

ACHARYA JAGADISH CHANDRA BOSE INDIAN BOTANIC GARDEN

BOTANICAL SURVEY OF INDIA

MINISTRY OF ENVIRONMENT, FOREST AND CLIMATE CHANGE

GOVERNMENT OF INDIA, NEW DELHI, INDIA.



Established in 1787, Acharya Jagadish Chandra Bose Indian Botanic Garden (AJCBIBG) is one of the oldest and perhaps the biggest botanic gardens in South East Asia. Situated on the west bank of river Hooghly in Howrah district of West Bengal and spreading over 273 acres, this garden is the abode of a wide variety of plants introduced from all across the world including different regions of India. Endowed with 26 lakes and various mounds, AJCBIBG is one of the best landscaped gardens in the world developed during the eighteenth century. The rich diversity of plants and naturally occurring fauna attract millions of visitors all-round the year.

BOTANIC GARDEN AND ITS ROLE

A botanic garden can be called as an open museum of living collection of myriad of plants, where trees, shrubs, herbs, climbers, lianas etc. are scientifically arranged, properly labelled based on an internationally accepted classification, and more closely allied groups/plants are specially grown together for better understanding of species. Here, in Botanic Garden, trees are confined to a special section called Arboretum; gymnosperms including pine trees are arranged in Pinetum; Screw pines i.e. Pandanus are grown in Pandanetum; Orchids are assembled in Orchidarium; Bamboos are nurtured in Bambusetum and Palms are conserved in Palmetum. The role of a botanic garden can briefly summarised as follows:

- Comparative study of the living and preserved plant specimens (herbarium specimens) for better understanding of plant species.
- Growing of potentially important economic plants collected from different parts of the globe, their detailed study and acclimatization prior to their release for cultivation in new areas.
- Serves as a living repository of native and exotic plants as well as to act as a database.
- Conducting research on the biology and propagation of rare, endemic and threatened plant species and to maintain their germplasm/seeds, etc. for effective conservation.
- Conducting horticultural research including hybridization, trial and selection of improved varieties of various groups of economically important plants and ultimately releasing them for commercial utilization.

Apart from the above basic functions and objectives, the Botanic Garden also plays a pivotal role in generating public awareness and imparting environmental education.

The role of Botanic Garden in *ex-situ* conservation and creating environmental awareness has gained significant momentum after the "Earth Summit" or the "Convention on Biological Diversity" in the year 1992.



The Great Banyan Tree



Leram Lake



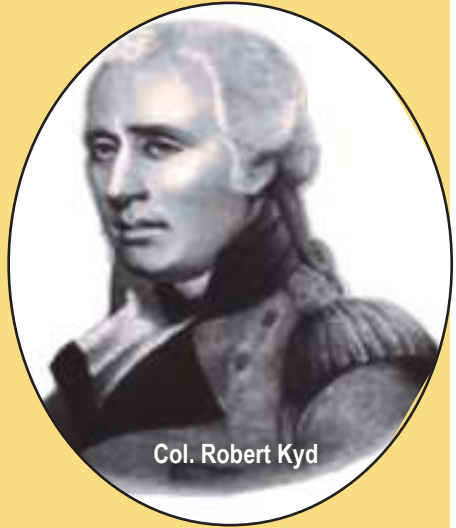
Prain Lake



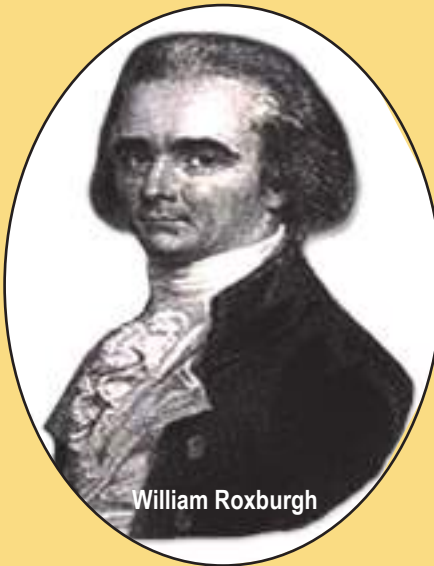
Shadir Lake

BRIEF HISTORY

Indian Botanic Garden formerly known as 'Company Bagan', the 'Royal Botanic Garden', Kolkata, at present AJC Bose Indian Botanic Garden, Howrah was established on 6th July, 1787 with the approval of the Court of Directors of the East India Company in England on the proposal sent by Col. Robert Kyd of the Bengal Infantry and the then Superintendent of the Hon'ble Company's Dockyard and the Secretary to the Military Board in Fort William, Calcutta and a keen gardener who had a huge collection of plants of economic and horticultural interest in his country house garden at Shalimar in Calcutta (now Howrah). It served as a platform first for introducing and subsequently shipping out horticulturally and economically important plant species of this region and various plant products like spices and timber for shipbuilding etc. to England.



