

# Pittosporum obcordatum

## COMMON NAME

heart-leaved kōhūhū

## SYNONYMS

*Pittosporum obcordatum* Raoul var. *obcordatum*, *Pittosporum obcordatum* var. *kaitaiaensis* Laing et Gourlay

## FAMILY

Pittosporaceae

## AUTHORITY

*Pittosporum obcordatum* Raoul

## FLORA CATEGORY

Vascular – Native

## ENDEMIC TAXON

Yes

## ENDEMIC GENUS

No

## ENDEMIC FAMILY

No

## STRUCTURAL CLASS

Trees & Shrubs - Dicotyledons

## NVS CODE

PITOBC

## CHROMOSOME NUMBER

2n = 24

## CURRENT CONSERVATION STATUS

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

## PREVIOUS CONSERVATION STATUSES

2012 | Threatened – Nationally Vulnerable | Qualifiers: PD

2009 | Threatened – Nationally Vulnerable | Qualifiers: CD, PD

2004 | Threatened – Nationally Endangered

## BRIEF DESCRIPTION

Rare tall column-shaped shrub with interlaced wide-angled twigs bearing many scattered small rounded leaves and tiny yellowish flowers and small woody capsules. Leaves of a variety of shapes, 5-10mm wide, usually as long as wide. Juveniles leaves long, uneven, mottled. Fruit 6.5-10mm long, splitting into two.

## DISTRIBUTION

Endemic. New Zealand. Known from the North and South Islands. In the North Island it is known from Awanui south to the Wairarapa, with a primarily easterly distribution. In the South Island now known from several sites in the Catlins west to Lake Manapouri. About 40 plants were recently (2012) rediscovered by Melissa Hutchison on Banks Peninsula, the type locality of the species, after not being seen there for c. 170 years (Wilson, H. 2013. NZ Bot. Soc. Newsl. 112)

## HABITAT

A species of primarily eastern lowland alluvial forest, favouring sites prone to summer drought being otherwise waterlogged, and frost-prone during winter.



Cultivated (October). Photographer: John Smith-Dodsworth, Licence: CC BY-NC.



Cultivated. Photographer: John Smith-Dodsworth, Licence: CC BY-NC.

## WETLAND PLANT INDICATOR STATUS RATING

FAC: Facultative

Commonly occurs as either a hydrophyte or non-hydrophyte (non-wetlands).

## DETAILED DESCRIPTION

Small, usually single-trunked columnar tree 5–8m tall. Branches numerous, interlacing, filamulate-divaricating. Branchlets grey to reddish-brown hairy, glabrate. Leaves alternate at seedling stage and on young branchlets, later confined to the tips of brachyblasts, numerous, tomentulose to glabrous, submembranous when young, coriaceous when adult, margins entire or crenate, flat or revolute, sparsely ciliolate; seedling lamina: 5.0–10.0 × 2.5–8.0mm, oblong, narrowly oblong, oblanceolate to elliptic, linear or spatulate, usually with apices deeply lobed, toothed and parted, sometimes entire, dark brown-green, dark green, ± mottled yellow-green; subadult lamina: 3.5–6.0 × 4.0–6.0mm, oblong, narrowly oblong to elliptic, obcordate-trilobate, dark green to yellow-green, sometimes mottled; adult lamina: 2.8–4.0 × 3.0–4.0mm, orbicular, obovate (with those near branchlet tips often rhomboid or entire); apex obcordate, to obtuse, base attenuate. Inflorescences on axillary or terminal, brachyblasts, 5–8mm long, 1–5-flowered umbellate, fascicles; pedicels c. 2mm, accrescent in fruit, pubescent, subtended by 1–5 leaves and numerous 1–2mm, caducous, sparsely ciliolate, pubescent bracts. Flowers night-fragrant, gynodioecious. Sepals 1.5–3.0 × 0.5–1.0mm, lanceolate-subulate, ovate-subulate, acute, ciliate; petals 4.0–6.5 × 0.7–1.5mm, linear-oblong, lanceolate, obtuse to subacute; connate as a short cylindrical tube with strongly reflexed tips, pink maroon or pale yellow, and then often with red-tinged margins, or striped red. Male flowers: stamens 4, filaments 2.5–4.5mm long, pink or yellow, anthers 0.5–1.0mm long, yellow or pinkish yellow; gynoecium rudimentary or functional. Female flowers: stamens 4 rudimentary (often reduced to staminodes); ovary 1.5–3.3 × 0.5–1.5mm, globose, finely pubescent to hairy; style 1.0–1.2mm long; stigma capitate, obscurely 2-lobed or truncate. Capsules 2-valved, 6.5–10.0 × 5.0–7.0mm, ovoid, subovoid to ellipsoid, apiculate, green to black, coriaceous, weakly rugose, sparsely hairy, glabrate; mucilage yellow. Seeds 2–6, irregular, globose, lustrous dark black.

## SIMILAR TAXA

Within the New Zealand species of *Pittosporum* this species is easily recognised. However, it has superficial similarity to a range of other small-leaved divaricating shrubs. *P. obcordatum* is most often confused with *Myrsine divaricata* A.Cunn. which can be best distinguished by the small, round, purple, fleshy fruits containing a single seed, and by the dark black blotch at the leaf base petiole junction.

## FLOWERING

Late September to early December

## FLOWER COLOURS

Red/Pink, Yellow

## FRUITING

December to May but long persistent, such that fruit on well established plants may be found at anytime of the year.

## PROPAGATION TECHNIQUE

Easily grown from fresh seed, Semi-hardwood cuttings though slow to strike and easily rooted. This species will tolerate a wide range of conditions but it does best in a moist, fertile soil in semi-shaded. It has an attractive columnar growth form, and the small flowers are produced in profusion and are pleasantly scented, particularly at night.

## THREATS

Primarily threatened by loss of habitat. Initially this was caused by the widespread clearance of the easterly, lowland alluvial forest habitats this species favours. However, decline has continued, even within many protected forest remnants due to subtle changes in forest microclimate and hydrology, brought about by habitat fragmentation, and also many populations are threatened by the spread of aggressive weeds, which suppress (or prevent) regeneration, and can smother adult trees. Some locations consist of single trees, which are then in effect reproductively extinct. However, like many *Pittosporum*, plants may be either female, male or sexually inconstant, so some isolated individuals can set seed.

## ETYMOLOGY

**pittosporum:** Pitch seed

**obcordatum:** Reversed heart shape

## ATTRIBUTION

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

## REFERENCES AND FURTHER READING

Cooper, R.C. 1956: The Australian and New Zealand species of *Pittosporum*. *Annals of the Missouri Botanical Garden* 43: 87-188

Enright, P. 2005. *Pittosporum obcordatum* and Ahi Paku, finding rare plants in the eastern Wairarapa. *Wellington Botanical Society Bulletin*, 49: 36-45

## NZPCN FACT SHEET CITATION

Please cite as: de Lange, P.J. (Year at time of access): *Pittosporum obcordatum* Fact Sheet (content continuously updated). New Zealand Plant Conservation Network.

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

## MORE INFORMATION

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