-1.6 mm; ovules approximately 8-10 per locule; style 5-11.5 mm. Capsules acute or subacute, 3.8-10 x 3-6.5 mm, loculicidal split extending  $\frac{1}{4}$ - $\frac{1}{2}$ -way to base. Seeds flattened (sometimes strongly), broad ellipsoid to discoid, winged, more or less smooth, brown (sometimes pale), 1-2.5 (-3.2) x 0.9-1.7 mm, micropylar rim 0.2-0.6 mm.

## SIMILAR TAXA

Distinguished from most large-leaved "Occlusae" (see Bayly & Kellow 2006) by its: leathery leaves; large, broad flowers, with corolla tubes longer than calyces, and long filaments; and large fruit.

Generally, *V. var. macrocarpa* is distinguished from *V. var. latisejala* by having white flowers, compared to the mauve or violet flowers of the latter (see further notes below).

*V. macrocarpa* is possibly closely related to, and may grade into *V. corriganii* (see notes under that species). It probably hybridises with *V. stricta var. stricta* at a range of sites, and the name *Hebe xaffinis* probably applies to this hybrid combination.

## FLOWERING

April-November (-January)

## FLOWER COLOURS

Violet/Purple, White

## FRUITING

January-December (-January)

## 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'.

**macrocarpa:** Large fruit

## TAXONOMIC NOTES

Moore (in Allan 1961) recognised three varieties of *V. macrocarpa*. One of these is treated by Bayly & Kellow (2006) as a distinct species, *V. punicea*. The other two, var. *macrocarpa* and var. *latisepala*, are probably worthy of recognition (and are treated by some authors, e.g. Druce 1980, 1993, as distinct species). It has not, however, been possible to delimit these varieties to an extent that they could each be mapped and described separately by Bayly & Kellow (2006), var. *macrocarpa*, as traditionally defined, has white flowers,  $2n=80$  chromosomes and occurs on the North Island mainland, including the Coromandel Peninsula. var. *latisepala*, as traditionally defined, has violet flowers,  $2n=120$  chromosomes and occurs on Great Barrier and Little Barrier islands, and possibly near Whangarei Harbour and on Coromandel Peninsula. The two varieties are difficult to discriminate, particularly using herbarium specimens because: they are variable in leaf shape and size; specimens do not always have flowers (and colour may not always be retained); and the true limits of the chromosome races are unknown. Their discrimination is further confused because the geographic and morphological boundaries are not as clear-cut as outlined by Moore (in Allan 1961). For example, white-flowered plants occur on Great Barrier Island (M. Bayly personal observation), some of which have  $2n=80$  chromosomes (de Lange & Murray 2002); plants with  $2n=120$  occur on Coromandel Peninsula (de Lange & Murray 2002) and the Hunua Ranges (Hair 1967), the former at least with white flowers; both white-flowered and violet-flowered plants with  $2n=120$  are sympatric with white-flowered plants with  $2n = 80$  on Bream Head; violet-flowered plants with  $2n=120$  are sympatric with white-flowered plants with  $2n = 80$  on Mount Manaia (P. J. de Lange pers. comm. 2005). The limits of the two varieties are worthy of further investigation. Included in Bayly & Kellow (2006) under *V. macrocarpa* are narrow-leaved plants from Great Barrier Island considered by Druce (1980, as *H.* "sp. (w)"; 1993, as *H.* "Great Barrier") to constitute an undescribed species, and by de Lange & Murray (2002) possibly to be hybrids between *V. macrocarpa* and *V. pubescens* subsp. *rehuarum*. There are no clear grounds for either treating them as a distinct species or as hybrids.

## ATTRIBUTION

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

## REFERENCES AND FURTHER READING

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## NZPCN FACT SHEET CITATION

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## MORE INFORMATION

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