Col. Robert Kyd



William Roxburgh

Kyd functioned as the honorary superintendent of the garden from 1787 to 1793. William Roxburgh was taken over as the first salaried superintendent who succeeded Kyd in 1793. He reoriented the objectives of the garden and laid the foundation of modern plant taxonomy in India by establishing a large herbarium (the present day Central National Herbarium) in the botanic garden. The garden soon rose to the peak of glory and became one of the most important centres of botanical research in the world. For the

valuable contributions made by Roxburgh, one of the greatest botanists of his time, he is regarded as the 'Father of Indian Botany'. Roxburgh left behind huge collections of coloured leones, more than 2500 original colour paintings of Indian plants using vegetable dyes preserved in the Central National Herbarium.

Apart from William Roxburgh, the other eminent botanists who served as Superintendents/ Head of Office during the pre-independence and post-independence period were:

1. Robert Kyd	1787 - 1793	18. K.P. Biswas	1937 - 1955
2. Willium Roxburgh	1793 - 1813	19. D. Chatterjee	1955 - 1962
3. T. H.Colebrooke	1813 - 1814	20. J. Sen	1962 - 1967
4. B. F. Hamilton	1814 - 1815	21. S.N. Mitra	1967 - 1978
5. Nathaniel Wallich	1815 - 1816	22. D.B. Deb	1978 - 1982
6. Thomas Casey	1816 - 1817	23. R.K. Chakravorty	1982 - 1987
7. Nathaniel Wallich	1817 - 1842	24. U.C. Bhattacharya	1987 - 1988
8. William Griffith	1842 - 1845	25. R.K. Chakravorty	1988 - 1997
9. Nathaniel Wallich	1845 - 1847	26. L.K. Banerjee	1997 - 2000
10. Hugh Falconer	1847 - 1855	27. H.J. Chowdhery	2000 - 2001
11. Thomas Thomson	1855 - 1861	28. G.S. Giri	2001 - 2010
12. Thomas Anderson	1861 - 1869	29. H.S. Debnath	2010 - 2014
13. C. B. Clarke	1869 - 1871	30. A. Pramanik	2014 - 2017
14. Sir George King	1871 - 1897	31. M.U. Sharief	2017 - 2019
15. David Prain	1897 - 1905	32. Kanad Das	2019 - 2021
16. A.T. Gage	1906 - 1923	33. Devendra Singh	2021- till date
17. C.C. Calder	1923 - 1937		



Roxburgh Building

IMPORTANT LANDMARKS

- Established in 1787 by Colonel Robert Kyd who functioned as Honorary Superintendent of this garden.
- First salaried Superintendent of the garden was William Roxburgh.
- William Roxburgh established a large Herbarium in the garden during his tenure (1793-1814).
- Mahogany - the high quality timber yielding tree from West Indies was first introduced in the Company Bagan or Botanic Garden, in 1795. In spite of ravages of time and other natural calamities the garden can still boast of famous Mahogany tree avenues.
- In 1820, about 40 acres of land on the eastern side of the garden was given to the Lord Bishop of Calcutta, who established the Bishop's College. This College was later transformed into an Engineering College and is now known as the Bengal Engineering College (Deemed University) and now as IEST.
- Tea [*Camellia sinensis* var. *assamica* (J.W. Mast.) Kitam.] was discovered by Robert Bruce in 1823 from N.E. India and the foundation of tea cultivation in India was laid only after its successful large scale trials in the garden by Francis Jenkins in 1834.
- In 1857, the East India Company's affairs were taken over directly by the Crown. Since then, the Company Bagan has been renamed as the "Royal Botanic Garden".
- In 1862, Cinchona cultivation was introduced in Sikkim Himalaya and Darjeeling hills after due trials at the Royal Botanic Garden, Calcutta, by T. Anderson who brought its seeds from Royal Botanic Garden, Kew (England), in 1861.
- Captain George King proposed to form an organisation called Botanical Survey of India by uniting botanists working with various provincial Governments. George King was the first Director of BSI in 1890.
- The Royal Botanic Garden, Calcutta, and Botanical Survey of India were brought under the administrative control of the Imperial Government of India.
- A new Herbarium building was constructed in 1882 proposed by George King in the garden and herbarium specimens were arranged according to the Bentham & Hooker's system of plant classification. Taxonomic revisions, floristic accounts, monographs, district floras, etc. were published during this period.

- Various botanists returning home on leave in London contributed and assisted Sir J.D. Hooker, the then Director of Kew Garden to bring out the “Flora of British India” in 7 volumes (1872-1897).
- Rubber plantation was introduced in India by George King who brought 6 plants of Para rubber tree (*Hevea brasiliensis*) given to him by Sir J.D. Hooker from Kew Garden in 1873.
- In 1947 India gained independence and in 1950, the Royal Botanic Garden was rechristened as the “Indian Botanic Garden”.
- The Herbarium of the Indian Botanic Garden was taken over by Botanical Survey of India in 1957 and was subsequently developed as the “Central National Herbarium”, one of the few large herbaria of the world housing more than 2 million herbarium specimens.
- In 1963, the Indian Botanic Garden was transferred from the provincial Government to the Central Government and became a part of the Botanical Survey of India.
- The Indian Botanic Garden celebrated its Bicentenary in the year 1988 (1787-1987).
- The present name of ‘AJC Bose Indian Botanic Garden’ came into existence from 24th June, 2009.



