



TREES OF OUR CITY IN A GARDEN: ENHANCING SINGAPORE'S LIVEABILITY

Trees play an important role in our City in a Garden. Apart from softening and beautifying our cityscape, they provide numerous environmental benefits. Not only do they offer a welcome respite from the tropical heat and glare, they help alleviate the heat island effect by removing excess carbon and air pollutants. They also prevent soil erosion and reduce storm water run-off. Trees also serve a variety of ecological functions including being a natural habitat and source of food for wildlife. To a large extent, trees improve our emotional well-being by helping us feel more connected to nature and the city we live in.





START POINT

► ② Brazilian Ironwood, Leopard Tree (Libidibia ferrea)

(Located in front of Fort Canning Centre)
Brazilian Ironwood is usually grown as an ornamental tree for its beautiful bark and fine lacy crown. This grove of Brazilian Ironwood trees is a welcome sight for Fort Canning Park visitors.

The wood of this tree is extremely dense and heavy, hence its common name as well as its scientific name *ferrea* ('iron' in Latin). Its other common name, Leopard Tree, is obtained from its interesting smooth, peeling bark. As the bark ages, it peels off to reveal colours ranging from light grey to whitish yellow.

▶ ② Cannonball Tree (Couroupita guianensis) Walk up the steps to the green lawn on your right

Walk up the steps to the green lawn on your righto reach this tree.

This unusual-looking tree is so named for its large, round woody fruits that stick out from the trunk. Before the fruits are formed, large yellow flowers that are red on the inside grow directly from the trunk, instead of from new shoots. Trees that exhibit this flowering habit are said to be 'cauliflory' in nature. This helps such trees to be pollinated by animals that cannot climb or fly high.

The flowers of this tree are fragrant and are sometimes used for worship or as offerings in Buddhist temples.

Sepetir (Sindora wallichii)

(Located beside Sally Port)

Sepetir is a large deciduous tree with a massive crown. It can grow to a height of more than 30m. A distinguishing feature of the tree is its flat, oval and spiny pods.

It has been said that during World War II, there was a Sepetir more than 50m tall located in Changi. It was called the 'Changi Tree' due to its prominence. Unfortunately, it was felled by the British to prevent the Japanese from using it as a marker to aim their guns at Singapore.









Petai Kerayong, Kedawong

(Parkia timoriana)

Look out for a tall tree with fine feathery leaves, just behind the Sepetir. This Petai Kerayong tree can grow up to 40m tall. At maturity, it has an umbrellashaped crown that provides excellent shade. Its flowers are pollinated by bats and the unpollinated inflorescences fall to the ground. The seeds, young leaves, immature pods and flowers can be eaten raw or toasted. The seeds have a bitter taste.

▶ **⑤** Common Red Stem Fig (Ficus variegata)

Walk across the lawn towards the Sculpture Pavilion next to Fort Gate. These glass structures are made from recycled shipping containers and are used by artists from the Sculpture Society (Singapore). This tree is located between these two containers.

This medium to large deciduous tree grows up to 30m in height. It can be recognised immediately as its trunk and branches are plastered with figs. The leaves are thin and its tender young leaves are said to be edible.

The fruit that you see is actually an enclosed structure (synconium) for the fig flowers. Figs have a complex pollination system relying solely on fig wasps.

► 6 Kapok (Ceiba pentandra)

You are now walking along the perimeter of the Fort Canning Service Reservoir. This Kapok stands out from other trees due to its sheer size, broad trunk, horizontal main branches, and distinctive thorny bark.

The Kapok is a fast-growing tree and can reach 50m in height. Look closely at the light green lines on the trunk and buttresses. These are growth lines that appear as the tree grows larger.

The cream-coloured flowers emit a milky smell. The flowers give way to large hanging seed pods that split open and release white, cottony floss (kapok means 'floss' in Malay). Attached to this floss are numerous black seeds that are dispersed by wind.

The soft and waterproof floss is traditionally used to stuff pillows, mattresses and life buoys.







7. Malayan Banyan



9. Paperbark Tree

Malayan Banyan (Ficus microcarpa)

The Malayan Banyan standing on the lower slope just behind the Kapok is a majestic sight. This evergreen tree can grow up to 20m in height and has a wide spreading crown with aerial roots hanging down. When these aerial roots take root in the ground, they become woodier, almost like a tree trunk, to provide additional support.

Many fig species, including this Malayan Banyan, are classified as 'stranglers'. Once the sapling has established itself on the host plant, it will send its roots down until it eventually strangles the host as it grows larger. The pinkish red figs provide food for birds and other forest animals. Look out for this tree again and admire its beauty from a different angle as you walk on the lower paths along this trail.

