

MT LOFTY BOTANIC GARDEN

AUGUST 2024 walk from the LOWER CAR PARK



To help keep visitors COVID-19 safe we provide a copy of this walk on the Noticeboard at the Gardens which may be photographed or there is a downloadable version on our website <https://www.friendsbgadelaide.com/garden-guides> (Mt Lofty Botanic Garden Lower Car Park).

This walk visits the Gardens collection of *Magnolia* species. Magnolias are one of the most primitive flowering plants in evolutionary history and fossils of members of the family Magnoliaceae have been found in Europe and even in Greenland. Today they are indigenous only in Southern China and the Southern United States. Their simple stamens with pollen sacs on either side are a particularly primitive feature. The trees have male and female parts within the same flowers. As they evolved before bees appeared, the flowers developed to encourage pollination by beetles and are extremely robust to avoid damage by these heavy insects. However, they are now also pollinated by bees and flies. They may be evergreen, but most species are deciduous. Note that magnolias which flower before leaves emerge all have Chinese origins, although there are many Chinese and American species which flower after leaves have expanded.

On the way to Magnolia Gully, to the right of the road when walking down from the car park, don't miss the varied display of *Hellebore* spp. on the right-hand side. They are native to northern temperate zones, from Europe to western China, and are particularly suited to woodland conditions. Further on, and on the left, are evergreen members of the genus, *Hellebore foetidus*, with thick succulent stems and glossy leaves in contrast to those already seen. These are all cultivars from the Mt Lofty Botanic Garden and have been relocated from the Woodland Garden over the years. The green "flowers" are held in bunches and are excellent for flower arrangements. Note that all parts of this species are poisonous, symptoms including vomiting and delirium.

On the lower side of the exit road *Magnolia stellata* is amongst the first of the magnolias to begin flowering and will continue for some time. Known as the star magnolia and native to Japan it was introduced to the United Kingdom around 1877. Take the path ahead up the hill admiring the magnificent *Cedrus atlantica* 'Glauca Pendula' which is a grafted weeping standard of the blue Atlas Cedar. This contrasts strongly with the original form and tall specimens may be seen to the left above the car park access road behind you.

Continuing on the uphill path, walk between several specimens of *Michelia*, which have been included within the *Magnolia* genus since 2006. As an example, *Michelia doltsopa* 'Silver Clouds' is one of 45 species of mainly evergreen, tropical trees with scented flowers, and some with scented wood. The leaves are magnolia-like, shiny above and sometimes hairy on the underside. The distinguishing feature of flower position.... magnolias bear their flowers at the end of the stem whilst the flowers of *Michelia* arise in the leaf axil....is no longer thought to be sufficiently important to warrant separate genera.

Further on there is an evergreen magnolia from China, *Magnolia delavayi*. The species name honours Père Delavay a French Jesuit missionary to China. It has a bluish tinge to the leaves that is referred to as glaucous in botanic descriptions (as we noted with *Cedrus atlantica*). It flowers in mid-Summer, which is the same timing as the American Bull Bay magnolia, *Magnolia grandiflora*. The flowers are large and almost dinner plate sized and cream in colour. This is part of the evidence that botanists use to connect the dots in terms of the early Continental break up. Before the Gondwanan split there was a large Continent named Pangea. When this broke up, the European and Asian block stayed connected while North America went its own way taking its population of magnolias with it. The two main groups of magnolias are referred to in the sense of the main distributions in China and North America.

Further on the left-hand side is a beaver tree from the United States, *Magnolia virginiana*, also known as sweet bay magnolia. It was the first magnolia to be scientifically described under modern rules of botanical nomenclature and is the type species of the genus *Magnolia*. Note that It may be evergreen or deciduous depending on the climate, but here is evergreen.

Nearby is a **Chinese coffin tree or Chinese fir**, *Cunninghamia lanceolata* which has pretty cones. There are other timber trees throughout China and Taiwan named "coffin tree" demonstrating the value of the scientific binomial system. The woods of these trees usually are light and strong with a pleasant aroma.

