

Alfred Russel Wallace is an important figure in the history of biological science. He deserves more recognition for his contributions. A good, sympathetic but objective biography for the general reader is needed, but I cannot recommend Brackman's book to fill this need.

John M. Hamilton
Park College
Parkville, Missouri

Genetics

FROM DNA TO PROTEIN: THE TRANSFER OF GENETIC INFORMATION

by Maria Szekely. 1980. Halsted Press (603 Third Avenue, New York 10016). 284 p. \$35.95.

This book will be useful for advanced undergraduates and graduate students, teachers, and others who have a good background in cell biology or biochemistry. It lives up to its title in presenting a current view of this interesting and important field. The introduction provides a clear, brief statement of what is now the classical view of the DNA-to-protein aspects of molecular biology: the DNA double helix; the messenger; the Central Dogma; the code; and translation. Subsequent chapters usually have an introductory section that eases one into the material. This chapter is followed by a carefully documented updating of information and concepts.

The titles of the three parts—"The Genetic Material," "The Transcript," and "The Synthesis of Proteins,"—provide a general indication of the coverage. Topics include gene structure and organization, DNA structure and

replication, transcription, determinations of DNA sequences, the nature of m-RNA, the ribosome, t-RNA and decoding, and translation.

The author presents a quite complex and rapidly developing field in a lucid form, augmented by clear and informative illustrations. The references, some as recent as 1979, are helpful.

The book is well printed and attractively arranged. There are very few typographic errors. (The first two lines of p. 26 are the most confusing as they duplicate part of the previous sentence.)

I highly recommend this book for those who have adequate backgrounds. For others, it will be quite difficult.

John A. Freeman
Winthrop College
Rock Hill, South Carolina

General Biology

MOLECULES TO LIVING CELLS: READINGS FROM SCIENTIFIC AMERICAN

1980. W.H. Freeman and Company (660 Market Street, San Francisco, 94104). 340 p. \$19.95 hardback, \$9.25 softback.

This compilation of 26 articles from *Scientific American* provides an excellent coverage of recent advances in our understanding of molecular biology and provides the reader with a historical perspective of the discovery of these ideas. Most of the articles are also available as separate offprints from the publisher.

The volume is organized into five sections, each introduced with background information and the rationale for the selection of those articles. Section I

develops the origin of the biomolecules and properties of cells. This leads to a section on protein structure and the regulation of life processes by enzymes. The nature of viruses and their assembly are included. Section III describes membrane structure and its importance within mitochondria and chloroplasts in respiration and photosynthesis. Both of the last two sections focus on nucleic acid and molecular genetics. They provide current models for protein synthesis and gene expression. Topics such as gene mutation induced by carcinogens, alterations in DNA following viral infection, and the mechanism of genetic engineering are included.

Molecules to Living Cells provides enrichment material for advanced secondary students or supplements college textbooks. The articles vary in their level of difficulty. Biology teachers who have not recently had a course in biochemistry will benefit from this collection of articles, and they will be better able to incorporate new information into their present curriculum.

Jane E. Mazur
Pikesville Senior High School
Baltimore, Maryland

Books Received

THE OSTOMY BOOK: LIVING COMFORTABLY WITH COLOSTOMIES, ILEOSTOMIES, AND UROSTOMIES, by Barbara Dorr Mullen and Kerry Anne McGinn. 1980. Bull Publishing Company, Palo Alto, California. 236 p. \$7.95.

WILDLIFE HABITATS IN MANAGED FORESTS, by J.W. Thomas, 1979. United States Department of Agriculture, Washington, D.C. 512 p. Price not given.

SOURCE BOOK OF PROJECTS SCIENCE EDUCATION DEVELOPMENT AND RESEARCH, Fiscal Year 1979 With References to Earlier Years, by National Science Foundation, Washington, D.C. 155 p. Price not given.

GRADUATES OF HIGHER EDUCATION IN THE FOOD AND AGRICULTURE SCIENCES: AN ANALYSIS OF SUPPLY/DEMAND RELATIONSHIPS, Volume I, Agriculture, Natural Resources, and Veterinary Medicine, by Kyle Jane Coulter and Marge Stanton. 1980. United States Department of Agriculture, Washington, D.C. 194 p. Price not given.



CONNECTICUT VALLEY BIOLOGICAL SUPPLY CO., INC.

A SUPPLIER OF QUALITY BIOLOGICAL MATERIALS
SINCE 1946

Including...

■ MICROSCOPES	■ LIVING & PRESERVED SPECIMENS
■ MODELS	■ PREPARED MICROSCOPES SLIDES
■ SKELETONS	

— FAST DELIVERY GUARANTEED —

TOLL FREE **1-800-628-7748**
1-800-282-7757 Massachusetts

P.O. BOX 326 • SOUTHAMPTON, MA 01073

A GUIDE TO WILDFLOWERS OF THE MID-SOUTH, by A.I. Smith, 1979. Memphis State University Press, Tennessee. 270 p. Price not given.

HANDBOOK OF CELLULAR CHEMISTRY, by A. Cohen, 1979. The C.V. Mosby Company, St. Louis, Missouri. 220 p. \$9.50.

