

biophysical techniques, are adequate condensations of topics receiving more extensive treatment in advanced biophysics textbooks. Inevitably, though, clarity is lost in the condensation, especially for biologists, who at this stage are less familiar with the physical principles. Although the author recommends the book for both biology and physics students, it is obviously written primarily for the physics student.

In general the illustrations are adequate, but some of the more complex drawings lack clarity. References at the end of each chapter and a glossary at the end of the book are helpful additions.

As an introductory book, it should be useful for physics students but not for biology students. It is likely that the excessive price may often prevent its adoption as a textbook for an introductory course.

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CONCISE COLOR ENCYCLOPEDIA, by Robin Kerrod. 1975. Thomas Y. Crowell Co. (666 Fifth Ave., New York 10019). 256 p. \$9.95.

The publisher's global assertion that this is a "fascinating source of scientific information which comprehensively describes and illustrates every imaginable scientific topic" is questionable. In spite of the book's seeming exhaustiveness, there are too many topics in the realm of science that are not treated; for example, biology as a field, chemistry as a topic, earth science as an entity, physics as a science, and zoology as a science. There are no references at all to natural history.

Because the author claims that the book is written for "readers looking for an introductory overview which provides its readers with a simple but never simplistic volume which explores in an orderly and easy-to-use format every aspect of the physical sciences," the title is misleading. The publishers have designated the book for "young readers." No attempt is made to define "young people," but the book may be useful for the later years of junior high and senior high school.

Probably the criticisms expressed here are only so important as the specificity of the use to which the encyclopedia is put. If it is used as a very general and introductory reference, it will probably

be helpful for students in the grades mentioned above. For senior high school, the book would be useful for those less able students enrolled in introductory courses.

Because the book covers such a broad spectrum of subjects, it is difficult to determine its accuracy over all subject areas. There is no indication that specific content was scrutinized by experts in the various fields represented by the table of contents. The format of the book and its illustrations (both black-and-white and colored) are attractive. Type is large and discussions are interestingly written. Subjects are covered in a conversational manner not typical of encyclopedias, a feature that might be a welcome change for the reader.

The book, as a conveyor of information, does not compare favorably with traditional encyclopedias. However, this may not have been its purpose. The volume is inexpensive compared to other reference works. Its greatest value may be as a shelf reference in a junior high or senior high school.

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Zoology

VERTEBRATES: A LABORATORY TEXT, ed. by Norman K. Wessells and Elizabeth M. Center. 2nd ed., 1975. William Kaufman, Inc. (One First St., Los Altos, Calif. 94022). 228 p. Price not given.

A publication with two editors, six authors, and one illustrator has either nine opportunities to confuse or nine opportunities to clarify an issue. In this laboratory textbook the latter route was taken; the publication is a cohesive well-structured document.

The authors of the book and the illustrator were all undergraduate students at the time of the writing and the editors their professors. This in itself is a fairly unusual arrangement and it worked well.

The book is fairly limited in its breadth of coverage but detailed in its depth. Four topics are covered: the lower chordates, the structure-function of the dogfish shark, the structure-function of the nervous system (dogfish and sheep), and structure-function of the cat. It is primarily a laboratory guide to dissections, but because some

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Edited by
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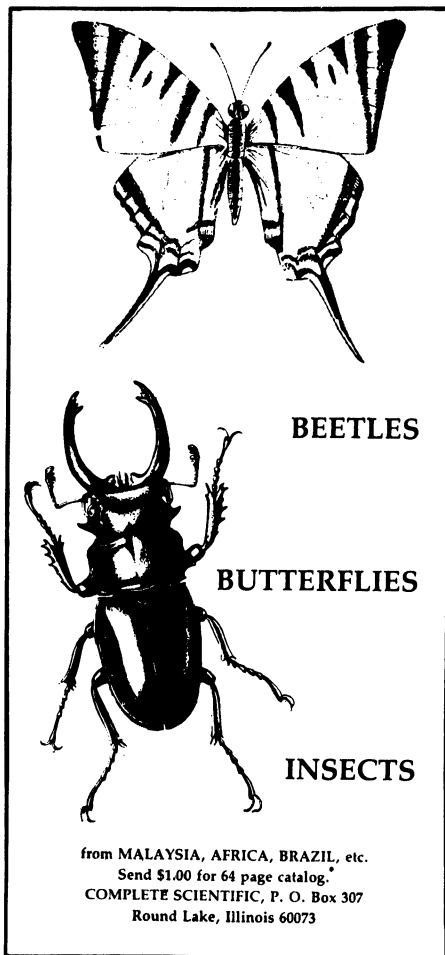
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coverage is given to function this is more than the usual anatomy guide. The inclusion of a greater than usual quantity of discussion on the function of various structures makes the book much more palatable and useful.