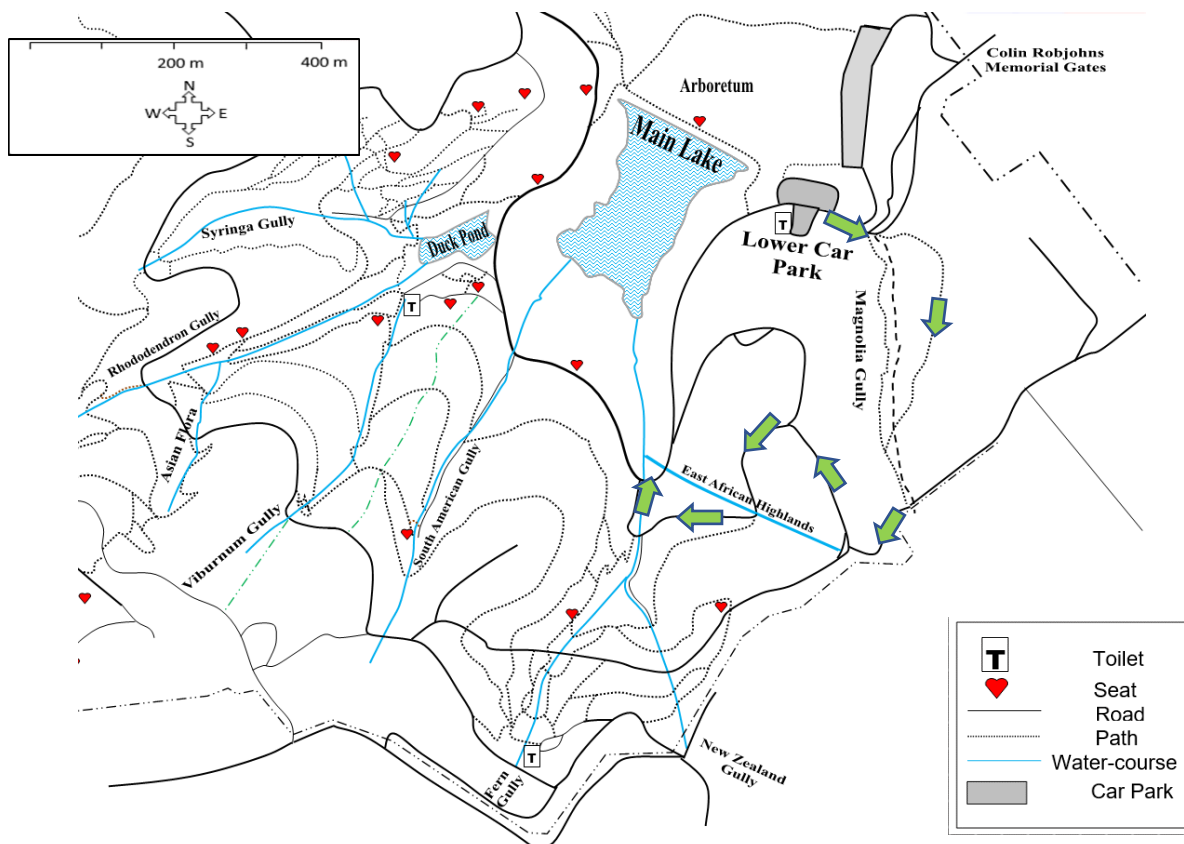
Walk under the tunnel of Cox juniper, *Juniperus recurva* var. *coxii* which is native to northern Myanmar (Burma) through to China, growing at 3,000-4,000 m altitude. Then on the left is *Thuja plicata* 'Zebrina' with attractive green and gold foliage, with flat shoots and side shoots only in a single plane. Near the top of Magnolia Gully, on the right are two *Taiwania cryptomerioides*, a species which is now extinct in the wild. It is also another specimen known as a "coffin tree".

Make your way down the hill on the road through Araucaria Gully. During the Jurassic and Cretaceous periods (201 to 66 million years ago) they had a world-wide distribution, but they are now confined to the southern hemisphere. This is a fascinating collection which was established from wild collected seed in New Caledonia and planted out in 1993.

On the right side of the road is East African Gully where a variety of plants from the highlands of eastern and southern Africa are planted. Amongst these is a small tree from the Cape province of South Africa, commonly known as Baviaankloof cedar or Willowmore cedar, *Widdringtonia schwarzii*. Despite the common name, it is not a cedar, rather it closely resembles other southern hemisphere members of the Cupressaceae or cypress family: *Callitris* which is found in Australia and New Caledonia, *Diselma* found only in Australia and *Fitzroya*, found in South America. This disjunct distribution indicates its Gondwana origin. This tree is presently showing both male pollen cones about 2mm long at the tips of dwarf spur-branches, and larger globose woody female seed cones which are grey to brown. The leaves are scale-like and much reduced, pressed tightly against the branchlets.

Our final specimen in this walk is at the bottom of the hill, after turning to the right onto the Main Lake path. On the right-hand side is an eye-catching tree/shrub displaying sprays of scarlet-red tubular flowers appearing like bursting flames amongst shiny dark green leaves in winter. Endemic to the garden provinces of Eastern Cape and KwaZulu-Natal provinces in South Africa near rivers and streams. *Alberta magna*, the Natal flame tree is a monotypic species within the **Rubiaceae** family which are cultivated for their showy and sometimes sweetly scented flowers. The family includes the genera **Gardenia** (South Africa), **Luculia** (Bhutan & Bangladesh, Nepal) and others of economic value such as **Cinchona** (South America), the tree from which quinine (used to treat malaria) is derived and **Coffea arabica** (Yemen).

EB, GB, JH, RH, HK, HM, RH, DS, 7/24



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

www.friendsbgadelaide.com.au