BioOne COMPLETE

Book Reviews

Source: Journal of Wildlife Diseases, 25(1) : 147-150

Published By: Wildlife Disease Association

URL: https://doi.org/10.7589/0090-3558-25.1.147

BioOne Complete (complete.BioOne.org) is a full-text database of 200 subscribed and open-access titles in the biological, ecological, and environmental sciences published by nonprofit societies, associations, museums, institutions, and presses.

Your use of this PDF, the BioOne Complete website, and all posted and associated content indicates your acceptance of BioOne's Terms of Use, available at www.bioone.org/terms-of-use.

Usage of BioOne Complete content is strictly limited to personal, educational, and non - commercial use. Commercial inquiries or rights and permissions requests should be directed to the individual publisher as copyright holder.

BioOne sees sustainable scholarly publishing as an inherently collaborative enterprise connecting authors, nonprofit publishers, academic institutions, research libraries, and research funders in the common goal of maximizing access to critical research.

Downloaded From: https://complete.bioone.org/journals/Journal-of-Wildlife-Diseases on 28 Mar 2024
Terms of Use: https://complete.bioone.org/terms-of-use

Journal of Wildlife Diseases, 25(1), 1989, pp. 147–148
© Wildlife Disease Association 1989

BOOK REVIEW . . .

Tigers of the World: The Biology, Biopolitics, Management, and Conservation of an Endangered Species, Ronald L. Tilson and Ulysses S. Seal (eds.). Noyes Publications, Park Ridge, New Jersey 07656, USA. 1987. 510 pp. $64.00 U.S.

Conservation biology is an emerging field dedicated to protection and maintenance of biological diversity through collaboration of relevant science disciplines. The objectives of the Wildlife Disease Association (WDA) are consistent with and supportive of those of conservation biology as stated by the recently formed Society for Conservation Biology in May 1987. (Conservation Biology 1: 91). Consequently "Tigers of the World," edited by two leading conservation biologists along concepts of modern conservation biology, should be of interest and value to many members of WDA.

This book is a compilation of papers presented at an international conference held in Minneapolis, Minnesota in April 1986 which was sponsored by the Minnesota Zoological Garden and the IUCN/SSC Captive Breeding and Cat Specialist groups. Fourteen countries were represented by 54 speakers and contributors. The purpose of the symposium and this book was to contribute to the development of a Global Tiger Survival Plan by encouraging the process of multinational cooperation and agreements necessary for sustained conservation of the world's few remaining tigers. The symposium brought together for the first time applied field workers and researchers along with refuge managers who presented data on numbers and spatial relationships of subpopulations of the extant subspecies of tigers in relation to refuge and geopolitical boundaries. Zoo directors, laboratory researchers and veterinarians presented knowledge on husbandry of captive tigers using modern concepts of veterinary medicine, reproductive biology, nutrition, population genetics and demographic principles to manage the small fragmented captive populations. If the remaining subspecies of tigers are to survive into the forseeable future, refuge management and captive breeding must be aggressively and cooperatively pursued.

The book is divided into seven parts and a total of 46 papers. One paper stands alone, is not included in any of the parts, and sets the stage for the entire book. "Bearing Witness: Observations on the Extinction of *Panthera tigris balica* and *Panthera tigris sondaica*" by J. Seidensticker describes events and circumstances leading to extinction of two subspecies; it is depressing reading. The Bali tiger was extinct within about 50 yr of its scientific discovery. There are lessons here that must be applied to the other subspecies of tigers and other endangered animals. The plight of the Javan and Bali tigers included inadequate population size, over hunting and poisoning, crowding by burgeoning human populations, creation of reserves too late, civil unrest, increasing fragmentation and isolation of reserves, and loss of ungulate prey populations to disease.

