

Audiovisual Reviews

THE MARINE BIOLOGIST

Encyclopaedia Britannica Educational Corporation (425 North Michigan Avenue, Chicago, Illinois 60611). 16 mm color-sound film. 14 minutes. Purchase \$185; rental \$12.

In this exciting age of exploration of the sea, *The Marine Biologist* presents the tremendous opportunities for increasing human knowledge of the environment and understanding the properties of all life forms. The marine scientist combines intellectual curiosity with outdoor activity to research the relationship of plants and animals to their surroundings. Teachers and students work with scientists to sample plankton and collect animals brought up from the sea floor. The research vessel, a floating laboratory, combines the varied techniques of observation and measurement. Observing the feeding habits of starfish illustrates the process of defining a problem and collecting data from which conclusions may be drawn.

Some of the most exciting endeavors in marine research have evolved from biochemistry and biophysics. The film presents projects involving blood filtration in the kidney of the octopus, membrane changes in developing sea urchin eggs, and the nature of contraction in the sea squirt heart. The viewer can readily appreciate the application of this information to medical research and gain insight into how scientists conduct their work.

Appropriate for junior and senior high school students, this film combines career information and problem solving to stimulate high interest in students. Included also are questions for discussion, key words, and a film narrative guide.

Jane E. Mazur
Pikesville Senior High School
Baltimore, Maryland

WHO STOLE THE QUIET DAY?

1976. Alfred Higgins Productions, Inc. (9100 Sunset Boulevard, Los Angeles, California 90069). 16 mm color-sound film. 15½ minutes. Purchase \$225; rental \$22.

Produced under the direction of the audiology clinic at the University of Cali-

fornia, this film uses animated drawings and graphs to present facts about hearing and hearing loss. Excellent sequences showing testing in audiology laboratories allow students to observe testing procedures and results, and to relate such findings to practical situations. The film also explains the reported effects of noise pollution on the functioning of other body systems.

I found this an extremely worthwhile film. Some of my students judged the presentation "up-to-date" and "modern." Some students felt that too little information was pulled from the graphs to be relevant to the themes of the film.

The accompanying study guide adequately outlines the film and supplies a list of questions for classroom discussion. Designed for viewing in the seventh, eighth, or ninth grade, the film may be used in higher grade levels with low ability students enrolled in biology or health classes.

Jim Schuth
Lewis-Palmer Middle School
Monument, Colorado

TOAST

1974. Earth Chronicles (c/o Bullfrog Films, Oley, Pennsylvania 19547). 16 mm color-sound film. 12 minutes. Purchase \$180; rental \$18.

Our daily toast represents the end-product of an energy intensive process. If

Faith Hickman, Audiovisuals Editor, selects materials and coordinates the review process for this feature. Catherine Marble is her assistant. Their continuing contribution to the journal is deeply appreciated.

Readers interested in becoming audiovisual reviewers are invited to write to Ms. Hickman. General inquiries on this feature should also be addressed directly to her at:

Post Office Box 930
Boulder, Colorado 80306

it takes ten units of energy to bring ten units of energy to the point of use, then there is no net energy profit. The film starts by asking the viewer to consider the energy required to produce a single slice of toast.

In sequence, the film events represented are: oil from the ground, oil tanker, pipes, oil refinery, pipes, fertilizer, planting wheat, growth, harvest, wheels, dough, bread-making, shelving, purchase, toaster, and finally garbage. These scenes are accompanied solely by an unusual soundtrack ranging from banjo to electronic synthesizer. The photography is quite artistic with halo lens effects and unusual camera angles.

An excellent study guide presents details of the number of bread slices used for each step of the process. A prior understanding of the energy relationships in nature and the use of the study guide increase the value of this abstract film.

Arlene H. Chin
Sunset High School
Hayward, California

HOMEOSTASIS: MAINTAINING THE STABILITY OF LIFE

1977. Science and Mankind, Inc. (Two Holland Avenue, White Plains, New York 10603). Two sets, each consisting of 80 color slides, cassette, and long-playing record. 18 minutes each. Purchase \$114.50.

The material is in two units. The first deals with the mechanisms that maintain equilibrium of temperature, glucose, and water in both plants and animals. The second is concerned with the maintenance of dynamic equilibrium in populations. The method of presentation and depth of coverage are suitable for high school and introductory college biology courses.

Certain aspects of homeostasis are explained in a simple, easy-to-understand style. There is a tendency to oversimplify some of the material, particularly in the sections on temperature and glucose balance in individual organisms. It is not stressed that most, if not all, homeostatic adjustments are the result of actions by several systems. Errors are made by omission. For example, control of blood-

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opteran?" The only alternative, of course, is to change the order of coverage, which would not detract from the value of this neat little book.

Fred A. Lawson
University of Wyoming
Laramie

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glucose level is presented as solely dependent on a glucose to glycogen shift, instead of on the complex process involving the pancreas, adrenals, hypothalamus, and pituitary—in addition to skeletal muscles and kidneys. Also, temperature regulation is considered in cold-blooded and warm-blooded animals but is ignored in the large group of vertebrates—the heterotherms—whose temperature regulation falls somewhere between these two groups.

The section on population control is well done. It presents an overall view of adjustment to change and of the effects on a total population of a change in one component of the population. It contains ten examples of dynamics in plant, invertebrate, and vertebrate populations.

