

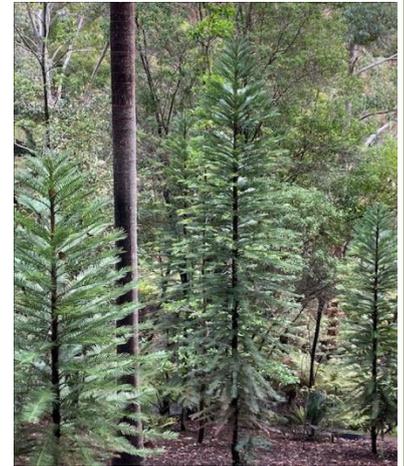
MT LOFTY BOTANIC GARDEN

JUNE 2022 WALK FROM THE LOWER CAR PARK



To help keep visitors COVID-19 safe we provide a copy on the Noticeboard at the Garden photographed to take with you or there is a downloadable version on our website (<https://www.friendsbgadelaide.com/guided-walks>)

This month's walk focuses on the Southern Hemisphere conifers as the Mount Lofty Botanic Garden is increasing its collection, particularly with the ancient Araucaria family. This family includes three genera (*Araucaria*, *Agathis* and *Wollemia* - see young specimens at right.) and a total of 41 species of cone-bearing trees native to the forested areas of the Southern Hemisphere including South America, Malaysia, New Guinea, Australia, New Zealand and New Caledonia. During the Jurassic period the family had an extensive distribution in both hemispheres, extending as far north as England, Greenland and Sweden. Following the breakup of Gondwana, these trees are now found only south of the equator. Fossil evidence indicates that ancient araucaria forests resembling present day species date back to the age of the dinosaurs.



This walk will take you to see several Araucaria species as well as the NZ kauri (*Agathis australis*) and the Wollemi pine (*Wollemia nobilis*). You can also see other conifers (largely Southern Hemisphere) which bear little resemblance to the conifers of the Northern Hemisphere, namely the podocarps and the unusual NZ celery pine or tanekaha (*Phyllocladus trichomanoides*).

Take the Main Lake Road south, passing the Chris Steele-Scott pavilion. Further on and on the right is a bench known as Lady Bonython's seat in memory of Lady Bonython and in acknowledgement of the donations to the Gardens from the Bonython family. The former Bonython residence, known as Carminow Castle, may be seen on the ridge above the Main Lake dam wall. The home was built by Sir Thomas Elder, a wealthy pastoralist, as a summer residence. The tower has views to Port Adelaide allowing Sir Thomas to monitor sailing ship arrivals associated with his business interests. Immediately below the seat is a magnificent *Carya glabra* or pignut hickory, native to the eastern United States and southern Canada. The pignut hickory supplies abundant food for wildlife in its native range as well as high heating-value timber for fuel. The last remnants of its spectacular autumn-coloured leaves may be seen on the ground below its extensive canopy.

On reaching the little pond, stop and note the purple fruit of *Syzygium smithii* (formerly *Acmena smithii*) commonly known as lilly pilly. It is a member of the myrtle family (Myrtaceae) of plants that also includes the eucalypts or gum trees. Both have flowers with reduced or absent petals which are often less prominent than the showy stamens. However, the fruit of the lilly pilly is fleshy (and edible) whereas eucalypts have dry fruit capsules.



At the entrance to Fern Gully, notice an overhanging small tree on your left. A gentle touch of the leaves will reveal its identity as the sandpaper fig (*Ficus coronata*). This tree is native to Australia and found along the east coasts from Mackay in Qld, through NSW and into Victoria near Mallacoota. It grows along riverbanks and gullies in rainforest and open forest. The specific name coronata means crowned, referring to the ring of bristles around the apex of the fruit. Like all members of the *Ficus* genus, it has internal flowers pollinated by a fig wasp, which burrows into the fruit and then dies, leaving eggs for the next generation.

Follow the main road to the left and make your way up the hill. Further up, and on your left are several specimens of *Cussonia paniculata* or mountain cabbage tree, native to South Africa, where it is known as kiepersol. Trees are slow growing and have a swollen stem and base as well as thick and swollen roots.

Cussonias are classed as a pachycaul succulent, which are also referred to as “fat-bottomed” plants and have significant drought tolerance. The flower bearing heads are intriguing in terms of their size and distinctive shape. Flowering is prolific and abundant nectar attracts many insects. Continue up the hill and take the path to the right which follows the contour. Note that there are several termite mounds in the area, highlighting the active role insects take in the biodiversity of the Garden.



