

MT LOFTY BOTANIC GARDEN

DECEMBER 2022/JANUARY 23 WALK from the LOWER CAR PARK



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

After an unusually wet spring, the Mount Lofty Botanic Garden is in magnificent condition and will provide a cool haven for visitors, even during the warmest days of summer. This walk climbs up Magnolia Gully and then returns visitors via Fern or New Zealand Gully.

To begin this walk, make your way to the Magnolia gully path by heading back the way you drove into the car park, At the bottom and on your right is a grove of ***Cedrus atlantica* 'Glauca'**, the blue Atlas cedar, native to the Atlas Mountains of Morocco. Whilst botanists used to class this as a subspecies of the Lebanon cedar (*C. libani* subsp. *atlantica*), more recently it has been classed as a separate species. The same distinctive foliage may be seen in a grafted specimen to the northeast, where there is a well-established ***Cedrus atlantica* 'Glauca Pendula'**. This selection, which is a weeping form, was grafted to a standard trunk and is now spreading prolifically and providing a fascinating contrast to its relatives.



Further on, and to your right, is a ***Chamaecyparis thyoides* 'Variegata'**, a selection of the Atlantic white cedar or false cypress. This form has a natural variegation with a yellowing where chlorophyll production is inhibited. This gives a pleasing pattern, although specimens of this selection tend to be less vigorous than their parent trees. They are native to the Atlantic Coast of North America and tend to grow in coastal wetlands.

Just ahead, and on both sides of the track, is a grove of ***Cryptomeria japonica* 'Monstrosa'**, known as sugi or the Japanese red cedar which is the national tree of Japan. This conifer is native to Japan and is in the cypress family and distantly related to giant sequoia. Note that these specimens have been hedged by tipping branches and encouraging regrowth. Contrast these specimens on the right with the one on the left, which is quite scruffy in comparison and not as pleasing to the eye. A current feature of this planting are the tiny male cones with prominent pollen sacs near the growth tips. Look to the southern branches for the best examples of male cones.



A little further on, and to the right, is a ***Tsuga canadensis***, the eastern or Canadian hemlock. This is native to eastern North America and is the state tree of Pennsylvania. It is known for being very long lived with the oldest recorded tree being 554 years old (in Tionesta, Pennsylvania). Further on, and on the right, is another conifer of interest, ***Abies lasiocarpa* var. *arizonica***, the Arizona cork bark fir, native to Arizona and New Mexico. The thicker corky bark helps protect the tree from damage by browsing animals. This specimen has evidence of the corky growth in response to damage, where a side branch has been torn from the trunk.

At the top of the path there is a large specimen of ***Exocarpos cupressiformis***. It is a member of the sandalwood family, Santalaceae, which also includes the quandong or bush peach (***Santalum acuminatum***), sandalwood (***Santalum spicatum***) and the native plum bush (***Santalum lanceolatum***). It is endemic to Australia and is a hemi-parasite obtaining nutrients from a nearby host plant via its roots, particularly in its early developmental stages. It is the most widespread of its genus and is found in southeastern Australia, generally in dry forests and woodlands. Its true fruit, a nut containing the seed, is on

the outside of the “false” fruit (hence its name **Exocarpos** derived from the Greek *exo* out and *carpos* fruit). This false fruit is the fleshy, swollen part of the flower stalk, the pedicel, and is succulent, bright red and edible, hence the common name of “cherry”. It was used as food by first nations people and early European settlers. Additionally, birds are also attracted to the red “false” fruit and in so doing ingest the nut and seed and thus aid in its dispersal.

The area below the road has plantings of a wide range of **Araucaria**. These species are relics of the Mesozoic era (66–252 million years ago) and are only found in the southern hemisphere from eastern Australia, New Caledonia, Norfolk Island, New Guinea to eastern South America. One example is **Araucaria rulei**, the Rule Araucaria or graceful pine (at right in the image at right). This an endangered native of New Caledonia and favours soils where nickel deposits are found. Contrast the foliage with **Araucaria laubenfelsii**, named after David de Laubenfels, a specialist in New Caledonian araucarias. It is a columnar tree ranging from 10-50m in height (at left in image at right).



Take the main road to the right and on your right is a **Podocarpus nivalis** commonly known in the Māori language as alpine totara, a conifer of the podocarp family within the Gymnosperms. The name is derived from the Greek “podo” referring to foot and “carpus” to fruit and provides an interesting comparison with the fruit from *Exocarpos cupressiformis* mentioned above. It is found in alpine shrublands and close to the snow line; its species name reflects this (*nivalis* for snow dweller). It is endemic to New Zealand (both islands) and is one of the hardiest of its genus in the Southern Hemisphere, surviving long periods under snow. It is a woody, evergreen prostrate or semi-prostrate shrub with spreading branches, growing to 20-40 cm, and forming mats of a few square metres,

