

are used throughout. Line cuts, many of which are superbly executed, are featured. Only a few halftones supplement the copy. A small number of illustrations are sufficiently labeled, the rest are merely titled, plus an occasional legend.

The language is simple, and tends to use such phraseology as "Mystery of Pollen Grains, A Mental Motion Picture of the Development of Seeds . . ." Pronunciation keys are included.

The thirteen units utilize the following pattern of approach. The major principle to be studied is put in question form; about a page and a half of didactic information follows; the principles and generalization are listed, an excellent spelling and pronunciation drill follows; and then each individual problem is presented. The individual problem also follows a pattern, i.e., the problem is indicated; the elaboration of the stated problem is written up directly in the text; additional questions for classroom discussion are given space for outlining; and further projects are listed. The end of the unit has a *Student Aids* section consisting of a list of textbooks, mainly on a 9th year level, more questions and problems, and a long self mastery test. This is repeated for thirteen units and some 70 problems.

There is an even page space allotment to each of the thirteen units, amounting to an average of fifteen pages per unit. About six units are of a morphological nature covering such topics as Flowers, Insects, Cell Structure, Plant Classification, Animal Classification, and Vertebrate Relationship. Almost three units have a physiological development covering such principles as nutrition, digestion, circulation, and activities of the green plant. One unit elaborates Behavior, another Ecology, a third Health. Not more than twenty pages treat Genetics, including maturation of the

gametes, mitosis, cleavage and eugenics. The authors include an excellent section on *Hobbies for Leisure Time*.

ALAN A. NATHANS

BROTHER H. CHARLES, F.S.C., *Biology*.

The Bruce Publishing Company. Milwaukee, 1939. 408 pp. \$1.72.

The Bruce Publishing Company has released a textbook superbly set up in almost every mechanical phase. It is $5\frac{1}{2} \times 8\frac{1}{2}$ inches with a blue-orange pebbled-finish cover. The text has a sturdy serviceable binding. The typography represents an extreme high in sharpness, readability and workmanship. The excellence of the typography is further enhanced by a high gloss carefully selected paper stock. The halftones and line cuts are well executed and carefully labeled. The book has the imprimatur of the Catholic Church.

This book, according to the preface, is to serve as a textbook of biology for Catholic high schools. Its most significant departure from the usual textbook type in science, is its close coordination between Catholic doctrine and science. While it does not moralize or indoctrinate, it emphasizes the relationship "Between God, man, and the other creatures." It offers the pupils two incentives for proper living—the natural and the divine. In controversial subjects such as evolution, it explains what Catholics may or may not believe. How desirable such a combination is in a science text is a moot question.

Brother H. Charles has stated in the preface that his purpose is to have students acquire an abiding interest in living things, to have respect for life and a disposition to protect and preserve it, to possess a desire to contribute to the betterment of what is faulty and undesirable in the environment in which they live, and to grow closer to the Divine

Author and Preserver of the life about them. That the author's purpose is constantly developed is quite evident throughout the book.

The factual material is more accurate than is usually found in first editions. The text includes thirty-three chapters following the traditional sequence rather than a unit idea plan of organization. Some of the chapter headings are: The Balance in Nature, The Cell, Man's System for Motion, Food, Anatomy and Hygiene of Our Digestive System, Our Circulation, The Regulation of Body Functions, Reproduction in Plants, Disease and Its Control, Variation and Heredity. A large part of the book is devoted to health and its preservation. Fifteen chapters of the thirty-three are specifically concerned with man.

Teacher helps and learning exercises are limited to a series of traditional end-of-chapter questions, a complete glossary including derivations of terms, and an adequate index. The labeling of the pictures, charts, and drawings is of unquestioned value. A Laboratory Manual and Teacher's Handbook are obtainable from the publisher.

Viewing the textbook in the light of present-day tendencies in science teaching and textbook construction one notes certain deficiencies. Compared with other biology books that have appeared during the last decade this book has around thirty per cent less material. The academic material is presented without consideration of problem solving procedures.

ALAN A. NATHANS (*Chairman*)

ROBERT S. TOLLE

I. T. McDUFFIE

STUART, RICHARD R. *The Anatomy of the Bull Frog*. Denoyer-Geppert Company. (Planographed.) Chicago, Illinois, 1939. 30 pp. \$50.

In his foreword, the author says that "this book was designed to meet a definite need for visual aid in the study of frog anatomy." It might be added—and an aid to the study of high school zoology.

Unlike many textbook drawings, those found in this manual of 30 pages are large and easily understood. The clearness and simplicity of these drawings compare more than favorably with the high school textbooks.

The drawings are large enough to be serviceable for individual pupil work, or, as in the teacher's case, to be thrown on a screen via the opaque projector.

It is suggested that these drawings combined with some simplified laboratory manual would satisfy most reasonable needs arising from the study of zoology in the high schools.

WM. T. ROGERS

STILES, KARL A. *Handbook of Microscopic Characteristics of Tissues and Organs*. The Blakiston Company. 1940. \$1.50.

A successful attempt to give the fundamentals of histology in an abbreviated form. The subject matter is treated in outline systematically and logically. There is a summation of the subject matter in tabular form at the close of the discussion of each division of tissues. The use of different sizes of type and the underlining of statements to indicate the relative importance of each division is commendable. It is fortunate and timely that the descriptions are based mainly upon tissues stained in hematoxylin and eosin, since such material is most likely to be available in general routine courses in biology. The handbook should be a time saver as a reference book for teachers of biology in secondary schools and junior colleges.

CLAUDE LEIST,

*Kansas State Teachers College,
Pittsburg, Kansas*