

Book Reviews

Botany

THE MUSHROOM HUNTERS FIELD GUIDE

by Alexander H. Smith and Nancy Smith Weber. 1980. The University of Michigan Press (Ann Arbor, MI 48106). 316 p. \$14.95.

This is an excellent field guide for the introductory study of mycology because it is easy to read. The introduction, for example, explains the anatomy of mushrooms. It also describes when and where they can be found and covers identification and collection techniques. The authors state at the beginning of the guide that it can be useful throughout the United States and Canada, but it does not include all the species nor all the regions of the United States.

There are excellent taxonomic keys and a chapter on how to use them. The descriptions of the various species in the guide are easily followed, but the excellent color photographs make the process of taxonomy fairly simple for a beginner in the field of mycology. Another chapter in the guide has information on where selected mushrooms may be found according to season, edible mushrooms, mushrooms associated with certain trees, and microscopic characteristics. At the end of the guide is a glossary of the scientific terms used in the descriptions of the species discussed.

A bibliography is included for those individuals wishing to pursue the study of mycology further. Due to its size, the guide can be taken to the field; therefore, individuals can key out specimens on location. I, therefore, would highly recommend the guide to be included in secondary and college introductory mycology courses and as a reference book on secondary and college library shelves.

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TERRESTRIAL PLANT ECOLOGY

by Barbour, Burk, and Pitts. 1980. Benjamin/Cummings Publishing Co. (Menlo Park, CA 94025). 604 p. \$18.95.

This basic undergraduate text is divided into four sections: a historical overview of plant ecology; a section on the response of plant population to their environment (autecology); a section on synecology (community attributes); and a section on environmental factors such as light and soil. The information given in this text will provide students with an excellent overview of the topic of plant ecology. Numerous references are provided for the student interested in going to the original source of information (twenty-nine pages of literature cited). The various charts, tables, and photographs help to clarify the written material.

Instructors will find this book has adequate material for introductory courses; but because it is an overview of the topic, it does not provide in-depth coverage needed for advanced courses.

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Ecology and Environmental Biology

ENVIRONMENTAL SCIENCE: THE WAY THE WORLD WORKS

by Bernard J. Nebel, ed. assistance by Edward J. Kormondy. 1981. Prentice-Hall, Inc. (Englewood Cliffs, NJ 07632). 732 p. \$17.95.

This college-level textbook is designed primarily for nonscience majors. But it should appeal to science majors who wish to gain a broad and up-to-date background in this field, to lay people who might desire to become better informed about conservation and environ-

mental science, and to science-minded high school seniors.

The first paragraph of the Introduction serves to set the tone of the text:

One of the most valuable features of human intelligence is the ability to relate the past, present, and future. Looking back, we can see how one event has led to the next and how the present is a product of what has occurred in the past. Even more importantly, by recognizing how one event leads to another, we can extrapolate current trends and thereby gain some insight into what the future may be like. What can be foreseen for the next 10, 20, or more years?

Throughout the text, one is constantly reminded of this first paragraph as the author guides readers through past and present events, and suggests future events that we may all come to know, whether we like it or not.

The book is well organized. Each chapter begins with necessary background and helps students understand basic principles. It then continues to build on these principles in a logical manner that leads to an understanding of complex environmental issues and concerns. A concept framework at the beginning of each chapter focuses on specific learning objectives. An up-to-date list of suggested readings follows each chapter.

Major chapter topics are: "Ecosystems Defined;" "Ecosystems In and Out of Balance;" "Atoms, Nutrients, and Cycles;" "Soil, Ecosystems, and Agriculture;" "The Water Cycle and Human Activities;" "Domestic Wastes;" "Industrial Wastes;" "Pests and Pest Control;" "Resources;" "Land Use;" "Energy;" and "Population." Each chapter is broken down into numerous titles and subtitles.

The author deals with many controversial environmental problems with refreshing clarity and lack of bias. Among these are industrial growth and air pollution, lack of population control and overpopulation, energy supply and demand, killing of predators and overgrazing by wildlife, clearcutting and selective cutting of forests, water consumption and shortage, nuclear energy, waste disposal, and safety.