

the scientific names would aid in a greater retention of the material.

The manual has excellent morphological illustrations with some labelling and many enlarged detailed drawings of characteristic structures. The illustrations are numerous and well correlated with the contents of the book thus leaving little room for misunderstanding the written material; charts and diagrams are a further aid to this end. Following the key, a selling feature for advanced study, are six pages of some of the important references classified according to authorities of the different insect orders. This manual is another contribution to the Pictured-Key Nature Series, which may be obtained either in the spiral or cloth binding, and the compact size facilitates ease of use in the field.

It may well be recommended for constant use in the field and laboratory as well as for class reference. The material is designed to make it as easy as possible for the student to acquire a ready knowledge of immature insects.

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WRIGHT, ALBERT HAZEN and WRIGHT, ANNA ALLEN. *Handbook of Frogs and Toads*. 3rd. ed. Comstock Publishing Co., Inc., Ithaca, New York. xii + 640 pp. illus. 1949. \$6.50.

This third edition of one of the best known of the handbooks has been enlarged, extended and improved, but retains the general features of its predecessors. The arrangement is that found most useful for books of this sort, first a general account including a treatment of taxonomic principles, then the keys and the accounts of the individual species. There is a plate and distribution map for almost every one of the hundred species and subspecies included. The general account section is an excellent treatment of frogs and toads—not just descriptive, but ecological and dynamic. The keys have been made more explicit and many points are illustrated. The plates, mostly photographs from life, are accompanied by field notes which seem to emphasize the living animal in its environment. The bibliography is organized into separate parts, I. General

Works, II. General Check Lists, III. State and Province Lists. The latter covers all of the United States and most of Canada and Lower California. The extensive index is well organized, with bold face numbers to refer to the species account pages. The style is such that any interested person can read it. One does not have to be a taxonomist to understand the book although even the expert will find plenty of good firm meat in it. It is a must for all professional and amateur herpetologists and a good reference for all who are interested in general zoology.

HUETTNER, ALFRED F. *Fundamentals of Comparative Embryology of the Vertebrates*. rev. ed.—Macmillan Company, New York. xviii + 309 pp. illus. 1949. \$5.00.

The new edition of this book retains all of the essential features of the first. It should by all means do so, for the first received highly favorable recognition. The addition of the chapter on the 7 mm. pig, with its clear and carefully labelled pictures, is a marked improvement. The sequence of topics is about the same as in the first edition: History and Theories of Development (this chapter leaves too much unsaid, in the opinion of the reviewer), Protoplasm and the Cell, Chromosomes, Gametes, Fertilization, Amphioxus, three chapters on the frog, seven chapters on the chick, five chapters on the mammal.

The arrangement of the book, text, pictures subheadings and legends is excellent. It is easy to find something you are looking for. The style makes for easy reading, although there is no oversimplification. The approach is almost, but not quite, completely morphological. This is not to discount the importance of the experimental, but to give the student a picture of the embryological stages themselves before getting him into the deep water of the experimental modifications. There is no glossary. The index is complete and well organized. The book is a fine text for college students and an equally good reference for high school teachers and advanced high school students interested in the field. It should be available in every laboratory where vertebrate embryology is studied.

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