▶ **8 Baobab** (Adansonia digitata)

This Baobab is located next to the Kapok. It is easily recognised from its squat, cylindrical trunk that gives rise to thick, tapering branches. This often makes the tree look like it is upside down, hence it is also commonly referred to as the 'upside-down tree'.

The Baobab is regarded as the largest succulent in the world and has many uses. For instance, its leaves and fruits are said to be high in vitamin C and calcium.

▶ **②** Paperbark Tree, Gelam Tree (Melaleuca caiuputi)

An evergreen tree of the swampy coastal areas of Malaysia, this tree grows to a height of 30m. Its bark is its most interesting feature as it is soft and peels off like layers of paper. Its leaves have an aromatic eucalyptus-like fragrance when crushed.

This tree has several uses – medicinal *cajeput* oil obtained from the leaves is used in cough syrup and ointments for bruises, sprains and aches. The 'paper bark' look belies the hard, durable timber that lies within. This timber can be used as firewood.

Interestingly, Kampong Glam, Singapore's Malay—Arab quarter in the old days, is named after this tree, as several Paperbark Trees used to be found there.







▶ 10 Candlenut, Buah Keras (Aleurites

moluccana) (Located next to Paperbark Tree)

A large-leafed evergreen that can grow to a height of 15m, the Candlenut has a characteristic creamy-white appearance when viewed from a distance as the underside of the leaves are pale green in colour.

The kernel is rich in oil content and can be used to burn just like a candle, hence its common name. Its seeds are known as *Buah Keras* (meaning, 'hardshelled fruit') and are used as a common ingredient to thicken curries or gravies in Indonesian and Malay cuisine. The oil extracted from the seeds is used to make paint, varnish and wood preservatives.

▶ **11** Madras Thorn (Pithecellobium dulce)

Look out for the Madras Thorn with the Heritage Tree plaque. This is the largest of the Madras Thorns that can be found in Fort Canning Park, of which four, including this one, have been given the Heritage Tree status. It has attained a girth of 7.4m and is Singapore's largest Madras Thorn on record so far. Its appearance is made even more impressive by the numerous Bird's Nest Ferns and other epiphytes growing on its branches.

The twigs of this tree are thorny from the pairs of spine-like stipules, hence its common name. Its young leaves are pinkish brown, while flowers are greenish white and occur in clusters. The rose-red seeds are covered by a thick, white edible pulp. This pulp is favoured by birds; it is through the birds that the seeds are dispersed.

▶ **②** Flame of the Forest (Delonix regia)

The Flame of the Forest is a medium to large deciduous tree with a broad umbrella-shaped crown on delicate, lacy foliage. This native of Madagascar got its name from the scarlet flowers that cover the entire crown when they are in full bloom. The flowers give way to long, flat pods (up to 50cm long) that hang down from the branches.

This beautiful Heritage Tree has a girth of 3.4m and a height of 10m, and brings cheer to the Raffles Terrace when it is in bloom.















► **1 Terap** (Artocarpus elasticus)

After Flame of the Forest, retrace your steps, make a left turn and walk down along the red brick path to this tree. Look out for the 14th Century Walk marker that will indicate that you are continuing on the right path.

The Terap is a tall forest tree that can grow up to 45m tall and develops buttresses as it matures. It can be recognised from its huge and stiff leaves. The bark is tough and strips easily into big sheets. In the past, this has been used as clothing and for lining baskets and bins.

You are looking at not just one but a grove of Terap trees here.

Sangkawang (Shorea sumatrana)

The saplings you see here are from the *Shorea* genus. A critically endangered group of trees, *Shorea* trees are hardly to be found these days due to deforestation (they provide quality timber for building material). Sangkawang is a slow-growing tree and is frequently found in low-lying swamps or riverbanks. Its fruits have three wings that aid in their dispersal by wind.

To identify the Sangkawang, look out for the distinctive deep and dark-green veins on the leaves.

▶ **ⓑ Saga** (Adenanthera pavonina)

A deciduous tree that grows up to 25m, this shady and ornamental tree has a spreading crown made up of fine feathery leaves and a straight trunk with smooth, greyish bark. Its small, creamy-yellow, inconspicuous star-shaped flowers give way to dark-brown fruit pods, which then twist and open to expel small, hard scarlet seeds.

The seeds are very attractive and are eagerly gathered by children for use in games.

▶ **16** Rain Tree (Samanea saman)

The Rain Tree, a native of Central America, is planted in Singapore for its large, shady, umbrella-shaped crown. Its trunk and branches host beautiful ferns and orchids, and its leaves often fold up at dusk or before a rainstorm, thus its common name.

You can also find another majestic Rain Tree in the Spice Garden near Keramat Iskandar Shah. That tree has been classified as a Heritage Tree under Singapore's Heritage Tree Scheme.



