

Pittosporum virgatum

SYNONYMS

Pittosporum virgatum Kirk var. *virgatum*, *Pittosporum matthewsii* Petrie, *Pittosporum virgatum* var. *matthewsii* (Petrie) Allan, *Pittosporum virgatum* var. *crataegifolia* Kirk, *Pittosporum virgatum* var. *serratum* Kirk, *Pittosporum virgatum* var. *sinuatum* Kirk

FAMILY

Pittosporaceae

AUTHORITY

Pittosporum virgatum Kirk

FLORA CATEGORY

Vascular – Native

ENDEMIC TAXON

Yes

ENDEMIC GENUS

No

ENDEMIC FAMILY

No

STRUCTURAL CLASS

Trees & Shrubs - Dicotyledons

NVS CODE

PITVIR

CHROMOSOME NUMBER

$2n = 24$

CURRENT CONSERVATION STATUS

2017 | Threatened – Nationally Vulnerable | Qualifiers: PD, Sp

PREVIOUS CONSERVATION STATUSES

2012 | At Risk – Naturally Uncommon | Qualifiers: Sp

2009 | At Risk – Naturally Uncommon

2004 | Sparse

BRIEF DESCRIPTION

Slender small tree with whorls of branches and variably shaped leaves that are covered in rusty fuzz when young inhabiting the northern North Island. Flowers pink to purple. Leaves wavy, edge smooth or often lobed. Capsule splitting into two to show the black sticky seeds.

DISTRIBUTION

Endemic. New Zealand: North Island (from the Mangamuka and Herekino Ranges south and east to Great Barrier Island (Aotea Island) and the Coromandel Peninsula. Reaching its southern limit at about the Kuaerange Valley (there are unconfirmed reports of its occurring slightly further south of there).

HABITAT

Usually associated with kauri (*Agathis australis*) forest, often on ridge lines, slips scars or in secondary regrowth within cut over kauri forest. Outside this forest type it is occasionally found in association with tanekaha (*Phyllocladus trichomanoides*), towai (*Pterophylla sylvicola*) or kamahi (*Pterophylla racemosa*). In all situations it prefers relatively open vegetation, where it typically forms apparently evenly-aged cohorts.



Pittosporum virgatum showing an adult tree, Te Moehau. Photographer: John Smith-Dodsworth, Licence: CC BY-NC.



Close up of flowers, Kennedy Bay (October). Photographer: John Smith-Dodsworth, Licence: CC BY-NC.

DETAILED DESCRIPTION

Slender gynodioecious trees up to 8 m tall. Growth form initially narrowly columnar, becoming more spreading with age. **Trunks** slender grey brown, branches in distinct whorls in old specimens confined to the upper portion of the tree, bark brown, branchlets slender, pliant, brown at first covered with appressed rust-brown tomentum, soon glabrate. **Petioles** 1–7 × 0.5–1 mm, hairy. **Leaves** crowded toward branchlet ends, alternate; juvenile or lower leaves 10–40 × 1–7 mm, dark green or yellow-green, linear, entire or variously lobed, sometimes pinnate, both surfaces initially covered in rust-brown tomentum, soon glabrate; intermediate leaves 13–55 × 9–30 mm, lanceolate, narrowly linear, oblong or obovate, usually lobed or deeply divided both surfaces covered in rust-brown indumentum, soon glabrate; adult leaves 18–70 × 4–30 mm, oblong, oblanceolate, sometimes linear or linear-lanceolate, elliptic oblong, entire or sinuate, often lobed; margins flat to undulate. **Flowers** in 1–6-flowered, terminal fascicles, or solitary. **Pedicels** 5–9 mm, accrescent in fruit, covered in rust-brown indumentum, subtended by an approximate whorl of leaves, and 1–3 rust-tomentose caducous scales. **Sepals** 3.5–6.5 × 1–2.5 mm, oblong or linear-lanceolate, acute, rusty-brown tomentose. **Petals** 6–13 × 2–3 mm, linear-oblanceolate to linear-oblong, acute, fused in a tube for half of length, tips reflexed, dark red, purple, pink, white or golden yellow. **Stamens** 4–7 mm, anthers sagittiform or oblong-ovate, ovary 2–4 × 1–2.5 mm, rusty-brown tomentose; style 1–5 mm, stigma capitate and obscurely 2–4-lobed. **Capsules** 11–16 × 10–13 mm, 2–(3)-valved, subglobose to subpyriform, apiculate, coriaceous. **Mucilage** bright yellow to orange-yellow. **Seeds** 1–16, dull black of irregular shape.

SIMILAR TAXA

The combination of the narrowly columnar to openly virgate growth form, widely spaced whorls of slender branches, extremely variable juvenile, intermediate and adult foliage types (often present on the one mature tree), and rusty-brown tomentose branchlets, leaves, and capsules are unique to this species. It could not be confused with any other.

FLOWERING

September–November

FLOWER COLOURS

Red/Pink, Violet/Purple

FRUITING

July–August (may be present all year round)

PROPAGATION TECHNIQUE

Easily grown from fresh seed which takes between 6 and 12 months to germinate. Can be struck from semi-hardwood cuttings. A beautiful species that is ideal as a specimen tree.

THREATS

Aside from Great Barrier Island (Aotea Island) where *Pittosporum virgatum* is abundant, it appears to have always been a sporadically occurring local species of northern kauri-dominated forests. While its current distribution suggests that it is biologically sparse, it is vulnerable to possum browsing and some populations were probably lost or reduced by kauri logging. Recent observations in some parts of Northland that had been regarded as the mainland stronghold suggest that this species is now seriously threatened. The conservation status of *Pittosporum virgatum* was assessed as 'Threatened – Nationally Vulnerable' in 2017 (de Lange et al. 2018).

ETYMOLOGY

pittosporum: Pitch seed

ATTRIBUTION

Fact sheet prepared for NZPCN by P.J. de Lange 30 August 2006. Description adapted from Cooper (1956).

REFERENCES AND FURTHER READING

- Cameron M. 1944. On the trail of *Pittosporum virgatum*. *Wellington Botanical Society Bulletin* 8: 1–2.
- Cooper RC. 1956. The Australian and New Zealand species of *Pittosporum*. *Annals of the Missouri Botanical Garden* 43: 87–188. <https://doi.org/10.2307/2394673>.
- de Lange PJ, Rolfe JR, Barkla JW, Courtney SP, Champion PD, Perrie LR, Beadel SM, Ford KA, Breitwieser I, Schönberger I, Hindmarsh-Walls R, Heenan PB, Ladley K. 2018. Conservation status of New Zealand indigenous vascular plants, 2017. *New Zealand Threat Classification Series* 22. Department of Conservation, Wellington, NZ. 82 p. <https://www.doc.govt.nz/globalassets/documents/science-and-technical/nztcs22entire.pdf>.

NZPCN FACT SHEET CITATION

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<https://www.nzpcn.org.nz/flora/species/pittosporum-virgatum/> (Date website was queried)

MORE INFORMATION

<https://www.nzpcn.org.nz/flora/species/pittosporum-virgatum/>