

General Biology

VIROLOGY

by Heinz Fraenkel-Conrat and Paul C. Kimball. 1982. Prentice-Hall, Inc. (Englewood Cliffs, NJ 07632). 406 p. \$32.95.

This textbook deals with viruses as biological entities, and not, as is often the case, simply as causative agents of diseases. The authors discuss animal, plant, and bacterial viruses in a systematic manner, progressing from the smallest and simplest to the largest and most complex. Consideration is first given to viruses that contain RNA as their genetic material, and then to DNA-containing viruses, since RNA may be in evolutionary terms the more primitive genetic material. Each family of viruses is discussed with respect to size, shape, composition, and replication cycle. Also discussed are the responses of host cells, organisms, and populations to viruses.

There are some weaknesses in the book. It is deficient with respect to the early history of virology. Concerning more recent history, there are some notable omissions, and some inclusions which do not merit the space given to them. Although the book gives some attention to the origin of viruses, and also provides an interesting argument for RNA (and not DNA) as the original form of genetic material, it lacks treatment of the evolution of viruses. Just as studies of viruses have made major contributions to the understanding of basic genetics, biochemistry, and biophysics, so the study of virus evolution, particularly that of influenza virus, is providing information on mechanisms of evolution in general.

The book is written in a straightforward manner, is highly readable, and the illustrations are pertinent and well presented. It is suitable for an undergraduate college course in general or introductory virology, and at that level there is a paucity of textbooks.

David Bardell
Kean College of New Jersey
Union, New Jersey

Zoology

FEEDING THE NEWBORN MAMMAL

by Elsie M. Widdowson. 1981. Carolina Biological Supply Company (Scientific Publication Division, Burlington, NC 27215). 32 p. \$2.00 soft-back.

BET

Board of Education and Training

of the
American Society for Microbiology

brings new vitality
to the
science classroom,
and new services
to science and
biology teachers...

□ **Bringing Life to Microbiology**

This newly revised teacher's manual provides 26 simple, workable exercises in microbiology for students

□ **Audio-Visual Programs**

Superb presentations on

- Basic Microbiology Techniques
- The Bacterial Cell
- Microbial Genetics, among others. Also, 1980 Audio-visual Resource Catalog, and 1983 Slide Catalog

□ **Career Information for Your Students**

- 1980 Directory of Colleges and Universities Granting Degrees in Microbiology
- Microbiology in Your Future
An interesting introduction to students who are exploring microbiology as a career path

□ **Topic Outlines in Microbiology**

Outlines for courses in:

- Introductory Microbiology
- Medical Microbiology
- Microbial Genetics
- Microbial Physiology

For further information on these publications and services, please contact: Director, Education

Board of Education and Training

American Society for Microbiology
1913 I Street, NW
Washington, DC 20006
202-833-9680

Widdowson has written a precise addition to the Oxford/Carolina Biology Readers. It's obvious that she is very knowledgeable in the areas of infant mammalian nutrition and physiology.

The main thrust of the monograph is the comparison of the development of various orders and families of mammals, along with their feeding requirements. However, those requirements are those which a parent, particularly a mother, can supply. The title might lead some to think this monograph would teach young people how to feed a pet mammal. Not so. A better title would be "Parental Feeding and Care of the Newborn Mammal."

The introduction does a solid job of discussing the functions of the kinds and amounts of fat found in various newborn mammals. The monograph contains an adequate number of good black-and-white illustrations. How many of us have seen young elephants, seals, or dolphins nursing?

Again, this monograph will not be useful for feeding your pet. However, it is a thorough presentation of infant mammalian nutritional needs and development.

Robert E. Holtz
Concordia College
St. Paul, Minnesota

Books Received

- DINOSAURS, by John H. Ostrom. 1981. Carolina Biological Supply Company, Burlington, NC, Carolina Biology Reader No. 98. 32 p. No price given.
- A BIOGRAPHICAL DICTIONARY OF SCIENTISTS, 3rd ed., by Trevor I. Williams (ed.). 1982. John Wiley & Sons, New York. 674 p. \$42.95.
- ENDOCRINOLOGY, by V.V. Potemkin (Arthur Aksenov, trans.). 1981. Mir Publishers, Moscow. 331 p. \$10.00.
- THE SPIT BUG WHO COULDN'T SPIT, by Penny Pollock. 1982. G.P. Putnam's Sons, New York. 48 p. \$6.99.
- SUPERSAURUS, by Francine Jacobs. 1982. G.P. Putnam's Sons, New York. 48 p. \$6.99.
- SUPPRESSIVE SOILS AND PLANT DISEASE, by R.W. Schneider (ed.). 1982. American Phytopathological Society, St. Paul, MN. 88 p. \$9.00 soft-back.
- BIOLOGY OF THE PLANT RUSTS: AN INTRODUCTION, by Larry J. Littlefield. 1981. Iowa State University Press, Ames. 103 p. \$15.95.