

TREES IN THE CATHEDRAL GARDENS

By Jayantha Jayewardene

The Anglican Cathedral of Christ the Living Savior is located on Bauddhaloka Mawatha which was once Buller's Road.

When I was a schoolboy the land on which the cathedral now stands was the yard of Socoman and Co, a French firm that was working on the Greater Colombo Water project. There was a golf link adjacent to this yard which is where the Bandaranaike Memorial International Conference Hall (BMICH) now stands. The golf club which was there does not exist anymore and the golf links have been built on. The cathedral stands on a land area of a little over 10 acres. It was consecrated on the 7th of November 1973.

Many species of trees have been planted in the cathedral gardens. They have been planted in sections. The sections are (a) flowering trees on the sides of the front lawn and on either side of the front entrance (b) medicinal trees on the BMICH side continuous to the road leading out of the premises (c) fruit trees (d) spice trees (e) beverage trees such as tea, cocoa, cinnamon (f)

different palm trees and (g) important timber trees in a wood lot. There are around 150 different species and more than 600 trees planted in these premises.

Over the years many species of trees have been planted in the cathedral gardens, mainly by Mr. Vimal Pieris, who looked after the gardens for over 35 years. This article describes a number of the species growing there now. Since Socoman's yard had many heavy vehicles, there was a lot of oil that had drained into the soil and contaminated it. Vimal had to excavate this soil from each planting hole, take it away and put in new soil in which plants would grow. There still is contaminated soil in some areas.

1. Pink Trumpet tree (*Tabebuia avellanedae*): this tree was presented by Mrs Smedley, wife of the then British High Commissioner, when the cathedral was first built. At the beginning the side branches of the tree were trimmed, as a rule, before the start of the south west monsoon in order to balance the tree and protect it from wind damage. When this balancing was not done, the tree had fallen over and the main tree died as a result. Fortunately, there was a

small shoot near the root, which was collected by Vimal and planted in a poly bag. When the tree was about two and a half feet tall, it was planted close to where the original tree stood. The new tree is about 20 feet tall now. This tree grows well in South America. In Sri Lanka it does not get into full bloom, but blooms only in sections.

2. Roughbark Lignum-Vitae or Gaiacwood (*Guaicum officinale*): this tree is also called the tree of life. All species of the genus *Guaicum* are now listed in Appendix II of CITES (the Convention on International Trade in Endangered Species of Wild Fauna and Flora) as a potentially endangered species. A natural resin can be extracted from the wood. This resin has a lubricating quality and was used in the shipping industry for the construction of the main bearing in the final drive of the propeller shaft of ships. The wood is also resistant to salt. It is the fourth-hardest variety of wood as measured by the Janka hardness test. It is the national flower of Jamaica. Members of this genus have a variety of uses, including lumber, for medicinal purposes and as ornamentals. There are three trees in the cathedral garden, also brought by Mrs. Smedley.

3. Rosalee or Indian Rosewood (*Dalbergia latifolia*): Sinhala: Kalumara. Tamil: Karunthuvarai, Iraavadi. This tree produces a hard, durable, heavy wood which when properly cured is durable and resistant to rot and insects. There is a single tree of this species here. This plant was brought from India by Dr. Vivekanandan, the then Silviculturalist of the Forest Department and given to Vimal Pieris. The Coconut Research Institute at Lunuwila has a tree of the same species but with a different form of leaf. These leaves are broader than those of the single tree in the cathedral.

4. Red sandalwood (*Pterocarpus santalinu*): Sinhala: Rath Handun. This tree is not indigenous. However, there is one tree presented by Lyn de Alwis, former Director of Wildlife and the Zoological Gardens, which he had brought from India. This tree is valuable because of the rich red color of its wood. The wood is not aromatic but has a pleasant smell when powdered. Red Sandalwood is used in India in traditional herbal medicine as an antipyretic, anthelmintic tonic, for dysentery, as an aphrodisiac and a diaphoretic. These trees need a

lot of light to grow. The tree in the cathedral is 20 feet tall.

5. Kolon (*Adina cordifolia*): Sinhala: Kolon. Tamil: Kadambai. The two trees growing here of 30 feet and 20 feet were planted by Vimal Pieris. Kolon timber has been used for boat building since it is resistant to marine borer. The juice of the bark is applied externally to kill worms found in sores. Sometimes the crushed leaf of this tree is used for "nanu" for the Sinhala new year festival and the leaves are used to stand on during the traditional oil anointing ceremony.