YOUR BODY IS TRYING TO TELL YOU SOMETHING: HOW TO UNDERSTAND ITS SIGNALS AND RESPOND TO ITS NEEDS, by Richard Stiller. 1979. Harcourt Brace Jovanovich, New York. 128 p. \$6.95.

PRACTICAL MATHEMATICS IN ALLIED HEALTH: A TEXTBOOK FOR THE MEDICAL DISCIPLINES, by Marian Waterhouse. 1979. Urban and Schwarzenberg, Inc., Baltimore, Maryland. 243 p. \$15.95.

CHANCE OR DESIGN?, by James E. Horgan. 1979. Philosophical Library, Inc., New York. 233 p. \$13.95.

STRUCTURE AND FUNCTION OF BIOMEMBRANES, by K. Yagi. 1979. Japan Scientific Societies Press, Tokyo. 244 p. \$46.00.

PRINCIPLES OF GENE MANIPULATION: AN INTRODUCTION TO GENETIC ENGINEERING (Studies in Microbiology, Volume 2), by R.W. Old and S.B. Primrose. 1980. 147 p. \$12.75.

VOLCANO: THE ERUPTION OF MOUNT ST. HELENS, by the staff of the Daily News of Longview and the Journal-American of Bellevue. 1980. Madrona Publishers, Inc., Seattle, Washington. 96 p. \$6.95.

BIOPHYSICAL CHEMISTRY, Part III, The Behavior of Biological Macromolecules, by Charles R. Cantor and Paul R. Schimmel. 1980. W.H. Freeman and Company, San Francisco, California. 525 p. \$21.95.

Coto Donana

... from p. 334

The Coto Donana is a long way from being a finished project. Much more land needs to be included in the reserve and more research needs to be applied to the problems of encroaching civilization. Such problems include human population growth, human obsession with land development, and human-caused biological disaster brought on by pesticides and other pollutants. However, the Coto Donana still represents a magnificent advance in nature's favor. Soon, the Coto's

highly spirited biologists may be able to evaluate their progress by following up their pilot efforts with this report:

We have good news. Continue to anticipate the return of your ducks to Denmark. We are saving the Coto Donana in Spain.

Resources for Further Study

DE BOROVCZENY, I. 1978. A fight to save ethereal Donana and its wildlife. *Smithsonian* 9:72.

LODER, D. 1972. *Spain, the land and people*. New York: J.B. Lippincott Company.

LONDAHL, K.C. 1964. *Europe, a natural history*. New York: Random House, Inc.

MICHENER, J.A. 1968. *Iberia*. New York: Random House, Inc.

UNITED STATES DEPARTMENT OF THE INTERIOR. 1976. *People and natural resources*. Washington, D.C.: Superintendent of Documents, Government Printing Office.

_____. 1978. *America's guardian of natural resources*. Washington, D.C.: Superintendent of Documents, Government Printing Office.

Ecology Model

... from p. 322

formation in the shortest time. This is analogous to the use of urinalysis or a blood test to determine overall body health.

Once students see how the biosphere interacts with the other spheres, they will understand how living things can provide useful information about the ecosystem as a whole. The presence or absence of a single living "indicator" species can often indicate the quality of the system without the need for scientific testing. For example, if stonefly or mayfly naiads are found in a stream ecosystem, it is an indication of a healthy system; the absence of these species indicate just the opposite.

This model has been used by many teachers in elementary schools, high schools, and universities. The success and extent of its use depend largely on the imagination of the teacher. We would appreciate your comments on the use of this model in your classroom.

TURTOX

(successor to Macmillan Science Co.)

See new address and phone

Although shorter our name

Making quality slides

Employees the same

Courteous attention to your needs

Offering slides reasonably priced

Minimum order not required

Paying shipping on \$25.00 or more

Automatic 5% discount on pre-payment

Now at your service

You'll like us! Try us!

TURTOX

5000 W. 128th Place
Alsip, Illinois 60658
312/371-5500

GENETICS WITH THE COMPUTER

Thomas G. Luce

A series of eight computer-assisted instruction programs for a sophomore/junior-level genetics course.

Topics include:

1. Introduction to Mendelian Genetics
2. Chi-Square and Probability Testing
3. Introduction to Molecular Genetics
4. Inheritance Patterns
5. Crossover and Gene Mapping
6. Bacterial Transformation and Chromosome Mapping
7. Introduction to Statistical Methods
8. Introduction to Population Genetics

Written in BASIC, these tutorial, simulation, and drill and practice programs can play an important supplemental role in the teaching of genetics. The book contains complete program listings and sample runs plus background information. Programs, for use with TRS-80 Level II and Apple II, are cross referenced to commonly used texts.

ISBN 87567-976-8

200 pp.

\$14.95

Send for FREE 16-page catalog listing over 100 computer books and programs of special interest to educators.

ENTELEK
Dept. BT The Hill/POB 1303
Ward-Whidden House Portsmouth, NH 03801
Please send me...

"Genetics with the Computer"

Enclosed is CHECK MONEY ORDER

Please charge to my MASTERCHARGE

VISA Card No. _____

Exp. Date _____ Bank No. (MC only) _____

Signature _____

Name _____

Organization _____

Street Address _____

City & State _____ Zip _____