

a useful brief bibliography. Well printed and handy in size, the book gives us many illustrations, most of which are good, while some are unique, and others could have been improved. Most of them are borrowed from other books or from research papers.

But the main value of the book is the fact that it brings together our knowledge, not so much about the systematics, structure and great economic importance of the parasite, but about its biology and about the basis of the parasitic mode of life. It was high time that such a book was prepared. If it contains here and there some statements which can be criticized, it should be remembered, not only that it is easy to criticize and very difficult to write a book of this kind, but also that nobody yet has written a book that does not, in some respect, arouse controversy. It is good, in fact, that it should be so, for the senior reader can, from his own experience, correct what he does not accept; and the student can refer to him whatever may puzzle him.

So far as I am concerned, I am glad to have this book. It breaks new ground and illustrates the gratifying fact that parasitology, which for so long has been one of the 'Cinderellas' of biology, is nowadays getting the attention it has always deserved. The parasite, as will be realized by the reader of the early pages of this book, may be, perhaps, indefinable, but it does take us, the more deeply we study it, far beyond biology and straight to the very roots of our general philosophies.

G. LAPAGE

CUP FUNGI

British Cup Fungi and Their Allies

An Introduction to the *Ascomycetes*. By R. W. G. Dennis. Pp. xxiv + 280 + 40 plates. (London: The Ray Society, 1960. Sold by Bernard Quaritch, Ltd., 11 Grafton Street, London, W.1.) 80s.

NO more generous publication has been offered the student of British ascomycetes. By a handy, well-printed and copiously illustrated volume this flora of myriad fungi from *Eurotium* to *Morchella* has been reopened. "Most of the genera said to occur in Britain are illustrated." About 1,000 species in 450 genera are described. For some 180 species taxonomic points are explained in twenty figures of line-drawings. Forty colour plates depict fructifications and spores of nearly 500 species. Most, if not all, descriptions and illustrations in the tradition of Kew mycology are original; they reflect the patience and skill which has been devoted over many years to this artistic product.

The keys to the families and genera are concise and appear to be satisfactory; but in the case of large genera, for which numerous species are described, the absence of specific keys is annoying. The major key to the orders is strange. It is not, as stated, a key to the larger ascomycetes but one to all the ascomycetes in minutest detail, such as will baffle the beginner. The name 'cup-fungi' has been retained throughout the book, and pyrenomycetes are mixed up with discomycetes inasmuch as these two standard groups are, without explanation, completely passed over. Plectascales are associated with Tuberales, and *Nectria* becomes a cup-fungus. A great opportunity has been missed both to help the beginner and to explain the new alternative. The book is stern, but it will make its way overseas because most genera are cosmopolitan and a comparable introduction is scarcely available. Lexicographers will find hidden in the text new combinations.

In all this advantage there is a vexatious omission. Has the author, so expert in this group, turned his back on science? "Taxonomy . . . not a science but an art" (p. xvii). Many of these fungi have been objects of research. To have left this knowledge out merely pales the introduction but, names having been changed and the clue to research residing in the twisted thread of synonymy, to have left this out is ungracious. Where is *Ophiobolus graminis*, and is it rightly named? Where is *Peziza aurantia*, the standard cup-fungus of modern botanical teaching? Without explanation it becomes *Aleuria aurantia* (not ascertainable from the key on p. 1). *Aleuria* is "one of a residual assemblage of genera defined largely by negative characters". *Peziza* becoming *Aleuria*, *Aleurieae* become *Pezizeae*, and vice versa, as one might swop *Amanita* and *Lepiota*. The student is referred to a monograph where this *Peziza* is called *Aleuria* (cum *Galactimia*), and the author toys in small print with the popular name "Orange peel *Peziza*". Scientists try to respect taxonomy. When, artfully or artlessly, it gets in this mess, minds begin to work on a new and scientific taxonomy. The stirrings are abroad, and this book, with its great appeal, will promote them.

E. J. H. CORNER

HYDRA

The Biology of Hydra and of some other Coelenterates

1961. Edited by Howard M. Lenhoff and W. Farnsworth Loomis. Pp. xv + 457. (Coral Gables, Florida: University of Miami Press, 1961.) 4.50 dollars.

THIS book consists of twenty-three papers delivered by North American workers at a symposium in Miami during March 1961, with thirteen exclusively on *Hydra*, and six more general in nature. Topics covered include: electron microscopy, nematocysts and their toxins, nutrition, growth and differentiation, regeneration, colony formation, and sexual differentiation.

Here is an unusually good example of a single animal treated by widely varying techniques, and it will prove stimulating to alert readers who, if prepared to think for themselves, will achieve some of the "interdisciplinary synthesis" aimed at by the editors. This is helped greatly by the inclusion of the discussions which followed the papers and the additional one on the nervous system of *Hydra*.

Its main value, however, even if rather ephemeral, is for research workers, and for them the aggregation of such diverse material, much of it previously unpublished, under a single cover must be applauded. Most chapters are followed by an almost invariably up-to-date bibliography. Unfortunately, comment on the systematics of *Hydra* is omitted yet frequent discrepancy apparently within species is described.

This is a well-produced volume. Its tables, diagrams and plates are variable but generally adequate and sometimes good; many of the electron micrographs are excellent though occasionally spoilt by the absence, or only obscure insertion, of a magnification indicator.

It is more than two centuries since Trembley's *Memoire* appeared and yet the problems of nematocyst discharge, nerve net and sexual differentiation in the coelenterates still remain unsolved.

MARY CAMPION