

But no greater damage could be done to genuine philosophy of science than to suggest that there is an easy way to a solution of its problems; let alone that they may be settled by simply inspecting the metaphysics and the language of science.

The book seems most stimulating in its discussion of some of the case-studies referred to, even though one might have wanted some explanations on occasion which would have made the matter less mystifying to the general reader. (Who of these understands the theory of the hodograph? (p. 106).) It can certainly be warmly recommended as accompanying reading to more sustained studies in the subject.

GERD BUCHDAHL

THE WEEVILS OF FRANCE

Faune de France, Vol. 62

Coléoptères Curculionides (Troisième Partie). Par Adolphe Hoffmann. Pp. ii+1209-1840 (642 figures). (Paris: Editions Paul Lechevalier, 1958.) n.p.

IT is now more than forty years since the last comprehensive work on European beetles appeared. The present volume in this well-known series deals with the remaining weevils occurring, or likely to occur, in France and Corsica. It is issued, unusually, in a stout and durable cloth binding. Keys to all groups, including sometimes the varieties of a single species, are given. Each couplet usually contains several easily observed characters and the keys appear to be reliable. There is a full description of each species, together with many references.

The figures are even more numerous than in the earlier parts, averaging more than one per page. They exhibit a variety of styles and techniques but seldom reach the standard one expects nowadays in a work of this kind. Some of the figures of antennae and tarsi are particularly crude; stippling and shading are frequently used where a simple line drawing would be far more effective.

The author's system of classification is rather individual and open to criticism. Following Reitter (1912) he has included some twenty or so subfamilies as tribes under the name "Calandrinae". Also the Attelabidae are denied their full family rank; *Rhynchites* was even used as an example of the Phanerognathi in the introduction (Part 1). In addition a number of long-established generic names (for example, *Dorytomus*) have been sunk, though in such cases an explanation is given and the reader can form his own opinion with the aid of the references. The fact that the general classification of weevils has not been studied since 1866 and that the new Code of Zoological Nomenclature has yet to appear in print reduces the weight of these criticisms. Furthermore, this work is essentially a faunistic study, not primarily intended to make a fundamental contribution to anatomy or taxonomy.

It is in its faunistic aspect that the value of this work lies. The author has taken the greatest pains to record accurately and often in great detail both the distribution and the biology of every species as far as these are known. Again many references are given. Many galls, etc., and leaf-rolling techniques are illustrated.

Following the main body of the text is a lengthy list of additions and corrections to the whole work, also a list of food-plants with their associated weevils and a general index.

R. T. THOMPSON

THE INVERTEBRATES

The Invertebrates Vol. 5

Smaller Coelomate Groups—Chaetognatha, Hemichordata, Pogonophora, Phoronida, Ectoprocta, Brachiopoda, Sipunculida, The Coelomate Bilateria. By Libbie Henrietta Hyman. (McGraw-Hill Publications in the Zoological Sciences.) Pp. viii+783. (London: McGraw-Hill Publishing Company, Ltd., 1959.) 104s. 6d.

THE fifth volume of Dr. Hyman's series on animal phyla is devoted to the smaller coelomate groups, except the Echiurida. These she divides into three sections: the enterocoelous coelomates or Deuterostomia (Chaetognatha, Hemichordata and Pogonophora), the lophophorate coelomates (Phoronida, Ectoprocta and Brachiopoda) and the protostomatous coelomates (Sipunculida). It must have been a difficult task mastering the literature on such widely varied forms of life; the bibliography is excellent.

Each chapter is arranged on the same lines as those in previous volumes—history, general characters, classification, morphology, embryology, ecology and physiology, geographical distribution and relationships, so that it is easy to find a particular section. The illustrations are good on the whole, mostly copied from original papers, but a few have deteriorated in reproduction, such as *Bathyspadella*, Fig. 15A, and the nervous system of phoronids, Fig. 87. Lettering by numbers enables the reader to test his knowledge, and this is applied uniformly throughout the book.

Some phyla have been exhaustively dealt with elsewhere, such as the Hemichordata, by van der Horst; others are little known or have not been adequately treated in available books and monographs. It is to the latter groups that the zoologist will gratefully turn first. Here for the first time we have a clear account, largely translated from the Russian, of the new phylum Pogonophora, the beard bearers, deep-sea worm-like creatures with a heart and vascular system but no digestive canal. The dredging of twenty-two species of pogonophores, chiefly from the Behring and Okhotsk seas and from the Skagerrak off Norway, is one of the most remarkable finds in modern zoological research, comparable with the discovery of *Latimeria* and *Neopilina*.

More than a third of the volume is devoted to the Ectoprocta, a group which "is burdened with a large and fantastic terminology". Dr. Hyman therefore has correlated the terms used for the parts of the colony with those employed in invertebrates generally. For her study of the Ectoprocta she travelled to Brazil, to consult with Prof. E. Marcus, who had worked so extensively on that group. The result is an excellent account. Dr. Hyman prefers to call the phylum Ectoprocta and to use Bryozoa in a popular sense only, since the latter name included the Entoprocta, which must now be removed from close association with the Ectoprocta.

The chapter on Brachiopoda is also a competent piece of work, especially for the palaeontologist. It is strange that the name is misspelt on the dust cover and the title page.

The final chapter, entitled "Retrospect", enables the author to correct a few mistakes in the earlier volumes, to add short accounts of recent work not previously known and to state her views on current trends in zoology. The last she does very forcibly: