Sea Around Us

Student Conference on Conservation Science New York (SCCS-NY)
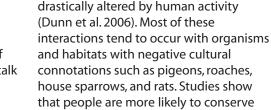
by Dalal Al-Abdulrazzak

Increasingly, interdisciplinary approaches are needed to confront the myriad of conservation problems. That was a central theme of the Student Conference on Conservation Science (SCCS-NY) held recently at the American Museum of Natural History's Center for Biodiversity and Conservation in New York City. Andrés Cisneros-Montemayor and I both participated and presented speed talks on our MSc and PhD research, respectively.

Dr Martha Groom from the University of Washington gave the opening plenary talk on enhancing interdisciplinary partnerships. Building successful partnerships requires an exploration of the connections and tensions between biodiversity conservation and human welfare, fostering a culture of interdependence among solutions.

The links between human health, environmental integrity, and conservation were addressed by Andres Gomez from the American Museum of Natural History. As we gain a more detailed understanding of biodiversity, the linkages between wildlife species, transmission of emerging pathogens, and the effects of disease on conservation efforts become more apparent. This

integrative understanding of a complex problem conveys the need for further multidisciplinary conservation strategies.

During a panel entitled "A Life in Conservation: Diverse Perspectives" the "pigeon paradox" concept was discussed. An increasing majority of the world's population lives in cities, interacting with urban ecosystems that have been drastically altered by human activity (Dunn et al. 2006). Most of these interactions tend to occur with organisms and habitats with negative cultural connotations such as pigeons, roaches, house sparrows, and rats. Studies show that people are more likely to conserve nature when they have direct experience with the natural world, especially during childhood (Tanner 1980; Chawla 1999; Dunn *et al.* 2006). So while we are faced with thousands of potential species extinctions, and extreme changes to many of the world's ecosystems, paradoxically, the majority of people's direct experiences

Historical Change in Marine Ecosystems of the Persian Gulf
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The author presents at SCCS.   *Photo by A.M. Cisneros.*

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Sea Around Us Collaborates with FAO on Bay Of Bengal Project

by Devon O'Meara, Kristin Kleisner, Sarah Harper and Dirk Zeller

The *Sea Around Us* Project has gained recognition as a global research leader in fisheries science, conservation and policy through publications and collaborations with institutions around the world. However, the United Nations Food and Agriculture Organization (FAO), a key player in the global fisheries arena, has, until recently, had relatively little collaboration with the *Sea Around Us* Project. The FAO Regional Office for Asia and the Pacific has asked the *Sea Around Us* Project to assemble the Project's spatially allocated fisheries data, ocean health indicators, and fisheries reconstructions to be used as a part of the FAO Bay of Bengal Large Marine Ecosystem (BOBLME) project (www.boblme.org).

The FAO BOBLME project is a multi-government collaboration between the Maldives, India, Sri Lanka, Bangladesh, Myanmar, Malaysia, Thailand and Indonesia, with the mandate to "*improve the lives of coastal populations though improved regional management of the Bay of Bengal environment and its fisheries*". The project was initiated by the FAO in 1979 following concerns over the rapidly increasing coastal population

Today, with 400 million people dependent on the marine resources of the Bay of Bengal for their food security and livelihoods, the magnitude and importance of the project is apparent.

The Large Marine Ecosystem (LME) for the Bay of Bengal as defined by the National Oceanographic and Atmospheric Association (NOAA, www.lme.noaa.gov/) does not include the Maldives as a part of the Bay of Bengal Large Marine Ecosystem (BOBLME); however, these islands were incorporated in the BOBLME by the FAO due to their location within currents that influence the Bay of Bengal's ecology.

and the simultaneous depletion of the Bay of Bengal ecosystem due to overexploitation of fish stocks, pollution, and habitat degradation. Today, with 400 million people dependent on the marine resources of the Bay of Bengal for their food security and livelihoods, the magnitude and importance of the project is apparent.

The *Sea Around Us* will provide the BOBLME project with spatially allocated data on fisheries catches and landed values, ocean health indicators for all eight countries in the BOB, and fisheries catch

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The *Sea Around Us* website may be found at www.seaaroundus.org and contains up-to-date information on the Project.

The *Sea Around Us* Project is a scientific collaboration between the University of British Columbia and the Pew Environment Group that began in July 1999. The Pew Environment Group works around the world to establish pragmatic, science-based policies that protect our oceans, wild lands and climate. Pew also sponsors scientific research that sheds new light on the dimensions of and solutions to the problems facing the global marine environment.

Bay of Bengal - Continued from page 2

reconstructions for India, Myanmar, and Sri Lanka.

The spatial allocation of catches uses a rule-based process (Watson *et al.*, 2004) that combines taxa caught by country and area fished (e.g., from FAO's landing statistics or reconstructed catch, where available) with ecological species distributions and fishing access information, resulting in catches being assigned to smaller spatial units (30-minutes of latitude by 30-minutes of longitude). For each country, the catches taken within that country's Exclusive Economic Zone (EEZ) waters are estimated as the sum of the catches taken in spatial cells that fall within the area claimed by that country as its EEZ.

The ocean health indicators for the region will measure the socio-economic status of the BOBLME countries (i.e., fisheries subsidies to GDP ratio, economic impact factor to GDP, etc.), the biodiversity in the region (i.e, the Seabird Protection Index and the Marine Mammal Protection Index), and the level of commitment of each country to protecting their marine waters (i.e., the area coverage of MPAs within the EEZ waters). Our ocean indicator work is part of a global collaboration with Conservation International and other research groups, and the BOBLME project will be the first regional project to benefit from this research.

Fisheries catch reconstructions for Myanmar, India, and Sri Lanka, based on the reconstruction approach outlined by Zeller *et al.* (2007) and previously described in this newsletter (Issues 23, 28 and 35) will be included in the report. Catch reconstructions build upon the officially reported landings data (often dominated by or exclusively consisting of commercial fisheries data) by estimating unreported catches (e.g., subsistence and other small-scale fisheries catches) and discards. Thus, reconstructed catches represent a more accurate picture of total catches extracted from the ocean than reported landings data do. The FAO has requested these catch reconstructions in order to provide a more realistic baseline of fisheries extractions in the BOBLME. The next phase of this collaboration with FAO will include reconstructions of additional countries in the BOBLME.

We feel it is a great step forward for global fisheries if the knowledge, experience and recognition of FAO can be combined in collaborations with the *Sea Around Us* such as the one outlined here. This can only improve global data and evaluations of the status of fisheries worldwide.

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SCCS - Continued from page 1

with nature tend towards pestiferous species. This interesting theme, that urban conservation has important implications for global conservation, was explored throughout the conference, and it is increasingly a theme that needs to be included in our discussions of sustainability.

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At left, SCCS attendees. Photo courtesy of Conference organizers.

... urban conservation has important implications for global conservation...

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