

matic reconstructions are also given. Some parts of the descriptions might have been improved and clarified by the use of letters and indicator lines on some of the plate-figures. On p. 22 there is a paragraph on an exceptional cortical structure. It is not clear what is meant by opposite, and the reference to the figure in the plate (Pl. III, Fig. 8) does not help, for the figure appears to bear no relation to the written description. The technique employed in the investigation is a great advance on anything used before in work on the Charophyta, and in spite of the few obscurities to which reference has been made, the author has produced what is probably the best existing description of any collection of fossil Charophytes, and has provided us with a model of how such an investigation should be conducted.

J. WALTON.

Between Pacific Tides

An Account of the Habits and Habitats of some Five Hundred of the Common, Conspicuous Seashore Invertebrates of the Pacific Coast between Sitka, Alaska, and Northern Mexico. By Edward F. Ricketts and Jack Calvin. Pp. xxii+320+46 plates. (Stanford University, Calif.: Stanford University Press; London: Oxford University Press, 1939.) 27s. net.

THIS delightful book, which was written chiefly for the layman interested in the seashore, deals with the littoral fauna from the ecological point of view. No scientific account of the animals is given, but most have been illustrated and their habits described. There are many beautiful photographs, though the recurring black background does not always make for clarity, and is, moreover, tiring to the eye. The sketches are variable, and one wonders whether the layman will understand a Pycnogonum or an *Aplysia* drawn upside down. The Latin names should have been more carefully revised; for example, *Reneira cineria* is incorrect both historically and philologically. The English reader cannot fail to note the similarity between the inhabitants of the various shore zones of California and of his own country. The species is rarely the same, but the genus often is. Even the commensals group themselves in the same way, and the description of the fat innkeeper, *Urechis caupo*, and its guests, written in the lively American style, should be read by all British marine zoologists. For more advanced readers the species are classified at the end of the volume, with references to the literature.

Animal Families and Where they Live

Written and illustrated by Arnrud Johnston. Pp. ix+27+24 plates. (London: Country Life, Ltd., n.d.) 7s. 6d. net.

THIS attractively produced book is composed of a series of twenty-four plates (9 in. x 12 in.), each containing coloured sketches of animals grouped under such headings as 'egg-laying and pouched mammals', 'gnawing mammals', 'primates: New World monkeys', etc. Altogether 320 animals are featured, but the title of the book is misleading

in that all the animals portrayed are mammals. Opposite each plate is a short description of each animal, one useful feature (often so unfortunately ignored) being the general measurements of the animal. Also on the opposite page is a world map showing distribution. This is of great value.

The book will make a very acceptable present for any animal lover, and if used during a visit to the Zoo will be a valuable aid in studying mammals especially in relation to each other.

Palaeozoic Fishes

By J. A. Moy-Thomas. (Methuen's Monographs on Biological Subjects.) Pp. x+150. (London: Methuen and Co., Ltd., 1939.) 5s. net.

IN view of the tremendous advances in our knowledge of the anatomy of fossil fishes during the past twenty years, the appearance of this little book should prove most opportune. A good deal of recent work, such as the classical researches of Stensio on the Cephalaspids and Placoderms, has been published in journals not readily accessible to the average student or teacher, who will welcome the concise summary of these and equally important papers by other workers provided by Mr. Moy-Thomas. The recent work of Brough, Gross, Heintz, Kiaer, Nielsen, Sæve-Söderbergh, Watson, Westoll, White and several other palaeontologists, as well as that of Mr. Moy-Thomas himself, all finds a place in this volume of less than 150 pages, and the author is to be heartily congratulated upon the skill with which he has managed to reduce this mass of technical material to reasonable and readable limits. The book is at once competent, comprehensive, and concise, and may be confidently recommended to teachers and students of both zoology and geology. Evidence that it is right up to date is provided by the statement on p. 91 that the Coelacanths start in the Upper Devonian and continue to the present day, and a reference in the list of literature to the first account in Great Britain of the recent discovery in South Africa of the living *Latimeria*.

The many text-figures are admirably clear and well reproduced, and there is an excellent bibliography as well as an adequate index. The general production of the book well maintains the standard set by the earlier volumes of this series of pocket monographs on biological subjects.

Essays in Philosophical Biology

By William Morton Wheeler. Selected by Prof. G. H. Parker. Pp. xv+261. (Cambridge, Mass.: Harvard University Press; London: Oxford University Press, 1939.) 12s. 6d. net.

THE late Prof. W. H. Wheeler began his career as a naturalist and later subjected his interests in living organisms to the disciplinary influence of scientific training. His philosophical outlook was conditioned not only by the naturalist's disciplined imagination arising out of a vast, first-hand acquaintance with animals and their behaviour, for he was, in addition, a great man of letters and a distinguished prose writer. His bibliography contains some 467