



**Biology of the Reptila. Volume 4. Morphology D.**

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\$17.50. 277 p.; ill.; author and key-word title indexes, p. 231 and 232. 1974.

This book is a photo-offset compilation of some 23 papers on fish parasites and diseases published in 1972, together with a few papers from the 1970 and 1971 literature. An attempt is made to categorize the articles into such general topics as occurrence, pathology and etiology, microbiology and virology, and malignant diseases. The last section in the book is titled RARIP and contains summaries of research obtained through a search of the Smithsonian Science Information Data in November, 1973. Ronald T. Acton states in his preface that "the literature assembled in this volume should clearly illustrate the shortcomings as well as the prospects of this area of science." This is misleading, since the literature selected is only a fraction of topics published in 1972, and in no way do the subjects selected in *Diseases of Fish* reflect trends in this rapidly expanding field of research.

ROSS F. NIGRELLI, *Pathologist, Osborn Laboratories of Marine Sciences, New York Aquarium*

#### BIOLOGY OF THE REPTILA. Volume 4. Morphology D.

Edited by Carl Gans and Thomas S. Parsons. Academic Press, London and New York. \$39.50. xii + 539 p.; ill.; author and subject indexes. 1973.

CONTENTS: The locomotor apparatus of testudines, Warren F. Walker, Jr.; The head muscles and hyolaryngeal skeleton of turtles and crocodilians, Gert-Horst Schumacher; The skull of the Crocodilia, N. N. Iordansky; The crocodilian skull in historical perspective, Wann Langston, Jr.; Muscles of the jaws and associated structures in the Rhynchocephalia and Squamata, George Haas.

All of the articles in this volume are by authorities in their areas. These long, technical chapters are more than reviews. Each author presents new data, new interpretations, or both. Many original illustrations are presented, and most, especially those in the chapter by Schumacher, are of high quality. A special feature is the attention given to muscle synonymies.

These articles emphasize detailed anatomy, but Walker briefly considers turtle locomotion and there are short sections on function in other articles. Many patterns are described, but discussions are generally brief. This is a book for specialists.

The editors promise another volume on morphology, including osteology and myology of groups not covered here, before turning to other aspects of reptilian biology. The price of volumes in this series has increased dramatically; therefore this book seems destined for a small sale.

DAVID B. WAKE, *Museum of Vertebrate Zoology, University of California, Berkeley*

FEEDING AND THE FEEDING APPARATUS IN WADERS: A Study of Anatomy and Adaptations in the Charadrii.

By Philip J. K. Burton. Trustees of the British Museum (Natural History), London. £3.50 xiii + 150 p.; ill.; no index. 1974.

In this scholarly work, the author has made a major contribution to our knowledge of the functional anatomy of an exceptionally highly specialized order of birds. The Charadriiformes show a wide range of feeding adaptations. This is particularly true of the suborder Charadrii (waders and their allies), a group remarkable for their extensive migrations and their superb powers of flight.

The author, aware that a thorough knowledge of feeding methods is necessary for an understanding of feeding adaptations, has concentrated on the elucidation of the adaptive significance of the structural modifications encountered. He has, therefore, carried out studies on captive birds, field observations, examination of motion picture footage, and analysis of stomach contents, in addition to much anatomical work. This approach makes it possible to view the various adaptations in an evolutionary perspective.

Five familiar British shorebirds were selected for intensive study, and information on the remainder is presented in more concise form. These five are Golden Plover (*Pluvialis apricaria*), Redshank (*Tringa totanus*), Curlew (*Numenius arquata*), Dunlin (*Calidris alpina*), and Common Snipe (*Gallinago gallinago*). They were chosen partly because they are common, and relatively easily observed, and also because they illustrate important and distinctive types of feeding modification. Environmental forces acting on the skull and jaws during feeding are analyzed, and essential features of the morphology and mechanics of the skull are reviewed and discussed.

The text is accompanied by numerous drawings showing anatomical details. There is also an extensive list of references. The publisher is to be congratulated on producing an exceptionally handsome book; the typography and layout are of the highest order.

DENNIS PULESTON, *Environmental Defense Fund*



#### ENVIRONMENTAL SCIENCES

##### THE DDT MYTH. *Triumph of the Amateurs.*

By Rita Gray Beatty; foreword by Francis A. Gunther. John Day, New York. \$6.95. xxii + 201 p.; index. 1973.

In his foreword to this book, Francis A. Gunther, Professor of Entomology and a renowned agricultural chemist at the University of California, Riverside, promises a book "with courageous fact-seeking objectives." *The DDT Myth* is an attempt by a professional