SELF-GUIDED MAGNOLIA AND PINE WALK
LCP SEPTEMBER 2022

"Woman has no seductions for the man who cannot keep his eyes off his magnolias." Anon.

The glory of Magnolia Gully is easy to see, so instead of talking of the usual details of the plants I thought it might be interesting to delve into their history.

The earliest western record of magnolias in cultivation is found in Aztec history at the time of Montezuma where there are illustrations of what we now know to be the very rare ***Magnolia dealbata***, or cloudforest magnolia found in Mexico. This plant survives only in a few places in the wild and, although climate change is largely to blame, the natives cut the flowers for festivals, and this prevents the plants seeding. It was found by a Spanish explorer called Hernandez who was commissioned by Philip II of Spain and whose work was published in 1651.

Magnolias are however one of the most primitive plants in evolutionary history and fossils of members of the family Magnoliaceae have been found in Europe and even in Greenland, which suggests that the family may once have spread from south-east Asia to the Americas before the two continents drifted apart. Today they are indigenous only in Southern China and the Southern United States.

The simple stamens with pollen sacs on either side are a particularly primitive feature. The trees have male and female parts on the same flowers. Having evolved before bees appeared, the flowers developed to encourage pollination by beetles. To avoid damage by these relatively heavy insects, magnolia flowers are extremely robust. They are now also pollinated by bees and flies etc.

They may be evergreen or deciduous, though most are deciduous. We should note that the magnolias that flower before the leaves have emerged are all Chinese, while there are many Chinese and American species which flower after leaves have expanded.

The flowers of most species are edible, and the bark and flower buds of ***M. officinalis*** are used as a tonic in traditional Chinese medicine. In their early days they were known as "Laurel-Tulip Trees".

Unlike most families, whose flower parts are arranged in whorls, the Magnoliaceae have their stamens and pistils in spirals on an elongated conical receptacle. This arrangement is also found in some plant fossils and is believed to be a primitive condition for flowering plants. Another primitive aspect is that their sepals and petals look alike, for which the term 'tepals' was coined. Because the male and female parts are on the same flower, they have adapted to mature at different times which reduces the risk of inbreeding.

The first magnolia in cultivation in Europe was from North America, ***M. virginiana***, recorded in 1688. Asian species have been cultivated in China and Japan from long before 1688. In the American south, the magnolia is the tree of society. Growing up to 80 feet tall and casting fragrance from its creamy white blossoms, the magnolia perfumes the cotillion in the southern night. To the Victorians the laurel-leaved garden magnolia expressed dignity. The wild, swamp-dwelling magnolia suggested perseverance.

In 1703 Charles Plumier (1646-1704) found a flowering tree on the island of Martinique and named the genus after Pierre Magnol (1638-1715), a French botanist who was born in the city of Montpellier. The name was later adopted by Linnaeus in the first edition of ***Species plantarum***, with a reference to Plumier's name. This way, *Magnolia* became the name of the large genus of ornamental flowering trees we now know.

Magnol's most important contribution to science is without doubt the invention of the concept of plant families, a natural classification, based on combinations of morphological characters (1689) .
In Magnol's day it was common belief that all species had come into existence by divine creation as set out in the Book of Genesis, in which case there's no cause to assume family ties between species. Remember that Magnol was a convinced Protestant. Nevertheless, his work may be regarded as one of the first steps towards the composition of a scientific tree of life.

Many magnolias were introduced to the British and European markets by John Gould Veitch who travelled to Japan in 1860, at a time when Japan had been forced to allow some access to westerners by American intervention in the mid-1850s. He collected many magnolias and conifers and other species which were propagated at the family nursery in Chelsea.

The Veitch Nursery, for more than a century, and over five generations of one Scottish family, pioneered the introduction of hundreds of new plants into gardens, conservatories, and homes, becoming the foremost European cultivators and hybridizers of their day.

Two other plant hunters credited with the introduction of many magnolia species were George Forrest who was born in 1873, and Ernest Henry Wilson (known as "Chinese Wilson") who was born in 1876. Forrest is credited with eight species of magnolia among the 31,000 plants he managed to collect. Wilson introduced over 1,000 plant species into cultivation – we probably grow in our gardens more of his introductions than any other collector.

On the lower side of the exit road ***Magnolia stellata*** will be bearing flowers for quite a long time. Known as the star magnolia and native to Japan it was introduced to the United Kingdom in 1877 or 1878, most likely by Charles Maries, while he was collecting for Veitch Nurseries.

Taking the uphill path in front of you, on each side are ***Michelia*** species which are also members of Magnoliaceae. In 2006, the genus *Michelia* was included within the genus *Magnolia*. They do, however, have several features different to the magnolias. Where magnolias bear their flowers at the end of the stem, the flowers of Michelia arise in the leaf axil. Their leaf and flower buds are covered in copper coloured velvety fur, and they have a strong perfume. The genus was named after the noted Florentine botanist Pietro Antonio Micheli (1679-1737), professor of botany in Pisa, curator of the Orto Botanico di Firenze, and author. Another well-known member of the family is the highly scented *Michelia figo* or port wine magnolia.

At the top of the hill is ***Magnolia denudata*** or **Yulan magnolia** which was the first Asiatic magnolia introduced to Britain in 1780. The specific name refers to the plant being denuded of leaves when it flowers, which must have been an unusual occurrence when it was introduced. Buddhist monks have grown it to adorn their temples for nearly 1500 years, which possibly makes it the first flowering tree to be used ornamentally. There is one growing in Ticino, Switzerland, believed to be between 150 and 175 years old.

An amazing discovery in Japan in 1982 while excavating an ancient settlement, estimated to be about 2,000 years old, was the opening of a storage pit in which some grains of desiccated rice were found. One seed was different to all the others, and it was taken and watered, and it sprang to life. It was a magnolia!

Now is the time to sit on the seat and admire the lichens on the branches, and the view over the valley and up to the Bonython family home, Carminow, on the far hills. This also gives the opportunity to appreciate the forethought of Dr. Brian Morley, Director of the Botanic Gardens of Adelaide from 1981-2000, who was responsible for the development of the Pinaceae and Magnoliaceae collections in this area.

Continue along the path then turn right and descend the hill through a collection of conifers. One of our particular favourites is found on both sides of the path, ***Pinus michoacana*** with spectacular, long, weeping needles which can be up to 45cm in length. The Mt Lofty Garden has approximately 240 species of conifers which form the Pinaceae Collection.

Back to the carpark look at the **tulip tree*, Liriodendron tulipifera*,** from North America. While the flowers superficially resemble the tulip, tulip trees are related to magnolias. Seedling trees do not begin flowering until they are about 30 years old, and they may be aged 50 years before flowering freely. Kew Garden in London has one over 200 years old. Of course, Kew has a fine collection of *Magnolia* species also. There are two members of this branch of the family; the other being the Chinese *L. chinense.*