

# Sicyos mawhai

## COMMON NAME

māwhai, ambush vine

## SYNONYMS

None - described in 2012

## FAMILY

Cucurbitaceae

## AUTHORITY

*Sicyos mawhai* I.Telford et P.Sebastian

## FLORA CATEGORY

Vascular – Native

## ENDEMIC TAXON

Yes

## ENDEMIC GENUS

No

## ENDEMIC FAMILY

No

## STRUCTURAL CLASS

Lianes & Related Trailing Plants - Dicotyledons

## CHROMOSOME NUMBER

2n = 26

## CURRENT CONSERVATION STATUS

2017 | At Risk – Relict | Qualifiers: CD, PD, RR

## PREVIOUS CONSERVATION STATUSES

2012 | At Risk – Relict | Qualifiers: CD, RR

2009 | At Risk – Relict | Qualifiers: CD

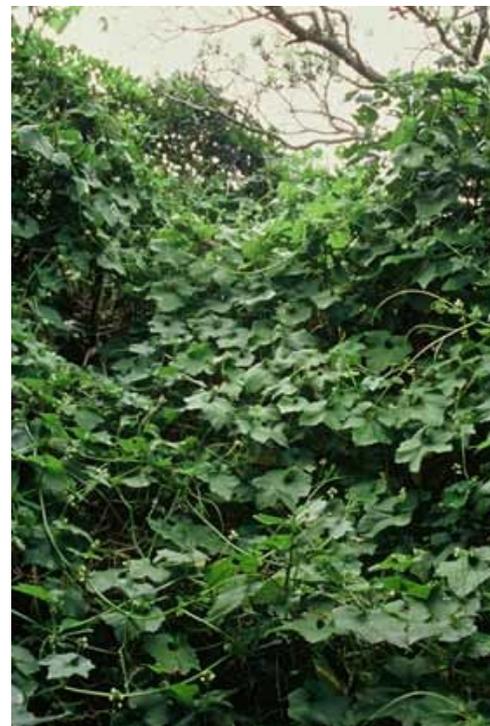
2004 | At Risk – Relict

## DISTRIBUTION

Endemic. Kermadec Islands: (Heralds, Meyers, Raoul, Macauley, Haszard). New Zealand: Three Kings, North Island (formerly widespread in northern half) and northern offshore islands), South Island (formerly Marlborough Sounds). Now extinct in the South Island and probably extinct on the mainland of the North Island and on many near shore islands.

## HABITAT

Coastal species that has been collected from beach strands, including boulder beaches and banks, from coastal forest (especially forest margins), coastal shrubland and on offshore islands within sea-bird colonies.



*Sicyos australe* at the Gut, Fanal Island.  
Photographer: Bec Stanley, Licence: CC BY-SA.



Raoul Island (Met Service area).  
Photographer: Bec Stanley, Licence: CC BY-SA.

## DETAILED DESCRIPTION

Herbaceous climber; stems annual, up to 14 m long, up to 2.5 mm diameter, sparsely hirsute with simple multicellular celled hairs and glandular hairs, glabrescent. Tendrils 3–5-branched. Leaves: petiole 25–135 mm long, minutely glandular hairy; lamina broadly ovate in outline, 45–135 × 60–165 mm wide, cordate with the basal sinus ± closed by overlapping lobes, acuminate, shallowly palmately 5- or 7-lobed, the lobes rounded-triangular, margins coarsely dentate with apiculate teeth. Male inflorescence a 14–35-flowered raceme 45–205 mm long; peduncle 35–125 mm long. Male flowers: pedicels 3.5–27 mm long; hypanthium broadly campanulate, 3.8–4.2 mm diameter; calyx lobes linear, c.1.2mm long; corolla rotate, 7–13 mm in diameter, 5-lobed, the lobes rounded-triangular, 2.0–3.5 mm long; disc c.2 mm diameter; staminal column 1.8–2.2 mm long; staminal head 1.9–2.4 mm diameter. Female inflorescence a 6–20-flowered head; peduncle 12–35mm long. Female flowers: subsessile; ovary ovate, 3.2–4.0 mm long, 2.0–2.6 diameter, echinulate with barbed aculei; hypanthium above the constriction broadly campanulate, c.2.4 mm diameter, abaxially scabridulous; calyx lobes linear, c.0.8 mm long; corolla 4–6.8 mm in diameter, glabrous abaxially and adaxially, glandular papillose on margins, white, 5-lobed; lobes triangular-ovate, 2.0–2.3 mm long; disc c.1.3 mm diameter; style c.1.8 mm long; stigma 2-branched, the branches recurved. Fruit ovate, 8.0–13.0 × 4.0–5.8 mm, obtuse or subacute, the surface glabrous or sparsely and minutely hairy, echinate; aculei dense, 2.2–3.6–6mm long, retrorsely barbed. Seeds ± ellipsoidal, 5.6–6.0 × 3.8–4.5 mm, brown.

