

in detail in this chapter. Chapter 10 discusses control of protein and nucleic acid synthesis. The section on genetic studies with the tumour viruses is fascinating.

The text is written clearly and knowledgeably which makes this an interesting readable book. The author has updated the material and included important recent developments in molecular biology. The text is suitable for introductory undergraduate courses in cell biology and molecular biology. It can also be used as a supplementary reading book in introductory biology, biochemistry and genetics courses.

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Ecology and Environmental Biology

INTERDISCIPLINARY ENVIRONMENTAL APPROACHES, ed. by A. E. Utton and D. H. Henning. 1974. Educational Media Press, Costa Mesa, Calif. 256 p. \$8.95 softback.

The National Environmental Policy Act of 1970 requires that all agencies of the federal government utilize a systematic interdisciplinary approach that will ensure the integrated use of the natural and social sciences and the environmental design arts in planning and decision-making that may have an impact on the environment. Efforts to meet that requirement should be aided by this work. In listing the special features of the book, the publishers point out that it presents the largest collection of environmental theory by disciplines to be found under one cover, contains essays designed specifically for this project rather than reprinted articles, emphasizes the theme of resource rehabilitation, and contains suggestions toward environmental planning in over 20 academically related areas.

The average student or teacher of high school biology will not find this work easy to read, but the more than adequate credentials of the editors and authors indicate that this may serve as a useful reference.

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EXPERIMENTAL MARINE BIOLOGY, ed. by Richard Mariscal. 1974. Academic Press, New York. 377 p. \$18.50 hardback.

This book will be of the most value to the collegiate community. However, the secondary school teacher will find the first chapter, which delves deeply into the establishment of closed system marine aquariums, very helpful. The

text is divided into seven chapters, each one a complete unit produced by independent contributors. Except for the first chapter, there is no interdependence among the other chapters, each one being applicable to special investigative procedures. These sections cover a broad spectrum of experimental approaches. Several of the chapters would of necessity be limited to schools in coastal areas (for example chapter 2 "Field experiments in marine ecology" and chapter 3 "In situ approach to marine behavioral research"), but this should not deter other colleges from the purchase of the book since the remaining chapters cover comparative physiology; comparative endocrinology; comparative biochemistry; toxicology; and developmental biology (the latter dealing in part with algae).

If the funds are available to follow the thorough installation and maintenance instructions of chapter one, the inland university would have a welcome opportunity to contribute to the burgeoning field of marine biology. Very few, if any, secondary schools would have either the money or the equipment necessary for most of the experimental work.

This is an interesting compendium of the various areas of experimental marine work ranging from miniaturized electronic tracking to scanning electron microscope studies. Probably the greatest general value of the book would be the extensive (8-14 pages per chapter) bibliography at the end of each chapter. Although interesting to the general reader in the field, the book is intended primarily for the serious researcher.

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WILDERNESS AREAS OF NORTH AMERICA, by Ann and Myron Sutton. 1974. Funk & Wagnalls, New York. 394 p. \$10.00 hardback.

Every individual who enjoys the out-of-doors without the internal combustion engine should own this book. The authors have attempted to catalogue and describe areas in North America where outdoor enthusiasts can participate in a wilderness experience through climbing, backpacking, hiking, canoeing, or cross-country skiing. The 500 areas are scattered from the Arctic Circle to Panama and include swamp, forest, desert, tundra, prairie, and ocean floor.

The descriptions are concise, averaging less than a page, and include information not readily available from other sources. Plant and animal species for which the area is noted are given, along with references to the geology and climate. Hazards that may be encountered and special equipment that will be needed are also listed. Because the areas range from national parks to

private lands, regulations and restrictions for use of the sites are described. Towns where tourist accommodations may be found are named and the mileage to each is given.

The average reader will not wish to read this book from cover to cover but will use it as a reference. If, however, he does choose to read it in its entirety, he will come away with the feeling that there is hope for the preservation of wilderness experiences for posterity. If he wishes to keep track of the areas he must see before he dies he will find, by being very selective, that he might complete the list if he lives to be 153.

It is obvious that the authors could not collect all of the information personally, but the information from these areas has been verified by local authorities. The continuity is good, and in the accounts actually experienced by the authors a feeling for the environment seems to leap from the pages.

The book is organized according to geographic regions with a crude map of each at the beginning of the specific section. The index, organized according to the names of the wilderness area, is complete, but no subject index is included. There are 88 black-and-white pictures of the areas and species described.

The most valuable gem of information in all but a few accounts is the address from which maps and more information can be obtained. There have been times when I would have given twice the price of this book for just one of these addresses.

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PEST CONTROL, by Arthur Woods. 1974. Halsted Press, New York. 409 p. \$29.50 hardback.

Although arthropod pests are emphasized, essentially all known agricultural and health-related pest groups, from viruses to vertebrates, are considered in this comprehensive treatise. The ecology of pest species is covered very nicely at the outset and most of text that follows is devoted to enumerating a multitude of control methods with a bit of history as well as the economic and ecological considerations of each method with respect to each pest group. Case histories are amply and appropriately interspersed in the text. More space is devoted to biological than chemical or other methods of control, but the last chapter presents a rather compelling argument for "integrated control"—the rational use of all the appropriate controls orchestrated in such a way as to effect maximum control with minimum economic or environmental stress.

The book is interesting and very well written but the general reader or non-specialized undergraduate would likely be discouraged in places by the tech-