There is a wealth of illustrations and they are very well done. Details are easy to see, and the illustrator has used shading to perfection to give the illusion of depth and form. The overall quality of the printing is excellent.

For a course that involves students with these kinds of laboratory activities this book should serve more than adequately. The use of the book will be limited by its restricted coverage, but nevertheless there is a good deal of good zoology between its covers.

It is not, however, without a few of the lapses that send students scurrying to an assistant. For example, occasionally italicized terms appearing in the text do not appear on the illustration. The number of these occurrences is relatively small, however, and it is refreshing to find the illustrations numerous enough

and detailed enough to include virtually all structures named or discussed.

Finally a note about the editors who initiated the undertaking by their own undergraduate students: they did their work well. There is some but not a great deal of difference in writing style and readability among the subsections written by the different student authors, and that in itself is a tribute to their editorial abilities.

Robert N. Hurst
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FISHES OF THE WORLD, by Alwyne Wheeler. 1975. Macmillan Publishing Co. (866 Third Ave., New York 10022). 366 p. \$27.50 hardback.

This is a large (9½ by 12 inch), expensive, profusely illustrated, authoritative book which is organized in dictionary style. In addition to illustrations of all known orders of fish, the book contains 500 color photographs, 700 line drawings and more than 2,000 species descriptions.

The introduction briefly discusses the evolution of fish from the Agnatha through the Teleosts. The general characteristics of each group are also presented. These descriptions are followed with a discussion of the types of fish found in the various aquatic habitats. Adaptive body forms and fish behavior conclude the introduction. Included are such topics as sound production, the lateral line, light organs, and the olfactory and gustatory senses.

The introduction is followed with three line drawings, illustrating the various external features found on different types of fish. A short glossary is also found in this section.

An excellent series of color photographs leads into the actual "dictionary." The photos are of common and exotic species of fish from all over the world.

Family and species' descriptions make up the greater part of the book. The information is organized alphabetically by family and genus groupings. Common names and synonyms are cross-referenced. Although each description is relatively brief, interesting material on "geographical range, size, habitat, commercial importance, strange behavior patterns and interdependence of species" holds one's interest.

This book provides an excellent, *general* reference source and its value is enhanced by the photographs and line drawings. The price may prohibit its widespread usage.

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Audiovisuals

THE WORLD OF ENDANGERED WILDLIFE.

National Wildlife Federation (1412 16th St., N.W., Washington, D.C. 20036). Color filmstrip with cassette, plus teacher's guide and resource materials. 25 min. Purchase \$22.50

The filmstrip presents information on such endangered species as the California condor, American peregrine falcon, Devil's Hole pupfish, Florida manatee, and the black-footed ferret. Although the film raises the question of wildlife survival, no attempt is made at extensive coverage of the topic. Points made about the continuing loss of wildlife habitat and the problems of the use of chemicals could both furnish material for follow-up activities.

The film tries to emphasize the "natural" environment despite the fact that an unnatural, human-manipulated environment is actually in existence. The filmstrip narration and support materials both recognize that the American bison is no longer a threatened animal, a recognition that is long overdue. The lamentation concerning the survival of prairie dog towns does not mention that some of these populations may constitute a reservoir of bubonic plague, which, without continual monitoring and surveillance, could represent a devastating threat to the human population.

Although the material is recommended for grades 5 through 12, actual use with elementary students suggests the vocabulary level is too high and that presentation moves too rapidly for fifth and sixth graders. The filmstrip is more appropriate for science and social studies classes in the upper grades. Adult groups would also find the film interesting and thought-provoking.

Included in the filmstrip package is a teacher's guide containing a frame-