

# Pennantia baylisiana

## COMMON NAME

Three Kings kaikōmako

## SYNONYMS

*Plectomirtha baylisiana* W.R.B.Oliv.

## FAMILY

Pennantiaceae

## AUTHORITY

*Pennantia baylisiana* (W.R.B.Oliv.) G.T.S.Baylis

## FLORA CATEGORY

Vascular – Native

## ENDEMIC TAXON

Yes

## ENDEMIC GENUS

No

## ENDEMIC FAMILY

No

## STRUCTURAL CLASS

Trees & Shrubs - Dicotyledons

## CHROMOSOME NUMBER

2n = 50

## CURRENT CONSERVATION STATUS

2017 | Threatened – Nationally Critical | Qualifiers: CD, IE, OL

## PREVIOUS CONSERVATION STATUSES

2012 | Threatened – Nationally Critical | Qualifiers: CD, IE, OL

2009 | Threatened – Nationally Critical | Qualifiers: CD, OL, IE

2004 | Threatened – Nationally Critical

## BRIEF DESCRIPTION

Rare multi-trunked small tree bearing very large broad glossy curled leaves inhabiting the three Kings Islands. Leaves 120-160mm long, widest towards tip. Flowers small, green, in clusters along branches. Fruit purple, 10mm long, containing a single seed.

## DISTRIBUTION

Endemic to Great (Manawa Tawhi) Island, Three Kings Island group.

## HABITAT

Coastal Forest.

## DETAILED DESCRIPTION

Sturdy, multi-trunked tree 5-8 x 4 m tall. Bark greyish, tessellated. Young branches and branchlets lenticellate. Petiole 25 mm long. Leaves subcoriaceous, glabrescent, 120-160 x 70 -100 mm, oblong to obovate, in exposed conditions distinctly recurved, otherwise flat, margins entire, apex obtuse, rounded, or slightly emarginate; base cuneate to obtuse; lateral veins of underside subtended by axillary hairy, pocket-domatium. Inflorescence usually ramiflorous or cauliflorous, rarely terminal, 80-120 x 40-120 mm. Male flowers unknown. Female flowers 1.5 x 1.5 mm, petals 2.6 mm, greenish white, stamen filaments in bud kinked sideways, straightening at anthesis, 1.5 mm long; anther 1-1.4 mm, pollen usually malformed and sterile. Ovary barrel shaped, 2.8 x 2 mm; stigmatic ring 1.5-1.8 mm diam., crested into 3 triangular plates. Fruit ellipsoidal, 10 x 4.5 mm, flesh purple; stone 9 x 3.5 mm.



*Pennantia baylisiana* showing branching habit, Great (Manawa Tawhi) Island, Three Kings Islands. Photographer: Lisa Forester, Licence: CC BY-SA.



Nov 2006. In cultivation. Photographer: Geoff Davidson, Licence: CC BY-NC.

## SIMILAR TAXA

Morphologically similar to the Norfolk Island *Pennantia endlicheri* Reissek from which it differs by multi-trunked growth habit, the recurved leaves of exposed branchlets, and mainly ramiflorous or cauliflorous flowering habit. DNA sequences further separate both species. *Kaikomako* (*Pennantia corymbosa* J.R. Forest et G.Forst.) differs from both these species by its divaricating juvenile form, much smaller and distinctly toothed or lobed adult foliage.

## FLOWERING

October-November

## FLOWER COLOURS

Green, White

## FRUITING

Fruiting occurs between January and April in cultivated material. Ripe fruit has been seen in the wild during February and March

## PROPAGATION TECHNIQUE

Easily grown from seed, when viable non hybrid seed is available. Though the only known tree is functionally female, occasional viable fruit is now known to be produced both in the wild and in cultivation. However, if pure seed is desired, plants should be grown well away from *kaikomako* (*P. corymbosa*) otherwise hybrid seed will be produced. This tree can also be grown from cuttings and basal portions of new stem suckers. Neither media is easy to strike, and so until recently, this species was rarely seen in cultivation.

## THREATS

Only one tree occurs in the wild. Initially *P. baylisiana* and indeed all other Three Kings endemic plants were at serious risk from goats. These were successfully eradicated in 1946. Since then the tree has persisted despite periodic storm and drought damage which may kill entire trunks. However, being female the tree was until recently considered functionally extinct. Apparently viable fruits were first found in the wild in 1989, and these, along with fruiting cutting grown plants in New Zealand provide one source of securing the species. However, until such time as more trees occur in the wild, *P. baylisiana* remains seriously at risk of extinction through natural events such as storms or senescence through old age.

## ETYMOLOGY

**pennantia**: After Pennant, a zoologist

## ATTRIBUTION

Fact Sheet prepared for NZPCN by P.J. de Lange 1 October 2003. Description from Gardner & de Lange (2002) - see also de Lange et al. (2010)

## REFERENCES AND FURTHER READING

de Lange, P.J.; Heenan, P.B.; Norton, D.A.; Rolfe, J.R.; Sawyer, J.W.D. 2010: Threatened Plants of New Zealand. Canterbury University Press, Christchurch.

Gardner, R.O.; de Lange, P.J. 2002: Revision of *Pennantia* (Icacinaceae), a small isolated genus of Southern Hemisphere trees. *Journal of the Royal Society of New Zealand* 32: 669-695.

## NZPCN FACT SHEET CITATION

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

## MORE INFORMATION

<https://www.nzpcn.org.nz/flora/species/pennantia-baylisiana/>