One section deals with human attitudes and the tragedy of the commons, and addresses the question of *why* humans pollute.

The book is amply illustrated with useful graphs, charts, line drawings, and black-and-white photographs. Each illustration enhances the text to which it relates and aids in reader understanding.

I believe this book fills a serious void in curriculum materials for this level of study. Perhaps it should be in everyone's library.

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FIELD AND LABORATORY EXERCISES IN ECOLOGY

by Stephen D. Wratten and Gary L.A. Fry. 1980. University Park Press (233 East Redwood Street, Baltimore, MD 21202). 227 p. $29.50.

The aim of this book is to show how modern numerical techniques in plant and animal ecology can be used practically at the undergraduate college level to demonstrate many of the fundamental principles of the subject.

The 227-page softback written by two British ecologists consists of 56 dual exercises organized into five sections: Sampling, Spatial Pattern, Population, Population Interactions, and Community Analysis.

The exercises begin with a one- or two-page discussion of the principle to be illustrated. The first study of the pair of exercises is to be done in the laboratory, often as a simulation. The second study is designed to be done in the field. As an example, the title of dual exercise 3-4 is "The Effects of Quadrat Size." Exercise 3 is a lab study of "the effects of quadrat size on plant associations." It is done as a simulation. Exercise 4 is a field study on "the effect of the diameter of point quadrats on cover estimation in herbaceous vegetation."

The exercises are designed to take three hours or less in most cases. Extensive use is made of the mathematics of statistics. Some of the studies are relatively simple, but others are rather involved and would require extensive preparation by the instructor and/or lab assistant. Organisms suggested in the exercises all occur in Britain, but related species in other temperate regions can be substituted without affecting the fundamentals of the methods.

The text is clear, well written, and nicely organized. Simple line drawings, charts, and tables illustrate the text. There is no color. References and index are adequate.

Some of the exercises might be adapted for advanced biology courses on the secondary level, but most are suited for college plant or animal ecology courses.

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Evolution

DARWINIAN IMPACTS: AN INTRODUCTION TO THE DARWINIAN REVOLUTION

by David R. Oldroyd. 1980. Humanities Press (Atlantic Highlands, NJ 07716). 398 p. $12.75.

Recent litigation in the state of California regarding evolution and creation, which was suggested in the press as "being a victory for both sides" illustrates the timeliness of materials pertaining to Charles Darwin. While Oldroyd suggests that the "majority of Christians have finally come to terms with the evolutionary doctrine," it is obvious that controversy exists. Where then does this book fit into the materials already written about Darwin?

Darwinian Impacts was developed from materials Oldroyd has taught for years in the School of History and Philosophy of Science at the University of New South Wales. Covering 24 chapters, his writing is much in the format of classroom lectures and presents a very tight, scholarly, documented argument for each specific area being covered. The text itself is divided into three major sections: 1) Antecedents of Darwinism, 2) Darwinism, and 3) Consequences of Darwinism.

In tracing the antecedents of Darwin, Oldroyd leads the reader through chronological events in the emergence of theories of the origin of life. He purports to show relations and perhaps ultimate effect on the thinking of Darwin and his predecessors. Certainly, it is true that one better understands history when a conceptual frame is gained for the intellectual/scientific/historical environment that was present at the time that the theory pertaining to the origin of life was first presented.

The second section highlights Neo Lamarckian ideas with Darwin and the works of Wallace and Mendel. Oldroyd attempts an objective presentation as he continually utilizes negative replies to Darwin and how, in answering these comments, the theory of evolution continued to be clarified. Scientists often receive their information about evolution from classic studies but in a disjointed manner, thus this basic chronological approach permits the reader to amalgamate his/her own thinking with that of the giants of the era.

Part three is the longest section and presents the impact of Darwin. Interestingly, graphs and tables document the questions raised about evolution immediately after the publication and dissemination of Darwin's theory. Further, the consequences of Darwin and politics, theology, philosophy, psychology, anthropology, literature, and music are presented in separate chapters.

Darwinian Impacts can easily be read by both the evolutionist and the creationist; it will give each a better historical perspective on evolution. The evolutionist will be supported in his/her understanding and the creationist may find more questions to ask about evolution.

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EVOLUTION OF THE VERTEBRATES

by Edwin H. Colbert. 3rd ed., 1980. John Wiley & Sons, Inc. (One Wiley Drive, Somerset, NJ 08873). 510 p. $25.00.

The first edition of this contemporary classic was first published some 25 years ago. Developed as a concise summary of the generally accepted evolutionary relationships of the vertebrates, the 479 pages were readable and interesting. A second edition was released in 1969 that included updated information, new interpretations of the fossil record, and other minor changes. Although increased to 535 pages, the book retained the qualities so useful to the neophyte interested in vertebrate evolution.

The third edition has been developed in the aftermath of discoveries of fossil reptiles and amphibians in Antarctica. In addition, the modern theory of plate tectonics has gained stature. Colbert has updated *Evolution of the Vertebrates* to take these and other paleontologic advances into account. With the addition of new information, old and perhaps irrelevant discussions were excised. I wish to emphasize this point. A casual comparison of the new edition with the