



## 8mm Films for Teaching Biology

The quantity of "single concept" 8mm films available for purchase has increased considerably during the last three years. The February, 1965 source directory from Technicolor Corporation lists 157 film loops useful for teaching biology and many more are in production. Unfortunately, we cannot measure the effectiveness of any educational media by "quantities available" or enthusiasm of producers and distributors. But the cartridge loaded 8mm film has potential advantages over the longer 16mm film in reduced costs and ease of procurement and projection for both teacher and student.

Each of the following 8mm films is silent, under five minutes, and loaded in a cartridge and costs about \$15. Distributors are listed first and producers in parentheses. The number of cartridges available, if more than one, is listed after the title.

A number of short 8mm films is also available from foreign producers and distributors.

### Techniques

- Ealing Corporation (Thorne Films BSCS Series)
- Measuring Techniques (2)
  - Weighing Techniques (2)
  - Bacteriological Techniques (2)
  - Neurospora Techniques (2)
  - Smear and Squash Techniques (2)
  - Handling *Drosophila*
  - Culturing Slime Mold Plasmodium (2)
  - Removing Frog Pituitary
  - Paper Chromatography (3)
- Encyclopedia Britannica Films Inc.
- Blood Smear Preparation
  - Drosophila* Culture Media Preparation
  - Crossing *Drosophila*
  - Handling *Drosophila*

### Demonstrations

- Ealing (Thorne Film Norris and Allen Series)
- Frog Heartbeat (2)
  - Turtle Heart Neural Control (2)
  - Frog Skeletal Muscle Response
  - Work vs. Load: Frog Muscle
  - Hot Wire Technique: Chick Embryo

- Measuring Oxygen Consumption
- Estrous Cycle of Rat
- Histological Techniques
- Ealing, Modern Learning Aids (Iowa State University)
- Coleoptile Response in *Zea* (2)
- Photosynthetic Fixation of Carbon Dioxide (2)

### EBF

- Collecting Insects: Butterfly Net
- Collecting Insects: By Hand

### Anatomy and Dissection

Ealing Corporation (Indiana University, last 4 titles)

- Frog (10)
- Crayfish (6)
- Earthworm (4)
- Perch (6)
- Fetal Pig (8)

### EBF

- Frog (12)
- Circulation—The Flow of Blood
- The Heart in Action
- Breathing Movements

### Microbiology

#### Ealing

- Amoeba Proteus*
- Chlamydomonas Rheinhardtii* — Reproduction and Life Cycle
- Paramecium Aurelia* (2)
- Allogromia* Sp. Strain NF Lee
- Vorticella Campanula*
- Stentor Muelleri*
- Gyrodinium Mirabilis*
- Euglena Gracilis*
- Diffugia Corona*

Ealing, Modern Learning Aids (Iowa State University)

- Algal Syngamy—Isogamy in *Chlamydomonas*
- Algal Syngamy—Zygote Formation in *Pandorina*
- Algal Syngamy—Oogamy in *Oedogonium*
- Liberation of Zoospores in the Alga *Bacillaria*
- Liberation of Zoospores in the Alga *Oedogonium*
- Gamete Transfer in the Bryophytes: Splash Cup in Moss
- Gamete Transfer in the Bryophytes: Splash Platform in *Marchantia*

### EBF

- Mitosis: *Anamila* and Plant
- Cell Division: Mitosis

### Animal Behavior and Habitats

#### Ealing

- Black Widow Spider (3)
- Aphids (3)

