Animal Behavior and Wildlife Conservation

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BOOK REVIEW

Animal Behavior and Wildlife Conservation

Edited by: Marco Festa-Bianchet & Marco Apollonio.
Publisher: Island Press, Washington, USA, 2003, 380 pp.

The importance of both a behavioural and evolutionary approach to the study and conservation of wildlife is not a new theme and has recently been dealt with in other edited volumes (Caro 1998, Gosling & Sutherland 2000). This book complements those important works, and declares its own niche within the field to be focusing on the importance of individual differences among members of a population. In addition, it is clear that the editors have stressed to each author the importance of bringing scientific research back to the practical worlds of land management and population management, which in turn are largely dictated by the social and political concerns of the people these managers serve. The volume provides useful case studies and 'lessons learned' about applications of behavioural ecology to conservation, not only for endangered or vulnerable species, but also for species actively managed. Thus, this book attempts, generally successfully, to speak not merely to academics, but also to those who possess power over wildlife's future. The book consists of 17 individually-authored chapters, most of which owe their genesis to a workshop held in Sicily, Italy, in November, 2000.

As is often the case in such edited volumes, the individual chapters vary in their tone and level of detail. All the authors are recognized authorities in their specialties, and thus it is not surprising that most largely review their own, previously published work. That in itself is a contribution, because it allows readers who may not be familiar with each specialty to obtain a capsule summary of what each author has contributed over the years. In addition, a few authors take advantage of the venue to provide a bit more thought-provoking speculation and integrative discussion than is usually allowed in the journal articles that contain their original findings.

After general introductions to the importance of behavioural ecology to wildlife conservation and management by Leonard Gosling and co-editor Marco Festa-Bianchet, the volume treats the general themes of spatio-temporal variation of resource-use by specific groups of various taxa. Noteworthy in this section are the contributions by Andres Derochers on the ways in which individual differences may affect conventional wisdom about habitat fragmentation, and by Norman Owen-Smith, who provides case studies that are instructive in understanding how translocation of large mammals (an increasingly attractive conservation option in many places) frequently encounters frustration, at least in its early stages. Owen-Smith suggests that, typically, there is a delay in the introduced animals' ability to take advantage of available forage resources, but that once learning has occurred, the initial failure may turn into success.

The book's third main section delves into the implications of individual differences for genetic conservation. These contributions tend to be a bit narrower

in scope, and generally of use to those interested in predicting or modelling genetic loss of small populations. Contributions by Brian Steele and Jack Hogg as well as by Peter Arcese provide the field biologist with useful background information on the possible ways to document and quantify individual differences, which may be applicable in increasingly sophisticated population-genetic models.

Sandwiched between these two sections are five contributions given the omnibus label 'Wildlife Management', that share little beyond their obvious application to real-life wildlife conservation issues. Yet these five alone are worth the purchase price, and will likely be of the most interest to practising managers and applied researchers. Both Jean-Michel Gaillard (along with frequent co-authors Anne Loison and Carole Toïgo) and Marco Apollonio draw upon their extensive experience with European ungulates to provide useful lessons. Joel Berger and colleagues discuss and summarize their recent research on the behavioural, demographic and ecological ('cascading') effects of recent predator removals, and their even more recent recovery in many places. Jon Swenson, liberated from the shackles of overdemanding editors, provides a much-needed exploration of his recent writings on the possible implications of sexually-selected infanticide for management of large carnivores. Marco Festa-Bianchet challenges both hunting managers and the larger group of stakeholders of managed species to reassess their assumptions and objectives regarding human harvest. His thesis, namely that the potential for human exploitation to fundamentally change the very animals we wish to conserve is real and that therefore focused research on this should be allotted higher priority than it usually is, is provided legitimacy by the author's experience in both Europe and North America as well as by his ability to live and work in both the academic and applied domains.

Although most readers will naturally find themselves more interested in some chapters than others, this book should be useful to a wide array of researchers, students and managers.

References

Caro, T. (Ed.) 1998: Behavioral ecology and conservation biology. - Oxford University Press, 582 pp.

Gosling, L.M. & Sutherland, W.J. (Eds.) 2000: Behaviour and conservation. - Cambridge University Press, 438 pp.

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