6. Ath demata (*Gmelia arborea*): Sinhala: Ath Demata. Tamil: Kumil and Kumalan. Maybe it is called Ath demata since the trunk of the tree resembles the leg of an elephant, as the picture shows. The two trees in these premises are 50 ft. and 20 ft. tall. The fruit is used as a dye and the bark and roots are used for medicinal purposes.

7. Ceylon satinwood (*Chloroxylon swietenia*): Sinhala: Burutha. Tamil: Mutirai, Vaaimaram. Because of its high quality timber, this tree has been cut down indiscriminately and

is now becoming rare in the wild. All the chairs in the cathedral's pews are made of Satinwood.

8. Calamander (*Diospyros quaesita*): it is also called Coromandel. Sinhala: Kalu Medhiriya. The name calamander seems to have been derived from the Sinhala name. Calamander is a species of tree endemic to Sri Lanka. The wood of this tree is black and hard like ebony. It is a beautiful wood since it has streaks of brown mixed with black. One tree here is 15 feet tall. This species is on the IUCN list of endangered trees. When the Dutch held the maritime provinces, they felled a large number of calamander trees to make furniture.



Roughbark Lignum-Vitae *Guaicum officinale*.



Ath demata - *Gmelia arborea*.

9. Diya na (*Mesua thwaitesii*): this tree is endemic to Sri Lanka. In the most recent revision Diya na is named *Mesua thwaitesii* and na as *Mesua ferrea*. The stem of the tree is separated by protruding vertical streaks. The tree here is 15 feet tall. All the parts of this tree are used for medicinal purposes.

10. Wewarana (*Alseodaphne semecarpifolia*): Tamil:

Kanaippirandai. It is a tree endemic to the Western Ghats and Sri Lanka. This tree is 20 feet tall. It is a species which is under threat in the wild, mainly due to habitat loss. It is found mostly in the Badulla area. Wewarana is also called "rani" because the timber has a wavy grain look to it, resembling a lady's hair.

11. Helamba (*Mitragyna parvifolia*): this species is native to India and Sri Lanka. It is used in native medicine and also for its fine timber. The juice of the fruit augments breast milk in lactating mothers. Many places in the dry zone are named helamba. (Ex. Helambewa, Helambagaswewa, Helamba watta ect). This indicates that the tree is a part of village life.

12. Lychee (*Litchi chinensis*): this tree is about 20 feet tall. The lychee is native to the Guangdong and Fujian provinces in China. It is a popular dessert which is prepared in many forms. Lychee seeds contain methylene cyclopropyl glycine which can cause low blood sugar. These trees require a cool and dry climate to bear fruit.

13. Ceylon iron wood (*Manikara hexandra*): Sinhala: Palu. Tamil: Ulakkaippaalai. There are two trees 30 feet and 15 feet tall in the gardens. When the palu is in fruit in our jungles many species are attracted to it. The fruit can be eaten fresh or

dried. This fruit is especially popular with bears, which climb the tree and gorge themselves on the fruit. Monkeys, bats, giant squirrels and civet cats also eat the fruit off the tree. When the bears eat the fruit, some of it fall onto the ground. These are picked by deer, wild boar and porcupine that cannot climb the tree. The fruit is an intoxicant.

14. Spanish cherry - (*Mimusops elengi*): Sinhala: Moonamal. Tamil: Magizham Maram. There are two trees in the cathedral gardens, each about 20 feet tall. Moonamal is used in medicine and also as an ornamental flowering tree. The fruit is edible and is used in traditional medicine. Its timber is valuable. The tree gives a lot of shade and the flowers are fragrant.

