

Nilgiri Biosphere Conservation Park

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Note: The local host of the CBSG/RSG meeting and SAZARC conference was the Coimbatore Zoological Society, which is responsible for Zoo Outreach Organisation, which hosts the regional networks of CBSG and RSG and serves as Secretariat of SAZARC for being in Coimbatore. The following article is a sort feature about the Nilgiri Biosphere Conservation Park of the Coimbatore Zoological Society.

The Coimbatore Zoological Park Society (CZPS) was founded in 1986 by a group of Coimbatore residents who wanted to establish a new zoo as a gift to the city. The President of CZPS G. Rangaswamy invited Sally Walker, the Founder and Director of Zoo Outreach Organisation to help with the design and development of the zoo. The objectives of the Society stem from their scientific and ethical concerns & interests. Originally, the Society had planned a typical zoological park, but soon thereafter, Central Zoo Authority (CZA) members and advisors perceived that the social and educational requirements of the community had evolved, and required a more relevant facility. Accordingly, the scope and direction of the Project is now envisioned as a holistic environmental complex. The Nilgiri Biosphere Conservation Park (NBCP) was born on the Anaikatty Road just 30 kms from Coimbatore City. The botanical garden will open officially in early 2006.

The broad aims of the Nilgiri Biosphere Conservation Centre are to utilize the plant resources quickly and effectively as a start-up project, capitalizing on the biomespecific garden, found nowhere else in India, and in very few places anywhere in the world. The objectives of this botanic garden and conservation center are conservation, research and education of the surrounding flora and fauna exclusively. This NBCP will be a nature and educational recreation spot with an environmental education programme with appropriate infrastructure and activities. The facility will be used to introduce and interpret the highly complex conservation park, consisting of animals as well as plants, to the public. This work began in 1992 and in that time the collection has grown to more than 100,000 seedlings of more than 400 species. Of these, more than 360 species of 4000 seedling subsist in the field. NBCP has more plants indigenous to the Nilgiri Biosphere Reserve than any other plant conservation area.

The 2005 edition of the *World Zoo and Aquarium Conservation Strategy* has as its theme the concept of "integrated conservation". The NBCP will be the embodiment of integrated conservation, starting with a botanic garden supporting even now over 360 species of plants of the NBR, 40 of which are endemic (found nowhere else in the world) and threatened with extinction in the wild. The project has been designed according to the forest types of the Western Ghats, one of two designated biodiversity hot spots. The project site is situated on the eastern slopes of the Nilgiri hills surrounded by the Nilgiri Biosphere Reserve (NBR), which is the project's theme.

Rich in endemism, the NBR, is perhaps the most widely known mountain part of the Western Ghats. The project will replicate the NBR on its beautiful 250 acre site which is surrounded by hills and naturally undulating, with dramatic variety in its landscape. South Indian forest types in the Nilgiri Biosphere Reserve constitute eight thematic vegetation zones: Evergreen Zone, Semi-evergreen Zones, Moist Deciduous Zone (with three belts of Moist Teak Forest, Bamboo Brakes and Mixed Deciduous Forest), Dry Deciduous Zone (with three belts of Moist teak Forest, Bamboo Brakes and Mixed Deciduous Forest), Dry Deciduous Zone, Rain Shadow Zone, Montane Shola Zone and Thorn Forest Zone. Animals, native to the NBR, will be settled into the appropriate zone.

From the outset, serious botanical research was established at the Coimbatore facility. Systematic collection, protection, propagation and planting of indigenous plants to recreate the different forest types of the Nilgiri Biosphere Reserve, is a major undertaking. All plants are collected from legitimate sources, as scrupulously as a zoo will avoid illicit dealers for the animals.

People of the Nilgiri Biosphere Reserve

NBCP programmes employ local people of the area to assist with visitor services and manufacture handicraft items made from natural materials. Local people can become involved in sustainable use activities so that they are neither unsettled themselves nor unsettling to the ecosystem

Other ongoing works include

- Propagation, germination studies, with 40 species of endemic and threatened rainforest species including *Artocarpus hirsutus*, *Baccaurea courtallensis*, *Dysoxylum malabaricum*, *Palaquium ellipticum*, *Canarium strictum*, *Vateria indica*, *Hydnocarpus pentandra* and *Cullenia exarillata* with records maintained on all parameters of the process

- Research on the prevalence and intensity of pests and diseases of indigenous forest plantations, so that appropriate pest and disease control measures can be taken

- Development of software for plant documentation and management to cope with the enormous quantity of data generated by day-to-day botanic activities. The programme ENTADA has been named after India's largest pod-bearing climber *Entada rheedii*.

The NBCP has been recognized by the Botanic Gardens Conservation International (BGCI) UK, which awarded a grant under their Investing in Nature Programme for developing the endemic and threatened plants being nurtured in the Park in collaboration with NBRI, Lucknow. This grant covers several educational and technical projects and has given a kick start to the completion of the first phase of the NBCP. This programme aims to achieve one of the targets of the Global Strategy for Plant Conservation (GSPC), which is "60% of threatened plant species to be protected in accessible *in situ* collections, preferably in the country of origin and 10% in recovery and restoration programmes"

Zoo Outreach Organisation along with NBCP organized training in botanic gardens education in 1995 with BGCI in Coimbatore, Bangalore and Trivandrum in southern India. NBCP has already created a 'Tiger Trail' at the site especially for a 'Teachers for Tigers' training workshop for Coimbatore school teachers organized by ZOO and the Wildlife Conservation Society, USA. NBCP conducted one year field study to get an insight into the diversity of invertebrates and amphibians with the support of JWPT International, Jersey, UK. ZOO has also organized training in captive management of small animals, such as invertebrates and amphibians. The NBCP staff also

organise education programmes in the city as well as onsite for special events, such as Wildlife Week, Environment Day and Animal Welfare Fortnightly.

Globally, some species of animals and plants are so highly threatened, they need support from man. Zoos and botanic gardens can support threatened species in a variety of ways: by captive propagation, research, creating public awareness, fund-raising for protecting species and habitats in trouble. The Niliri Biosphere Conservation Park will be a singular example of such support for threatened species.

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