Kyd Monument

SALIENT FEATURES OF AJC BOSE INDIAN BOTANIC GARDEN

Situated at a distance of 8 km from Howrah Railway Station and 25 km from Kolkata International Airport (Netaji International Airport), AJCBIBG is one of the most famous gardens in the world like the Royal Botanic Garden, Kew (England). Its unique landscaping was initiated by Sir George King. The garden is divided into 25 divisions, each specified to grow different types of plants. There are 24 lakes in the garden which are interconnected with underground pipes and connected with the river through sluice gates for the regular inlet and outlet of water. The roads inside the garden, avenues and lakes are named after famous botanists and other technical staff of the garden. This garden is a living repository of 1377 plant species and totalling to a number of 14122 plants including trees, shrubs & climbers together with a large number of wild and cultivated herbs. Unlike other earlier established gardens in India which were later on turned into either horticultural or fruit gardens, AJCBIBG preserves one of the best collections of native and exotic plants and a large number of curious, rare and endangered species. Rich collections of bamboos, screw pines, palms, jasmines, bougainvilleas, legumes, water lilies, orchids, etc. are some of the proud possessions of this garden. AJCBIBG undoubtedly played a significant role in introducing, multiplying and distributing many commercially important plants from various parts of the world. Introduction of some of the notable species like tea, cinchona, mahogany, rubber, etc. directly influenced the welfare of people and socio-economic development of the country.



Kiosk Building



Polyalthia Avenue



Roystonea Avenue

IMPORTANT SECTIONS

AQUATIC PLANT SECTION

This section is mainly dedicated for conservation of endemic, threatened and ornamental aquatic plant species. It has a wide range of collections of different species, varieties, hybrids and cultivars of Lotus and Lilies. In Lilies August Koch, Blue Triumph, Caerulea, Pamela, etc. are blue flowered; Sioux, Chromatella, yellow flowered; Rose, Arey, General Pershing are odorous pink flowered; Panama pacific, pinkish blue while Escarboucle is vermilion and Omariana is red flowered). The centre of attraction is the Giant Water Lily or Victoria Lily (*Victoria amazonica* (Poepp.) Klotzsch and *Victoria cruziana* A.D. Orb.) and Makhana (*Euryale ferox* Salisb.). This will pave the way for *ex-situ* conservation, education, research and knowledge dissemination as the highly productive ecosystems of the world.



BAMBUSETUM

This section is located in Division 3 and along the bank of the river Ganges. It has 28 species of bamboo collected from different parts of the country that includes Golden Bamboo, Giant bamboo, Climbing bamboo, Buddha Belly Bamboo, etc.



CANNA SECTION

This section has a collection of different varieties of Canna with a wide range of colour combinations and a centre of attraction for the visitors.





BOUGAINVILLEA SECTION

This section, being first introduced in the garden by W. Hamilton in 1803, is one of the oldest sections of the garden. The section harbours more than 100 cultivars under two species namely *Bougainvillea glabra* Choisy and *B. spectabilis* Willd. Golden glow, Scarlet Glory, Lady Mary Baring, Lady Hope, Summer Time, Spring Festival, etc. are some of the important cultivars in the section. In addition to above, recently a new *Bougainvillea* section has been developed, which is just adjacent to the rose section of the garden which aims at ex-situ conservation of maximum number of cultivars in the garden for research as well as aesthetic purposes.



CYCAD SECTION

Cycads are the ancient group of plants that were a prominent component of the world's flora in the Jurassic era, eventually referred to as "Age of Cycads". This is one of the important sections of the garden lying under division number 17 of the garden. The cycad section is very significant as it harbours the *Cycas* species of William Roxburgh's time which are more than 200 years old. Recently, the section is revamped with beautiful landscaping along with exclusive collections of several species of *Cycas* namely, *C. beddomei* Dyer., *C. circinalis* L., *C. darshii* R.C. Srivast. & B. Jana , *C. indica* A. Lindstr. & K.D. Hill, *C. revoluta* Thunb., *C. sphaerica* Roxb., etc. In addition to the *Cycas* species many other species of *Zamia* (*Z. angustifolia* Jacq., *Z. fischeri* Miq., *Z. furfuracea* L.f., *Z. pumila* L., *Z. loddigesii* Miq., *Z. standleyi* Schutzman, etc.) and *Dioon* (*D. edule* Lindl. and *D. spinulosum* Dyer ex Eichler) are attract the visitor's attention as well as the attentions of the scientific community.