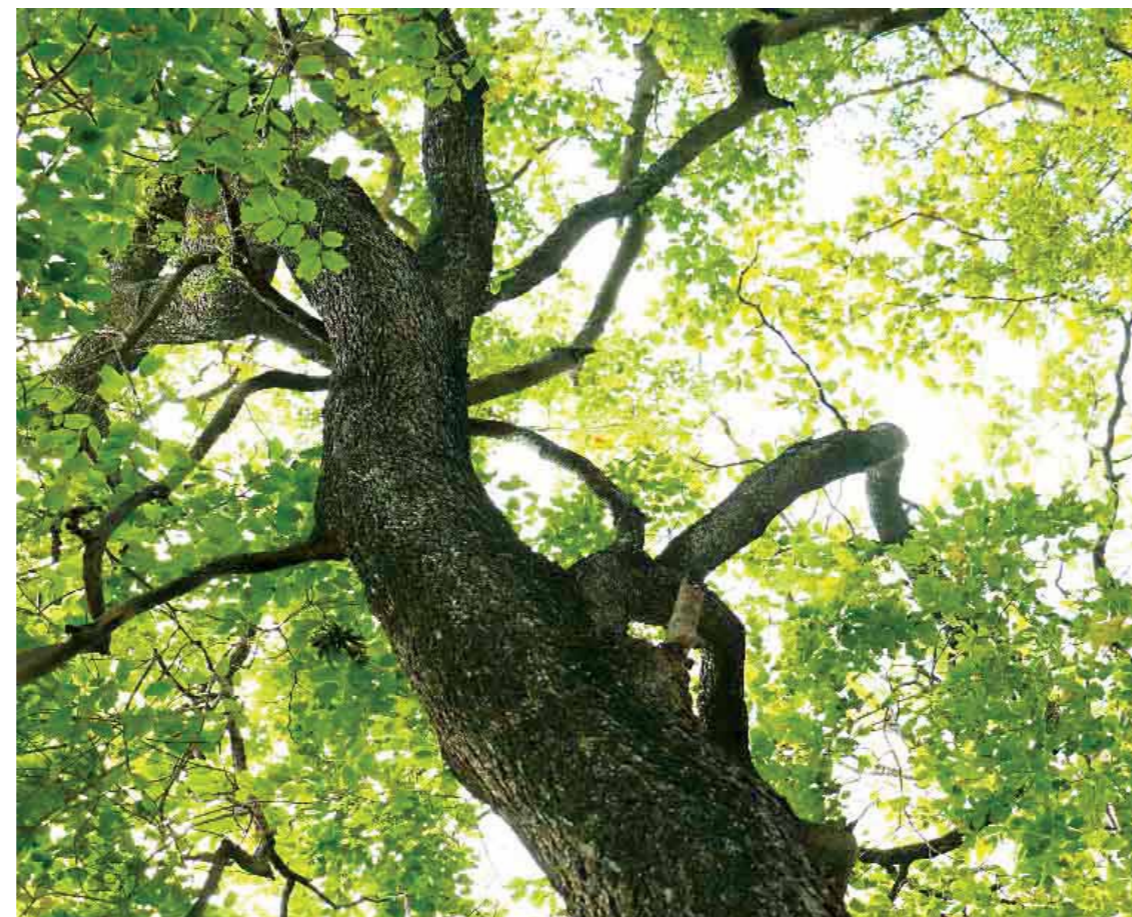
15. Aralu (*Terminalia chebula*): Tamil: Kadukkai. The tree in the gardens is 40 feet tall. It is a deciduous tree in that its leaves fall off annually. The fruit is used as the main ingredient in the ayurvedic formulation of triphala, which is used for kidney and liver dysfunctions. Dhobies (launderers) use this stain as an ink to mark clothes.

16. Bulu (*Terminalia bellirica*): Tamil: Thandri. The tree is 60 feet tall. The fruit, seed and stem are used for medicinal purposes. The wood is used in heavy construction. The nuts of the tree are rounded but have five flatter sides.

17. Nelli / Medicinal Nelli (*Phyllanthus emblica*): the gardens have one tree which is 15 feet tall. All parts of the plant including the fruit, seed, leaves, root, bark and flowers are used in various ayurvedic medicines and herbal preparations. The fruit is sour and astringent in

taste, with sweet, bitter and pungent secondary tastes. It has a very high concentration of vitamin C.

18. Gammalu (*Pterocarpus marsupium*): Tamil: Acamai, Acanapann. There is one tree in the gardens which is 45 feet tall. The whole gammalu tree is used for medicinal purposes. The resin, obtained from wounds in the bark, is astringent and is used to make incense. It is used in the treatment of chronic diarrhoea and the irritation caused by gastric infection and colitis. Although it has an unpleasant flavor, it makes a good mouthwash and gargle. It is commonly used in cases of toothache and also as a



Gammalu - Pterocarpus marsupium.

douche to treat vaginal discharge. The resin is applied topically in the treatment of skin conditions. The bark is used, either as a powder or in a decoction, in the treatment of diarrhea. A decoction of the bark is very useful for diabetic patients.

The heartwood is considered to be anthelmintic, anti-inflammatory, antioxidant and astringent. It is used to treat a range of complaints. Gammalu is related to Red Sandalwood and it is used to make fake sandalwood powder.

