

# Book Reviews

## Botany

### INTRODUCTORY PHYCOLOGY

by F. R. Trainor. 1978. John Wiley and Sons, Inc. (One Wiley Drive, Somerset, New Jersey 08873). 525 p. \$18.95.

The title says "Introductory" and indeed this book is just that. It is designed for a beginning course in algal studies and perhaps that word could even be used in the title. Many so-called "Introductory" books actually go far beyond the introductory level; this textbook does not. For a beginning class the book should be an ideal tool. However, due to its lack of depth, it would have to be backed up by many other reference books to satisfy those who become physiologically hooked.

I am pleased to find taxonomy and classification downgraded (but, of course, not eliminated). This topic is adequately covered in chapter 16. There is so much more to write about and far too many textbooks devote a preponderance of space to this coverage. However, there is considerable emphasis on evolution, and one wonders if it is too much.

It was most heartening to me to find the following on p. 85: "Members of this group such as *Chlorella*, *Scenedesmus*, and *Chlorococcum* have been cultured in the laboratory for years. Is it possible that the choice of these organisms for laboratory studies has overemphasized their importance in nature?" This is a question which has bothered me for years. The style of straight-forward writing exemplified by the above quote makes the book very easy and a pleasure to read. The book is not dull.

Unless I missed it, there is no real discussion of the probable role and usefulness of algal sheaths. This could have included motility, food gathering, and symbiotic relationships, and would certainly have fit into the context of the book.

Reproductive figures are excellent, showing clearly what they are designed to exhibit. Also excellent are the choices of illustrations showing differences in organism types (varieties) that one can expect to encounter. I do not believe that I have seen this stressed in any other

book. Variations of the classical type can certainly puzzle the beginner. With all the fine photomicrographs surely available, it was a disappointment to find that Figs. 2.4 and 3.4 are the same, as well as Figs. 11.2 and 13.1.

I would suggest that chapter 5 on algal habitats and distribution is not detailed enough even for beginners. On the other hand, I found chapters 20 and 21 on the pros and cons of algae and algal culturing to be extremely good for an introductory book; these should be of real value to the book user.

Vocabulary is quite simple for a textbook making it easier for the student. Again, references must be sought for detailed technical information. The use of heavy dark type for major and minor headings enhances the book's usefulness and breaks up large blocks of printing. The index is also nicely designed using bold type for specific algal names. Many books use light italics print from which it is hard to discern names from topics.

In general, specific information is scanty. One feels as if juicy appetizers are constantly being offered without any main entrees. However, with this style, if the reader is at all interested, the book should certainly whet one's appetite. I found the book to be easy reading with a very positive and enlightening approach. It should be very useful for a beginning course, and I am pleased to include it on my bookshelf beside the many heavier (and much less readable) tomes.

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## Educational and Professional Concerns

### AAAS SCIENCE BOOK LIST SUPPLEMENT

by Kathryn Wolff and Jill Storey, eds. 1978. American Association for the Advancement of Science (1776 Massachusetts Avenue, N.W., Washington, D.C. 20036). 457 p. \$16.50.

This book extends the number of titles covered in the 3rd edition of the *AAAS Science Book List* from 1969 through 1977; 2,850 new books in mathematics, and the social, physical and biological

sciences are included. Each title is accompanied by a brief but clear paragraph describing content, style, and use. The statements are expertly condensed from critical reviews by authorities in the subject areas. So much is written each year that is helpful, indeed essential, to have such a reference. No one in these fields could possibly read but a few of the publications. The titles in this supplement have been selected from more than 30,000 science and technical books published during these years for junior and senior high students, college undergraduates, teachers, and general readers.

Within each subject matter category, the authors are the point of reference, and they are arranged alphabetically in heavy print. Cataloguing and purchasing information accompany the title. In some cases the information is supplied telling the level for the use of the book. This *Book List* would be even more valuable if similar statements had been made in each review.

There are two indexes for convenient reference: one for authors and one for title and subject. The *Supplement* is a valuable book not only for libraries but for department chairman and classroom teachers.

Clayton L. Farraday  
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### THE CANCER LADY: MAUD SLYE AND HER HEREDITY STUDIES

by J.J. McCoy. 1977. Thomas Nelson, Inc. (30 East 42nd Street, New York 10017). 191 p. \$6.95.

This is a story of courage and dedication: a biography that provides insight about cancer research at the turn of this century and one woman's efforts to shift a male-dominated scientific community towards a new idea that cancer susceptibility is inherited. It is a narrative that gives a view of emotions, frustrations, prejudices and triumphs associated with a world of research; and a profile of a scientist's love affair with her work and her experimental animals, mice. It offers a rare opportunity for young students to understand that hard work, long hours, dedication and self-discipline are important for a successful scientific career.

This book should be on the shelf of every biologist and the reading list of young scientists. Science history buffs also will want to read this well-researched biography of Maud Slye.

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### Related Fields

#### SCIENCE OF THE TIMES, 1, A NEW YORK TIMES SURVEY

by Leslie Parr, ed. 1978. Arno Press Inc., New York Times Book Company. (3 Park Avenue, New York 10016). 344 p. \$14.95.

This book is a review of important scientific events and discoveries of 1977. Topics in aeronautics and space, environment, medicine, behavioral sciences, energy, archaeology, and biology are covered. The articles range from 3-13 pages apiece. About three-fourths of them would be of interest to biology teachers of their students. The writing levels are appropriate for high school students and the general public; however, college students might find some of the articles lacking sufficient detail.

Environmental issues such as water usage, endangered species, the impact of growing deserts, the Alaskan pipeline, and Barry Commoner's environmental philosophy are discussed. Other articles cover current research topics on Legionnaire's disease, the nucleotide sequence of a virus, and biological control of insects. Carl Sagan's witty article on exploration of the solar system is far superior to the other astronomy articles. The entire text is profusely illustrated, although a few illustrations seem inappropriate.

The only errors I detected were calling the Foraminifera snail-like insects (they are amoeboid protozoa); a definitive statement that the universe will expand forever (some astronomers believe that the universe may eventually contract); and a misleading statement about the number of amino acids in insulin (there are 51). The book ends with short biographic sketches of the 1977 Nobel Prize Winners in science along with a chronology of science events for the year. The chronology is a rambling list of exact dates, and would have been more useful had it been divided into topical areas.

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### Zoology

#### THE VERTEBRATE BODY—THE SHORTER VERSION

by Alfred Sherwood Romer and Thomas S. Parsons. 5th ed., 1978. W.B. Saunders Company (West Washington Square, Philadelphia 19105) 481 p. \$12.95.

This excellent textbook is based wholly upon the 601-page fifth edition of *The Vertebrate Body* by Romer. The 120 pages are saved by the exclusion of meticulous details, exceptions, and unusual cases, which are included in the Romer version. This was done, according to Parsons, to make the book more suitable for a one-semester course; but it diminishes the value of the book as a reference source. Parsons has retained all of the original illustrations, appendices, and introductory material from the Romer version, but has cut the body of the text roughly in half.

The last five chapters (117 pages) cover general anatomical material, evolution, histology and embryology of the vertebrates. The remaining 12 chapters deal with specific body systems and cavities. The book is pedagogically sound with a consistent format throughout the last 12 chapters. Each chapter discusses