CACTUS HOUSE

A separate pentagonal glass house was built on the occasion of the bicentenary celebration of the garden in 1987 in Division No. 22 for the conservation of cacti and other succulent species. The section has a wide and diverse collection of cacti and succulents comprising more than 100 species under 10 different families. Several rare varieties of plants are also maintained and conserved in this section.



CHARAKA UDYAN

The Medicinal Plant Section or Charaka Udyan is a very important section located in Division 25 of the garden just adjacent to the Central National Herbarium building. It has a collection of more than 200 medicinally important plants arranged in 196 beds covering most of the plants mentioned in Charaka

Samhita by Maharshi Charaka. This section has an exclusive collection of Coco, Nutmeg, Gurmar, etc. a few to mention.

FOLIAGE SECTION

Foliage plants are very important having attractive and colourful leaves. These groups of plants formed an important and attractive section of the garden i.e. the Foliage Section lying in Division number 20. Apart from these Topiary decorations is being maintained and exhibited in the *Polyalthia* spp.,

Mussaenda spp., etc., Other different foliage plants *Codiaeum* spp., *Dieffenbachia* spp., *Aralia* spp., *Euphorbia* spp., are also added beauty to the section many folds. The picturesque beauty of this section attracts a lot of visitors as a point of photography.



HIBISCUS SECTION

This section has collections of wide ranges of *Hibiscus* cultivars of varied shape, size and colour ranging from white to pink, red, orange, purple or yellow. *Hibiscus* plants locally known as 'Jaba' are famous for their colourful and showy flowers. Hibiscus is a hardy versatile plant which enhances the beauty of garden as well as attracts butterflies, bees, humming birds. This section is presently represented more than 100 cultivars such as Shining blue, Spiritual of Madhubati, Bengal Dancing Queen, Dark Mother of Bengal, Bengal Sunrise, City of Joy, Janaki Ammal, Dark Continent, Rain Drop, Renaissance Blue, June's Joy, White Satin, Celestial Moon, Byron Metts, Harvest Moon, Golden Doubloon, Madam Curie, Silver Memory, Gautam Bhoumik, Valentine's Day and Cherry Appaloosa, etc. The cultivars of *Hibiscus* have added beauty to the garden in manifold and also glorified this age-old garden.



LARGE PALM HOUSE

The Large Palm House being situated in Division number 17 of the garden was built in the middle part of 19th Century for growing the interesting Palms and shade loving plants all around the globe. At the centre of the house there is a dome just below which grows *Lodoicea maldivica* (J. F. Gmelin) Persoon – the Double Coconut tree with glorious trunk and crown of large leaves. This is a single plant available in India and interestingly growing in AJCBIBG. The double coconut is known for its huge lifespan of more than 1000 years; largest seed-bearing plant of the world weighing ca.25 kg and largest leaf size. Apart from this several other threatened palms grown in the Palm House are namely *Adonidia merrillii* (Becc.) Becc. (Manila Palm-VU), *Bentinckia nicobarica* Becc. (Bentinck Palm- EN), *Rhopaloblaste augusta* (Kurz) H.E. Moore (Nicobar majestic palm-VU) etc. and interesting palms are namely, *Calamus andamanicus* Kurz. (Andaman), *Licuala peltata* Roxb. ex Buch.-Ham. (Chattapat Palm) (Regions of Himalaya), *Areca triandra* Roxb. ex Buch.-Ham. (Wild Areca Palm) (Regions of Assam), *Livistona jenkinsiana* Griff. (Himalayan Fan Palm) (Regions of Himalaya), *Rhapis excelsa* (Thunb.) Henry (Bamboo Palm) (Vietnam), *Coccothrinax argentata* (Jacq.) L.H. Bailey (Florida silver palm) (South Florida), *Caryota mitis* Lour. (Clustered Fishtail Palm) (Indo-China regions), etc. This section along with some shade loving climbers and ferns transforms it into a tropical forest like habitat suitable for the growth and conservation of rare palms of the globe.



MUSA SECTION

This section in division 14 endowed with wild germplasm collection of Musas for *ex-situ* conservation for posterity. At present the section has the collection of endemic *Musa* spp. such as *Musa acuminata* Colla, *M. balbisiana* Colla, *M. indandamanensis* L.J. Singh endemic to Andaman & Nicobar Islands and *M. markkui* R. Gogoi & S. Borah and *M. velutina* H. Wendl. & Drude are endemic to North East India along with other important species. It is aimed to have a germplasm collection of maximum possible and available species of *Musa* in the near future for facilitating conservation and research.



PALMETUM

The AJC Bose Indian Botanic Garden is well known for its collection of native and exotic palms. The garden has the largest collection of palms ca.100 species including many endemic, threatened and economically important plants of the country. Some of the



interesting palms worth mentioning are the Bentinck Palm, Branched Palm, Century Palm and many more.