19. Milla (*Vitex pinnata*): Tamil: Nadu. There are two trees in the compound. This wood is very popular for the



Kalu Habaraliya - Diospyros ferrea.

construction of doors and window frames. Various parts of the tree are used for medicinal purposes. Milla timber beams cannot be used as horizontal beams because of its structural strength. It is resistant to termite attacks and decay and is used for fence posts etc. where exposure to the sun and rain and contact with the soil is inevitable.

20. Keta-kela (*Bridelia retusa*): Tamil: Mullu-Vengai, Adamarudu. The wood of this tree was used for door and window frames. The unrestricted use of this tree has now made it rare in the wild. People in days gone by made logs from this tree for use as fence posts since the logs are termite resistant.

21. Ebony (*Diospyros ebenum*): Sinhala: Kaluwara. This tree was planted by Nigel Billimoria and is now 15 feet tall. There is another tree which is eight feet tall. The wood is used for the construction of expensive furniture and for carving. Ebony is an evergreen, slow-growing tree. It is a well-known timber tree and is highly valued for its black wood which is used for furniture making. The wood is very heavy and durable and resistant to fungi and insect attack. The fruits are edible and have medicinal uses. The bark and leaves are used as a blistering plaster.

22. Kalu habaraliya (*Diospyros ferrea*): also known as black ebony, there is one tree which is 20 feet tall. Kalu habaraliya, which belongs to the calamander and ebony family, branches off at a low level. The fruit is edible when ripe. It is said to be a food consumed during times of famine in southern India. The wood is closely-grained, very hard, dense and durable and heavy, but is liable to split.

23. Masang (*Zizyphus mauritiana*): earlier, this tree was confused with *Zizyphus jujuba*. It is an evergreen shrub or small tree, which grows up to 15 meters in height with many drooping branches. The fruit is of variable shape and size. In the past, this tree had formed an arch under which newly married couples had posed for photographs.



Masang - Zizyphus mauritiana.

24. Dawata (*Carallia brachiata*):

Tamil: Antimiriyaam. This tree has grown at an angle seeking sunlight because of the shade which has covered it. The juice from the macerated leaves is used in the treatment of fevers. The pulverized bark is rubbed on the body in the treatment of smallpox. The leaves and bark are used in local medicine to treat septic poisoning and itch.

25. Goraka (*Garcinia gummi-gutta*):

this tree has been broken by a falling branch from the Wal dhel tree (see below). Goraka is used as a food preservative. The fruit, bark, root and leaf extracts of *Garcinia gummi-gutta* are considered suitable for treating several ailments such as gastrointestinal discomfort, rheumatism, obesity, uterine diseases, arthritis, diuresis, ulcers and indigestion. *Garcinia gummi-gutta* rinds can be blended together with cardamom and sugar and consumed as a soft drink.

26. Wal dhel (*Artocarpus nobilis*):

it is endemic to the south western regions of Sri Lanka. Local people call it "wal dhel", "baedi dhel" or "hingala dhel". This tree has been in the gardens from the time the land was a Socoman Co. yard. It now grows in the middle of the wall that separates the cathedral grounds and the BMICH. The fruit of the wal dhel is edible. It is used in medicine. It is a good timber.

27. Honda para (*Dillenia indica*):

commonly known as elephant apple. The fruits can be rubbed in water to make soap and the pulp is used as a substitute for shampoo for washing hair. The juice of the leaf is applied to the scalp to prevent baldness. The dried leaves are used to polish ivory. The wood ash is added to clay bricks



Wal dhel - Artocarpus nobilis.



Honda para - Dillenia indica.

to increase their fire resistance. The light brown sapwood is slightly soft. The wood, which is moderately hard and has durability under water for around three years, is sometimes used for house-building or gunstocks.

28. Mee (*Madhuca longifolia*):

Tamil: Iluppai. There are two trees in these gardens. Medicinal oil is extracted from the seeds. It is cultivated in warm and humid regions for its oleaginous seeds, flowers and wood. The fat (solid at ambient temperature) is used for the care of the skin, to manufacture soap or detergents, and as a vegetable butter. It can also be used as a fuel oil. The left

over from the seed after extraction of oil, constitutes a very good fertilizer. In India, the flowers are used to produce an alcoholic drink. Several parts of the tree, including the bark, are used for their medicinal properties.

29. Dik kekuna / Kekuna (*Canarium zeylanicum*): this is a species of flowering plant which is endemic to Sri Lanka. The tree is harvested from the wild for its gum-resin and edible seed, both of which are used locally. One tree is about 30 feet tall.