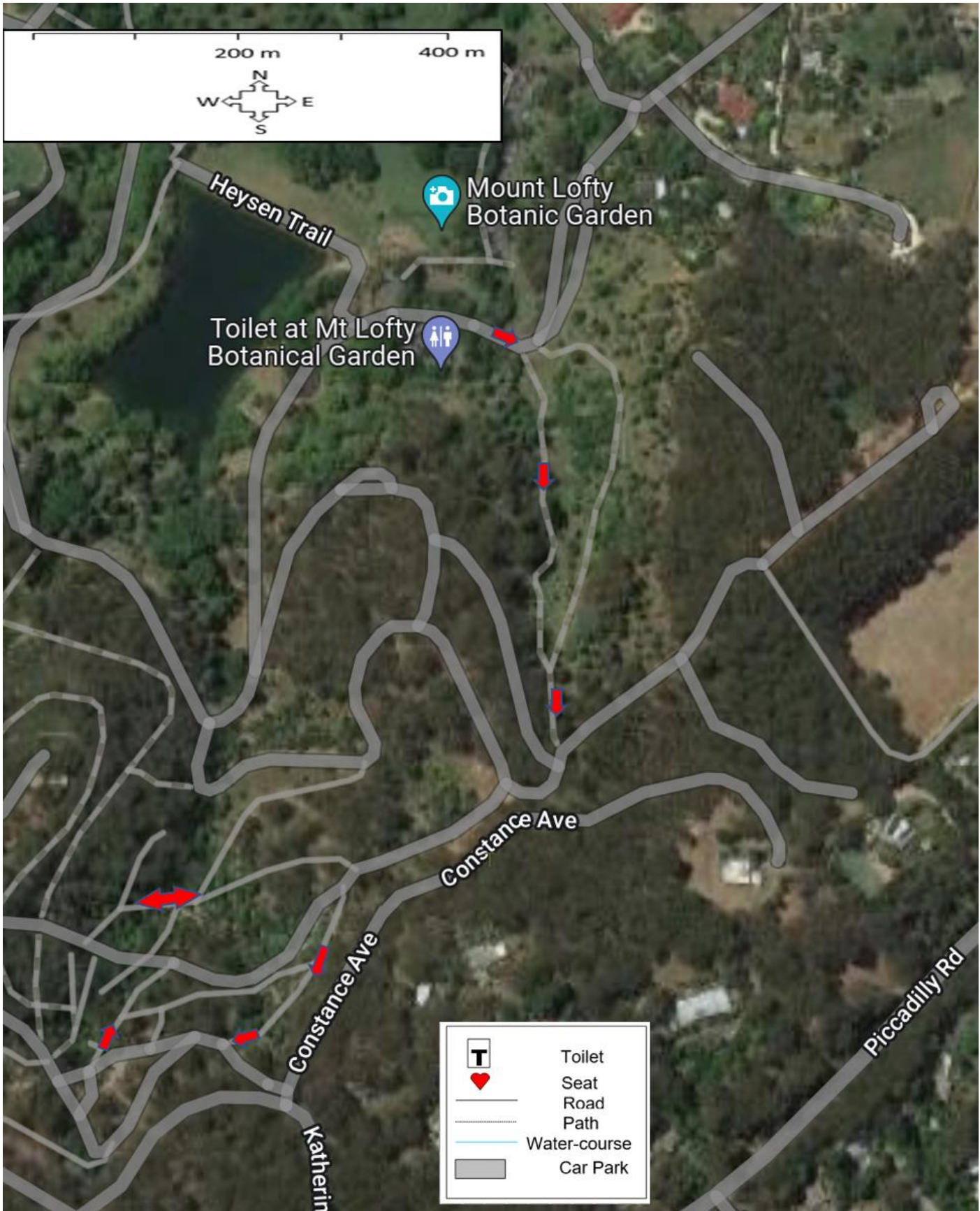
Further on is another endemic New Zealander, **Podocarpus totara** known as the totara. These trees are known for their large trunks and longevity. The Pouakani Tree, on the central North Island near Pureora for example is thought to be 1,800 years old based on volcanic eruption records, with a girth of 14 m and 42 m high. It too has bird-attracting fleshy scales; birds ingest the seeds above the “fruit” and help spread the distribution of the plant.



An interesting plant further on your right is a specimen of **Macropiper excelsum** (now **Piper excelsum**), a member of the pepper family, Piperaceae. It is commonly known as kawakawa and is endemic to NZ, with a subspecies found in Pacific Islands (Lord Howe, Norfolk, Kermadec). It is a small tree growing to 6 m, with glossy heart shaped leaves and flowers on erect, green spikes: after pollination small yellow to orange berries form. The common name kawakawa comes from the Māori language and refers to the bitter taste of the leaves. It is a traditional medicinal plant of the Māori, with leaf infusions used to treat of range of problems such as those of the bladder as well as for boils, bruises and pain relief. It is also important culturally – welcoming guests, and in mourning.

You will now pass a work depot / toilet block and begin to make your way down the hill. If you head straight down, you will pass through New Zealand Gully which has had an upgrade to its paths making for an easy switchback stroll through the ferns. Alternatively take the paths to the right and you will reach the top of New Zealand Gully with more fascinating species from our Pacific neighbour.

AC, RH and NF 12/22



This leaflet has been prepared by the Garden Guides 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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