PANDANETUM

Pandanus spp. are commonly known as Screw Pines. Collection of these *Pandanus* spp. is called 'Pandanetum'. The species vary in size from small shrubs (less than 1 m tall), to medium-sized trees (20 m tall), typically with a broad canopy, heavy fruit, and moderate growth rate. The trunk is stout, wide branching, and ringed with many

leaf scars. Several species of *Pandanus* like *Pandanus foetida*, *P. furcatus*, *P. leram*, *P. tectorius*, *P. anguifer* etc. are grown here.

PINETUM

The name 'Pinetum' is given to a collection of conifers. Although the conifers grow at higher altitudes, these have been acclimatised in garden environs through long term conservation practice. Many common and rare conifers and other gymnosperms like *Agathis lanceolata* Warb., *Agathis robusta* (C. Moore ex F.



Muell.) F.M. Bailey, *Araucaria* spp., *Cycas* spp., *Pinus roxburghii* Sarg., *Juniperus* spp., *Podocarpus macrophyllus* (Thunb.) Sweet and *Podocarpus neriifolius* D. Don, etc. are conserved in two pinetums in Division numbers 4 and 8.



ROSARIUM

This section was established in December 2019 in the memory of **E.K. Janaki Ammal**, Officer on Special Duty for re-organising Botanical Survey of India after independence. It is situated adjoining to the Great Banyan Tree and just opposite Roxburgh's Monument in division 14 spreading over an area of 26000 sq. ft. It is the abode of 3000 rose plants growing luxuriantly in the 29 beds and also in peripheral long beds. More than 250 cultivars with 16 colour combinations including stripes and aromatic are also grown. Interestingly one bed exclusively occupied with Indian breeds only. Some notable cultivars are Janaki Ammal, President Pranab, Rabindranath, Royal amethyst, Gary player, Swamy Ranganath Nanda, Spell work, Rina Hugo, Holly Wood, Double Delight, Victor Hugo, AK. Mishra, Marcopolo, etc. along with a number of scented varieties.



SOME INTERESTING PLANTS



THE GREAT BANYAN TREE

The Great Banyan Tree (GBT), scientifically known as *Ficus benghalensis* L., belonging to the Family– Moraceae is an outstanding living legend of the AJC Bose Indian Botanic Garden and it acts as an Iconic structure of the garden. It is one of the star attractions not only for Indian visitors but also for foreign delegates. This tree is

over 260 years old and one of the largest known canopy in India. It was damaged to some extent by three great cyclones of 1864, 1867 and 2020. The circumference of the main trunk was 16.5 m at 1.7 m height from the ground which decayed and had to be removed in 1925. The area occupied by the tree is about 19667 sq. m. The present crown



of the tree has a circumference of 486 m and the highest branch rises to 24.5 m. It has at present 4208 aerial roots reaching down to the ground as prop roots. The Great Banyan looks more like a forest than an individual tree. Interestingly enough, the tree still lives in perfect vigour without its main trunk. This living legend and landmark of this Garden occupied its position in the “Guinness Book of world Records” for its massive canopy. Thus, GBT is standing tall and as senior most citizen of the garden thereby enhancing the beauty and serenity of the area.

MAD TREE

Pterygota alata (Roxb.) R. Br. var. *irregularis* (W.W. Smith) Deb and Basu, is native to our country and one of the queer members of the plant kingdom whose oddity forces them to marvel at the wonder of nature. The Mad tree is unique because leaves of this tree are variable in form, shape, nature and degree of segmentation and lobation of the lamina or the leaf blade to such an extent that no two leaves of this tall deciduous tree are identical.



BAOBAB TREE/WISH TREE

Adansonia digitata L. of Malvaceae (Bombacaceae) is a native to Tropical Africa and the national tree of Madagascar. It is believed that Arabian traders collected this tree and grew it in Egypt before subsequent migrations to other countries of Asia including India. This tree is a symbol of fertility and is worshiped for various purposes. This tree is

extremely useful for providing food and medicine, thus named as 'tree of heaven' or 'tree of life'. The massiveness of the trunk and gigantic size of its branches make it a distinctive tree. The girth of the main trunk of a mature tree ranges from 25-35 m. The tree reaches about 15-25 m. in height. It is the largest succulent tree that can retain more than 1 lakh litre of water inside the trunk and branches in order to survive a long drought period. The tree's life span is estimated between 3000–6000 years, which is believed to be one of the longest life span in the plant kingdom.

MOUNTAIN ROSE

Brownea coccinea Jacq. of Fabaceae is a slow-growing, small tree from tropical America mainly Guyana, Venezuela, Brazil and Trinidad and Tobago. The tree usually has large heads of orange-red flowers, 6-8 inches across, which hang primarily beneath the foliage, on older branches. Generally, the exotic looking flowers are not visible at all from the outside. It is also commonly cultivated in other tropical countries including India.



