

The book was dedicated to Howard Sanders for his intellectual leadership in the field, an appropriate honor, even though his influence steered investigators toward problems of species diversity, rather than community dynamics. Perhaps this volume marks the end of a preoccupation with that *cul de sac* and a long-overdue intellectual unification of benthic community dynamics and structure.

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ELEMENTS OF TROPICAL ECOLOGY WITH REFERENCE TO THE AFRICAN, ASIAN, PACIFIC AND NEW WORLD TROPICS.

By J. Yanney Ewusie. Heinemann Educational Books, London and Exeter (New Hampshire). \$16.50 (paper). xv + 205 p.; ill.; general index. 1980.

This small volume should be an excellent complement to the standard biology textbook used in pre-university-level courses in biology in any tropical country. It was designed to shift the bias from extratropical examples to tropical ones, and to stress those processes of greatest relevance in understanding tropical systems. It does both. The emphasis is heavier on plants than on animals, and the book suffers a bit from the absence of examples from the New World tropics, which is, I suspect, a reflection on African university libraries and the author's travel experiences. While the development of many of the topics is quite brief or scanty, they are at least those that an imaginative teacher can elaborate on with examples from a bit of forest nearby (provided of course anything but sugarcane fields or oil palm plantations are available). A strong point of the book is that it examines more kinds of tropical habitats than just rainforest, but it does not contain the elements of evolutionary biology so well displayed by a comparative approach to different habitats. The tragedy is that by the time the student of this book is a grandparent, the uniqueness of the tropics—the motivation for Yanney Ewusie writing this book—will be little more than a legend. Corn fields in Iowa and sugar cane fields in Nigeria do not differ in any way worth comment.

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EVOLUTIONARY BIOLOGY OF PARASITES. *Monographs in Population Biology, Number 15.*

By Peter W. Price. Princeton University Press, Princeton (New Jersey). \$17.50 (hardcover); \$6.95 (paper). xi + 237 p.; ill.; author and subject indexes. 1980.

The author begins by defining the phenomenon of parasitism from a broad point of view and includes, as a parasite, any species that obtains all of its food at the expense of an individual of another species. Thus he includes, in addition to the classic parasitic forms, the large group of insect defoliators. On the basis of this definition Price then states that parasites represent well over half of all known species of animals and plants. Nevertheless, he goes on to say, the parasitic mode of life has only played a minor role in providing the data, insight, and concepts on which modern evolutionary and ecological theory are based. His goal is to overcome this inequality through the development of generalizations concerning the evolution and ecology of parasitic species. He enthusiastically pursues his goal but, owing to the diversity of species he must deal with, he makes numerous exceptions to these generalizations.

The book consists of eight chapters, the first of which sets the stage by pointing out the numerical dominance and diversity of parasitic species. The general concepts on which the book rests are outlined in the second chapter and are divided into two broad categories, i.e., ecological and evolutionary concepts. Price divides each of these two categories into three concepts, and these concepts are expanded in the remaining chapters. The strength of the book lies in Chapters 3–5, which are a compilation and expansion of ecological and evolutionary concepts, some of which the author has previously published. These concepts, together with some developed by others (e.g., sympatric speciation), are approached by Price from the parasitic point of view only. Many of the concepts concerning the evolution and ecology of parasitic species contrast with currently established views based on free-living forms. Price, however, does not develop these contrasting views.

Chapters 3–5 cover nonequilibrium populations and communities, genetic systems, and adaptive radiation and specificity. In these chapters, Price argues that parasites must search for patchy and transient resources. Because of the difficulties parasites must face in this task, many niches are not colonized and many species of parasites must face extinction. Such a situation leads to unstable systems, which characteristically offer many renewed, untapped resources for exploitation by parasites. Price argues that parasites exploit these resources through sympatric speciation and as a group are highly adaptive.

Chapter 6, which concerns ecological niches, species packing, and community organization, is based primarily on the helminth literature. Although the chapter is better organized than some others, the lack of examples from the literature on