Sophora microphylla

COMMON NAMES
kōwhai, weeping kōwhai, small-leaved kōwhai

BIOSTATUS
Native – Endemic taxon

CURRENT CONSERVATION STATUS
2023 | Not Threatened
Jump to previous conservation statuses

CATEGORY
Vascular

STRUCTURAL CLASS
Trees & Shrubs - Dicotyledons

SIMPLIFIED DESCRIPTION
A common kowhai tree bearing leaves 30-50mm long that have spaced equal-sized leaflets 4.5-12.5mm long and with bunches of drooping yellow flowers and dry ridged and knobbly seed pods 50-200mm long containing hard yellow seeds. Juveniles with zig-zagging branches.

FLOWER COLOURS
Yellow

DETAILED DESCRIPTION
Tree up to 25 m tall, usually a single trunk. **Branches** weeping, and spreading. **Juveniles** divaricating and/or strongly flexuose, and interlacing. **Leaves** on seedlings sparsely to moderately leafy, 3-5.8 x 2.3-4.9 mm, broadly obovate to orbicular, glabrous to sparely pubescent, distant, not crowded or overlapping. **Adult leaves** up to 150 mm long, imparipinnate, moderately to sparsely hairy, hairs, straight, appressed. **Leaflets** 30-50, not crowded or overlapping, distant, 4.5-12.5 x 2.3-5.7 mm, elliptic, broadly elliptic, obovate to ovate, sometimes orbicular, distal and proximal leaflets of similar size. **Inflorescences** racemose with up to 7 flowers. Calyx 5-11 x 7-10 mm, cupulate. **Flowers** yellow, keel petal blade 18-50 x 7-13 mm, wing petal blade 18-50 x 6-11 mm, standard petal blade 20-35 x 14-25 mm; petals with distinct claws 4-8 mm long. **Fruit** 50-200 mm long, 4-winged, brown, with up to 12 seeds. **Seeds** 5.5-8.5 x 4.-5.5 mm, oblong, elliptic to orbicular, yellow to light yellow-brown.

Flowers, Nugget Point. Photographer: John Barkla, Licence: CC BY.

Flowers, Nugget Point. Photographer: John Barkla, Licence: CC BY.

SIMILAR TAXA
Can be distinguished from the other Kowhai species by the divaricating/filiramulate juvenile and arborescent adult, leaves > 30 mm, leaflet pairs > 6, these sparsely to moderately hairy, with the distil and by the obvious petiolule.

DISTRIBUTION
Endemic. Throughout the main islands of New Zealand but scarce in parts of Northland.

HABITAT
In the North Island, especially the northern half this is a species of mainly riparian forest. South of about Hamilton it can be found in a diverse range of habitats from coastal cliff faces and associated wetlands to inland grey scrub communities. Scarce to absent over large parts of the eastern North Island from about East Cape south to the northern Wairarapa.

THREATS
The main threat that faces all wild New Zealand kowhai species is the risk 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. In many places S. microphylla occurs as isolated stands within otherwise cleared alluvial forest, and in this situations the loss of trees over time is inevitable. The species is genuinely uncommon in Northland, and in that area inadequately represented within reserves and other conservation land.

GENUS
Sophora

FAMILY
Fabaceae

AUTHORITY
Sophora microphylla Aiton

SYNONYMS
Edwardsia microphylla (Aiton) Salisb., Edwardsia grandiflora var. microphylla (Aiton) Hook.f., Sophora tetraptera var. microphylla (Aiton) Hook.f.; Sophora microphylla Aiton var. microphylla; Sophora microphylla Aiton subsp. microphylla; Sophora microphylla Aiton subsp. microphylla var. microphylla

ENDEMIC TAXON
Yes

ENDEMIC GENUS
No

ENDEMIC FAMILY
No

FLOWERING
(May-) August-October

FRUITING
October -May

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.

WETLAND PLANT INDICATOR STATUS RATING
FACU: Facultative Upland
Occasionally is a hydrophyte but usually occurs in uplands (non-wetlands).

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. However many plants sold by nurseries are hybrids with either *S. chathamica* or *S. tetraptera*.

ETYMOLOGY
sophora: After the Arabic name for a similar tree
microphylla: Small leaf

NVS CODE
SOPMIC

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 Threatened – Regionally Vulnerable | Qualifiers: DPR, DPS, DPT, PF, RF 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.
Otago: 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. Otago conservation status information is sourced from the "Conservation Status of Indigenous Vascular Plants in Otago, 2025" Jarvie S et al. (2025) report.

REFERENCES AND FURTHER READING
Anonymous. 1944. Kowhai. *Wellington Botanical Society Bulletin 9*: 4-5
Duguid F. 1971. Germination of kowhai at Hokio beach. *Wellington Botanical Society Bulletin 37*: 65-66.
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-microphylla/

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