KRISHNA BAT

Ficus krishnae C. DC. of Moraceae is known as Krishna fig, Krishna's butter cup & Makkhan Katori. Being native to India, the plant was first brought to notice by David Prain in 1896 (the then Director of Botanical Survey of India, Kolkata) from a private garden located near the Acharya Jagadish Chandra Bose Indian Botanic Garden, Howrah. From there two stem cuttings were brought and introduced in this garden. Afterwards the twigs of this plant were distributed to various gardens in India as well as outside the country. It is considered as one of the unusual fig species due to its peculiar nature of leaves.



The unique feature of this tree is that the leaves have a pocket-like fold at the base or a sac in the back side basal part of the leaf, which is the source for many Indian folklores to relate with the religious myth 'Krishna' in Mahabharat regarding the formation of such cone shaped leaves.



DOUBLE COCONUT

Lodoicea maldivica (J.F. Gmel.) Pers. under the family Arecaceae is the largest seed-bearing plant so far described in the Plant Kingdom. The fruits may weigh about 50 pounds at maturity. The seed looks like two coconut seeds fused together, for which it is named 'Double-Coconut'. The species is indigenous to only two of the 115 Seychelles Islands. They have historically been found floating in the west Indian Ocean being known to the explorers long before the parent plants were discovered and later described from Maldive Islands. It is also called 'Coco-de-Mer' (Coconut of the sea) for such nature and belief that the fruits from Seychelles Islands reached to the Maldives

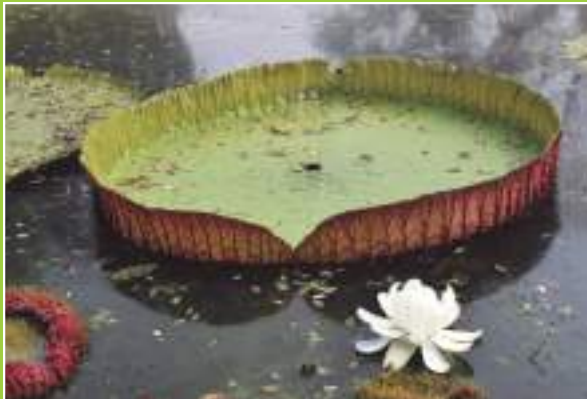
through sea, where it was germinated and later on described. This giant palm survives about 1000 years. The male and female plants are different (dioecious). It is a female plant introduced in India and planted only in AJC Bose Indian Botanic Garden in 1894. Successful fruit setting has been achieved in this palm through artificial pollination by procuring pollen from Nong Nooch Tropical Garden, Thailand in the year 2013. Recently, in February, 2021, the first two mature fruits were harvested from this tree.

BRANCHED PALM

Hyphaene thebaica (L.) Mart. of Arecaceae is native to the Arabian Peninsula and also to the northern half of Africa where it is widely distributed and tends to grow in places where groundwater is present. Branched palm was considered sacred by the Ancient Egyptians and the seed was found in many pharaoh's tombs.



GIANT WATER LILY



Native to the Amazon River basin, Giant Water Lily is the largest size member of the Water Lily family. It was first discovered in Bolivia in 1801 and grows in the backwaters of rivers in the Amazon basin, the Guiana and Pantanal. The Plant has very large leaves, up to 2-3 m in diameter, that float on the water surface and can

hold the weight of a child. Two species of the genus *viz.* *Victoria amazonica* (Poepp.) Klotzsch and *V. cruzinana* A.D. Orb. were introduced in the botanic garden in 1873 from Brazil and in 1981 from Santa Cruz respectively.



QUEEN OF FLOWERING TREE

Amherstia nobilis Wall. a member of Fabaceae is a tropical tree with exceptionally beautiful flowers. It is native to Burma (Myanmar) but widely cultivated throughout the tropical countries for its beautiful flowers. The scientific name commemorates Lady Amherst, a British naturalist and botanist. The extravagant flowers are seen



hanging from the long inflorescence signifying its another popular name 'Dancing Doll Tree'. It is also among ten beautiful flowering plants of the world.

MARSHY GYMNOSPERM

Taxodium distichum (L.) Rich. of Cupressaceae is perhaps the solitary individual tree of this species (growing in this garden) in India is under luxuriant growth. The well exhibiting knee-roots or up-ward growing roots (pneumatophores) of the plant people think it to be a mangrove plant. It is interesting to note that during winters, the leaves of this tree get dried (under deciduous condition) the plant appears dead but in the onset of autumn, it again becomes green and looks like a typical coniferous tree. Due to this the plant is known as 'Kumbhakarna' plant. But the presence of several peg-like structures (called knee- roots) around the base of the trunk create a curiosity in one's mind. This deciduous conifer is a native of the United States where



it grows on saturated and seasonally inundated soils of the south-eastern and gulf coastal plains.

SOME OTHER BIZARRE PLANTS

AFRICAN ORCHID NUTMEG [*Monodora myristica* (Gaertn.) Dunal] is native to Africa. The flowers look very similar to an orchid and the nearly spherical drupes resemble a nutmeg and so the common name.



