CUTHBERT, MABEL JAQUES. *How to Know the Spring Flowers.* William C. Brown Co., Dubuque, Iowa. 168 pp. 1943. Spiral binding, $1.50; cloth binding, $2.50.

This volume of the Pictured-Key Nature Book Series is a key for determining the more common spring flowers. It also has many suggestions and aids for their study. There are over three hundred fifty species listed and briefly described. Three hundred eighty-one drawings including the habit sketch, the enlarged flower, and other distinguishing features are given for the species described in the keys. Common names as well as scientific names are given. A check list of species in their logical order by families is included in the back of the book. There is an index and illustrated glossary. Eighteen pages of interesting topics such as (1) Plant Parts and What They Do, (2) Suggestions for Plant Projects, and (3) How to Make a Herbarium are also for the user's reference and enjoyment. Types of inflorescence, flower parts, leaf shapes, and arrangements are illustrated.

This book is especially recommended for the non-professional nature lover as well as the botanist's field guide.

LOREN W. MENTZER,
University of Nebraska,
Lincoln, Nebraska

COKER, R. E. *The Great and Wide Sea.* The University of North Carolina Press, Chapel Hill. xvii + 325 pp. 91 plates. 1947. $5.00.

The author, a teacher of aquatic biology, has briefly and concisely, but not too technically presented natural phenomena characteristic of the sea as an environment for living organisms. He has drawn freely from the literature, using materials from authoritative sources, and has correlated the historical geographical, geological, physical, chemical and geological interrelationships in such a manner as to be comprehensible for the average reader. A reader consulting the original papers would be obliged to spend many months searching to obtain the information summarized in this brief volume.

The book is divided into three parts: (I) History and Geography, (II) Chemistry and

Physics, and (III) Life in the Sea. In part one the history of oceanography in the United States and Canada, the interrelationships of the ocean depths and topographies and of the sea and land are discussed. Part two considers the sea as a solution, its physical and chemical properties, its bottom deposits, its motion, and its relation to solar radiation. The general life of the sea, plankton, benthos and nekton, and their relations to each other in such a dynamic body as the sea are enumerated in part three.

Each chapter is concluded with a brief summary in which the important aspects of the chapter are enumerated. Importance is placed upon common names of organisms with the scientific names occurring parenthetically. Illustrations are numerous and function to show the equipment, methods and techniques utilized by the various oceanographic stations. There is an index and a selected bibliography, that add materially to the value of the book. The extreme ease with which the book reads makes it valuable for both the technical and nontechnical reader. The biology teacher should find the book an asset to his library and an extremely reliable source for principles of aquatic biology presented in an unusually interesting manner.

TED F. ANDREWS,
Franz Theodore Stone Laboratory,
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HOGBEN, LANCELOT. *An Introduction to Mathematical Genetics.* W. W. Norton & Co., New York. xii + 260 pp. 1946. $5.00.

In a brief Foreword the author of this book states his aim, as follows: "Since the pioneer work of Jennings on systems of mating, there has been a steady output of publications elucidating the statistical implications of the theory of the gene. Theoretical investigations of this sort have practical applications in agriculture and furnish the only satisfactory basis for a scientific approach to the problems of human inheritance. So they are of general interest to all students of genetics. To many students of genetics the original sources are still a closed book, because the mathematical reasoning relies on

methods which have as yet no place in the early stages of mathematical teaching. This volume aims at making some of the outstanding results of mathematical genetics intelligible to readers who need assistance before they can consult the original publications with profit and understanding. It is based on a course of lectures delivered to postgraduate students in the Genetics Department of the University of Wisconsin in the winter of 1940."

The headings of the eight chapters and the two appendices follow: Gene frequencies, genotypic frequencies, and systems of mating; Basic types of algebraic series in genetical theory; First steps in the calculus of finite differences; Binomial series; Non-assortative mating in the absence of selection or mutation; Selection; Assortative mating and consanguinity; Mutation pressure and isolate effects; Significance tests for Mendelian ratios; The estimation of linkage and determination of variance formulas for gene-frequency analysis by the method of maximum likelihood.

A knowledge of the fundamentals of genetics is assumed. The book consists primarily in the derivation of mathematical equations for certain genetic principles. It will, no doubt, be useful chiefly to professional geneticists and to graduate students in genetics. Many of the sections are followed by lists of problems. There is an Index. The paper, printing, and binding are of good quality.

EDWARD C. COLIN,
Chicago Teachers College,
Chicago, Illinois

BENNETT, HUGH HAMMOND. *Elements of Soil Conservation.* 1st ed. McGraw-Hill Book Company, Inc., New York. x + 406 pp. illus. 1947. $3.20.

A book like this should be in use rather continuously, not just during a brief unit on conservation. Here are a few suggestions which may help keep dust off its covers—dust from the fields of Texas:

1. Raise the question of "mining the subsoil" as a source of plant nutrients. On a field trip collect in flower pots matched samples of topsoil and subsoil for comparing the growth of corn or oats seedlings; note also the effect of drying on the samples. Use Elements of

NOTICE TO CONTRIBUTORS

Manuscripts for publication in THE AMERICAN BIOLOGY TEACHER should be typewritten, on one side only, on standard white paper, $8\frac{1}{2} \times 11$ inch size, with a margin of at least an inch on all sides. The writer should keep a carbon copy for reference and as insurance against loss of the original in transit.

Articles are scheduled for publication in approximately the order of acceptance of the manuscripts. Generally the journal is tentatively arranged about three or four issues ahead, and there are under consideration at any time enough manuscripts for about two or three more issues. Some space is of course allowed for news items and articles of a seasonal nature. On the average, a manuscript submitted this month may expect to find its way into print, if it is accepted promptly, in about February or March. Many seasonal papers have to be postponed an entire year, simply because the author has not allowed the necessary four to six months that intervenes between acceptance and publication.

For details concerning titling, headings, references, illustrations, etc., consult *Preparation of Manuscripts for Publication,* which appeared in the October, 1943, issue of THE AMERICAN BIOLOGY TEACHER. A limited number of reprints is still available; copies may be obtained from the editor.

Manuscripts may be sent to the editor-in-chief or to any one of the associate editors. A complete list of the latter appears in each October and February issue.