Escape in Mammals  
 Courtship in Birds—Large Birds  
 Birds of Prey—Form and Flight  
 Sea Birds—Form and Flight  
 Water Birds—Specialized Feeding Habits  
 Shorebirds—Wading and Feeding Behavior  
 Introduction to North American Birds (4)  
 Life of the Herring Gull  
 How Animals Breathe—Fresh Water  
 Introduction to the Coral Reef  
 How Animals Move Underwater—  
 Marine Species (2)  
 Animal Partnerships—Coral Reef Species  
 Marine Predators—Competition for Food  
 Territorial Behavior—Fish  
 Honeybee—Swarming and Formation of Hive  
 Cecropia Moth Life History  
 Bald Eagle  
 Introduction to the Beaver  
 Snowshoe Rabbit  
 Horn-tail Wasp (3)  
 Ealing  
 Flowers and Trees—Bud to Blossom  
 Wards Natural Science Establishment Inc.  
 Bean Germination  
 Plant Responses  
 Flowers Opening

#### Elementary Biological Science

International Communications Foundation has  
 16 loops.

#### Addresses of Distributors

The Ealing Corporation, 2225 Massachusetts  
 Avenue, Cambridge, Massachusetts 02140.  
 Encyclopaedia Britannica Films Inc., 1150  
 Wilmette Avenue, Wilmette, Illinois 60091.  
 International Communications Foundation,  
 870 Monterey Pass Road, Monterey Park,  
 California.  
 Modern Learning Aids, 3 E. 54th Street, New  
 York, N. Y. 10022.  
 Wards Natural Science Establishment Inc.,  
 P.O. Box 1712, Rochester, N. Y. 14603.  
 Ealing film loops are also available from:  
 General Biological Supply House, Inc., 8200  
 South Hoyne Avenue, Chicago, Illinois  
 60620.

George Vuke  
 Audio-Visual Center  
 Indiana University

The number of highway deaths in 1964  
 soared to 48,000. In addition, according to a  
 survey by The Travelers Insurance Compa-  
 nies, 3,840,000 persons were injured.

## Book Reviews

*All unsigned reviews were made by editor.*

### General Biology

PRINCIPLES OF MODERN BIOLOGY, 4th Ed.,  
 Douglas Marsland, 723 pp., \$9.00, Holt,  
 Rinehart and Winston, Inc., New York, 1964.

This college text has a long and honorable  
 approach, having its roots in the well known  
 Plunkett text of 1929. It follows the "functional"  
 approach. But in this edition, radical changes  
 have been made. The illustrations have been im-  
 proved and many new ones added. However, the  
 chief change is the vastly increased proportion  
 of pages devoted to molecular biology—almost  
 one-third of the book and quite a bit welded into  
 the remainder. The diagrams are quite up to date,  
 indicating in the best modern way the biochemi-  
 cal aspects of biology teaching. Surveys of the  
 plants and animals are put into the back of the  
 book. The pitch of the book is quite high and  
 cannot be considered for a "low level" course.  
 It will make a fine text and excellent reference  
 book.

Throughout the book, there are many self-  
 tests, questions, extra readings, etc. In other  
 words, the end-matter of each chapter is quite  
 extensive and detailed. There is an extensive  
 glossary and descriptive listing of biographical  
 data of prominent biologists, past and present.

It is difficult to assess a text like this except  
 to say that it does follow the orthodox treatment  
 of biology as it has been known in the past thirty  
 years. The diagrams and illustrations leave much  
 to be desired, but the book is colorful, easy to  
 read, and should be inspected by the teacher  
 who wishes his biology course to follow a some-  
 what traditional form.

BIOLOGY, 2nd Ed., Alfred M. Elliott and Charles  
 Ray, Jr., 885 pp., \$8.50; Appleton Century  
 Crofts, New York, 1965.

This textbook was written for the general  
 biology course given at the college level. It is a  
 well integrated book, written in the traditional  
 style, but with a strong common theme through-  
 out—the evolutionary theory of life. The theme  
 is well chosen, since both the newest concepts in  
 biology as well as the important past concepts  
 can be given to the freshman student in a unified  
 fashion. The science of biology and the student's  
 own knowledge of the world have not been  
 separated, as frequently occurs when the physical  
 and chemical aspects of biological concepts are  
 the underlying themes in the introductory course.  
 The study of the science of life should have more  
 initial interest for the average student with this  
 approach, because the information the student  
 has already observed is presented alongside the