30. Beraliya (*Shorea cordifolia*): there is one tree in the gardens which is 40 feet tall. Beraliya is endemic to Sri Lanka. This tree blooms once every four years. Pittu, a Sinhalese food, is made out of the young fruit.

When the beraliya is in season in the Sinharaja forest, villagers come into the forest in the morning and collect the fruit which has fallen in the early morning. Even though this forest is a protected area, villages are allowed to come and collect beraliya.

31. Beraliya dun (*Shorea zeylanica*): this species is endemic to Sri Lanka. At a height of 80 feet, it is one of the tallest trees in the garden. It is as tall as a coconut tree growing nearby. In earlier times, it was commonly found in the Sinharaja forests. The bole is straight and cylindrical. It is harvested from the wild for its timber and a resin that exudes from the trunk. It is used for making plywood. This tree has been classified as 'critically endangered' in the IUCN Red List of Threatened Species (2009)

32. Kohomba (*Azadiachta indica*): the whole tree is used in medicine. A non-drying oil extracted from the seed, called margosa oil, has insecticidal properties. The oil has long been produced in Asia on an industrial scale for soaps, cosmetics, pharmaceuticals and other non-edible products. The wood is used to make wardrobes, bookcases and closets, as well as packing cases because of its quality as an insect repellent.

33. Ruk attana (*Alstonia scholaris*): the whole tree is used for medicinal purposes. The wood is very light and is used for light construction, ceilings, pattern making, plywood, carving and moldings. In Sri Lanka, this wood is also used to make coffins.



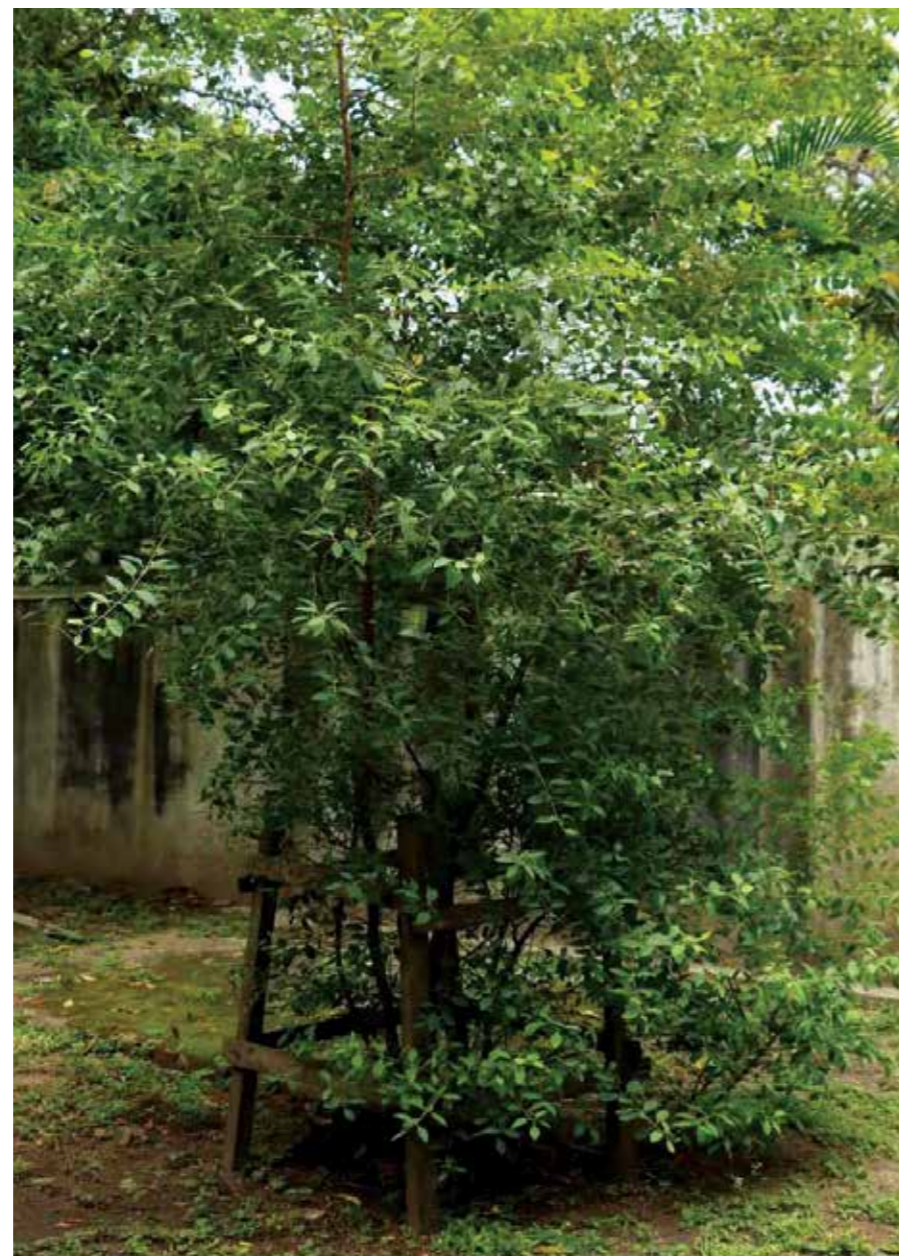
Beraliya - Shorea cordifolia.

