

erable "gadgets" in the way of exquisitely adaptive bodily structures, the insects have developed an unbelievably intricate ecological structure which involves practically the whole of their living environment.

This book deals with the most spectacular types of insect behavior, which are those associated with predatism and parasitism, particularly the latter. Both of these are concerned mainly with the insects themselves, since the hosts and prey are most generally other insects; nevertheless these phenomena have their reverberations among other diverse organisms, including man himself, so that they become of great human concern. As a consequence of the latter, one of the major developments of entomology during the past half-century has been the investigation of predatism and parasitism in their varied aspects, not primarily as problems of intense biological interest, but as a necessary prelude to their practical application in furthering the "natural" or "biological" control of noxious insects whose freedom and pursuit of happiness clashes with our own feeble attempts in that direction.

In "Entomophagous Insects" Dr. Clausen presents a brief account (of over 600 pages) summarizing our present knowledge of these insect predators and parasites. He is well fitted for the task, having made extensive contributions on insect parasites over the course of many years and having more recently been entrusted with the management of the work on extensive parasite introduction maintained by our Federal Government.

The material is presented in systematic sequence among the several orders beginning with the Hymenoptera which occupy about half of the book. The Diptera follow, including about 150 pages and the several remaining orders of minor importance are relegated to the last hundred pages. Much more space is devoted to the forms which are parasitic or parasitoidal and justly so, since their behavior is much more varied and complex.

Particularly valuable are the figures and descriptions of the many peculiarly modified types of larvae known among the parasitic Hymenoptera and the accounts of remarkable methods of oviposition whereby the larvae reach their hosts in unexpected fashion.

Altogether the book is highly accurate despite the vast amount of information that has been included. It will be most useful to professional entomologists, but students of more general biological topics will find a discussion of many matters of importance to them from the standpoint of evolution, adaptation, parasitism, speciation, etc. One feature that mars the otherwise excellent printing of the text is the almost complete omission of accents and umlaut marks in the citation of French and German publications.

The complaint is frequently voiced that the principal contributions of entomologists to the progress of science result from their ability to attach names to the insects their colleagues have chosen as materials for biological investigations. Clausen's book, with its extensive and diversified bibliography, will help to dispel this notion, and to indicate the vast opportunities open to students of insect parasitism.

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### ANTHROPOLOGY

*A Bibliography of Human Morphology, 1914-1939.*

By W. M. KROGMAN. 385 pp., sm. 4to, phototype. Chicago: University of Chicago Press, 1941. \$3.00.

ONE of the foremost necessities to every modern branch of science is an exhaustive reliable bibliography; but the compilation of such is one of the most difficult, laborious and ungrateful of tasks, and that particularly in a field which involves so much as does physical anthropology, for that is really the field that Dr. Krogman's present contribution endeavors to cover.

Due to the amount of work involved the compilation had to be limited to publications between 1914 and 1939, which is very regrettable. An even more serious disadvantage was the necessity of limitation of the literature to that of several of the most used European languages, leaving out all the Slavic, besides others. The reason for beginning with 1914 was the publication in that year of the bibliography included in the Martin's text-book of anthropology, though that bibliography is not exhaustive, not generally available, and difficult to use except by an expert.

But to have done all that would have been desirable would have taken a whole staff of workers, years of time and much expense. Dr. Krogman has done what was possible for him, presents a bibliography both well organized and indexed, and deserves the thanks of all workers in this line.

There remains nevertheless with publications of this nature, however excellent and comprehensive they might be, the disadvantage of their being bound in a volume. Even before this is out of the printer's hands there is need of additions, which with a volume are impossible; and there is also no possibility, without much copying, of any regrouping. The only effective remedy for these and all other ills of such compilations would be their future publishing in card form. The ideal would of course be briefly annotated cards such as those being issued by the Wistar Institute.

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