Both audio and visual portions are presented in a clear, concise manner. Two experts in the field serve as narrators. This approach adds to the attractiveness of the material, but tends to give a deceptive aura of completeness and depth of coverage. The program can best be used as an introduction to some of the aspects of homeostasis, rather than a complete unit. The Teacher's Guide suggests means of providing students with a more in-depth examination of homeostasis. The guide includes a list of relatively good proposed investigations and activities and a workable bibliography.

William J. Brett
Indiana State University
Terre Haute

BOOKS RECEIVED

STATISTICS FOR EXPERIMENTS, by George E. P. Box, William G. Hunter, and J. Stuart Hunter. 1978. John Wiley and Sons, New York. 652 p. \$23.95.

INSECTS AND OTHER ARTHROPODS OF MEDICAL IMPORTANCE, by Kenneth G. V. Smith, ed. 1973. John Wiley and Sons, Somerset, New Jersey. 561 p. \$36.

ANCIENT NATIVE AMERICANS, by Jesse D. Jennings, ed. 1978. W. H. Freeman and Company, San Francisco, California. 660 p. \$24.50 hardback; \$19.95 softback.

INDEX

The Index, which normally appears in the December issue of *ABT*, will appear in the center pages of the January issue. The index will be arranged so that it may be removed and filed or bound with volume 40 without disturbing the articles in the January issue. Subscribers who require a separate copy of the index may request it from the editorial office.

The address is:
American Biology Teacher
N.V.C.C.
3001 Beauregard Street
Alexandria, Virginia 22311

THE GULF OF MAINE, by Patrick W. Grace. 1977. The Stephen Greene Press, Brattleboro, Vermont. 150 p. Price not given.

CELLULAR DEGRADATIVE PROCESSES, by R. J. Dean. 1978. John Wiley and Sons, New York. 80 p. \$3.95.

THE PENETRATING BEAM, by Edith M. Levin. 1978. Richard Rosen Press, Inc., New York. 116 p. \$7.97.

INTRODUCTION TO WORLD VEGETATION, by A. S. Collinson. 1977. Allen and Unwin, London. 200 p. Price not given.

HOW TO DISSECT, by William Berman. 1978. Arco Publishing Company, Inc., New York. 128 p. \$3.25 softback; \$6.95 hardback.

INTEGRATION AND COORDINATION OF METABOLIC PROCESSES, by J. H. U. Brown. Van Nostrand Reinhold, New York. 236 p. \$15.95.

EXPLORING THE PLANETS, by Jonathan Rutland. 1978. Franklin-Watts, Inc., New York. 24 p. \$2.95.

EXPLORING ANIMAL JOURNEYS, by Theodore Rowland-Entwistle. 1978. Franklin-Watts, Inc., New York. 24 p. \$2.95.

FUNDAMENTALS OF ENTOMOLOGY AND PLANT PATHOLOGY, by Louis Pyenson. 1978. AVI Publishing Company, Westport, Connecticut. 326 p. \$19.

A TUTORIAL GUIDE TO INSECT ORDERS (ADULTS) by H. S. Dashesky and J. G. Stoffolono. 1977. Burgess Publishing Company, Minneapolis, Minnesota. 57 p. Price not given.

A CLOSER LOOK AT WHALES AND DOLPHINS, by Bernard Stonehouse. 1978. Franklin-Watts, Inc., New York. 32 p. \$5.90.

A CLOSER LOOK AT JUNGLES, by Joyce Pope. 1978. Franklin-Watts, Inc., New York. 32 p. \$5.90.

A CLOSER LOOK AT PLANT LIFE, by Bernard Stonehouse. 1978. Franklin-Watts, Inc., New York. 32 p. \$5.90.

KEEPING INSECTS AS PETS, by Ross and Pat Olney. 1978. Franklin-Watts, Inc., New York. 72 p. \$4.90.

EXPLORING THE AGE OF DINOSAURS, by David Lambert. 1978. Franklin-Watts, Inc., New York. 24 p. \$2.95.

EXPLORING ANIMAL HOMES, Theodore Rowland-Entwistle. 1978. Franklin-Watts, Inc., New York. 24 p. \$2.95.

MOUNTAIN ADVENTURES, by Karl Lukan. 1978. Franklin-Watts, Inc., New York. 128 p. \$4.95.

WONDERS OF THE EARTH, by Ernst Bauer. 1978. Franklin-Watts, Inc., New York. 128 p. \$4.95.

COUNTRIES OF THE WORLD, by Keith Lyle. 1978. Franklin-Watts, Inc. 96 p. \$4.95.

INTRODUCTION TO HUMAN EVOLUTION, VOLUMES 1 AND 2, by John Wood. 1977. R. H. Lowie Museum of Anthropology, University of California, Berkeley. 16 p. and 14 p. Price not given.

VETERINARY CLINICAL PARASITOLOGY, by Margaret W. Sloss and Russell L. Kemp. 1978. Iowa State University Press, Ames, Iowa. 263 p. \$12.95.

BIOLOGY IN THE NINETEENTH CENTURY, by William Coleman. 1978. Cambridge University Press, New York. 187 p. \$13.95 hardback, \$5.95 softback.

PRINCIPLES AND TECHNIQUES OF ELECTRON MICROSCOPY, by M. A. Hayat, ed. 1978. Van Nostrand Reinhold, New York. 318 p. \$27.50.

INTRODUCTION TO COLLOID SCIENCE, by W. J. Popiel. 1978. Exposition Press, Inc., Hicksville, New York. 217 p. \$12.50.