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## Ecological Stability

Edited by M. B. USHER and  
M. H. WILLIAMSON

May 1974: 208 pages:  
illustrated: hardback: £3.60

The unifying theme of this book is in the analytic investigations of populations, the quantification of population processes and the application of mathematical models to simulate and predict these phenomena. The chapters are based on, but are not identical to, twelve papers given at a 'workshop' meeting at York University in the summer of 1973. The papers fall into four inter-related groups: relations between predator and prey; relations between host and parasite; relations of species within a trophic level; and the effects of special heterogeneity on the stability of species.

CHEMISTRY TEXTBOOK  
SERIES

## Pericyclic Reactions

G. B. GILL and  
M. R. WILLIS

April 1974: 248 pages:  
limp cover: £2.95

This book provides a comprehensive introduction to the main theories that have been advanced to explain the stereospecificity of pericyclic reactions. It has been written for use as a text for both undergraduate and postgraduate courses; there are worked examples, formal problems with solutions, and references to the review literature.

## The Chemistry of the Non-Metals

P. POWELL and  
P. L. TIMMS

April 1974: 274 pages:  
illustrated: limp cover: £2.85

This undergraduate level textbook is concerned with the non-metallic elements and the compounds they form with one another. An attempt is made to correlate the chemistry of these compounds as a whole and emphasis is given to discussing common features of structure and bonding within the different classes of compound.

Further information on  
these titles and a list of  
stockists is available from  
the publishers on request.

in clarity, and others are marred by the excessive prominence of the wire ties holding the specimen together. Additionally there are a few line drawings of ossicles, vestigial pelvic bones and so on. But nowhere are scales or measurements indicated except in the initial photograph of the mounted skeletons of *Hydrodamalis*, *Dugong* and *Trichechus* where the overall lengths are stated.

Description is entirely dominant over discussion and comment. The author evidently has little interest in the extraordinary and changing tooth patterns in the dugong and manatee in the course of the life of the individual: pointers on certain pictures simply say "Dentes molares". The non-erupting tusks of the female dugong are nowhere referred to, nor the presence, form and function of the horny buccal pads which are so important in the Sirenia. The work is based on several specimens and not upon series, of skulls, for example.

G. C. L. BERTRAM

## International eel

*Der Aal: Biologie und Fischerei.* By Friedrich-Wilhelm Tesch. Pp. 306. (Parey: Hamburg and Berlin, 1973.) DM 78.

THE physiology and migrations of eels raise fundamental and controversial research questions. This book will give a further impetus to work in this field, for it surveys the entire literature (about 900 references) dealing with the Atlantic as well as the Indopacific species of Anguillidae.

Two-thirds of the book are devoted to zoological aspects, with an especially thorough discussion of anatomy, variation, taxonomy, life history, feeding and migrations. The separation of two Atlantic species, the American, *Anguilla rostrata* and the European, *A. anguilla* is defended against the background of a recent controversy. Dr Tesch attributes their geographical separation to the time required for the transition from larva to elver. The European species requires for this three years, so that larvae brought prematurely near American shores will not be ready to respond by movement to freshwater. American larvae become elvers in one year and any transported eastwards will perish as they will not be near the coast at the appropriate ontogenetic stage.

The chapters on environmental influences on productivity of inland waters, growth, behaviour and even sex determination and sex ratios are particularly detailed. Certain current biochemical studies, however, are not discussed in sufficient detail (and Sick's haemoglobin studies were electropho-

# insects in flight

WERNER NACHTIGALL

The current knowledge and latest research findings in the biophysics of insect flight are combined in this book and explained in a way that is clear to the general reader without neglecting accuracy of detail. The author describes the fascinating inventiveness of Nature, revealing the multiplicity and intricacy of her designs. The book contains a large number of illustrations and unique photographs.  
£5.50

George Allen & Unwin

retic not chromatographic, page 41).

In addition to the main body of information, minor but fascinating issues are not forgotten: the methods and difficulties of determining age and sex of specimens, the poison in the uncooked eel blood, the survival of a specimen with very little haemoglobin, the swimming ability of the larva, and so on.

The last third of the book deals expertly with methods of fishing and other related issues. The increasing economic importance of the eel is clearly demonstrated. Characteristically, for our age, the collection of elvers for food and the impediments to elver immigration presented by technical works, are leading in Japan to scarcity of eels. This is met by fish farming, and there are over 1,200 eel farms in that country. The methods used in these are described.

This is an excellent book, impeccably produced and with very helpful illustrations and tables. I hope that it will be translated into English.

E. M. PANTELOURIS

## Erratum

The price of *Computational Physics* by David Potter (reviewed in *Nature* 248, 295; 1974) is £6.95 and not as stated, and there is no paperback edition.