

# Corynocarpus laevigatus

## COMMON NAMES

karaka, kopi

## SYNONYMS

None

## FAMILY

Corynocarpaceae

## AUTHORITY

Corynocarpus laevigatus J.R.Forst. et G.Forst.

## FLORA CATEGORY

Vascular – Native

## ENDEMIC TAXON

Yes

## ENDEMIC GENUS

No

## ENDEMIC FAMILY

No

## STRUCTURAL CLASS

Trees & Shrubs - Dicotyledons

## NVS CODE

CORLAE

## CHROMOSOME NUMBER

2n = 44

## CURRENT CONSERVATION STATUS

2017 | Not Threatened

## PREVIOUS CONSERVATION STATUSES

2012 | Not Threatened

2009 | Not Threatened

2004 | Not Threatened

## SIMPLIFIED DESCRIPTION

Large tree about as wide as tall with many thick dark green glossy leaves and large oval orange fruit. Bark dark, with dark spots on trunk. Leaves 10-20cm long, paler underneath. Fruit to 4cm long, oval, in dense sprays, flesh thin.

## DISTRIBUTION

Endemic. Exact indigenous distribution uncertain due to its widespread historic planting by Maori. Common from Raoul and the Three Kings Islands, throughout the North and South Islands to Banks Peninsula and Okarito. Also on the Chatham Islands. Most botanists accept it as native only to the northern half of the North Island. It is widely naturalised in lowland forests, from gardens and 'conservation plantings' well south of its presumed natural range. Seedlings can form dense carpets to the exclusion of other native regeneration (Costal et al. 2006). It is probably naturalised from deliberate Polynesian plantings on Raoul and the Chatham Islands.

## HABITAT

Common in mainly coastal situations, often a major component of coastal forest, rarely dominant. Occasionally found inland, and then often in association with Maori cultural deposits.



Ripe fruit, Ship Cove. Photographer: Simon Walls, Date taken: 01/02/2008, Licence: CC BY-NC.



Cathedral Cove, Coromandel. Photographer: John Sawyer, Date taken: 01/08/2013, Licence: CC BY-NC.

## WETLAND PLANT INDICATOR STATUS RATING

FACU: Facultative Upland

Occasionally is a hydrophyte but usually occurs in uplands (non-wetlands).

## DETAILED DESCRIPTION

Leafy canopy tree up to 15 m tall. Trunk stout up to 1 m diam., Bark grey. Branches stout, erect to spreading. Petioles 10-15 mm long. Leaves dark green above paler beneath, thick, leathery, (50-)100-150(-200) x (30-)50-70 mm, glossy, elliptic to obovate-oblong, margins recurved. Inflorescence a stout, erect panicle up to 200 mm long, peduncles and pedicels short, somewhat fleshy, pale green. Flowers 4-5 mm diam., greenish-cream to off-white or pale yellow. Sepals suborbicular, petals 5, obovate-spathulate, alternating with 5 subpetaloid staminodes. Fruit an ellipsoid to ovoid drupe 25-40(-46) mm long, flesh pale yellow to orange. Endocarp a fibrous reticulum surrounding a smoother, harder papery layer beneath. This structure enclosing a single seed (kernel).

## SIMILAR TAXA

Karaka is a very distinctive tree unlikely to be confused with any other indigenous, naturalised or planted exotic tree. The simply, leathery, dark green leaves and large orange drupes with their fibrous endocarp serve to immediately distinguish it. Some Botanic Gardens hold specimens of the other 4 species of the genus, vegetatively these look similar to karaka but their fruits are very different in colour, shape and size.

## FLOWERING

August - November

## FLOWER COLOURS

Cream, Green

## FRUITING

January - April

## LIFE CYCLE

Fleshy drupes are dispersed by frugivory (Thorsen et al., 2009).

## PROPAGATION TECHNIQUE

Easily grown from fresh seed. Cuttings are very difficult to strike. Frost-tender and cold-sensitive when young.

## THREATS

Abundant and not threatened. Often naturalising in suitable habitats.

## ETYMOLOGY

**corynocarpus:** From the Greek koryne 'club' and -carpus 'fruit'

**laevigatus:** Smooth

## POISONOUS PLANT

The fleshy outer part of the fruit can be eaten but the kernel in which the seed occur is poisonous (a neurotoxin known as karakin) unless detoxified through cooking. Symptoms include nausea, vomiting and seizures. There may also be the onset of muscular spasms after several weeks. Click on this link for more information about [Poisonous native plants](#).

## CULTIVATION

Common in cultivation and widely sold both in New Zealand and around the world. A serious pest in the Hawaiian Islands. Because the fresh kernels of the species contain a lethal neurotoxin Karakin, and so the species has been banned from some amenity plantings and day care and kindergartens. The toxin, an alkaloid breaks down with exposure to UV light.

## CULTURAL USE/IMPORTANCE

Karaka (or kopi) holds significant cultural and historical value for Māori and Moriori, but it is also viewed as an environmental weed outside its natural range due to its capacity to outcompete resident native vegetation and disrupt local ecosystems. For a detailed discussion see McAlpine et al. (2024) [Karaka \(\*Corynocarpus laevigatus\*\): native taonga \(treasure\) or environmental weed? \*New Zealand Journal of Botany\*, 1–26.](#)

<https://doi.org/10.1080/0028825X.2024.2388751>.

## ATTRIBUTION

Fact Sheet prepared for NZPCN by P.J. de Lange (1 September 2004). Description based on Allan (1961). Some of this factsheet information is derived from [Flora of New Zealand Online](#) and is used under a [Creative Commons Attribution 3.0 New Zealand](#) licence.

## REFERENCES AND FURTHER READING

Allan, H.H. 1961: Flora of New Zealand. Vol. 1. Wellington, Government Printer.

J.A. Costall , R.J. Carter , Y. Shimada , D. Anthony & G. L. Rapson (2006). The endemic tree *Corynocarpus laevigatus* (karaka) as a weedy invader in forest remnants of southern North Island, New Zealand, *New Zealand Journal of Botany*, 44:1, 5-22, DOI:10.1080/0028825X.2006.9513002

## NZPCN FACT SHEET CITATION

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

## MORE INFORMATION

<https://www.nzpcn.org.nz/flora/species/corynocarpus-laevigatus/>

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