The plesiadapoids are retained among the Insectivora. The history of man is briefly rewritten, as it surely will have to be in the future. The creodont group is reduced principally by transferring the miacids to the fissipeds. The condylarths receive new treatment. Small sections are added to the Sirenia and the desmostylids. There are many changes in the classification of the rodents, now grouped into three main suborders, and the lagomorph section is also revised.

Extensive changes appear in the arrangement and comprehensive listing of genera in the table of classification (pp. 346–96). Illustrations added to this edition are distinguished by their clarity, in some slight contrast to more smudged ones repeated from earlier editions. Certainly the entire work effectively serves a great need for a comprehensive vertebrate text that is clearly written, excellently illustrated, and salted with interesting and original ideas.

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## Biotoxicology

**Poisonous and Venomous Marine Animals of the World.** Vol. 1, Invertebrates. BRUCE W. HALSTEAD, with sections on chemistry by DONOVAN A. COURVILLE. Government Printing Office, Washington, D.C., 1965. 1030 pp., illus. $50 for the set of three volumes.

This amazingly complete compilation of information relative to what might be called "dangerous" invertebrates is the culmination of some 20 years of work. It is a definitive monograph that will probably remain unrivaled for some time to come.

The volume begins with a historical account, which traces the recognition of poisonous marine invertebrates and the treatment of their effects from the time of ancient Egypt to the present. The eight most common marine invertebrate groups are then dealt with (Protozoa, Porifera, Coelenterata, Echinodermata, Mollusca, Platyhelminthes, Annelida, and Arthropoda). (It is because of the broad scope of this work that five reviewers, each a specialist in one of these groups, has participated in this review of it.) Each treatment begins with a taxonomically arranged listing of those animals reported as toxic or venomous, with notes on distribution and with literature citations. Then a general account is given of biotoxicological research on the group, comments on the biology of the animals, and a morphological description of the poison glands, venom apparatus, or mechanism of intoxication, as applicable. There follow discussions of the medical and public-health aspects of the effects of the animal and consideration of toxicological assay methods and chemical analyses for the various toxins.

In almost all extensive undertakings such as this, it is inevitable that a number of minor errors survive editing procedures. Here, there are some occasional misspellings, and the captions for a few plates are reversed. In the chapter on the Mollusca there are errors in some ordinal and subclass names. The overall quality of the editing is high, however.

The treatment of all groups but the sponges is uniformly good. It is felt that there is an overemphasis on the commercial species and a relative neglect of the remaining sponges; this may well be a reflection of the amount of research that has been done on the two categories.

The book is well illustrated. The first chapter, on history, contains 175 figures, most of which are photographs of workers in the field of biotoxicology. There are about 20 line drawings and over 200 plates which serve to cover the animal groups. About half of the plates are in color; although they are well done from the standpoint of color, a number are not quite in focus, and there appears to be some repetition and superfluity. Those plates which are reproductions of illustrations from older scientific papers are of questionable value, since they are often so generalized that little detail is apparent.

In summary, it is felt that Halstead has done a great service in overseeing the drawing together of a vast amount of information on biotoxicology. It is to be hoped that, in addition to being a valuable source of specific information, the book will act as a stimulus for intensified research in this relatively neglected field.

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## Asiatic Plants

**The Flora of Eastern Himalaya.** Results of the Botanical Expedition to Eastern Himalaya organized by the University of Tokyo, 1960 and 1963. Compiled by HIROSHI HARA. University of Tokyo, Tokyo, 1966. 754 pp., illus. About $32.

This handsome volume is at once a comprehensive illustrated catalogue of the temperate flora of Eastern Himalaya and a fascinating comparison of this flora with that of Japan. As is explained in the preface, "The main objects of [the University of Tokyo] Expeditions are to make clear the close botanical relationship between Eastern Himalaya and Japan, to investigate critically the corresponding taxa in both regions, and to analyse the process of evolution in the plant groups originated from a common ancestor in the Early Tertiary and now widely separated in both regions."

The larger part of the book is occupied by an enumeration of the taxa represented in the 60,000 specimens obtained by the two expeditions. For each taxon there is provided a synonymy, a list of collections, its distribution, and often taxonomic or ecological notes. Hara, who seems much too modestly designated as "compiler," has contributed accounts of some 90 families; a much smaller number, representing a broad spectrum, have been contributed by other Japanese botanists.

The groups included range from fungi and lichens through spermatophytes. There is a 12-page account of the membership of the expeditions and their itineraries, supplemented by a folded map at the end of the volume. All of this must constitute a major contribution to our knowledge of one of the world's most exotic floras, one that seems as remote as the dazzling picture of the distant Kangchenjunga Range in the frontispiece.

But to the reader who is not primarily concerned with this flora in its own right, the most interesting parts of the whole account will doubtless be the chapter by Hiroo Kanai on the phytogeography of Eastern Himalaya and its relationship to that of Japan, the taxonomic comparison between the same or vicarious species in the two areas by Hara, and the tantalizingly bare beginnings of a cytological comparison of these plants by Sachiko Kurosawa. Kanai gives a lengthy list of "Japono-Himalayan related plants,"