

## Books For Busy Biologists

JEAN, FRANK C., HARRAH, EZRA C., HERMAN, FRED L., and POWERS, SAMUEL R. *Man and His Biological World*, Rev. Ed. Ginn and Co., New York. viii + 631 pp. illus. 1952.

According to the authors, this revision modernizes content, corrects inadequacies, and gives expression to evolving ideas. Plant phyla are not mentioned as such. There is little mention of animals of the prevertebrate phyla. Vertebrates, other than man, are discussed in only a general way. Excepting bacteria, few members of the lower three plant phyla are mentioned. Reproduction among higher plants is discussed briefly but, in the case of man, detailed treatment is given. The book is well-illustrated, has an 8-page glossary, and a 9-page index. No suggestions for laboratory work, field trips, or visual aids are given, although the latter two procedures are strongly recommended in the Preface. Chapter endings list good study questions and references. The final unit on Cultural Development is interesting and unusual.

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PRESTON, R. D., D.Sc., F.Inst.P. *The Molecular Architecture of Plant Cell Walls*. John Wiley and Sons, New York. xii + 211 pp. illus. 1952.

This book is written chiefly for botanists. The first few chapters present a résumé of the more important physical and chemical approaches to cellulose structure. For the physical scientists and the fibre technologists an explanatory account is also given of the anatomy and development of the tissues under review.

The literature concerning the structural features of cellulose and the substances associated with it is now enormous and much of the material is available only in the original papers. Up to this time certain aspects of wall structure of greatest appeal to botanists have not appeared in English. A growing need for this material accounts for this book.

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EISMAN, LOUIS and TANZER, CHARLES. *Biology and Human Progress*. Prentice-Hall, Inc., New York. xi + 455 pp. illus. 1953. \$4.20.

This book, written for average and above high school students, is divided into ten units, each dealing with a central idea (such as *Food, Natural Resource Use*, etc.) presented as a group of from three to 11 problems. Each of the 54 problems closes with a summary and group-discussion questions. At the end of each unit is a suggested list of Lab experiences and projects. New scientific terms are printed in bold face and followed by phonetic spelling. The illustrations, mostly photo-

graphs, are unusually clear and well chosen. The glossary is adequate and the index well-organized. The combination of clear writing, excellent illustrations, teaching aids, and flexibility should make this a highly successful text.

WICHTERMAN, RALPH. *The Biology of Paramecium*. The Blakiston Company, Inc., New York. xvi + 527 pp. illus. 1953. \$9.00.

"Gee—a whole book just about a Paramecium!" This comment by my high school age daughter is an apt summary, for this book is all about Paramecia—classification, structure, ecology, collection, metabolism, response, reproduction, genetics, serology, research techniques, and their usefulness in biological research. The style is as simple as the material permits, the 141 illustrations are excellent, the bibliography of about 2000 references covers from 1674 to 1952, and the subject index is unusually well-organized. In view of the wide use of Paramecia in biology at all levels, this book should be in every biologist's library.

GRIMM, WILLIAM CAREY. *The Shrubs of Pennsylvania*. The Stackpole Company, Harrisburg. xviii + 522 p. illus. 1952. \$5.00.

The author has combined scientific accuracy with an appealing simplicity of presentation to produce a practical guide to the shrubs native to Pennsylvania and eastern United States. It is geared to the needs of the layman rather than those of the scientist.

Through an introductory discussion and illustrations, the terms used and points to look for in identification are clearly described. Simple keys for summer and winter identification are easy to follow. Each of the 150 species is adequately described as to its distinguishing characteristics, habitat and the range in the state as well as in the United States. Comments from the author's wide experience give an additional interest note to each discussion. Clear, life-size pen drawings by the author aid materially in identification.

Although the size of the book (8" × 11") prevents it from being practical for field identification, it is an excellent source of information from the later elementary grades through college, and for such laymen as amateur botanists, sportsmen and Scouts.

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ROUNSEFELL, GEORGE A. and EVERHART, W. HARRY. *Fishery Science*. John Wiley & Sons, Inc., New York. xii + 444 pp. illus. 1953. \$7.50.

