

# *Sophora howinsula* Lignum vitae



*Sophora howinsula* GBG, June-August

## Introduction

*Sophora howinsula*, commonly known as lignum vitae (named by early English settlers because its timber durability is similar to that of the Caribbean tree of that name) or Lord Howe kōwhai, is a flowering plant in the legume family. The specific name refers to the island to which the species is endemic (how and insula meaning island). It is locally common, scattered distribution through the island's lowland hills and is situated in the 21st Century Garden.

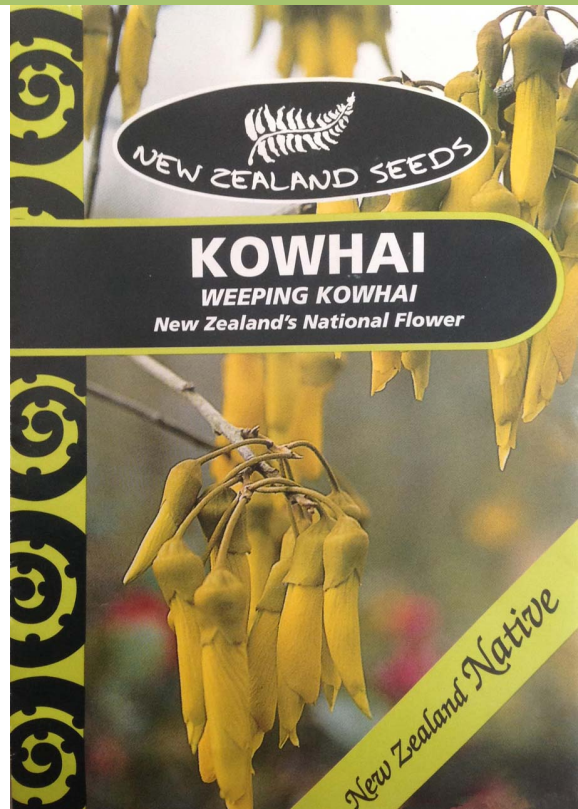
- In GBG there is a *Sophora macrocarpa* from Chile near the Cork Oak, a *Sophora microphylla* from NZ in the Shrubbery and a *Sophora toromiro* (which is extinct in its native Rapa Nui (Easter Island) in the 21<sup>st</sup> Century Garden.
- Kōwhai (*Sophora*) is New Zealand's National Flower (kōwhai meaning yellow in Maori).
- There are 61 species of *Sophora* accepted by the Plant List.
- The seeds of *Sophora* can survive in sea water for at least 3 years which allows them to move between islands in the south Pacific.
- There are 17 closely related species (or subspecies) in Lord Howe Island (LHI), New Zealand (with 8 endemic species), the Chatham Island, Raivavae, Rapa, Marquesas, Masafeura, Masaitierra, Chile, Easter Island, Gough Island and Reunion. All these are in the southern hemisphere.
- Many of these islands are part of the submerged continent of Zealandia. This continent includes NZ and its islands, Lord Howe, Norfolk as well as others.



*Sophora microphylla*  
Weeping Kowhai

Left: GBG September.

Right: Seed packet:  
*Sophora*  
Kōwhai is the national flower of New Zealand.



- The seeds of *S. howinsula* are eaten by rats that were introduced to LHI via ships and their cargo. Rats are a major problem for the survival of the rare and endemic flora of LHI.

### Description

It is a tree, growing to 10 m, sometimes 15 m, in height. The pinnate leaves are 5–10 cm long. The 1.5 - 2 cm long yellow pea flowers are produced racemose inflorescences (meaning the flowers develop in a cluster on short stalks of equal length along a central stem). The 7 -12 cm long pods each contain 5 -10 smooth, orange-brown, ellipsoidal, 7 mm long seeds. The flowering season is from mid-July to mid-September.

The timber is protected by oils that remain after the tree has been felled. These oils protect the timber from attack by insects and fungi. In fact, there are houses on LHI whose stumps made from this tree are still supporting the floor after 100 years. In addition to house stumps, the hard, durable wood was used for fence posts.

### Cultivation/Propagation:

*S. howinsula* is a slow growing, small tree. It is relatively easy to propagate from semi-ripe shoot material taken from the top-most part of the tree. If propagating from seed it must be noted that the seed-coat is very hard and needs to be chipped with a file or knife. Seeds should then be soaked in warm water overnight and sown in equal mix of moist coir and sharp grit positioned vertically and kept moist. If fresh, germination should occur within 21 days. It is best to plant them out into their final positions as soon as possible so as not to check their growth. This plant is relatively pest-free in cultivation.

### References:

1. wikipedia.org
2. Lord Howe Island Rodent Eradication Project, EPBC Public Environment Report December 2016, Appendix H – Biodiversity Benefits Monitoring Package, Lord Howe Island Board
3. Lignum Vitae (*Sophora howinsula*), Lord Howe Island Museum, <http://www.lkimuseum.com/species/view/130>
4. [www.theplantlist.org](http://www.theplantlist.org)



*Sophora macrocarpa*

Left Photo:  
Penarc  
de.wikipedia  
.org  
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3.0

Right: GBG.