34. Ruk (*Horsfieldia iryagedhi*): this tree is endemic and critically endangered. The flowers and bark of this tree are used for medicinal purposes. The flowers are also used as offerings in temples. The flowers, especially of the male form, are extremely fragrant. The male flowers have the scent of sandalwood. The wood is white to light yellow with red streaks. It is moderately heavy and even-grained. It is used locally for making boats.

35. Domba (*Calophyllum inophyllum*): the whole plant is used in medicine. The wood is used for cart building. The oil, extracted from the seed, can heal wounds. This is why it is used in traditional and modern medicine for a wide range of skin problems. The oil has also shown anti-inflammatory antifungal, antibacterial and insecticidal activity.

36. Gan sooriya (*Thespesia populnia*): the whole plant is used in medicine. The wood is used for making gun stocks. This tree is valuable as a coastal windbreak because it is highly resistant to wind and salt spray and grows well in sandy, saline soils. Young leaves, raw or cooked, is eaten as a vegetable. The leaves can also be boiled or added to soups. The leaves are also used for wrapping food.

37. Madu (*Cycas circinalis*): the raw seed is poisonous, but after it is cut into thin slices, dried, then steeped in water for a few minutes and dried again, it becomes edible. It can be used as sago. The use of the seed as food cannot be recommended because of toxicity. The very young leaves are edible.



Suduhandun - Santalum album.

38. Sandalwood (*Santalum album*): Sinhala: Suduhandun. The wood is heavy, yellow, fine-grained and, unlike many other aromatic woods, they retain their fragrance for decades. Sandalwood oil is extracted from the wood and is commonly used as a fragrance

in incense, cosmetics, perfumes, and soaps. Used for carvings, the wood is valued because of its dense character. About one year ago a 20 foot tall sandalwood tree, about 18" in girth, was cut and taken away by unknown persons from the cathedral gardens.



Velvet apple - Diospyros discolor.

39. Velvet apple (*Diospyros discolor*): this tree has an edible fruit and a skin covered in a fine, velvety fur, which is usually reddish-brown. The fruit is soft, creamy, has pink flesh, with a taste and aroma comparable to fruit cream cheese. It is native to the Philippines. There is one tree in the cathedral gardens. It seems to be rare in Sri Lanka.

40. Divi kaduru (*Pagiantha dichotoma*): the nut of this tree is poisonous but the leaves and bark of the plant are used in indigenous medicine to treat wounds, eye infections, toothache, fistula, snake bite and centipede bites.



Divi kaduru - Pagiantha dichotoma.

Some years ago, five trees growing in these gardens were cut down to construct a meditation area. These five trees were: sappan wood (*Caesalpinia sappan*), pathangi (*Caesalpinia sappan*), candlenut tree (*Aleurites moluccana*), S: thel kekuna/ rata kekuna, olive tree (*Olea europae*) and hal (*Vateria copallifera*). The olive plant was brought from Jerusalem by the late Mrs Kusum Weerasinghe. Today, the cathedral gardens do not have any of these plants.

Acknowledgements:

Mr. Vimal Pieris and Mr. Sudath Abeysinghe assisted me to write this article. Vimal has been in charge of these gardens for over 35 years. The luxuriant growth of the many different species seen in the gardens is due to Vimal's commitment and dedication. Sudath has a Masters Degree in Environment Management and has spent time studying the trees and plants in the Peradeniya Botanical Gardens. All the photographs that appear here were taken by him. Vimal and Sudath helped me to identify the different species growing in the cathedral gardens. My grateful thanks are due to both of them •

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