

Book Reviews

Animal Behavior and Wildlife Conservation. By Marco Festa-Bianchet and Marco Apollonio. 2003. Island Press, Washington, DC. 380p. US \$35.00 paper. ISBN 1-55963-959-8.

At what rate will animal species continue to become extinct?

To reduce the magnitude of the answer to this question, many efforts have been made throughout the world to conserve biodiversity. *Animal Behavior and Wildlife Conservation* explores how the importance of understanding animal behavior can help conservation programs to maintain or increase biodiversity. It also points out the importance of understanding that conservation is a human problem, not a biological one.

During a vertebrate mating systems workshop in Erice, Sicily, ecology professor Marco Festa-Bianchet and professor of zoology Marco Apollonio realized the need to know how knowledge of animal behavior could improve the effectiveness of conservation. Apollonio and Festa-Bianchet created the animal behavior and conservation workshop that would provide the basis for this book. According to the authors, the main goal of this volume is to provide an extensive overview of how understanding animal behavior can improve the management of wildlife.

This book is organized into 5 sections. It begins with an introduction that explains how understanding animal behavior can provide guidance to conservation programs. Section 2 examines how resource use strategies impinge on the conservation of wildlife. The third section analyzes “practical applications of animal behavior in wildlife management.” Next, in section 4, the authors investigate the importance of genetic variability in conservation. Finally, the book discusses the possibilities of using wildlife management as a gateway for research, analysis, and the application of animal behavior. It explores how knowledge can be useful for the preservation of biodiversity.

Understanding resource use is a key component to conservation biology. Because most animals are mobile, these movements must occur unhindered. Seasonal habitat must always be accessible. By understanding where animals move, how far they disperse, and how they respond to loss or altered habitat, conservation can be more accurately planned and executed. This section provides sufficient examples of how knowledge of resource use can be applied to conservation.

The major topic of section 3 focuses on sport hunting and wildlife management. The major theme is the significance of individual differences among populations. These differences can be physical characteristics and behavior patterns that animal species acquire genetically or that have been developed throughout their lives. The authors think that wildlife managers should take into account individual differences and the evolutionary impacts that sport hunting may have on populations.

One of the impacts mentioned is the disturbance of gene flow. Genetic diversity is an essential component of conservation biology. In section 4, the authors provide examples of how genetic diversity can be affected by mating success of different individuals and variation in the social structure. This topic is important to

conservation biology. As the genetic diversity increases, a species has a greater chance of survival, given environmental changes.

Coauthor Festa-Bianchet closes the book with his final chapter, "Where Do We Go From Here?" His view is that animal behavior can greatly contribute to conservation through improved management of populations. Festa-Bianchet notes the 2 major themes of the book: individual differences between populations, and modifications of animal behavior by man-made alterations of the environment. Finally, he discusses the importance of conservation biologists, wildlife managers, and other involved agency personnel working together. In most conservation programs, many agencies and professionals must be involved in order to successfully accomplish program goals. This task can be difficult.

Anyone interested in conservation could benefit from this book. You do not need to have a scientific background to appreciate *Animal Behavior and Wildlife Conservation*. Today, conservation biologists and wildlife managers are separated by different views of conservation. Understanding the significance of knowledge of animal behavior could ignite a common understanding, diminishing the gap between agencies. This collaboration could ultimately lead to progress in conserving and promoting biodiversity.—*J. Brent Slone*, University of Idaho, Moscow, ID.