

## 151. A Museum for Understanding Biodiversity: The Calicut Initiative

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**Abstract.** Augmenting the related “Communication, Education and Public Awareness” (CEPA) programmes is a major aspect in enhancing sustainable development and promoting conservation of biodiversity.

Science museums can play a significant role in educating the public on indigenous biodiversity. It is with this objective, that Western Ghats Regional Centre, Zoological Survey of India opened its museum a couple of years ago. The museum is unique of its kind due its special focus on local animal species and is now a prominent point of interest to the student community as well as to the general public.

**Keywords:** Biodiversity conservation, Calicut, Science musuems, ZSI

### Introduction

The United Nations with the declaration of the year 2010 as “The International Year of Biodiversity” has invited the world to celebrate life on earth and the value of biodiversity for our lives. It also reckons a joint action in 2010, to safeguard this ‘variety of life’ on earth. (<http://www.cbd.int/2010/welcome/>). For enhancing sustainable development and promoting beneficial conservation of biodiversity, “Communication, Education and Public Awareness” (CEPA) programmes related to biodiversity need to be augmented.

That which is appreciated and valued only, will eventually be saved or conserved. So also understanding what biodiversity is, proves crucial to valuing and conserving it. Attaining a clear understanding about the ‘Variety of life’ is essential for a critical evaluation of the impacts of human actions on the living world.

Better awareness can be achieved, if initiatives stay focused on local biodiversity aspects. Science museums by explaining and displaying the indigenous biodiversity can play a significant role in educating people on the importance of biodiversity conservation. It is with this objective that the Western Ghats Regional Centre (WGRC), of Zoological Survey of India (ZSI), Calicut, Kerala, commissioned a Museum in September 2008. ZSI, with its headquarters in Kolkata, is a premier organization under the Ministry of Environment and Forests (MoEF), Government of India, and is involved in the study of diversity of animals in the country. The organization conducts faunal surveys, explorations and research leading to the advancement of scientific knowledge on the faunal wealth of the nation.

### About the Museum at WGRC, Calicut

The museum at WGRC is unique of its kind due its special focus on local animal species and endemics of Western Ghats (WG), a prime ‘Biodiversity Hotspot’. Various displays communicate the current status, vitality, richness and significance of the diversity of animal life of WG. Important concepts in biodiversity which are locally relevant are also presented effectively by maintaining displays of live as well as preserved organisms, through paintings, photographs and also screening short movies. The exhibits set up mainly on a student as well as a layman’s perspectives are housed in two floors occupying a total area of about 4500 sq. ft.

In a short span of 2 years since its inception, the museum has attracted a total of 28,749 visitors (as on 24th October, 2010). The museum is open on all week days and entry is free.

All the displays in the museum are thematically arranged. Such a grouping ensures an in depth and focused understanding of the subject to an observer.

Displays are arranged under four thematic categories.

#### *Theme I: Observe nature*

Observing nature is a skill requiring attributes like patience and keenness. Displays set up near the entry point demonstrate in particular, the need to develop such attributes as essential prerequisites for observing nature. Model habitats have been set up, where one has to struggle a bit to spot out the creatures placed within. Such displays also help the observer to develop insights on cryptic colourations in animals and explain how a camouflage can really aid an organism in its survival.

***Theme II: Wonders of the animal world***

Creating enthusiasm in an observer on the topic depends a lot on the content and the presentation style of a display item. For essentially equipping the minds of an observer in appreciating the value of biodiversity, a few among the wonders of the living world have been chosen and displayed.

***The 'living fossils':*** Living fossils are organisms that have remained unchanged even after millions of years. The mysterious Purple frog, the beautiful Nautilus and King crab along with apt write-ups, convey the concept what 'Living Fossils' are.

***The record breakers:*** The smallest and the largest species of frogs in India, the smallest fish species in India, the largest species of moth in the world, the largest butterfly species in India and one of the longest species of earthworms represent the record breakers in the animal world.

***The 'curious creatures':*** The stick insect with its deceptive appearance, the leaf insect even mimicking the venations on a leaf, the flying lizard, the flying fish and the chameleon induce an element of curiosity in the minds of an observer, implanting in them an urge to learn more on the living world.

***Theme III: Vital concepts***

To communicate on some of the vital concepts in the science of Biodiversity, in addition to the preserved examples and photographs, a few living forms have also been displayed.

***Concept-I: Invasive alien species (IAS):*** Among the current threats faced by biodiversity, those posed by the IAS (non-native organisms that cause, or have the potential to cause harm to the environment, economies, or human health) have been ranked the second.

With the two representatives of IAS of the region, viz., the African Cat fish and the Red eared slider turtle, maintained live, also supplemented by adequate data, the concept of the threats posed by the IAS to the indigenous life forms are well- conveyed.

***Concept-II: Endemism:*** An endemic species (an animal or a plant species with habitat restricted to a particular area) is one of the focal topics in biodiversity and conservation sciences. A live display of one of the most beautiful of the fishes, endemic to the fresh water streams of Western Ghats, the redline torpedo fish, popular by the name "Miss Kerala" has been maintained. This along with the series of preserved specimens of the endemic animals of the region, coupled with display of apt data, imprints in an observer, the importance of the concept of endemism in the field of Biodiversity.

***Theme IV: 'A Journey through Western Ghats'***

This is the focal theme of the WGRC museum. The first floor is dedicated totally to unveil the rich biological wealth of WG. The section effectively reflects the magnificence and glory of the WG, as well as its faunal diversity, through an elaborate display of representative fauna of the WG, comprising of butterflies, beetles, dragonflies and damselflies, fishes, frogs, tortoises, turtles, snakes and mammals- all supplemented with large, framed photographs and bilingual write ups. The section is equally appealing to a serious researcher as well as a layman and caters information on the data regarding the diversity of the group, conservation status and of general interest.

The video corner, exhibiting short movies on animal life specific to WG generate a lively ambience.

The section also depicts the current threats on biodiversity of WG due to large scale land conversions, overexploitation, poaching and pollution.

Communication, Education and Public Awareness" (CEPA) programmes

As a part of CEPA programmes, the museum also holds regular Poster sessions on contemporary themes viz., 'Climate Change and its Influence on Biodiversity' and IAS. A special publication on WG, a series of brochures highlighting an exhibit each and a variety of colourful stickers on the endemic species are distributed, as supplementary educational aids.

Inspired by the information disseminated by the museum, requests to conduct special lectures, workshops and training sessions on the biodiversity aspects of WG are being received regularly from various institutions, students, teachers and forest officials, which are regularly catered.

## **Conclusion**

The strength of the WGRC museum is its wealth of faunal samples, identified upto species level. Such a museum dedicated to displaying animal diversity at a regional level is the first one of its kind in the state.

The museum is now a prominent point of interest to the student community as well as to the general public. WGRC has also been receiving requests for advisory services from regional as well as national organizations on varied aspects based on the museum. Media coverage and feed backs too in general reflect the success achieved by WGRC in fulfilling the goal of setting up a museum with a difference.

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