## SIMILAR TAXA

*Sicyos mawhai* could only be confused with *S. australis*. *Sicyos australis* differs from *S. mawhai* by the male flowers which are < 10 mm diameter; by the smaller, grey-green 3–5 acutely-lobed leaves; and broad, open leaf sinus. Both species of *Sicyos* have at times been confused with choko (*Sechium edule*), especially when in a vegetative state. However, choko has larger, darker green leaves, and the fruits of choko are unmistakable, being larger, pear-shaped, pale green, and unadorned with sharp spines.

## FLOWERING

In suitable conditions flowers are produced throughout the year.

## FRUITING

In suitable conditions fruits are produced throughout the year.

## PROPAGATION TECHNIQUE

Easily grown from seed. However seed can take several months to germinate. Can become weedy but plants are prone to collapse as a result of attack by viruses (see Delmiglio & Pearson 2006).

## THREATS

*Sicyos mawhai* has vanished from much of its past range over the last 50 or so years (see comments by Cameron 1992). Currently it remains common only on the less accessible northern offshore islands (e.g., Three Kings, Poor Knights and Mokohinau Islands) and on the Kermadec Islands. *Sicyos mawhai* is susceptible to cucumber, watermelon and zucchini mosaic virus (Delmiglio & Pearson 2006) and this probably accounts for the sudden decline from the more modified parts of its range. Currently as there is no further evidence of decline and, being secure on the Kermadecs and some other island groups, this species, as *S. aff. australis* (a) (AK 252822; New Zealand) has been listed as “Relict” (de Lange et al. 2009).

## WHERE TO BUY

Occasionally sold by commercial nurseries.

## ATTRIBUTION

Fact Sheet Prepared for NZPCN by: P.J. de Lange 24 March 2012. Description based on Telford et al. (2012).

## REFERENCES AND FURTHER READING

- Cameron E.K. 1992: Decline of mawhai (*Sicyos australis*). New Zealand Botanical Society Newsletter 28: 11–12.
- de Lange, P.J.; Norton, D.A.; Courtney, S.P.; Heenan, P.B.; Barkla, J.W.; Cameron, E.K.; Hitchmough, R.; Townsend, A.J. 2009: Threatened and uncommon plants of New Zealand (2008 revision). New Zealand Journal of Botany 47: 61–96.
- Delmiglio, C.; Pearson, M.N. 2006: Effects and incidence of cucumber mosaic virus, watermelon mosaic virus and zucchini yellow mosaic virus in New Zealand's only native cucurbit, *Sicyos australis*. Australasian Plant Pathology 35: 29–35.
- Telford, I.R.H.; Sebastian, P.; de Lange, P.J.; Bruhl, J.J.; Renner, S.S. 2012: Morphological and molecular data reveal three rather than one species of *Sicyos* (Cucurbitaceae) in Australia, New Zealand, and the islands of the South West Pacific. Australian Systematic Botany 25: 188–201.

## NZPCN FACT SHEET CITATION

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

## MORE INFORMATION

<https://www.nzpcn.org.nz/flora/species/sicyos-mawhai/>