

Sicyos australis

COMMON NAME

māwhai

SYNONYMS

Sicyos angulata L. auct. non. New Zealand authors

FAMILY

Cucurbitaceae

AUTHORITY

Sicyos australis Endl.

FLORA CATEGORY

Vascular – Native

ENDEMIC TAXON

No

ENDEMIC GENUS

No

ENDEMIC FAMILY

No

STRUCTURAL CLASS

Herbs - Dicotyledons other than Composites

NVS CODE

SICAUS

CHROMOSOME NUMBER

2n = c.24, 26

CURRENT CONSERVATION STATUS

2017 | At Risk – Naturally Uncommon | Qualifiers: EF, RR, SO

PREVIOUS CONSERVATION STATUSES

2012 | Non-resident Native – Coloniser | Qualifiers: EF, RR, SO

2009 | Non-resident Native – Coloniser | Qualifiers: EF, RR

2004 | Data Deficient

DISTRIBUTION

Indigenous. New Zealand: North Island (Northland, Auckland, Waikato and Bay of Plenty). Also Australia and formerly Norfolk and Lord Howe Islands.

HABITAT

Coastal forest or lowland forest, often in scrub or amongst bracken fern.



Sicyos australis. Photographer: Peter J. de Lange, Licence: CC BY-NC.



Sicyos australis. Photographer: Peter J. de Lange, Licence: CC BY-NC.

DETAILED DESCRIPTION

Herbaceous climber; stems annual, up to 10m long, 5-mm diameter, sparsely hirsute with simple multicellular hairs and glandular hairs, glabrescent. **Tendrils** 3–5-branched. **Leaves:** petiole 10–65 mm long, scaberulous; lamina ovate or broadly ovate in outline, 35–195 × 45–200mm, cordate with the basal sinus broad, the lobes not overlapping, acuminate, shallowly to deeply palmately 5- or 7-lobed, the lobes broadly triangular, acute or acuminate, margins dentate with apiculate teeth, sparsely scaberulous adaxially and abaxially with simple hairs, more densely and coarsely along veins. **Male inflorescence** an 8–19-flowered raceme 25–155 mm long; peduncle 15–125 mm long, sparsely scaberulous; rhachis glandular hairy. **Male flowers:** pedicels 3–11 mm long; hypanthium broadly campanulate, 2.4–2.7 mm diameter; calyx lobes linear, 0.4–0.7 mm long; corolla rotate, 4.5–7.8 mm diameter, mostly glabrous abaxially, the lobe apices puberulous, glabrous adaxially, white, 5-lobed, the lobes broadly triangular–ovate, obtuse; 2.0–2.6 mm long; disc c. 1.2 mm in diameter; staminal column 1.5–1.8 mm long; staminal head 1.7–2.2 mm diameter. **Female inflorescence** an 8–11-flowered head; peduncle 8–33 mm long. **Female flowers:** subsessile; ovary ovate, attenuate, c. 3 mm long, 1.4 mm diameter, minutely and densely echinate with barbed aculei; hypanthium above the constriction broadly campanulate, c. 1.5 mm in diameter, minutely glandular hairy surrounding the disc; calyx lobes linear, 0.4–0.7 mm long; corolla 2.5–3.5 mm diameter, mostly glabrous abaxially, the lobe apices puberulous, glabrous adaxially, white, 5-lobed, the lobes triangular–ovate, obtuse, c. 1.6mm long; disc c. 1 mm in diameter; style c. 1.4mm long; stigma 2-lobed, the lobes c. 0.3mm long, recurved. **Fruit** ovate, rarely fusiform, 6.4–9.5 × 2.8–4.0 mm, apically attenuate, the surface ± glabrous or scabridulous with short hairs, echinate; aculei dense, 1.6–3.6 mm long, retrorsely barbed. **Seeds** ellipsoidal, 4.0–5.5 × 2.8–3.4 mm brown.

SIMILAR TAXA

In New Zealand could only be confused with *Sicyos mawhai*. *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; broad leaf sinus (the basal lobes not overlapping this); harsh stem hairs. 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.

FLOWER COLOURS

Cream, Green

FRUITING

In suitable conditions fruits are produced throughout the year.

PROPAGATION TECHNIQUE

Easily grown from seed. However seed can take several months to germinate.

THREATS

Formerly listed under the tag name *S. aff. australis* (b) (AK 289786; Mangere Stonefields) by de Lange et al. (2009) as a “Coloniser” now that the exact identity of *Sicyos australis* has been clarified (Telford et al. 2012) this status is still appropriate. It appears that *Sicyos australis* has recently established in New Zealand, presumably (or at least initially) by natural means. It is now locally distributed over a large part of mainly eastern northern New Zealand and it is actively spreading from these areas into farmland, plantation forestry and urban wasteland. It was assessed in 2017 as ‘At Risk – Naturally Uncommon’ (de Lange et al. 2018). Although it is susceptible to cucumber, watermelon and zucchini mosaic virus, it seems less so than the endemic *S. mawhai* and it is secure at most known sites.

ETYMOLOGY

australis: Southern

WHERE TO BUY

Occasionally sold by commercial nurseries.

ATTRIBUTION

Fact sheet prepared for NZPCN by P.J. de Lange 4 January 2004. Description based on Telford et al.

REFERENCES AND FURTHER READING

- Cameron EK. 1991. Mangere a small forest remnant and *Sicyos australis*. *Auckland Botanical Society Journal* 46: 83–84.
- de Lange PJ, Norton DA, Courtney SP, Heenan PB, Barkla JW, Cameron EK, Hitchmough RA, Townsend AJ. 2009. Threatened and uncommon plants of New Zealand (2008 revision). *New Zealand Journal of Botany* 47(1): 61–96. <https://doi.org/10.1080/00288250909509794>.
- Delmiglio C, Pearson MN. 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. <https://link.springer.com/article/10.1071/AP05098>.
- Telford IRH, Sebastian P, de Lange PJ, Bruhl JJ, Renner SS. 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. <https://doi.org/10.1071/SB11032>.

NZPCN FACT SHEET CITATION

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

MORE INFORMATION

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