

Piper melchior

COMMON NAME

Three Kings Kawakawa

SYNONYMS

Macropiper melchior Sykes

FAMILY

Piperaceae

AUTHORITY

Piper melchior (Sykes) M. A. Jaram

FLORA CATEGORY

Vascular – Native

ENDEMIC TAXON

Yes

ENDEMIC GENUS

No

ENDEMIC FAMILY

No

STRUCTURAL CLASS

Trees & Shrubs - Dicotyledons

CHROMOSOME NUMBER

2n = 26

CURRENT CONSERVATION STATUS

2017 | At Risk – Naturally Uncommon | Qualifiers: CD, IE

PREVIOUS CONSERVATION STATUSES

2012 | At Risk – Naturally Uncommon | Qualifiers: CD, IE

2009 | At Risk – Naturally Uncommon | Qualifiers: IE

2004 | Range Restricted

BRIEF DESCRIPTION

Fleshy shrub with jointed green twigs bearing large wrinkled dark green glossy heart-shaped fleshy leaves with hard green flower spikes inhabiting South West and West Islands of the Three Kings Islands. Leaves veins radiating from stalk, slightly peppery to taste. Fruit orange, not closely-packed.

DISTRIBUTION

Endemic. Three Kings Islands: South West and West Islands only

HABITAT

Coastal forest (mostly in shaded sites) where it is a locally common component of the shrub layer. Very rarely in petrel scrub.



South West Island, October 1991.
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South West Island, October 1991.
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DETAILED DESCRIPTION

Shrub to c. 2 m tall; stems erect to leaning, copiously lenticellate; new shoots green, i.e., leaf nerves, petioles, and new stems with almost no wine colouring, taste only slightly oily-aromatic and not at all peppery; pith of axes (including inflorescence rachis) with central cells soon breaking down to form a 1 mm diam. core of mucilage, in older (leafless, secondarily thickened) stems the pith more than c. 0.3 × stem diameter and disintegrating after a few years. Prophyll a raised line of tissue or sometimes a collar to c.1 mm high. Leaf blades at vegetative nodes ± suborbicular to slightly obovate, to c.10(-18) mm diameter, usually with 9 principal nerves, cordate at base, usually with an open sinus (inner edges of basal lobes seldom touching or overlapping, nor leaf ever peltate), slightly bullate, upper surface with the finer reticulation slightly raised above the ground tissue; petiole to c. 5 cm long, c.0.4× as long as blade, sheathing part to c.(25-)30 mm long, (1-)2-3(-4)× as long as the non sheathing part, the sheath truncate-rounded at apex and not produced, non-sheathing part of the petiole c.4(-5) mm diameter. Inflorescence always solitary on a very short (to c.3 mm long) unbranched axillary shoot, the much-reduced leaf at apex of shoot with a short (0-5 mm) green oblong lamina on a vestigial sheathing petiole. Female inflorescence erect in flowering and remaining so into fruit; peduncle to c.15 mm long; spike to c.100 × c.6 mm diameter, with white 10-30-celled hairs to c.0.75 mm long on upper sides and edges of petiole of reduced leaf, and on the lower part of the bract-stalks and on the rachis, and usually conspicuous as an appressed cover on the peduncle around and just below the lowermost bracts; bract-heads c. 1.3 mm diam.; flowers at full emergence centred c. 1.6 mm apart, the emergent part of ovary subglobose; stigmas 3-4(-6), together 0.5-0.8 mm diam. (rarely more than 1 mm diameter). Male inflorescence erect, spike to c.130 × c.8 mm diameter distally in life (5.0-6.5 mm diameter when dry and somewhat flattened), hairs and bracts as in female inflorescence; staminal filaments 1.0-1.5 mm long, anthers c. 0.8 × 0.7 mm wide. Rachis of fruiting spike when ripe c.4 mm diameter, firmly fleshy, orange; ripe fruitlets subglobose, slightly depressed, c.4.5 mm diameter, free from one another and from the bracts and rachis; exocarp and mesocarp orange; seeds c.2.25 × 2.50 mm, ± subglobose in outline, dark brown, with 3-4(-6) rounded longitudinal ridges.

SIMILAR TAXA

In New Zealand - none. The deeply ridged, dark green dish-shaped leaves, and very large fruits with clearly spaced fruitlets serve to distinguish it from the other New Zealand species *P. (Macropiper) excelsum* G.Forst. *Piper melchior* has some similarity to the Lord Howe endemic *P. hooglandii* P.S.Green. (see Taxonomic Notes)

FLOWERING

August - November

FRUITING

Throughout the year

PROPAGATION TECHNIQUE

Easily grown from semi-hardwood cuttings and fresh seed. An attractive plant for a semi-shaded situation, moderately tolerant of dry conditions. However, very susceptible to root rot fungi. Cold intolerant.

THREATS

Although abundant within its island habitat this species is listed because it occupies a small geographic range

ETYMOLOGY

piper: Pepper

TAXONOMIC NOTES

The generic distinction between *Macropiper* and *Piper* has always been tenuous. Recently Jaramillo et al. (2008) have shown that *Macropiper* should be merged in *Piper*. In their paper they provided a combination at species rank in *Piper* for *Macropiper melchior*. Recently de Lange (2012) followed Jaramillo et al. (2008) in accepting *Piper* over *Macropiper*.

ATTRIBUTION

Fact sheet prepared for NZPCN by P.J. de Lange 30 August 2005. Description based on Gardner (1997).

REFERENCES AND FURTHER READING

de Lange, P.J. 2012: Taxonomic notes on the New Zealand flora: new names in *Piper* (Piperaceae). *New Zealand Journal of Botany* 50(4): 485-487

Gardner, R.O. 1997: Macropiper (Piperaceae) in the south-west Pacific. *New Zealand Journal of Botany* 35: 293-307.

Jaramillo, M.A.; Callejas, R; Davidson, C.; Smith, J.F.; Stevens, A.C.; Tepe, E.J. 2008: A phylogeny of the tropical genus *Piper* using ITS and the chloroplast intron psbJ-petA. *Systematic Botany* 33: 647-660.

NZPCN FACT SHEET CITATION

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

MORE INFORMATION

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