

# Asian School On Conservation Biology Affords NPS Teacher/Student Roles

**Editor's Note:** Following is an excerpted account, by Cat Hawkins, Olympic NP Natural Resource Specialist, of her experience attending the First Asian School of Conservation Biology Dec. 14-31, 1987, in Bangalore, India. The entire text of her memorandum to the NPS Director will be carried in a future issue of the *George Wright Society's FORUM*.

My initial impressions of India, and those that will endure longest, are of contrasts, vivid color, and raw, "unpolished" life. There is a vitality throughout India which stands in defiance to her areas of poverty. There is rich, intense color in garment, which, perhaps once an afterthought, is now purpose; it appropriately complements the rust and green landscape. And there is life unmatched by any save the ocean's - constant motion, and constant change.

It was into this world that I stepped as a representative from the National Park Service to the First Asian School on Conservation Biology. Organized by Prof. Madhav Gadgil, Dr. Raghavendra Gadagkar, and Dr. R. Sukumar, the course was held at the Indian Institute of Science in Bangalore. All of the approximately 60 participants, except Christine Schonewald-Cox and myself, were from Asian countries, including Afghanistan, Nepal, Indonesia, Sri Lanka, Malaysia, Japan, China, Pakistan, Bangladesh, and India.

The course began with a four day field trip to India's first biosphere reserve (established in 1986), in the Nilgiris, South India. The Bandipur Tiger Reserve, Nagarhole and Silent Valley National Parks, Mudumalai, Wynad and Upper Nilgiris Wildlife Sanctuaries are included in the Reserve. Problems in managing these areas include fire, loss of habitat due to shifting cultivation and erosion, intensive livestock grazing, crop damage (from elephants), manslaughter by animals (tigers and elephants), and poaching. We traveled into the Reserve through teak, coffee, and tea plantations, past terraces growing cabbage, carrots, potatoes, and cauliflower, and finally to Avalanche, an area of evergreen montane forest (shola). In Bandipur and Mudumalai, we were fortunate to see wild elephants, sambar, spotted deer, gaur, bonnet macaque monkeys, flying squirrels, and boar, etc., as well as very different and very diverse bird life including the pariah kite, drongo, koel, and yellow wagtail.

The next 10 days featured instruction from Institute faculty and presentations by course participants. Core lectures addressed diversity from the genome level to that of species, population, and community. Immigration, emigration, extinction, inbreeding, and outbreeding, and their effects on population and community stability also were discussed.

Core lectures delivered by academicians aroused in some participants the apparently worldwide frustration of field managers over the perceived gap between theory and application. Later sessions helped to close this gap, with topics such as setting priorities for conservation, practical problems in conservation, and human cultures and conservation.

Schonewald-Cox gave well-received talks on landscape ecology and boundary theory as it applies to conservation in nature reserves. I spoke on the NPS policy regarding exotic species management with special reference to the mountain goat issue at Olympic NP.

Final sessions involved open discussion on future directions for conservation of biological diversity on

the Asian continent. A likely outcome of the meeting will be a textbook on conservation biology using Asian examples and publication of a special issue of the journal *Conservation Biology*, with profiles of Asian country cases.



**All meals were served on the rooftop of the Center for Environmental Studies at the Indian Institute of Science in Bangalore. Here, Christine Schonewald-Cox (center) and Cat Hawkins (right) admire the special Christmas fruit cake and tree provided on Dec. 25, 1987, for the eight Christians in the class. At left is Geetha Gadagkar, in charge of catering.**

Some of my thinking about biosphere reserves, as a result of this conference, has been "fine tuned." I see the BRs as embodying simultaneously one of the greatest potentials and one of the greatest challenges to the conservation community. In core and multiple use zones of many BRs, inventories are incomplete. Managers are working to complete these inventories and generally have clear objectives and set operating procedures. Management of these areas follows a plan - a working "road map" exists to direct operations within these areas.

The challenge yet to be addressed in many reserves (from my perspective) is to prepare a similar road map for cooperative management within the reserve as a whole. Included areas may be of varied purposes, including traditional use, rehabilitation, experimental research, and/or multiple use zones. Some core area reserve managers are working actively with adjacent reserve area managers to develop mutual management objectives specifically to meet goals of the BR program, but many are not yet to this point. Of those who are (e.g. Glacier and Great Smoky Mountain NP BRs), most are operating upon personal initiative, without any instituted methodology to direct them. The Service could contribute to world conservation efforts by developing plans of mutual management objectives specific to the biosphere reserve concept.

Awareness within the NPS of the need for ethnographic resource conservation programs is increasing. A contribution to world conservation could be made by NPS areas in which preservation of contemporary traditional "lifeways" (see Douglas Scovill's article, *Trends*, Vol. 24, No. 4, 1987) is a concern. Ethnographic resource conservation programs for

these areas (whether of BR status or not), developed to be consistent with natural resource preservation policies, would provide useful models for similar efforts worldwide.

Thus, by fashioning cooperative management programs specific to BR objectives, and by developing ethnographic resource conservation programs, I feel the NPS has additional contributions for worldwide conservation. Also, I feel we have much to learn from third world countries that regard us as "one or two hundred years ahead." In uses of technology, the U.S. may be ahead of developing Asian countries, but in many respects the problems now faced in these "third world" countries bear lessons for conservationists in the United States.

In both of these widely disparate situations, education of people to the need for conservation is a critical issue. The U.S. has a clear responsibility to participate in worldwide conservation activities - both as an example and as a student.

There is wide latitude in what constitutes "conservation" in different world communities. In National Parks and other publicly owned lands of the U.S., we have agreed upon some specifications for conservation. Whether the world community can judge and agree upon specifications for broader areas remains to be seen. But we MUST participate to contribute and to learn.



**Bandipur Tiger Preserve is the setting for this shot of Rosario, the Indian Institute of Science's hired driver.**