Marine Mammals

Mammals of the Sea. Edited by Sam H. Ridgway. Pp. xiii+812. (Charles C. Thomas: Springfield, Illinois, January 1972.) \$45.

TWELVE contributors have provided ten chapters on widely varying aspects of marine mammals for what will be a useful reference work in certain fields for some years. Some chapters cover the same ground as has been reviewed in recent books and multi-author works such as Pilleri's *Investigations on Cetacea* but as each chapter is written by individuals now active in the field and laboratory there is much new material and original comment. The book seems to have been initiated with the intention of considering the problems involved in maintaining a colony of marine mammals and a few chapters are still basically directed to this end. The short chapter on the central nervous system, for example, considers some practical aspects, indicates some topics of recent research, asks some questions and concludes with 258 references but could hardly be considered a substantial review. Other chapters, however, deal much more exhaustively with a topic and that on comparative microscopic anatomy by J. G. Simpson and M. B. Gardner is full of interesting information and is profusely illustrated with original photomicrographs. Some of these suffer from the inevitable troubles in fixation of material only too often difficult to acquire in a fresh state. In many ways this chapter builds on the previous one, devoted to general anatomy, expands it even to the extent of repetition and on some organs, the stomach for example, gives a more accurate account. These two chapters bring together much information not easily available to those interested in structural modifications in seals and dolphins. The first two chapters are concerned with descriptions of genera and species, these often suffer from being too short and offer cryptic information. There is scant account of growth changes and it would be useful to know from just which particular specimens, and how many, some of the alleged distinguishing characteristics were derived. We doubt whether the classification of the Delphinidae will receive universal approval but as Dr Masaharu Nishiwaki disarmingly points out "certain groups may have to be reclassified". The stippling technique used in the illustrations unfortunately suggests that many if not all dolphins are spotted or speckled, almost morbiliform in appearance, and makes it difficult to discern true markings. Many spelling mistakes could have been removed: *aduncas*, *Legenodelphis*, *crusiger* (who is not a person as implied in Fig. 1-51), *Sotolia*, *Zolophus* and

Zalopus, *Artocephalus*, *larga* and *virtulina* and so on.

The Caldwells contribute a chapter on behaviour of marine mammals, mainly derived from observations of animals in captivity. They stress the fact that age, sex and individual differences have been largely ignored in cetacean behavioural studies. Another chapter by the same authors on senses and communication is a balanced and cautious review: as they comment "touch is one of the most important senses in dolphins" but "there is an anomaly between anatomy . . . and what the animal demonstrates behaviourally". An interesting discussion containing new material on evolution and cytogenetics by Deborah Kulu illustrates a striking similarity in karyotypes amongst the cetaceans examined but a notable difference in that of *Orcinus*: karyotyping suggests a monophyletic origin for the Pinnipedia. Dailey and Brownell give a checklist of marine mammal parasites and include useful illustrations of representatives of common groups to aid identification. The final and longest chapter, by S. H. Ridgway, is called "Homeostasis in the Aquatic Environment" but in fact is a much wider treatment of general physiology, haematology, pathology, pharmacology, husbandry and veterinary medicine applied to marine mammals. It assembles a formidable amount of information and the results of personal observation and experiment. Some patchiness in the presentation is unavoidable in so vast a coverage and some statements on the anatomy of the ear, reproduction and the lungs will be questioned. This book, and this last chapter in particular, has one highly commendable aspect in its approach in that it informs on how to look after marine mammals in captivity and how to improve their conditions in health and disease.

R. J. HARRISON

How to Plan a Library

The Making of a Library: The Academic Library in Transition. By Robert S. Taylor. Pp. xiii+250. (Becker and Hayes (a Subsidiary of John Wiley): New York and London, March 1972.) £5.25.

THE key to this book rests in a few words which appear only on the dust-jacket as a kind of second sub-title: how to plan dynamic, responsive libraries for the 70s. The working out of a project is described in which Hampshire College, Amherst, designed an extended library, which combined a conventional library, display gallery, AVA centre, bookshop, and a computer centre for both library automation and

reactive teaching. The author, who has been called a meta-librarian, believes that those who plan a modern academic library should first examine its objectives, and what it could do to become a productive participant in the learning process and in the community it serves.

The place of the library in relation to the newer media for transference of information, its inter-relation with educational technology, and its function as a teaching instrument are currently matters of fierce debate, so this is a book of great topical interest. It can be highly recommended because it argues a well-reasoned case from a basis of some practical experience. It thus provides a useful antidote to the dogmatically stated guesswork and to the arrogant staking of territorial claims too frequently found in education journals. Clearly the time has come to recognize the extent of common concern in the library, computer, graphics and communications fields and to solve the problems involved in their proper integration. The ideal is to create a social institution, which will raise the probability of effective use of data, information, knowledge and artistic form in all media in support of education, leisure enjoyment, research and decision making. Taylor avers that "if it cares to make the effort, and if it can make what may be a quantum leap, the library profession, and its social expression in the library, may be the only present institution that can accomplish this".

WILFRED ASHWORTH

Background Cell Biology

Cellular Physiology. By Henry T. Yost. Pp. xiii+925. (Prentice-Hall: Englewood Cliffs, New Jersey, March 1972.) \$14.95.

TEN years ago, even five years ago, it was difficult to find a textbook of cell physiology which could be commended to students for background reading. Now there are a number of such books, but this one by Dr Yost would rate high in most biologists' assessment. It covers a wide field with good sense and criticism, and any student who knew even half of what was in it would have an excellent background for a course in cell biology.

"Cellular physiology," as Dr Yost points out, has no precise meaning. His interpretation is to put a considerable emphasis on cellular biochemistry which occupies about half the book. Another section deals with cell structure. This is adequate, though it might have been more persuasive if a larger number of illustrations had been included. The last quarter of the book is taken up with cell