

New England Botanical Club – Minutes of the 931st Meeting

3 October 1997 Prepared by W. Donald Hudson, Recording Secretary pro tempore

The 704th meeting of the New England Botanical Club, Inc., being the 931st since the original organization, met on Friday, Oct. 3, 1997 in the main lecture hall of the Biological Laboratories, Harvard University, with 45 members and guests present. President Don Hudson called the meeting to order at 6:55 PM.

Following a reading of the minutes of the previous meeting, President Hudson asked that guests be introduced, including young Mint Conant and Don Lubin. Fifteen new members to the club were then introduced, something of a modern monthly record.

A single matter of Old Business was then brought before the group, with a plea that folks who signed up for, yet missed, the special dinner in Lyndonville please send in their checks.

The call for New Business brought not a single utterance from the assembled crowd, and the meeting quickly moved to gossip. Les Mehrhoff wished all to remember Fernald's birthday on October 5th, and that of Bernice Schubert on Monday, October 6th. Ray Angelo alerted us of pending changes to the organization of the Harvard University Herbaria. Club Librarian Paul Somers announced the accession of Paul Martin Brown's *Orchids of New England*.

Vice President David Conant then rose to introduce evening's speaker, Dr. Kamaljit Bawa of UMassBoston, here to speak to us of his work evaluating "Tropical Biodiversity Losses: Magnitude and Solutions."

Global deforestation is a problem getting worse in many parts of the world. Eleven million 300 thousand hectares were lost annually between 1970 and 1980, and that number climbed to 15.4 million annually between 1980 and 1990. Dr. Bawa would speak first to the problem, and then to some potential solutions.

Dr. Bawa sees three reasons for revisiting the issue of deforestation: the development of GIS capabilities; intensive monitoring provides clues to root causes; and solutions often arise from identifying causes.

First: rate and magnitude. The problem is far from over. There has been an exponential increase in deforestation in the Philippines since 1990. In Costa Rica, the average size of forest fragments remaining after cutting has decreased during the past 40 years from 1 square kilometer to a quarter that size. And in India, significant regions of biodiversity and endemism, like the Himalayas (with 40% of 67,000 species of endemics), and the Western Ghats, experiencing significant losses of forest habitat during the later part of this century. Roads, reservoirs, and population centers are the greatest influences in deforestation. As the distance from roads and population centers increases, deforestation decreases. If the rates of forest loss continue in the Arunachal Pradesh region, for example, all of the forest will be gone in 2021. In the Western Ghats, subsequent land use moves largely to cultivation and the development of coffee and tea plantations, with just a little more than 1% of the former forest land turning to reservoirs.

The causes of deforestation are complicated, and include population growth, economic pressures on forest products, land use conflicts and many more. The most significant causes appear to be undervaluation of farming and farmland, inequity in the benefit/cost ratio of conservation, and macroeconomic factors outside of the control of individuals and communities.

What solutions might be emerging from this grim scene? Communitybased conservation has been the focus of Dr. Bawa for the past many years, in a region of southwest India known as the Biligiri Rangan Hills, home of the Soligas people a community of native peoples numbering nearly 5,000.

The forest here is dry deciduous to just over 1,000 meters. Above that elevation the forest turns to evergreen species. The forest is home to deer and elephant. The Soligas used to practice shifting agriculture and hunting, but have come to a more settled form of agriculture during the past many decades a source of their looming problem.

With forestbased products such as honey and fruits, Dr. Bawa described a major economic project in the region, supported by academics, nongovernmental organizations, community organizations, and the government, aimed at developing sustainable exploitation of these forest resources. Components of the project include the development of processing and marketing of products, biological monitoring, developing equitable stakes for participants, and involvement of the entire community in the ultimate management of the resources.

There are certainly constraints on the project, including weak managerial and technical skills amongst the Soligas, and divergence of the mission and cultures of partner organizations, yet some successes can be reported. A local organizational structure is emerging, with state and Indian federal support for changes in policy, and skills and experience are improving at the local level. Individual harvesters of honey and fruits are deriving benefits, the Soligas people are regaining control of their land and their lives, and the developing enterprise is continuing to integrate biological monitoring, community participation, and profitmaking in the ongoing project.

Time will tell whether or not this communitycentered conservation effort will turn the tide of deforestation in this corner of India, yet Dr. Bawa left us with a real sense for a change in values and behavior that can only mean good things for the forest.

And with that final thought, the meeting was adjourned at 8:11 PM to questions and refreshments.