

importantly, one to peruse to find out how accurately the authors have projected man's work in outer space.

HUMAN ECOLOGY, Jack B. Brasler, Ed., \$9.75, 472 pp. Addison-Wesley Publishing Company, Inc., New York, 1966.

A collection of readings for the collegiate junior or above level student and around the headings of: Climates of Earth, Ecology of Prehistoric Man, Land and Early Food Production, Temperature and Evolution of Man, Temperature and Human Reproduction, Land and Disease, Altitude, Cycles in Man, Fetal Environment, Humans and Stress, Radiation, Air, and Man in Space.

This reviewer is not competent to judge the adequacy of the editor's choice of readings, but all are drawn from material published in the 1950's and 1960's. There has been practically no editorial comment, but supplementary readings are appended to each article. All are not research reports but many are reviews of the current state of knowledge.

An interesting synthesis of anthropology and biology for ecological interest.

THE SENSES. Otto Lowenstein, 215 pp., \$1.25, Penguin Books, Inc., Baltimore, Maryland, 1966.

The author of this excellent Pelican original paperback is Dr. Otto Lowenstein, Professor of Zoology and Comparative Physiology at the University of Birmingham, England. His book, an authoritative outline of the senses, is condensed and enhanced with numerous illustrations and examples to emphasize the main concepts. He treats the classical five senses of all organisms as belonging to one of three kinds of sensory stimuli: electromagnetic (sight), mechanical (touch, sound), or chemical (tastes, smell).

The book is clearly written in an easy and yet enthusiastic style of the specialist accustomed to successful presentation of his specialty. The "lecturer answers questions" sections and the philosophical discussion on sensation are particularly good.

There is no index and only a few references. A list of articles and books for further reading is included. The book is not meant as a reference book. However, it is a book of ideas and will provide stimulating reading to the biologist or non-biologist alike, who can not help but marvel at the ingenious design of the structures through which we know our world.

Edith K. MacRae  
College of Medicine  
University of Illinois  
Chicago, Illinois

MARINE BIOLOGY, Phytoplankton, Vol. 2, Carl H. Oppenheimer, Ed., 369 pp., \$8.00, The New York Academy of Sciences, New York, 1966.

MARINE BIOLOGY, Ecology of Invertebrates, Vol. 3, W. T. Edmondson, Ed., 313 pp., \$7.00, The New York Academy of Sciences, New York, 1966.

The second and third volumes of the series stemming from the International Interdisciplinary Conferences on Marine Biology (1962, 1964) may best be reviewed together. The format and approach are similar.

These books are edited records of conferences and clearly bear the stamp of trained minds interacting. This has resulted in books which are not texts or references; they must be considered glimpses into the experiences and ideas of the participants of the conferences. Therefore they are best read a chapter at a time from the beginning since the narrative, though edited, clearly reflects the flow of ideas and concomitant syntheses and clashes of those ideas. One comes to know the participants through the dialogue in a way not possible in traditional scientific reporting. The participants at these conferences were distinguished and active investigators drawn from an international roster of biologists.

Volume II, *Phytoplankton* (Luigi Provasoli, chairman, and C. H. Oppenheimer, editor) has three major sections: 1. Natural Phytoplankton Societies, 2. Synecological Problems, and 3. Integrative In Vivo and In Vitro Aspects. Within each of these topics are four particular sections of about 30 pages, followed by valuable summations. "Light As a Controlling Factor" was apparently the longest session and reflects the high level of experimental efforts in culturing algae. There are, however, other chapters devoted to field observations and ecological interpretation. All through this volume one senses a growing knowledge of distribution, composition, seasonal densities, and ecological aspects of the marine phytoplankton. But, at the same time, it is inescapable that interpretation of field work must await more laboratory investigation of production, nutrition, and other physiological aspects; these are also reported here.

Volume III, *Ecology of Invertebrates* (Luigi Provasoli and J. D. H. Strickland, chairmen, and W. T. Edmondson, editor) has nine sessions reported. In an area so broad, the topics are wide-ranging samples of the problems of ecology, from general topics like the plankton and benthos to the quality of food. They are specific in nature and do not attempt to cover