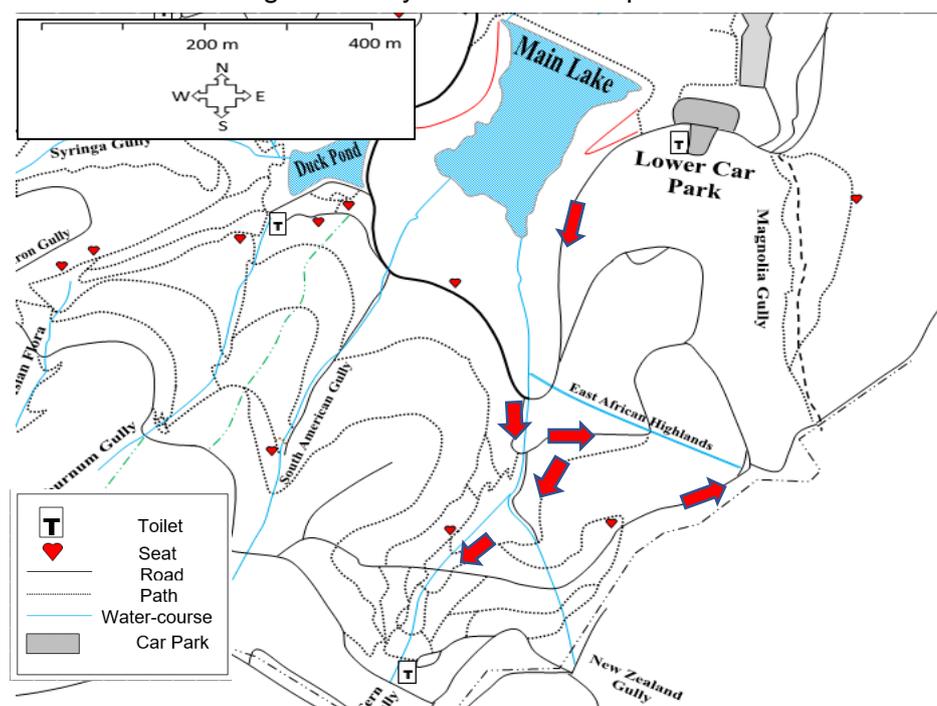
The NZ celery pine or tanekaha has a scientific name that only a botanist could like – *Phyllocladus trichomanoides*. A cone-bearing tree the celery pine, like the kauri, sheds its lower branches as it matures to produce a smooth straight trunk and knot-free timber, which is highly sought after for its strength and elasticity. The bark is rich in tannin, from which the Maori extracted a red dye. The flattened modified shoots form leaf-like photosynthesising elements called “phylloclades” which look a little like celery leaves.

Further on is a small grove of *Agathis australis* or NZ kauri, a cone bearing tree in the family Araucariaceae. It grows 30 to 60m tall in the emergent layer above the forest canopy on the North Island of NZ. The trunk diameter can reach over 5m. Kauri leaves are 3-7cm long and 1cm broad, tough and leathery in texture, The seed cones are globose, 5-7cm in diameter and mature 18-20 months after pollination. The seed cones disintegrate at maturity to release winged seeds. Young trees have columnar growth with the trunk scarcely free of branches. The species name ‘australis’ denotes southern. Cross the face of the hill and on into Fern Gully. Above the path you will see groups of *Wollemia nobilis*, or Wollemi pine, rediscovered in 1994 in a sandstone gorge near Sydney. Prior to this, they were only known in the fossil record. The Garden has received donations of specimens that have grown too large for pots, combined with cutting propagation, and has found that they thrive in groves of plantings in the Garden.

On your right just before you join the concrete road is the Tasmanian pepperberry or mountain pepper (*Tasmania lanceolata*, formerly *Drimys lanceolata*). This shrub is found in rainforest gullies in Tasmania, Victoria and into NSW. The stems tend to be red in colour and small cream or white flowers appear in summer and are followed by black, globose, two-lobed berries which ripen in autumn. The leaf and berry are used as a spice, and in colonial times pepperberry was used as a pepper substitute. More recently it has become popular as a bushfood condiment.

We hope you have enjoyed this walk and suggest you choose to either follow the main road back down to the Main Lake or meander down Magnolia Gully back to the car park.

JH, RH and NF 06/2022



This leaflet has been prepared by the Garden Guides and funded by the Friends of the Botanic Gardens of Adelaide Inc.

For information about the Friends and/or guided walks, please telephone 8222 9367
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