ALL SPICE [*Pimenta dioica* (L.) Merr.] also known as Jamaica pepper or pimento is native to the Greater Antilles, southern Mexico and Central America.

BEGGARS BOWL [*Crescentia cujete* L.] Calabash Tree is a low-growing tree native to Central, South America, West Indies and southern Florida. The oval hard fruit resembles a bowl.



BREAD FRUIT TREE [*Artocarpus altilis* (Parkinson) Fosberg] is native to the Malay Peninsula and western Pacific islands. Introduced in India as a cheap, high-energy food source for slaves in British colonies.

CAMPHOR TREE [*Cinnamomum camphora* (L.) J. Presl] is native to China, Japan, Korea, Taiwan, and adjacent parts of East Asia. Camphor is extracted from the leaves.



CANDLE TREE [*Parmentiera cereifera* Seem.] is native to Central America. The fruit is a taper-shaped that grows up to 60 cm long and resembles a candle.

CANNON BALL TREE [*Couroupita guianensis* Aubl.] is a native to tropical South America and bears cannon-like round hard fruits. Flowers are very fragrant.



COCO TREE [*Theobroma cacao* L.] is native to tropical rainforest areas of Central and South America. The roasted seeds are used for preparations of chocolate liquor, cocoa butter and chocolates.



GOLDEN BAMBOO [*Bambusa vulgaris* Schrad. ex J.C. Wendl.] is native to Indochina and to the province of Yunnan in southern China, but it has been widely cultivated for its golden yellow culms.

NAPOLEON'S HAT PLANT [*Napoleoniaea imperialis* P. Beauv.] is native to tropical west Africa. The species was described in 1804, the same year its namesake (Napoleone di Buonaparte) crowned himself Emperor of the French and the flowers resemble the hat of Napoleone.



NUX - VOM TREE [*Strychnos nux-vomica* L.] is native to India. The plant is highly medicinal.

OIL PALM [*Elaeis guineensis* Jacq.] is native to west and southwest Africa and introduced in India during the 1860s by British travellers as a vital source of vegetable oil.



RED SANDERS (*Pterocarpus santalinus* L.f.) is an Indian Endemic and Endangered tree species, found in Eastern Ghats of Andhra Pradesh. It is commonly known as Red Sandalwood or Red Sanders. Locally known as Yerra chandanam, Raktha chandanam. Red Sanders population is gradually declining due to the over harvest of the species for its attractive heartwood and the high-value products made from it. Over-exploitation of the species has left the population structure skewed, with trees of harvestable size and maturity being scarce and making up less than 5% of the trees remaining in the wild. Hence, the Red Sanders has been assessed as an Endangered as per the IUCN criteria and also included in appendix II of CITES.

RASHOGOLLA TREE/STAR APPLE

[*Chrysophyllum cainito* L.] is native to the Caribbean and Central America but cultivated throughout for its edible juicy fruit resembling Rashogolla in its shape and colour.



SAUSAGE TREE [*Kigelia pinnata* DC.] is native to Africa. The mature fruits dangle from the long stalks like giant sausages and have medicinal properties.

TALI PALM [*Corypha taliera* Roxb.] is a unique palm species popularly known as century palm and considered as extinct in wild as per IUCN Red List status and last record of existence in wild was reported from Adityapur in Birbhum District, West Bengal.



AWARENESS ACTIVITIES

Various outreach events such as World Environment Day, Vanmahotsaba, Flower Shows, Sit & Draw Competitions for school children on themes related to environment and biodiversity conservation have been organized every year for educating the masses and creating environmental awareness amongst the young one. Free sapling distribution and mass plantation by visitors as well as students are also carried out during World Environment Day & Vanmahotsaba. Apart from these, field demonstration, lectures to visitors of different categories including students of schools, colleges and universities and forest trainees etc. has been given on a regular basis as part of regular activities.





DO'S & DON'TS

DO'S

- Follow garden timing for visiting the garden.
- Maintain discipline and abide by the rules and regulations.
- Maintain hygiene and cleanliness in public toilets/taps present in the garden premises.
- Co-operate with garden staff for better management.
- Contact security personnel immediately in case of any problem or regarding queries.
- Maintain a safe distance from lakes and water bodies inside the garden.

DONT'S

- * Carrying non-reusable polyethene/plastic bags, cups, plates, bowls, glasses, pouches, bottles, etc. or any of such item(s) made of thermo-coal/non-biodegradable materials.
- * Any commercial photography and videography like film shooting and pre-wedding shoots, advertisements, etc.
- * Any commercial activity like selling of any food products, drinks, gutka/pan masala, tobacco items, etc.
- * Entry of vehicles without permission.
- * Entry and use of Alcohol and or any drugs/narcotic products and arm & ammunition, etc.
- * Playing indoor and outdoor game(s) on road, lawn and or in water-bodies.
- * Lighting fire, cooking, hunting and fishing.
- * Encroachment within garden premises and along the boundary wall/fence, etc.
- * Damaging any plant or its part(s) like stem, branch, leaf, flower, fruits, roots, rhizome, bulb, bark, etc. and or any building and or infra-structure.

