

that defenders of national sovereignty, who go out to fight environmental globalism, expressing apprehension that the strong nations will reap greater benefit, however fall easy prey to economic globalization. State-centred environmentalism is equally baneful to the biosphere as the growth of global political economy. As the idea of state sovereignty runs supreme in environmental governance the local communities are forgotten. Environmental governance should be a happy blend of global and local, a system of governance more representative and less bureaucratic in nature.

Hempel strongly feels that human impact on nature is probably best managed at the local level, with higher political structure to coordinate local actions and to harmonize them with legitimate national, regional and global interests. No serious environmental mobilization will take place at the international level in the absence of community-based ecological literacy and activities. Unfortunately, teenagers today are plunged in the challenges and excitement in the global mindscape rather than in the local landscape.

This book is all the more important for Western societies grouping to trace out their roots. 'It seems that community roots continue to be lost in the scramble for global wings.' In fact ecologists in India have already been working on the theme of participation of local communities in environmental governance over the last one decade, preceding the emergence of the 'glocal' concept of Hempel. The Kerala Sastra Sahitya Parishat carried out documentation and management of natural resources at the village level in Kerala. India is experimenting with diverse management systems, involving people's participation in the governance of forests. The Joint Forest Management System, involving village communities and forest departments, is poised for greater progress. *Srishtigyaan, A Methodology Manual for People's Biodiversity Registers*, prepared under the guidance of Madhav Gadgil, is envisaged as a village or panchayat level record of knowledge, perceptions and attitudes of people towards biodiversity, its utilization and conservation. Recent years have witnessed the arrival of a flurry of literature, on environmental governance involving local level institutions and the state. In *Nurturing Biodiversity: An Indian Agenda*, Madhav Gadgil and Seshagiri Rao present an alternative strategy for managing

India's biodiversity which begins at the level of *gram sabhas* of the village, rises to the levels of districts, states and nation and finally gets linked to the international forces.

Hempel's work provides a broader conceptual framework highlighting the importance of linking local level institutions with global ones, transcending the boundaries of nations, without in any way compromising their integrity. It paints a hopeful future, that mankind has a way to get out of environmental catastrophes threatening the fragile ecology of the planet. Norman Myers compliments, 'All of us can wax eloquent about environmental problems, fewer of us are articulate about their solutions. Lamont Hempel explains how we can get from hopeless here to give-ourselves-a-chance there. As an antidote to doomsday depression, read this book.'

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A Neotropical Companion – An Introduction to the Animals, Plants and Ecosystems of the New World Tropics. John Kricher. Princeton University Press, 41, William Street, Princeton, New Jersey 08540, USA. 1999. pp. 451. Price: US \$ 18.95.

Those who have ever been in tropical rainforests may have experienced a sense of awe that cannot be easily described in words. The feeling of awe and fascination can be many times over when within the rainforests of Central and South America – the neotropics. The noisy flocks of parrots, their extraordinary colours and size, toucans, quetzals, howler and spider monkeys and the array of strikingly coloured butterflies and frogs leave an unforgettable impression in all those who have even once stepped into the neotropical wilderness. It is this amazing biodiversity – epiphyte-laden gigantic trees, and the not often seen yet tremendously diverse insects, fish, amphibians, reptiles,

birds and mammals that made the early European explorers often come up with exaggerated accounts of the neotropical forests in general and Amazonia in particular.

Not until naturalists like Charles Darwin and Henry Bates came out with their accounts in the mid-late 1800s, did the 'mysteries' of neotropical ecosystems come to be explained in scientific terms. And since the 1970s, North American and European biologists have really thronged the neotropics in their quest to answer questions on what determines biological diversity, how species coexist and the like. In fact, biologists rushing into the neotropics during the past 25 years is quite reminiscent of the earlier 'gold rush' in the region.

