Piper melchior

Common Name(s):

Three Kings Kawakawa

Current Threat Status (2012):

At Risk - Naturally Uncommon

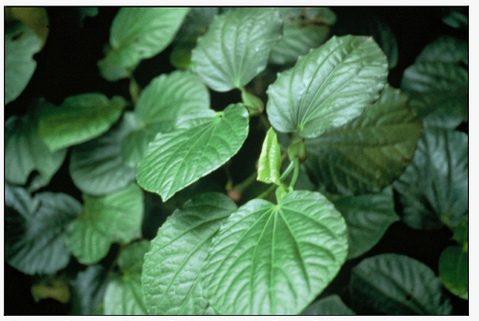
Distribution:

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.

Caption: South West Island, October 1991
Photographer: Peter de Lange



Caption: South West Island, October 1991
Photographer: Peter de Lange

Features*:

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.

Flowering:

August - November

Fruiting:

Throughout the year

Threats:

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

***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.

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