GARDEN TIMING

8.00 AM to 5.30 PM (March to September)

Ticket Counter will close at 4.30 PM

Monday closed

8.00 AM to 5.00 PM (October to February)

Ticket Counter will close at 4.00 PM

MORNING WALKER TIMING

March to September 5.00 AM to 7.00 AM

October to February 5.30 AM to 7.30 AM

Entry Pass for morning walkers are issued on an annual subscription basis and can be obtained from the ticket counters.

CONTACT DETAILS

The Head of Office

AJC Bose Indian Botanic Garden

Botanical Survey of India

Howrah – 711103

Phone: 033 –2668 1466/0554

E-mail: ibg_bsi@rediffmail.com

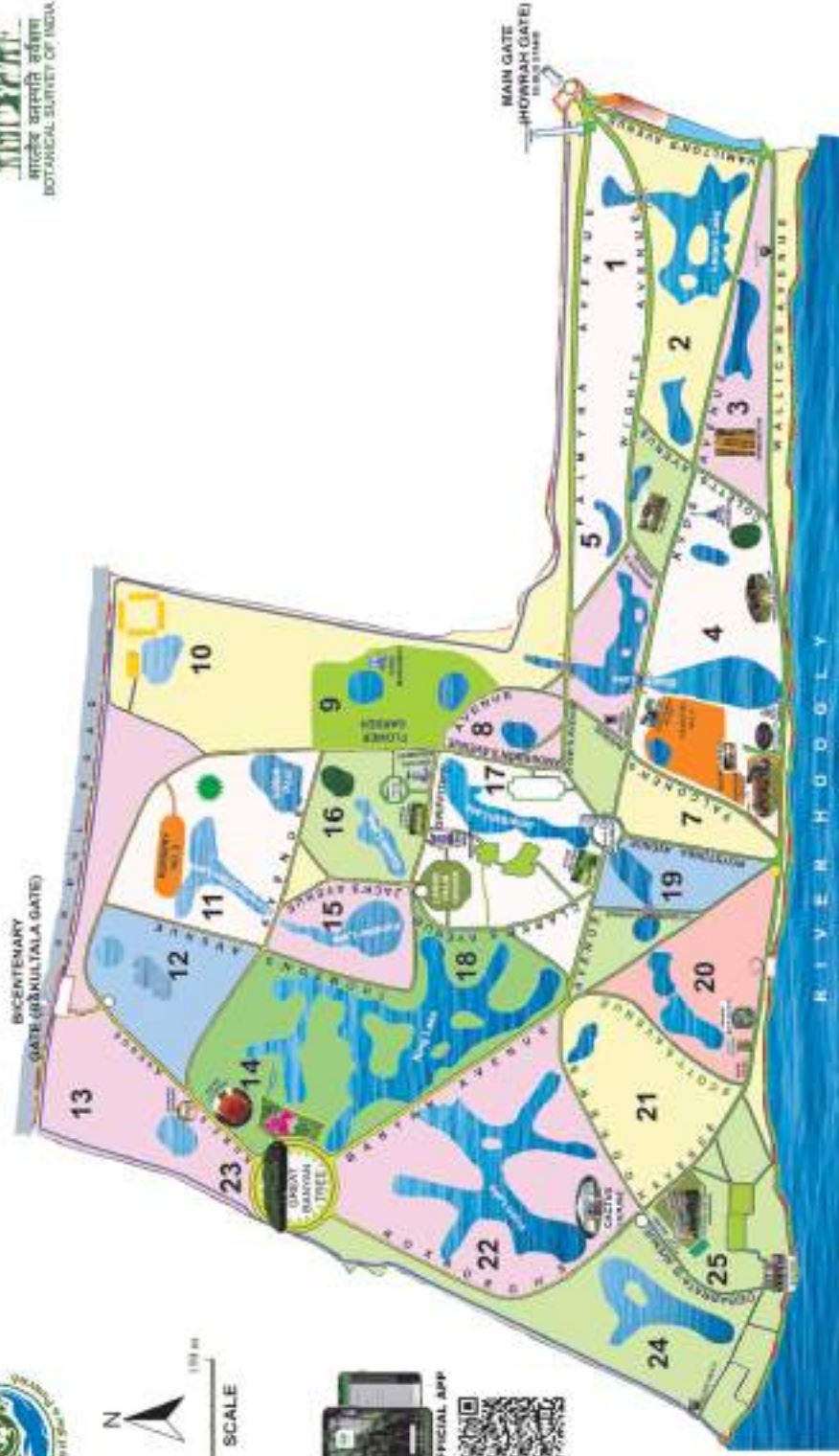
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ACHARYA JAGADISH CHANDRA BOSE INDIAN BOTANIC GARDEN



BOLD NOS. (1-25) - DIVISION NOS. OF THE GARDEN



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