

the primary reference. This feature, again, limits the utility of the volumes for original scientific research.

Some oddities in the volumes' production also were apparent. For example, both Volumes 1 and 2 have a bibliography (Volume 1 *is* a bibliography), but references in the much shorter bibliography of Volume 2 do not all appear in Volume 1. Others are not thoroughly cited. For example, Elsie Allen's work on Pomo basketmaking published by Naturegraph Publishers, Inc., is cited as the revised edition (1988) in Volume 2, but as the original, published in 1972, in Volume 1. I do not understand why, if these volumes represent a pair in which one is indispensable without the other, why the bibliographies are not combined. The illustrations by Emily Roeder are reasonable, but do not compare to those produced by the superb artists, such as Dr. L. Vorobik and E. Reid, who contributed to the *Jepson Manual*. To make more of an impact and thus enhance Volume 2, more illustrations would have been essential.

Overall, Beck and Strike have provided us with an indispensable compendium of aboriginal uses of our California plants, but due to the serious and unnecessary shortcomings mentioned in this review, the two volumes are not as immediately useful nor accessible as they could have been. In short, given the somewhat sloppiness of the preparation of the volumes, their limited utility in original research, and their clearly unreasonable cost (\$80.00), it would not be responsible to urge students of California ethnobotany to purchase this pair. Rather, I would suggest that they would be incorporated into libraries and herbaria as a much needed, even essential, accounting of our state's ethnobotanical history.

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Conservation Biology: The Theory and Practice of Nature Conservation, Preservation, and Management. By P. L. FIEDLER and S. K. JAIN (eds.). 1992. Chapman and Hall, New York. xviii + 507 pages. ISBN 0-412-01951-5 (hb), 0-412-01961-2 (pb).

This collection of papers and essays, which addresses important issues in theory and application of conservation biology, arrived a year ahead of the current wave of textbooks on the topic. The book grew out of a graduate seminar series organized by the senior author at San Francisco State University in 1988. It does exactly what such an effort should do, that is, it provides a sampling of current concerns and efforts in the ever-expanding field of conservation biology.

The book is organized into four sections, with a foreword (by John Harper), and an epilogue by the editors. Each section containing several empirical or theoretical chapters and one or two essays. The first section, "The Natural Order", contains several chapters that provide overviews of species richness patterns, causes of natural rarity, and genetic conservation in agroecosystems.

The second section discusses processes and effects of ecological change, and includes chapters on reptilian extinctions, fish biodiversity, invertebrate conservation, and forest fragmentation. As a whole, these papers provide both a historical perspective on community change and indications of causes of biodiversity decline. The compilation of data on threats to invertebrate diversity by Haferink was especially useful and novel. The chapter by Harris and Silva-Lopez includes many definitions and clarifications of the effects of habitat fragmentation on biodiversity.

This section is followed by one dealing with the biology of small populations. It includes chapters dealing with genetics, demography, and social behavior, all important issues that must be integrated in predicting the behavior of small populations. Pearl's chapter on behavioral aspects of the ecology of Asian primates was especially illuminating as regards the complexity involved in conservation of social animals.

Her suggestions for needed avenues of research should inspire studies on these and other social animals. An essay by Guerrant provides an overview of genetic and demographic considerations for sampling and reintroduction of rare plants, and provides a list of important considerations for anyone planning a research project on an endangered or threatened plant, or to those engaged in a restoration project.

The final section of the volume turns practical, with chapters on management of preserves and on ex situ conservation. It deals with issues such as active management of very sensitive natural areas (Carroll), and the role of botanical gardens in the conservation of plant species (Falk). Particularly noteworthy in this section is a theme touched upon by all the authors: that successful conservation strategies require a many-tiered, proactive approach.

This book is most useful for graduate seminars in conservation biology. It has been superseded as a general conservation biology text by several other recent books. It remains, however, a critical assessment of specific problems in conservation biology. As such, the uneven nature of the science is reflected in the varying depth of coverage across the chapters. The origin of the book as an aggregation of individual seminars rather than a comprehensive manuscript, delivers only the contributing authors' slices of a very large field. Nevertheless, this shortcoming will ultimately sustain the book's use. Students will find value in the case histories and specific information in this book long after the latest principles of conservation biology (and their textbooks) have been shed.

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Ed. Note. A 2nd edition, greatly revised and expanded, is due to appear in 1996.



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