5. Evidence for the recent dispersal of *Sophora* (Leguminosae) around the Southern Oceans: molecular date, Kathryn A. Hurr, et al, Journal of Biogeography, 26, 565-577.
6. Plant Heritage New Zealand, Tony Foster, 2012
7. Plate 453 *Sophora howinsula* Leguminosae, Peter Green, Ian Hutton and David Cooke, RBG Kew, 2002, for Curtis's Botanical Magazine, Wiley, Nov. 2002.
8. TERRAIN (Taranaki Educational Resource: Research, Analysis and Information Network)



*Sophora toromiro*  
Jardín Botánico de Barcelona

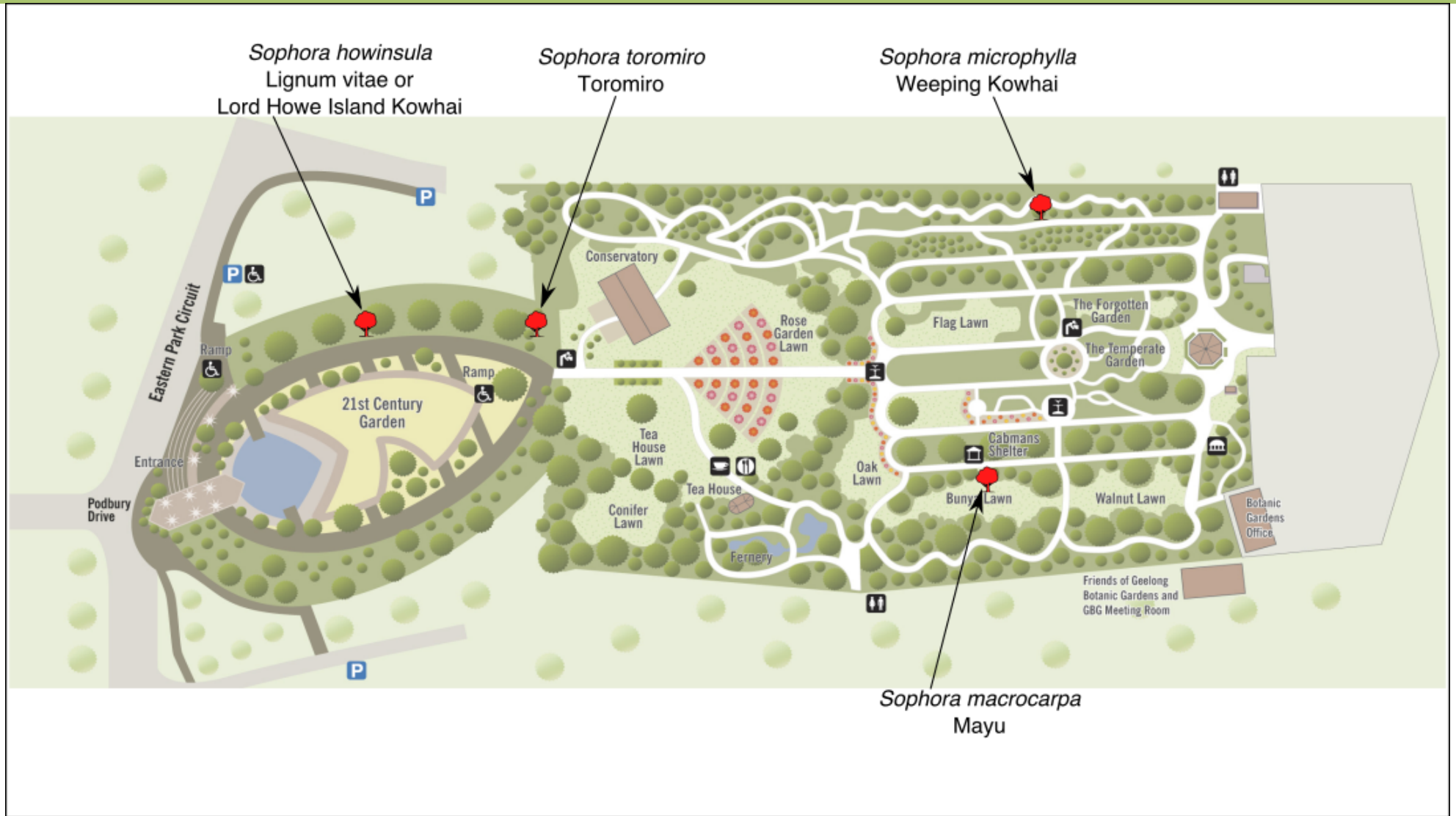
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**Family:** Fabaceae  
**Subfamily:** Faboideae  
**Tribe:** Sophoreae  
**Genus:** *Sophora*  
**Species:** *Sophora howinsula*  
**Synonym:** *Sophora tetraptera* var. *howinsula*  
**Common names:** Lord Howe Kowhai,  
 Lord Howe's 'ironwood', Lignum Vitae

Map of the submerged continent, Zealandia, showing the location of Lord Howe Island. The continuous black line marks the edge of the continental shelf. Topography based on bathymetry data from Scripps Institution of Oceanography, University of California, San Diego.  
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# Geelong Botanic Gardens Map



*Sophora macrocarpa*  
Mayu



This information was prepared  
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