19. Elephant Apple



Petai is a tall tree of up to 45m in height and is similar in appearance to Petai Kerayong (*P. timoriana*). The flowers are also clustered on heads set on the ends of stout green stalks. The flowers give way to long pods (40 to 50cm) that hang from the tree in small bunches. The fruit is edible and has a distinct taste.

Petai Seed Pods

The beans, or petai, are used in a local dish, sambal petai. Apart from being a tasty dish, the beans are known to help in treating depression, pre-menstrual syndrome, blood pressure, diabetes, obesity and constipation.

▶ **19** White Chempaka and Orange Chempaka

(Magnolia X alba and Magnolia champaca)
Can you smell a fragrance in the air as you walk on
this path? It comes from the flowers of the White
and Orange Chempakas.

These ornamental trees are usually planted for their beautiful flowers. They are medium to tall trees that grow to a height of 20m. As its name suggests, White Chempaka has creamy-white flowers about 4 to 5cm in size and are extremely fragrant, especially after dark. The Orange Chempaka has smaller, orange-coloured flowers.

▶ **19** Elephant Apple (Dillenia indica)

The Elephant Apple is a small to medium deciduous tree that is frequently found on the banks of rivers and streams. Its crown, made up of large oblongshaped leaves, provide good shade.

The tree's large, solitary flowers (over 20cm in diameter) give way to large, fleshy green fruits. These are said to be eaten by elephants, hence its common name.











▶ **20 White Gum** (Eucalyptus alba)

There are two White Gum trees here, easily identified by their pale, peeling bark. The White Gum is a fast-growing, evergreen tree native to northern Australia. White Gum is a hardy tree that is able to grow in a wide range of soils and conditions. Its lush foliage and attractive peeling bark make this a good ornamental tree.

Eucalyptus oil comes from trees belonging to the Eucalyptus genus and is used widely as an antiseptic, insect repellent and fragrance. Eucalyptus wood is used to make the didgeridoo – a traditional Aboriginal musical instrument.

► 21 Common Pulai (Alstonia angustiloba)

Have a fun time trying to identify the Common Pulai (there are quite a few) from the cluster of trees here.

The Common Pulai is a native forest tree. reaching up to 45m in height and more than 3m in girth. The crown of a young Pulai is pagodashaped but loses its distinctive shape as it matures. The leaves are oval with blunt short-tipped ends, and grow in whorls of 4 to 8 leaves. The upper sides of the leaves are dark, glossy green while the undersides are pale green. When it blooms, the crown is covered in clusters of creamy-white flowers that exude a sweet fragrance.

The lightweight timber of Pulai is used to make matches, pencils and packing boxes, while its latex is traditionally used to treat skin ailments.

22 Jelutong (Dyera costulata)

A native to Peninsular Malaysia and Borneo, this tree can grow to 80m tall with a trunk height of 30m in its natural, lowland forest environment. It also has very interesting branching, just like the Pulai.

Partly or wholly deciduous, the Jelutong rejuvenates its entire crown with new leaves from June to August, after a long dry spell. The clear straight trunk and its straight-grained wood makes the Jelutong a good choice of lumber in the timber and wood carving industry. Latex from the tree is also used for the manufacturing of chewing gum.







23 Chengal Pasir (Hopea odorata)

Chengal Pasir is a tall evergreen tree that can grow up to 30m or more and is normally found growing near rivers, streams or in well-drained lowland forests.

The crown of this tree is conical with numerous small branches when young and opens up as the tree matures. The fruits are small, round, brownish nuts enclosed by a pair of short wings about 5.5cm long. These wings allow the fruits to spin away from the tree like shuttlecocks when the wind blows. Its attractive brown timber is very hard and heavy, and is resistant to fungal and termite attacks. As such, it is commonly used in general construction, boats and flooring.

► 24 **Teak** (Tectona grandis)

Teak is a large deciduous tree with a wide spreading crown and is widely cultivated in Southeast Asia for its timber. Teak is valued worldwide for its distinct grain and its resistance to rot and termite attacks. Its hard timber is used to make furniture, musical instruments, carvings, panelling and railway sleepers.

The tree can be distinguished by the large heartshaped leaves that have rough undersides.

▶ **25 Sea Beam** (Maranthes corymbosa)

The Sea Beam is a large native evergreen coastal tree with a heavy, dark-green crown. It bears small flowers in compact, upturned bunches, giving the crown a golden shimmering effect.

The fruits resemble olives and its timber has been used for piling and in the construction of wharves.

There are two larger specimens that have been endorsed as Heritage Trees and they stand at the lower slopes of Fort Canning Hill along Fort Canning Rise, near the Armenian Road carpark.

We hope you have enjoyed your walk on this trail. If you wish to get up close and personal with spices, embark on the Spice Garden Trail at Fort Canning Park.

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