REVIEW

TERTIARY FAUNAS. By A. Morley Davies, Revised by F. E. Eames, 2nd Ed. George Allen and Unwin Ltd., Ruskin House, Museum Street, London, U. K. Vol. I Composition of Tertiary Faunas, 1971, 571 pp., 1038 illustrations, Price £ 10.50. Vol. II The sequence of Tertiary Faunas, 1975, 447 pp., IV tables, Price £ 19.50.

'Tertiary Faunas' is a revised and updated version of the work originally written by Morley A. Davies and published in 1935. A thorough revision of this classic work was long overdue. It was appropriate that Morley A. Davies himself nominated Dr. F. E. Eames an eminent palaeontologist who had an intimate knowledge of the faunas of Indian subcontinent through his long association with oil Companies working in this part of the world to undertake this task. Dr. Eames ably assisted by R. J. G. Savage (contribution on vertebrate faunas) has done a commendable job. Dr. Eames, from his experience in Tertiary biostratigraphy has produced a well balanced synthesis that is useful to the practicing oil field palaeontologists as well as academicians and students of geology.

The work is bound in two volumes. The first volume is devoted to the composition of Tertiary faunas. As a consequence of the long time lapse between the first and the second edition, the original volume has undergone profound revision and modification. The chapters dealing with Foraminiferida, Echinoidea, Bivalvea, Gastropoda and Vertebrata have all been expanded and a chapter on Ostracoda has been added. Throughout, taxanomy has been checked and updated.

Each chapter commences with a brief summary of the morphological features of the group, followed by taxanomy and then a glossary of principal technical terms applied to the group concerned and ends with a select bibliography. In dealing with genera and subgenera, an attempt is made to include the following: (1) forms of widespread occurrence and long range, (2) forms of widespread occurrence and short range (particularly those where the upper and/or lower limits are of stratigraphical significance) (3) forms of common occurrence in a relatively restricted area and (4) a few forms, sometimes of relatively restricted occurrence and range, which are marginal to the Family description, highlighting the diagnostic characters, followed by its known range. Most of the forms described are adequately figured. The first six chapters describe the invertebrates.

A few observations (I have made) on the chapter dealing with Foraminiferida may be mentioned. The treatment on *Nummulites* and affinitive forms is impressive. A comprehensive summary of the morphology of the group and its classification are presented along with 3 range charts. Geological and geographical range and a note on the classification of the genus *Nummulites* are also given. The other groups of larger Foraminifera have not received the author's attention to the same extent. The marine inner neritic faunas of Late Oligocene and Early Miocene were dominated by Lepidocyclines and Miogypsinids and an elaborate discussion on the morphology and classification of these forms would have been greatly useful to the oil field palaeontologists. The section Globigerinacea also appears to be too brief. The whole section is covered in just two and a half pages. Presentation of range and zonation charts and a brief discussion on P and N planktonic zones of Blow (1969) would have rendered this chapter more useful.

The two comments mentioned above, do not in any way undermine the import or general use of this very significant work. This volume is useful in that it documents with illustrations the important Tertiary fossils with their geological and geographical ranges.

In volume 2, embodying mainly discussions on 'The Sequence of Tertiary Faunas', Eames has distilled the results of his research on Tertiary microfaunas. The

amount of information which is literally crammed into this volume is astounding. References are brought up to date. A thorough modification of the original work can be seen more in the second volume. There are three new chapters, one on the Cenozoic/Mesozoic boundary, one on the Neogene/Palaeogene boundary and one on the Quarternary/Neogene boundary. Other chapters also are modified and expanded taking advantage of 40 years of Tertiary biostratigraphical research since the publication of the first edition.

The author's discussion on the Neogene/Palaeogene boundary (Chapter V) tend to be more interpretational than a straightforward presentation of data. One cannot but appreciate the commendable restraint the authors have excercised from falling in line with the widely accepted views but at the same time giving a thorough and impartial review of the evidences wherever differences of opinion exist.

The concluding chapter contains a brief but stimulating discussion on what is earliest Quarternary i.e., Quarternary/Neogene boundary.

The appendix consists of a supplementary list of post 1934 references on faunas of Tertiary age followed by four correlation tables, two each of marine Tertiary formations and Tertiary mammlian faunas.

This review of the contents should convince palaeontologists especially the foraminiferalogists working on Tertiary faunas that this book would offer them an excellent reference and source of data on different aspects of Tertiary faunas. Both the volumes are authoritative and make good reading. Students will be particulary grateful for the simple but flowery language used and the avoidance of technical jargon. The text is well produced and the volumes are solidly bound. Because of its utility and wider application in academic and commercial research one would have hoped for a lower price.

The content of these two volumes cater particularly to the requirement of Indian student of stratigraphy and palaeontology. They will prove to be very welcome additions to our libraries. V. V. SASTRI

OBITUARY

I have to inform with deep regret that **Shri M. B. Pawde,** Geologist (Sr.), Geological Survey of India, Nagpur, and a Fellow of the Geological Society of India, Bangalore expired at Raipur on the 12th February, 1977. He took suddenly ill while working in Bastar district, Madhya Pradesh in connection with cassiterite investigation. He was rushed to hospital at Raipur but the ailment proved fatal and Shri Pawde succumbed to it at 9.40 P.M. His body was brought to Nagpur and cremated on the 13th February. Tributes were paid to the departed soul at a condolence meeting held in Nagpur on the 14th, attended by officers and staff of the Geological Survey of India, Mineral Exploration Corporation, Indian Bureau of Mines, Central Groundwater Board and Department of Geology and Mines (Maharashtra).

Late Shri M. B. Pawde was the recipient of the National Mineral Award (group award) for his work in the Brahmaputra basin. He had recently visited Hungary for six months under the Indo-Hungarian Cultural Exchange Programme, where he carried out studies in Quaternary Geology. S. T. RAJURKAR

We deeply regret to inform the death of the following Fellows of the Society: **Shri R. L. Vaid, Dr. M. K. Rishi** and **Dr. K. S. Shivaramiah.**—Ed.