Book Reviews

The World of Insects. Paul Pesson. Translated by R. B. Freeman. McGraw-Hill, New York, 1959. 204 pp. Illus. $15.

Grassblade Jungle. Nesta Pain. Coward-McCann, New York, 1959. 207 pp. Illus. $3.75.

Collecting, Preserving, and Studying Insects. Howard Oldroyd. Macmillan, New York, 1958. 327 pp. $5.

These three books have little in common, except that in one way or another they deal with insects and related arthropods.

It is a rare pleasure to pick up a handsomely done "picture book" and discover that it has an informative, technically accurate text. This pleasure awaits one who opens Pesson's excellent volume, *The World of Insects*. The reader will find in it a rather detailed account of the geologic history, evolution, physiology, ecology, behavior, and economic importance of insects, as well as a brief summary of their classification. Included are discussions of such technical subjects as hormonal control of growth and differentiation, the function of various types of compound eyes, mechanisms for water conservation, communication in social insects, mating behavior, and resistance to insecticides. The treatment is generally lucid, but, although in most cases the necessary terms are sufficiently well defined, a glossary would have been a valuable addition. As in any book of this scope, some errors have crept into the text (for example, adult crane flies are described as predators). I also take exception to a few of the statements on evolution.

Ninety-six plates (16 in color) add to the appeal of the book. Unfortunately the figures do much less to complement the text than one would expect in view of their abundance. The impression given is that the illustrations were assembled independently of the text and were coordinated with the text as an afterthought. With a few exceptions the figures are excellent. The color plates are overly intense but, in general, pleasing. Of special interest are three plates showing, respectively, the same species of grasshopper against six different backgrounds, a trio of protectively colored caterpillars, and a striking photograph of a vespid wasp drinking from a drop of water.

Grassblade Jungle is a well-written account of the biology and behavior of honey bees, mantids, termites, cicadas, scorpions, and grasshoppers, based on the writings of entomologists such as Fabre and von Frisch. The book is primarily intended for the layman, but the professional biologist could well spend a pleasant evening reading it. The author manages quite well to avoid the commonest pitfalls of this sort of writing —anthropomorphism, romanticism, and gross inaccuracy. The volume would have benefited greatly from the inclusion of some carefully selected photographs of the animals described.

One would expect Oldroyd's 327-page book, *Collecting, Preserving, and Studying Insects,* to be a valuable aid in a field of rapidly improving techniques such as modern entomology. Unfortunately it is not. Some of the techniques described are obsolete or obsolescent. A number of modern methods of handling specimens are glossed over or ignored. The reader interested in methods of collecting and preserving insects might consult the fine little manual by Ross (available free from the Illinois Natural History Survey) or the more comprehensive book by Beirne *et al.* (Canada Department of Agriculture, Publication No. 932).

Oldroyd's book has an unusually poor set of illustrations, and some are inane. We are given a full-page halftone of a net bag folded over the hoop "so that nothing can escape"; two halftones of a boy with his head in a net ("best way to corner a captive insect"); and numerous inferior line drawings of bottles, boxes, forceps, and the like.

The "studying" part of the work is devoted to a none-too-detailed set of instructions for the most unimaginative, antiquated type of taxonomic work. No attention is paid to the more dynamic aspects of entomology; the behavior, ecology, evolution, and physiology of insects are ignored. Even the dissection of soft tissues "is a subject too big to be dealt with." (Two pages of concisely written text could give enough information on tools and techniques to be of tremendous value to the beginning student.)

There is useful information scattered through the book, but the items not covered as well or better in less expensive sources are so few and far between that this book can only be recommended to the most affluent.

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Landslides in Clays. Alexandre Collin, 1846. Translation by W. R. Schriever and others. Forward by R. F. Legget. Memoir on Alexandre Collin by A. W. Skempton. University of Toronto Press, Toronto, Canada, 1956. 160 pp. Illus. + plates. $6.50.

This book presents the major work of Alexandre Collin (1808–1890), whose name is almost lost to civil engineering, and reveals that Collin was a forerunner of the present-day practitioners of soil mechanics. Those interested in the origins and development of the principles and practices of civil engineering are indebted to Schriever, Legget, Skempton, and their assistants for the dedicated and painstaking work that went into the translation and preparation of this volume. In spite of the difficulties of translating the original French, the text is clear and readable. The memoir by Skempton summarizes Collin's contribution to modern soil mechanics and presents a brief biography.

Collin was the first to measure the shear strength of clay samples and to survey accurately and analyze mathematically the form of rotational slips in clay strata. His work exemplifies the coordination of field experience, field observation and measurement, laboratory testing and research, and theoretical analysis of the total body of data to a degree not frequently seen today. In 12 chapters Collin summarized his observations, laboratory experiments on the strength and volume stability of various types of clay with varying water