

**MICROFOSSILS AND THEIR APPLICATIONS** by P. K. Kathal, CBS Publishers and Distributors, 4596/1a, 11 Daryaganj, New Delhi - 110 002, 1998, 145p. Price: Rs.195.

This book is aimed at presenting in depth knowledge about microfossils for the post-graduate students of Geology, Zoology and Botany.

The book is organised into five chapters and includes a list of references, subject index and species index. The first two chapters introduce the subject and give a history of development techniques in micropalaeontology. The history presented is more about foraminiferal research than micropalaeontology. The Indian scenario is sketchy and biased. The author has failed to convey to the students the impact of micropalaeontology on the Petroleum Industry and vice versa. Origin of life could have been presented in a much attractive and interesting form.

The techniques described are too sketchy and inadequate for any student to use them in practice. A discourse on identification, an important step is wanting. A descriptive or graphic distribution chart would have helped presentation of micropalaeontological data in a better way.

The third chapter is devoted to foraminifera which is fairly well covered. However, examples of Indian species of foraminifera with their descriptions would have enhanced the value of the book. Application of foraminiferal studies in palaeoecology of ancient rocks has not been very convincingly presented as also the use of foraminifera in biostratigraphy and stratigraphic correlation.

Chapter four is devoted to calcareous nannofossils. This is outdated. Stratigraphic distribution and its bearing on several current problems has not been touched upon. Chapter five presents a short account of ostracoda.

In general, though the book, on first appearance, looks to be of some use to students, in reality, it does not offer any new or in depth discourse on any of the three groups of microfossils presented. There are more than two dozen microfossil groups which are being actively studied at present. A mention of them and illustration of their representatives would have added to the value of the book.

*Department of Geology  
University of Pune, Pune - 411 007*

VIJAY G. PHANSALKAR

**COMPARISON OF CARBON, NITROGEN AND PHOSPHOROUS FLUXES IN MEXICAN COASTAL LAGOONS. LOICZ REPORTS AND STUDIES, No.10,**  
Compiled and edited by S.V. Smith, S. Ibarra-Obando, P.R. Boudreau and V.F. Camacho-Ibar.

This publication is a summary of the outcome of the Workshop on Comparison of Carbon, Nitrogen and Phosphorous Fluxes in Mexican Coastal Lagoons, June 2-3, 1997, Centre for Scientific Research and Higher Education of Ensenada, Mexico.

Land Ocean Interaction in Coastal Zone (LOICZ), a Core Project of the International Geosphere-Biosphere Programme (IGBP), is aimed at understanding the global cycles of the key nutrient elements – carbon, nitrogen and phosphorous; understanding how these elemental fluxes are modified in the coastal zone through natural biogeochemical processes and by human intervention. Several studies have been, and are being carried out in different parts of the world, including India, that contribute to LOICZ programme objectives.

Considering the facts that Mexican lagoons and estuarine areas have been subjected to human intervention in a number of ways and that they have been well studied, this workshop was convened in order to: (1) develop budgets according to the LOICZ Biogeochemical Modelling and Guidelines;

(2) generate interest in the region in developing further budgets; (3) provide a formula for generating regional budgets to be compiled into the world-wide database that is being developed by the LOICZ Biogeochemical Modelling Node.

The publication gives an overview of the workshop and budget results, budgets for 12 individual sectors of Mexican coastal lagoons, conclusions and implications for lagoon comparison, besides appendices on (1) an overview of Mexican coastal lagoons, (2) ecological services and socio-economic sustainability and other aspects.

Each section devoted to the individual sectors of Mexican coastal lagoons, starts with a description of the study area, water and salt balance, and budgets of non-conservative materials like Dissolved Inorganic Phosphorous (DIP) and Dissolved Inorganic Nitrogen (DIN).

Various parameters like the volume of precipitation, evaporation, stream run-off, groundwater flow, exchange time of water in the system, inorganic nutrient concentrations in lagoon waters and adjacent ocean have been determined besides variation in biotic composition like plankton-dominated, major seagrass component and major mangrove communities.

I wish to draw particular attention to the fact that these exercises have made it possible to demarcate systems which release DIP (heterotrophic) and those that take up DIP (autotrophic) and systems with net de-nitrification and with net nitrogen fixation.

The book would be a useful reference to all scientists involved in the LOICZ programme. In addition to collecting valuable data, budget calculations of the type enumerated in the report would go a long way in building box models, quantifying the various processes and inferring human perturbances in the land-ocean interaction zone.

A useful WWW Home Page for the LOICZ community is <http://www.nioz.nl/loicz/modelnod> that contains the world-wide database developed by the LOICZ Biogeochemical Modelling Node.

*Ocean Science and Technology Cell  
Mangalore University,  
Mangalagangothri - 574 199*

R. SHANKAR

**DYNAMIC HIMALAYA** by K.S. Valdiya, Universities Press (India) Limited, Hyderabad, 1998, 192p, Price Rs.160.

The Himalaya has a special place in Indian mind and heart. From time immemorial it has been a great source of inspiration to poets and philosophers and to scientists and savants. Its dimension and grandeur evoked in Kalidasa the spontaneous expression:

“God of the distant north, the snowy range  
O’er the mountain towers imperially,  
Earth’s measuring rod, being great and free from change  
Sinks to the eastern and the western sea ...”

The Himalaya has many splendoured aspects. It comprises the earth’s largest mountain range and has some of the highest peaks. It is also an orogenic belt in which crustal shortening of hundreds of kilometers has taken place. The great mass of the Himalaya has been a factor in formulating the theory of isostasy. It is the testing ground for plate-tectonic theory involving continent-continent collision. It is also among the youngest mountains of the globe. The Himalaya is a controller of climate that brings copious rainfall and is the source of snow and glacier contributing to the