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Current trends in tropical biodiversity research and conservation

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More than 160 countries have ratified the Convention on Biological Diversity (CBD), and therefore, as per the Article 6 of the CBD are expected to initiate inventory of various components of biodiversity and institute measures for *in situ* conservation and monitoring, particularly with the participation of local communities. Accordingly, mid to late 1990's saw a spurt of global movement in policy formulations and preparation of national biodiversity strategies and action plans. However, the movement seems to have faded away. To quote a veteran ecologist W. A. Rodgers, most of the CBD related programmes were developed at hugely expensive "talk shops" but rarely implemented. A large number of ecologists and field biologists especially in the biodiversity rich tropical countries, who aspired to initiate systematic inventory and documentation of regional biodiversity, have been waiting for better funding opportunities. Unfortunately, the ongoing socio-political debate on CBD has not come to any logical conclusion and a majority of the ecologists have remained silent spectators. This has had consequences on the contemporary scientific literature – number of quality papers based on quantification of biodiversity, especially from the tropics, is dismally low.

In an attempt to revisit the current state of tropical biodiversity studies and conservation, a special symposium on this theme was organized on December 4, 2007 at the Wildlife Institute of India, Dehradun, as part of the Tropical Ecology Congress (TEC) 2007. The Congress was jointly organized by the International Society for Tropical Ecology (ISTE) and HNB Garhwal University, Srinagar, in collaboration with a large number of academic institutions and individuals. The symposium on biodiversity conservation had the following objectives: (i) to facilitate interactions among the leading ecologists, managers and scientists for sharing experiences on various aspects of tropical biodiversity, (ii) to share results of recent case studies on biodiversity surveys and monitoring in the tropics, and (iii) to revisit the conservation issues in the tropics and assess efficacy of various strategies including effects of legislation following CBD Agreement.

The symposium was attended by more than 80 ecologists from India as well as abroad. Dr. W.A. Rodgers, formerly Regional Coordinator, Global Environmental Facility, UNDP, and noted Wildlife Ecologist delivered key note address on *Ecology and the Conservation of Biodiversity - Global Patterns of Change: 1992 – 2007*. He also anchored discussions on most of the sessions. Other noted speakers were Margaret D. Lowman, Vice President, Ecological Society of America (USA), Prof. J.S. Singh, Secretary, ISTE, Prof. P.S. Ramakrishnan, JNU (India), Prof. S.P. Singh, Convener of TEC 2007, Dr. K. Venkatraman, Secretary, National Biodiversity Authority, Government of India, Dr. R. Kannan, Professor of Biology at the University of Arkansas (USA), Dr. Michael J.B. Green (UK) and Dr. Lindsey Norgrove (UK), among others. In all, 22 oral and 24 poster presentations were made. Two papers by young ecologists were selected for Alice Murphy best

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presentation award, *viz*., *Participatory elephant monitoring in Meghalaya, India* by A. Datta-Roy and *Effect of coffee and other plantations in rain forests of Western Ghats, India* by Atul A. Joshi. The themes of papers presented varied from quantification of soil micro-fauna to monitoring of elephant movement with the help of local communities and from epiphytic lichens to angiosperm diversity. Although a large number of amateur ecologists from different parts of India attended the symposium, very few students from other tropical countries could participate. South-east Asia was conspicuous by its absence both in terms of papers and participation. Nevertheless, the symposium ended with a positive note and clear message that despite limited funding opportunities the ecologists in the tropical world need to come forward and play more active role in biodiversity research and monitoring through their scientific writings and using their professional capabilities, they need to influence policy decisions on biodiversity conservation.

This issue of *Tropical Ecology* includes selected papers presented during the above symposium. In an opening article, Prof. S.P. Singh and Dr. C.M. Sharma give an overview on the ecology and biodiversity conservation in the tropics with special reference to tropical rainforests. The authors have stressed the need for recognizing the conservation significance of two extra-ordinarily rich and important systems *viz*., Amazonian Rainforests and Himalaya-Gangetic Plain Ecosystems. This is followed by a paper on India's Biodiversity Act 2002 and its role in biodiversity conservation in the region. Dr. Michael Green gives a detailed methodology and preliminary results of biodiversity monitoring programme in protected areas of Sri Lanka. Norgrove *et al.* compare the diversity of soil micro-fauna across shaded cacao plantations and natural forests giving consequences for ecosystem functioning in Central Africa. Two papers deal with entomo-fauna - one on honey bee habitats in Niligiris (Thomas *et al*.) and the other on diversity of wild silk moths in the state of Nagaland (Kakati & Chutia). Two papers deal with floral diversity in plantations of exotic trees (Selwyn & Ganesan; Tripathi & Singh). Pattern of species diversity in a tropical island (Little Andamans, India) has been analyzed by Rasingam & Parthasarathy. Shukla deals with patterns of plant species diversity across Terai landscape in eastern Uttar Pradesh. Meg Lowman, pioneer of the canopy research in the tropics, gives a comprehensive overview on the subject in her paper "Biodiversity in tropical forest canopies as a 'Hook' for science education outreach and conservation". Mishra *et al.* have dealt with the social issues and concerns in biodiversity conservation giving certain case studies from the Indian protected areas. Lastly, based on an experimental study, Sharma *et al.* (Gunjan Sharma is another Alice Murphy awardee) show the role of micro-habitat and natural seed dispersal agents in regeneration and *in-situ* conservation of an economically important tree of Sub-Himalayan tracts, *Cinnamomum tamala.*

It is hoped that the ecologists and field biologists working in the tropics find the papers on various aspects of biodiversity informative and interesting. The readers would note that some of the papers included in this issue are based on preliminary surveys and simple analysis. This is to enthuse the younger ecologists to strive for greater scientific rigour and encourage them to get back to *Tropical Ecology* with new research findings!