

Sophora chathamica

COMMON NAMES

kōwhai, coastal kōwhai

BIOSTATUS

Native – Endemic taxon

CATEGORY

Vascular

STRUCTURAL CLASS

Trees & Shrubs - Dicotyledons

SIMPLIFIED DESCRIPTION

An early-flowering kowhai tree, bearing leaves to 150mm long that have leaflets 6-16mm long by 4-8mm wide that slightly overlap and get smaller towards the leaf tip. Has bunches of drooping yellow flowers and dry, ridged and knobby seed pods 50-180mm long, containing hard yellow seeds. Juvenile and adults similar.

FLOWER COLOURS

Yellow

DETAILED DESCRIPTION

Tree up to 20 m tall, with one or more trunks. **Branches** spreading to upright. **Juveniles** weakly flexuose. **Leaves** on seedlings and juveniles moderately to densely leafy, 4.4-9 x 4.4-7.5 mm, orbicular to very broadly obovate, crowded, usually overlapping. **Adult leaves** up to 150 mm long, imparipinnate, usually pubescent, hairs, straight, appressed. **Leaflets** 25-55, crowded and overlapping, 6-16 x 4-8 mm, broadly elliptic, broadly obovate, broadly ovate, obovate to orbicular, distal leaflets usually smaller than proximal. **Inflorescences** racemose with up to 11 flowers. Calyx 8-10 x 10-13 mm, cupulate. **Flowers** yellow, keel petal blade 29-43 x 9-11 mm, wing petal blade 25-42 x 9-11 mm, standard petal blade 25-34 x 20-25 mm; petals with distinct claws 4-6 mm long. **Fruit** 50-180 mm long, 4-winged, brown, with up to 12 seeds. **Seeds** 5.5-8 x 4.-5. mm, oblong, elliptic to orbicular, yellow to light yellow-brown.

SIMILAR TAXA

Distinguished from all other Kowhai species by the absence of a divaricating/filiramulate juvenile stage; with leaflets 6-16 x 4-8 mm; and by the distal leaflets usually smaller than proximal, crowded and overlapping (especially toward distal end), with leaflets broadly elliptic, broadly obovate, broadly ovate, obovate to more or less orbicular, with all parts moderately hairy. Tends to flower earlier in spring than other kowhai tree species and is even known to flower from mid-winter.

DISTRIBUTION

Endemic. A primarily coastal species known from North, South and Chatham Islands but probably only indigenous to the northern half of the North Island, where it is common in the west from the Tongaporutu River to Te Pahi. In the east, it is abundant south to about Thames and, so far, it has not been reported growing naturally south and east of there. Very common around Auckland, the Hauraki Gulf and from Port Waikato south to Kawhia. There are some inland occurrences in the lower Waikato Basin. Disjunct occurrences around Wellington, the Chatham Islands and Whanganui Inlet may result from deliberate plantings by the Maori.

HABITAT

Primarily a species of coastal forest, often on cliff faces or banks overlooking estuarine rivers or inlets. Occasionally found in swamp forest.



Sophora chathamica flowers, October, Coromandel. Photographer: John Smith-Dodsworth, Licence: CC BY-NC.



Sophora chathamica foliage. Photographer: John Smith-Dodsworth, Licence: CC BY-NC.

CURRENT CONSERVATION STATUS

2023 | Not Threatened

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THREATS

The main threat that faces all wild New Zealand kowhai species is the risk of hybridisation, posed through planting for revegetation and horticultural purposes of hybrid material, foreign species, such as the Chilean Pelu (*S. cassioides*) and also of kowhai species outside their natural range. However, *S. chathamica* seems to be very common throughout its range, and is adequately protected within a range of reserves and land set aside for conservation purposes. The nativity of the Chatham Island populations is not clear and, though assumed to be planted by Maori, this assertion needs further study and, as the trees are culturally significant they require direct management. Few, if any, Chatham Island plants can be said to exist in truly secure habitats.

DETAILED TAXONOMY

GENUS

Sophora

FAMILY

Fabaceae

AUTHORITY

Sophora chathamica Cockayne

SYNONYMS

Sophora microphylla var. *chathamica* (Cockayne) Yakolev, *Sophora microphylla* subsp. *microphylla* var. *chathamica* (Cockayne) Yakolev

ENDEMIC TAXON

Yes

ENDEMIC GENUS

No

ENDEMIC FAMILY

No

ECOLOGY

FLOWERING

(June) - July-November

FRUITING

October-November

PROPAGATION TECHNIQUE

Easy from seed, provided the hard seed shell is nicked first with a knife or rubbed with sandpaper to expose the endosperm. Soaking seed treated this way overnight often helps speed up germination. Can be grown with difficulty from cuttings.

OTHER INFORMATION

POISONOUS PLANT

All parts of the plant but especially the ripe yellow seed are poisonous. Because the seed are hard they will take a lot of chewing to cause harm, and also will need to be consumed in large quantities to effectively poison a human. If the seed are crushed before eating it is more likely that they will cause harm. The major toxin is Cytisine and symptoms of poisoning include nausea, vomiting, increased heart rate, twitching of muscles or loss of coordination. Onset of these symptoms may occur within one hour. In extreme cases symptoms include paralysis and respiratory failure. Click on this link for more information about [Poisonous native plants](#).

CULTIVATION

Commonly available at most commercial nurseries. A popular native tree for larger gardens. Very commonly sold in garden centres, where it is often sold as either *S. microphylla* or *S. tetraptera*. Some plants with a superficial resemblance to *S. chathamica* and offered by nurseries usually as *S. microphylla* or *S. tetraptera* have, upon closer inspection, turned out to be the closely related Chilean pelu (*S. cassioides*).

ETYMOLOGY

sophora: After the Arabic name for a similar tree

chathamica: From the Chatham Islands

NVS CODE

SOPCHA

CHROMOSOME NUMBER

2n = 18

PREVIOUS CONSERVATION STATUSES

2017 | Not Threatened

2012 | Not Threatened

2009 | Not Threatened

2004 | Not Threatened

[Jump to current conservation status](#)

REGIONAL CONSERVATION STATUSES

Auckland: 2025 | Regionally Not Threatened Help

The regional threat classification system leverages off the national assessments in the NZTCS, providing information relevant for the regional context. Auckland conservation status information is sourced from the "[Conservation status of vascular plant species in Tāmaki Makaurau / Auckland](#)" Simpkins E et al. (2025) report.

REFERENCING AND CITATIONS

REFERENCES AND FURTHER READING

Anonymous. 1944. Kowhai. *Wellington Botanical Society Bulletin*, 9: 4-5

Heenan PB, de Lange PJ, Wilton AD. 2001. *Sophora* (Fabaceae) in New Zealand: taxonomy, distribution, and biogeography. *New Zealand Journal of Botany* 39: 17-53

ATTRIBUTION

Fact Sheet prepared for NZPCN by P.J. de Lange (31 July 2004). Description adapted from Heenan et al. (2001).

MORE INFORMATION

<https://www.nzpcn.org.nz/flora/species/sophora-chathamica/>

PDF DATE

22 September 2025