Neotropics are however not all rainforests. While much of the region is indeed covered by the world's most diverse and extensive rainforests, there are other major ecosystems that have contributed to the overall biological wealth of the neotropics. These include amongst others, the Amazon and Orinoco river basins (created by two of the world's largest rivers), the Andes and the vast stretches of South American grasslands. It is generally believed that about a third of the earth's species may be found within the neotropics.

The book under review is an excellent effort in synthesizing scientific facts and popular fantasies of the neotropics in a style most appealing to both students of biology and lay readers. The first few chapters of the book provide the most comprehensive review of scientific literature on the neotropics. Examples illustrating the functioning of various components of complex neotropical ecosystems – especially the rainforests, have been drawn from the results of long-term studies in Barro Colorado Island (Panama), La Selva (Costa Rica) and to a lesser extent from Manaus (Amazonia).

Many interesting theories were put forth during the 1970s on the extraordinary speciation in the neotropics. Chief amongst these was the theory by Haffer which proposed that during the Pleistocene glaciation, forest refugia were created throughout the neotropics (also elsewhere) within which organisms evolved in isolation into newer species. Forest refugia were reconnected during more favourable wet periods giving rise to the pattern of super-numerous species assemblages that currently characterize

neotropical biodiversity. Despite criticisms, Haffer's theory still remains popular, meriting a fairly comprehensive treatment in this book.

John Kricher also discusses the 'great American interchange' – a phenomenon that took place 2.5–3.0 m.y. ago, when North and South Americas were united by the Panamanian isthmus, creating a land bridge between the two vast continents. The land bridge enabled the interchange of biodiversity between the two continents to the extent that 50% of all neotropical mammalian families and genera are North American in origin. In fact, it was this land bridge that the ancestors of the Amerindians traversed some 20,000–40,000 years ago.

As titled appropriately, the book is indeed a 'Neotropical Companion' devoting most of its chapters to discussing the various components of the region's biodiversity, from rainforests to coral reefs, providing clues to identification with a series of well-executed drawings and photographs. It even talks about the neotropical people, their beliefs, touching

on issues such as the relevance of cocaine to their spiritual and cultural lives, providing a glimpse of the conflicts in its eradication. These conflicts are real and often highly politicized, as I have witnessed in Colombia.

Interesting highlights of the accounts of early European travellers in the neotropics find place throughout the book. The most interesting of these accounts is on how the river Amazon got its name. Leaving all these to the imagination of the readers, I wish to add a few remarks on the overall contents of the book. The book is indeed excellent. However, it could have undergone a little more careful spell-check. There are by normal standards, too many of wrongly spelt words and erroneous numbers. I am more concerned by the latter since it can mislead the readers. For example, '... approximately 0.2 person/square km (0.12/sq. mile), ... 1.5 cm (5 ft) long giant armadillo, ... this 2.5 cm (1 m) long black ant and ... forest originally occupied about 3.96 square km (1.5 million sq. miles)' in pages 175, 236, 328 and

337, respectively. There are many more, unfortunately though! Further, in the first few chapters while discussing the magnitude of species diversity in the neotropics, the importance of area on the number of species of plants has not been brought out (p. 35), while care has been taken to provide this information for birds. Comparing vascular plant diversity in the Barro Colorado Island (Panama) with that of La Selva (Costa Rica) does not make much sense when area and topography are not comparable. The former is a recently created island in the Panama Canal.

Despite these shortcomings, the book is one of the best summaries of neotropical biodiversity. It should appeal not only to serious students, but also to lay readers both in the Americas and the world over.

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MEETINGS/SYMPOSIA/SEMINARS

Satellite Workshop on Cryogenics for Large Systems (CRYOWORK)

Date: 28–29 February 2000
Place: Gandhinagar, India

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VI CME in Haematology and Haemato-Oncology

Date: 11–14 May 2000
Place: Mumbai, India

VI Continuing Medical Education in Haematology and Haemato-Oncology would be oriented towards PG students and senior staff members from pathology, paediatrics and medicine. It would cover both basic and clinical haematology (diagnostic and therapeutic aspects).

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