This book starts out with an unusual chapter on "How Do We Produce Knowledge?" which should clear up some hazy thinking about research. The other sections, Natural Populations, Fish Ponds, Fishing Gear, Protection, Habitats, Tagging, Age and Growth, Collecting Data, Managing Natural

Populations, and Problems, are presented from the practical standpoint, with clear illustrations and many examples of the attack upon and the solution of actual fisheries problems. Each chapter closes with a list of references, both books and periodical literature. The glossary is short but carefully selected for aquatic biology. The index is well organized. Except for a few sections dealing with statistical studies, the level of reading difficulty is well within the ability of the interested high school student. *Fishery Science* should be useful to all biologists, sportsmen, commercial fishermen, limnologists, fish managers, and teachers of field biology.

### Biology Laboratories

By "The Old Fossil," at Wells High School, Chicago

"**The Compound Microscope,**" by Bausch and Lomb is a 20 min. sound film in color. A manual for each pupil is furnished. It is a review of types of microscopes and their care. Split-frame technique is used to demonstrate external operation and its effect on the microscope field. Sounds and looks good to **TOF**.

**Get a laugh from** "The Decadence of the Male," by Causey, in *Educational Focus*, May, 1953. The **Hogarthian Curve** is the culmination of the screwball interpretation (in graphic form of course) of the article. The giggle, snicker, chuckle, or guffaw which you emit indicates your emotional reaction.

**Remember back when** we introduced our subject: "Biology—a combination of the Greek words *bios* (life) and *logos* (the study of)?" It was stiff, formal, classical. Today **TOF** dictates this introduction: "Biology is the study of life and living things. Since biology is concerned with all life, it must include hundreds of thousands of different kinds of plants and animals. Therefore, biology must first confine itself to general principles. Secondly, it is concerned with the study of *my* life—how I feel, act, and behave."

**Mental Health** should have a specific place in our biology courses. We may again sit on our hands and do nothing. Just remember that we let physiology and health education walk out the window into the Physical Education Camp. Here are some specific road signs pointing the way: **Supt. Norrix**, Kalamazoo, states, "The important thing a teacher can give children is sound emotional development to produce better-rounded individuals. This is as important, or more important, than factual information." **Rudolph Novick, M.D.,**

Director, Illinois Society for Mental Hygiene, avers, "The teacher's first responsibility is to impart factual information. More important, however, is the teacher's responsibility for the personality and character development of the child. The teacher's concern is not with the mentally disturbed child, or mental illness, but with well children. His efforts are directed toward increasing the pupil's ability to adjust to external and internal stress, to enhance his capacities to live a productive, satisfying life, and to aid him in maintaining mental health as the key to effective personal and social living in a democratic society."

**A couple or three** of you young bucks and/or dames get your heads together. Come up with a workable unit on mental health. Better still, impregnate the texts you are writing with mental health teachings.

"**School Tours and Special Demonstrations for Classes,**" may be obtained from the Museum of Science and Industry, South Shore Drive and 57th Street, Chicago. If you plan a trip to Chicago, write for it. Free.

"**Natural History**" is a classified catalog of several hundred books on the subject. Write **Eric Lundberg**, Walpole, N. H.

**Open House**, confined to the science department of **Wells High School**, was held in late May. Here are some of the attractions taken from publicity copy: See model jet plane; see girl conduct 500,000 volts through her body; hear the electric guitar (student-made project); see electric motors (built by students); hear your voice on tape recorder; see a periscope (made by students); operate an all-electric doll house; get your picture taken; see your voice on oscilloscope; foods refrigeration; nuclear fission demonstration; plant experiments; nutrition demonstration; have your blood pressure taken; see how water is purified; watch cosmetic experiments.

"**HONEY**" was the only sign **Ray Silver** and **TOF** used to dispose of 2½ tons of honey. It is a blended honey from eight different yards, mixed fruit orchards, alfalfa fields, clover fields, wild woods, and flowers. Fruit orchards honey enhances the bouquet, alfalfa accrues the nectar for body, wild flowers augment the mild pungent aroma, clover intensifies the sustained sweetness. Ray and **TOF** improve on the bees' nectar by the blending. They will mail order you a two months' supply for \$2.00.