

Podocarpus elatus and *Prumnopitys andina*

This Plant in Focus sheet is in keeping with our resolve to put all our heritage listed trees into the Plant in Focus file.

We have two trees on the *National Trust Register of Significant Trees* known colloquially around the GBG as the 'Plum Pine' and the 'Plum Fir' respectively. They are both conifers from the family Podocarpaceae and were formerly both classified in the genus *Podocarpus*. However, the 'plum fir' (known in the literature more commonly as a 'plum yew') has been reclassified into the genus *Prumnopitys*. Both trees have common Gondwana origins, and have been traced to the

humid southern edge of the Gondwana continent. *Podocarpus elatus* is one of ours -- native to the Australian east coast rain forest remnants -- while *Prumnopitys andina* is endemic to the lower altitudes of the Andes in Chile. There are around 100 different species of *Podocarpus* and 8 recognised species of *Prumnopitys*, all of both genera surviving in humid, usually rainforest, conditions in ex-Gondwana areas of the world.

Podocarpus elatus

Family: Podocarpaceae

Genus: *Podocarpus*

Species: *P. elatus*

Common Names: Plum pine, Illawarra plum pine, Brown pine.

Meaning of Name: podos = foot, carpos = fruit, referring to the swollen fleshy cone (fruit) sitting under the seed. elatus = lofty, referring to the tallness of the species.

Reason for its classification as 'significant': Our *Podocarpus elatus* is the largest known specimen in Victoria (which is south of its natural range). It is an 'outstanding specimen of this native species'. In 2004 it was measured at 19 m. tall.

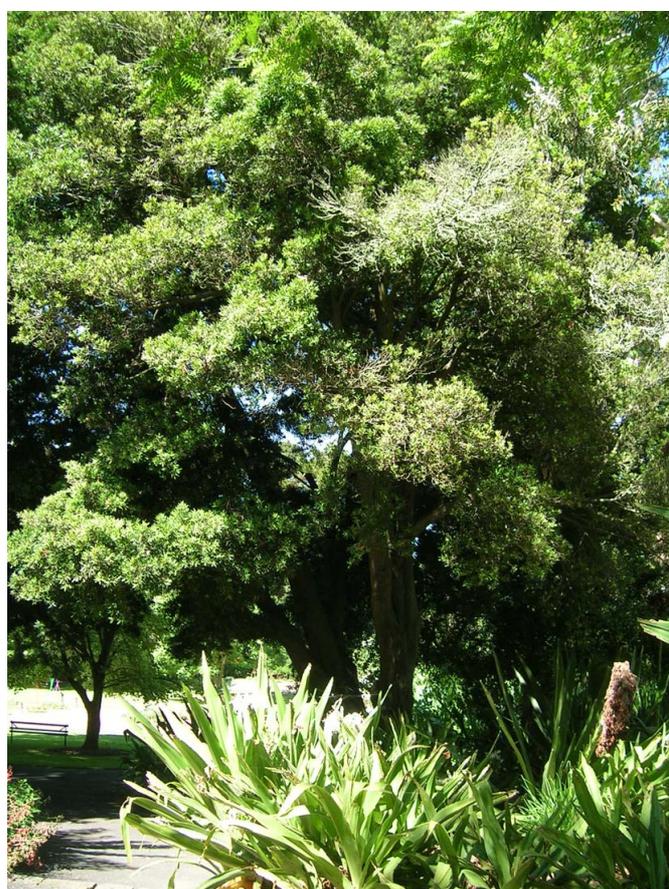
Origin: This species is native to rain forests, especially coastal and river edge rain forests along the east coast of Australia from the Shoalhaven River area of southern NSW to southern Queensland with pockets further north.

Location in the GBG: On the boundary between the 19th and 20th century gardens, on the opposite side of the path to the *Sequoiadendron giganteum*. A cable holds together the split trunk.



Podocarpus elatus

Photo: M. Fagg, © ANBG, ACT



Podocarpus elatus

19th Century Garden, GBG



WHITE OR SHE PINE.
(*Podocarpus elata*, R.Br.)

***Podocarpus elatus* plant details**

A. Male plant, young leaves and pollen cones, B & C. Male cone, D. Female cone, E. Female plant, leaves and female cones
F, G, H. Female cone

"Forest Flora of New South Wales" by Joseph Maiden (1859-1925)
Artist: Lilian Flockton (1861-1953)
commons.wikimedia.org
(*Podocarpus elata* is a synonym for *P. elatus*)

Features: *Podocarpus elatus* can grow into a large tree (40m) in the short period of 8 to 10 years. Its dark green leaves are lanceolate and 5 -15cm long. Its bark is dark brown and often fissured and scaly on older trees. It is dioecious. Like all conifers it has cones. On *Podocarpus elatus* trees, the female cones resemble fruit with fused cone scales forming a fleshy, dark purple 'berry'. These attract birds which disperse the seeds in their droppings. The solitary cone makes a fleshy base which is topped with a (usually) single 1cm seed. The 'berries' were eaten by indigenous Australians and are occasionally used more widely in cakes and tarts or made into a jelly. The male cones are narrow and catkin-like to 3 cm long and occur in clusters. The timber is highly regarded. *Podocarpus elatus* has been used as a street tree in Sydney. It can be pruned, clipped into a hedge, and even used for bonsai.

Prumnopitys andina

Family: Podocarpaceae

Genus: *Prumnopitys*

Species: *P. andina*

Common Names: Chilean plum yew, Plum fruited yew, plum yew, (around GBG: plum fir)

Meaning of Name: prymnos = hindmost, pitys = pine. This name apparently refers to a distinguishing feature of these trees: their 'resin ducts are behind the mid-rib'. of the leaves. andina = of the Andes.

Reasons for its classification as 'significant': *Prumnopitys andina* is a rare species with a global conservation status of 'vulnerable'. It commonly grows to only 15m. and is often shrubby when cultivated. Ours is 21m. tall. Ours is the only known specimen in Victoria. Origin: This species is endemic to low to mid-altitudes of the Andes in Chile. It grows in the bottom of valleys close to large rivers. One of its companion plants is the *Quillaja saponaria*, another of GBG's significant trees.

Location in the GBG: Close (too close) to the *Ginkgo biloba*, between the *Ginkgo* and the east-west path.

Features: *Prumnopitys andina* is dioecious. Its leaves are linear or sickle shaped and grow in yew-like formations along a mid-rib. The bark is dark brown, weathering to light grey.

Each of the 1 to 4 scales of its female seed cones becomes a soft, edible, deep red-purple 'berry' covering a single seed.

These 'berries' (arils) are food for birds which disperse the seeds through their droppings. The berries are also eaten by Native American Chileans and a jam is produced from them. The pollen cones are in groups of 10 to 20, each

attached to an axillary shoot. The wood is yellowish and is good furniture timber. The germination of the seeds can be delayed for up to 4 years and regeneration of the species is threatened, in part because of livestock grazing on the fleshy cones.

References:

Australian Conifers (<http://www.anbg.gov.au>)

Elliot, W. Rodger and Jones, David L. (1997) *Encyclopaedia of Australian Plants Suitable for Cultivation* (Port Melbourne: Thomas Lothian).

The Gymnosperm Database

The National Trust (<http://trusttrees.org.au>)

Threatened conifers of the World (<http://threatenedconifers.rbge.org.uk>)



Prumnopitys andina photos, from the top:

1. Plant next to Ginkgo, GBG
2. Twig, GBG



Geelong Botanic Gardens Map

