

Book Reviews

EOCENE OSTRACODS FROM THE DOROG BASIN. By Monostori, M., Akademiai Kiado, Budapest, 1985, Translated by A. Galacz; English Text Revised by E. Gerry, 214 pp.

This monograph on the Eocene ostracods from the Dorog Basin (Northern Transdanubia, Hungary) by M. Monostori is an important contribution to our knowledge of ostracods of the European Eocene. It is the first comprehensive work on the Hungarian Eocene ostracods since they were first described by Gy. Mehes in 1936. This work is based on samples from several borehole sections made available to the author by the Geological Survey of Hungary and the Dorog Coal Mines.

The monograph is divided into three broad sections; General Remarks, Systematic Part and Evaluation of Data. The fundamental goal of the work, as outlined in the introduction, is to give a many-sided analysis of the possible uses of ostracods for geological purposes and especially paleoenvironmental research. In all the cases, evaluation has been based upon quantitative methods not requiring complex mathematical apparatus or computer data processing. Although the resulting studies have not yielded significant biostratigraphic data or their utility in wide range stratigraphic correlation of the Eocene fossils, the comparative study of ostracod associations—assemblages of ecologically important taxa—have yielded significant results in the reconstruction of paleoenvironments and paleogeographic conditions. Based on the data available from Recent and fossil material, the Eocene ostracod assemblages of the Dorog Basin have been grouped into the following five categories: 1) Forms dominating the off-shore and deeper parts of the basin; 2) Forms dominating the near-shore normal saline shallow parts; 3) Forms dominating the near-shore, shallow parts with variable salinity; 4) Forms dominating near-shore shallow waters of unstable salinity; and 5) Species occurring in various environments.

Several diagrams illustrating the occurrence of different ecologically significant ostracod groups/assemblages in the various borehole sections are included. These help to delineate minor transgressions and regressions of the sea. In addition, environmental changes during Eocene, based on species numbers, diversity index, state of preservation of ostracods (percentage values of adult carapaces, right and left valves, fragments and instars in different sections and individual species) and size variation are also effectively illustrated through a series of diagrams. In fact, the chapter on 'The ostracod fauna as environmental indication' is very well written and profusely illustrated and will be of much help to ostracod workers who wish to apply their knowledge in deciphering paleoenvironments.

The systematic part of the monograph deals with 52 taxa and follows Hartman and Puri's classification of 1974, while the description of individual taxa follows a definite order corresponding to the arrangement in Morkhoven's text book of 1963. While describing the shape of the ostracod valves, a deviation from the normal practice has been made by the author. The descriptions follow a set pattern and the characteristic features are given by a system of coordinates in which the horizontal and vertical axes correspond to decimal proportions of the length and maximal height of the valves. The taxonomic characters, thus defined in quantitative indices, give a more reliable identification of various taxa. This procedure could

well be followed by other ostracod workers also. All the taxa are profusely illustrated, the lateral views in photographs and the dorsal and ventral views in line diagrams. An alphabetical index of the various taxa described brings up the rear of this useful monograph which should find a place in the libraries of all workers on Eocene ostracods. Apparently unpriced, the publication should be available on request either from the Akademiai Kiado, Budapest or the author.

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CHEMICAL STUDIES OF ARCHAEOLOGICAL BONES FROM INDIA. By Joshi, R. V. and Kshirsagar, A. K., Deccan College, Post-graduate and Research Institute, Poona, 1986, pp. 85, pls. 4, Rs. 125.

This is a book derived from a thesis entitled Quaternary Animal Fossils from India, submitted to the University of Poona for a Ph.D. degree by the second author. It makes a contribution of analysis of bone samples obtained from 39 archaeological sites spread over many parts of India. In chronological sequence the samples range from the Lower Palaeolithic period to the Megalithic period, approximately from 250,000 years to 2500 years ago. It includes useful references to the analysis of soil and groundwater samples from different parts of the country. The study demonstrates the well-known fact that the phosphate and fluorine content of ancient bone samples excavated from archaeological sites in India show a progressive increase in time, while their nitrogen content progressively decreases. The most useful contribution of the book is the site-wise analytical data of bone samples. This data will be useful to future scholars for making a comparative study of their analytical data on bone samples recovered from sites close to the ones discussed in the book.

Most Ph.D. theses quickly published as books suffer from a number of drawbacks. This one is no exception. For example, on page 17, the authors say that the bone samples were treated in the laboratory before they were subjected to chemical test. It would have been useful if the authors had discussed the nature of accretions on buried bone samples and the methods used by them to dissolve them. Bone samples excavated from most of the sites in India carry strongly adhering layers of calcium carbonate and calcium carbonate content of bone samples for all sites is estimated. But bone is a porous material. When buried, it is likely to accumulate soil carbonates within its pores. One of their scanning electron micrographs (Plate 12) shows a calcite crystal within a pore in the bone sample. However, not much thought has been given to such extraneous components accumulating within the pores of bones and hardly any interpretation is given to the scanning electron micrographs included in the book. A little reflection on these aspects would have changed the scope and usefulness of the book.

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