

Developing relationships with highly degraded ecosystems

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Abstract

The Tropical Dry Evergreen Forest (TDEF) of South India is now extremely threatened in its natural range due to high levels of human interference. Less than 1% of the natural forest remains and most of this is highly degraded. Consequently the local population in general, and the younger generations in particular have no real idea about the forest in its pristine state. The educational programs at the gardens aim to help the children to develop a relationship with this forest system through using children's stories based on the forest, showing them the plants, and involving them in activities at the gardens such as planting and raising of seedlings.

The underlying philosophy behind this approach is that when a relationship is formed through experience between an individual and another entity then there is concern from the individual towards the well being of the entity. Without the relationship there is no concern, and without concern there is no conservation effort. It is particularly hard to develop this relationship when the entity, in this case the Forest, is highly degraded, and thus uninviting, inhospitable and generally devoid of immediate interest. This is why it is important to give the children's imagination a helping hand through stories and fantasy.

Environmental responsibility is high in the awareness of many young people in India, and yet it is still an abstract concept brought in from the media and abroad. Thus as well as developing relationships it is important to show clearly to the children how in their daily lives they are being environmental responsible, and from this positive experience to indicate ways in which they develop this contribution to sustainability.

Introduction

The Auroville Botanical Gardens were established in 2000 on a newly acquired piece of land with the express purpose of helping to protect the biodiversity of the region, in particularly the Tropical Dry Evergreen Forest (TDEF), which is the local indigenous forest type. The TDEF of South India is now extremely threatened in its natural range due to high levels of human interference.

The forest is scattered in small temple groves of a few acres or in Reserved forest areas that were clear cut in the preceding centuries and as a result are a mix of thorny and pioneer species that bear little resemblance to the original forest cover. Less than 1% of the natural forest remains and consequently the local population in general, and the younger generations in particular have no real idea about the forest in its pristine state.

Work that has been on going in the International Township of Auroville over the past thirty years has identified over 400 woody species that are associated with this forest another 600 herbaceous species, of which over 450 have a recorded use either in medicinal or cultural practices.

Education programs

The educational programs based at the gardens and within other bio-resource centres within the township aim to help the children develop a relationship with this forest system through using children's stories based on the forest, introducing them to the plant and animal species of the forest, and involving them in activities at the gardens such as planting and raising of seedlings. They also discover how the plants are involved in their daily lives as medicines and useful materials. Care is always taken to give the children a chance to share their own knowledge about the plants, before teaching them something that they already know. It is a process of building upon the knowledge that they already have.

Programs are also run within local schools that introduce the children to both the plant and animal species from the forest through direct contact. Schemes have been introduced that link the children's activities with plants and assistance for their school fees such as planting trees within their villages and homesteads.

Creating relationships

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The gardens provide the children with a chance to experience the Forest species in a healthy state, an emerging ecosystem that provides an example of how the land can heal when given the opportunity.

Activities with the children

It has been found that the children enjoy working in the gardens and feel particularly proud of their contribution. Once the children feel an ownership to the gardens they are more interested to take part in programs that explore the natural world. Once again it is the creation of a relationship, this time one between the gardens and the child.

Type of Activity	Examples
Work	Nursery work, planting hedges, digging holes for trees, collecting seeds, moving soil and compost, burning dead branches, pruning hedges.
Play	Animal safari in the labyrinth. Games from "Sharing in Nature" program
Study	Collecting flowers and leaves, bird watching, building up species profiles and interconnections.
Creation	Drawing pictures, making up songs and dances about the plants
Exploration	Finding remnant vegetation in their own environment, creating resource maps of their schools and local villages.

Environmental responsibility is high in the awareness of many young people in India, and yet it is still an abstract concept brought in from the media and abroad. Thus as well as developing relationships it is important to show clearly to the children how in their daily lives they are being environmental responsible, and from this positive experience to indicate ways in which they develop this contribution to sustainability. In the first encounter the children are shown how much they already know about the names of plant and animal. The intention is to reveal to the children that they already have the beginnings of a knowledge base and then work in the programs is to show them why and how this knowledge is valuable and give them a chance to expand it.

Future developments

The education programs at the gardens are in their initial stages, working with a few of the local schools. However it is intended in the future to expand the programs to all of the schools within a 30km radius of the gardens. To this end we are currently building a new Education Resource and Research Centre that has been funded through a government grant. It is hoped that work on the building will be completed by August 2007. At the same time funds are being sort to purchase a bus that will bring the children to the gardens for the day and support the staff to run programs with the children.

It also intended to begin night camps with the more interested children from the schools in the immediate vicinity. The idea is to take the children through the gardens and adjacent forest areas to expose them to the nocturnal activities of the animals and the plants.

Biography

Paul Blanchflower graduated from Edinburgh University in 1991 with a degree in Ecological science. He moved to India in the following year and has remained there ever since involved in the restoration of the Tropical Dry Evergreen Forest. He is director of the newly established Auroville Botanical Gardens.