"Part I, Systematics and Taxonomy" contains four papers; preservation of genetic heterogeneity should have been included in the title of this part. With the exception of Seidensticker's paper, this may be the most important part of the book; the phylogeny and evolution of felids in general, and tigers in particular, are explored and difficult recommendations on the genetic management of free-ranging and captive tigers are made. "Part II, Status in the Wild" identifies, with some controversy and much uncertainty, the numbers and distribution of free-ranging tigers in Russia, China, Malaysia and Indonesia; although some notable improvements have been made, the status of tigers in the wild is not good. India's Project Tiger is an apparently highly successful program which should serve as a model for other countries. It certainly had its difficulties, especially those involving relocation of villages, but these were overcome. Protected wilderness and habitats quickly responded, as did tiger populations. "Female Land Tenure System in Tigers" by J. L. D. Smith et al. is one of the few papers in this book based upon field studies of the biology of tigers, and it describes how territoriality and behavior decrease effective population size in a reserve.

"Part III, Status in Captivity" consists of eight papers that deal with such diverse subjects as status and problems of captive tigers in China, nutritional management and growth rate, and veterinary problems and management in Europe, Canada, East Germany and the United States. Chapters by E. S. Dierenfeld, M. K. Hackenberger et al., M. Bush et al., B. Seidel and J. Wisser, S. Seifert and P. Muller, and A. Tear should be of particular interest to WDA members with interests in clinical management of captive felids. "Part IV, Reproductive Biology" contains five papers and should be of interest to anyone concerned with the reproductive biology of felids, especially application of developing modern technologic advances. Reproductive enhancement of captive big cats is difficult at best and still unresolved problems continue to preclude artificial insemination as a routine procedure in tigers; but the scientists/

Downloaded From: https://complete.bioone.org/journals/Journal-of-Wildlife-Diseases on 28 Mar 2024
Terms of Use: https://complete.bioone.org/terms-of-use

authors of this section are making strides that will serve well the conservation of many species. "Part V, Captive Management" contains six chapters, most of which could be valuable to persons concerned with captive breeding of any species. Certainly T. J. Foose's short paper on conservation strategy for captive animals should be recommended reading for individuals involved in species preservation, especially where captive propagation may be the only remaining avenue. Two chapters in this part, along with one in Part III, by Chinese authors deal with *Panthera tigris amoyensis* and, in part, appeal for international assistance in the establishment of an ambitious recovery program based upon captive breeding and reintroduction. Hopefully, they will receive the necessary assistance in terms of money and expertise. "Part VI, White Tiger Politics" deals with the origin and genealogy of white tigers and the controversy that accompanies them.

The papers in "Part VII, Conservation Strategies" present the challenges facing the world if tigers are to be preserved as a free-ranging animal. Included are good papers on establishment and preservation of reserves by C. Wemmer et al., K. R. Ashby et al., J. Seidensticker, and P. Sanyal; management of man-eating tigers is occasionally a problem, especially in the Sundarbans of India and Bangladesh. Two papers by H. R. Mishra et al. and J. L. D. Smith et al., while crediting Nepalese Royalty for their foresight, describe tiger management in Nepal and the difficulties associated with the conflicts of nature preserves and impoverished indigenous people. The absolute necessity of recognizing and dealing with these problems is stressed, along with the importance of continued management and investigation of "doomed" small populations in order to further understand and prove the theories of minimum viable populations and population genetics. Part VII and the book end with a draft Global Tiger Conservation Plan, which presents a brief set of specific objectives that must be implemented and built upon in a spirit of international cooperation if tigers are to survive.

Although *Tigers of the World* is very readable and contains a wealth of information, there are some minor distractions. Typical of any book based upon presentations at symposia, the papers are of varying quality. Abstracts would have been helpful, and more attention should have been paid to consistency of format; one paper consists solely of an introduction. The legends of some figures and tables are difficult to understand, and the omission of chapter titles from references is annoying and probably did not save much space. I would like to have seen inclusion of a few more papers on biology of free-ranging tigers as it relates to reserve management and possible reintroduction of tigers. The inclusion of numerous black and white photographs makes reading the book enjoyable, and species and subject indices and a detailed table of contents make the book usable.

E. Tom Thorne, Wyoming Game and Fish Department, University Station Box 3312, Laramie, Wyoming 82071, USA.

Downloaded From: https://complete.bioone.org/journals/Journal-of-Wildlife-Diseases on 28 Mar 2024
Terms of Use: https://complete.bioone.org/terms-of-use

Journal of Wildlife Diseases, 25(1), 1989, pp. 149–150
© Wildlife Disease Association 1989

BOOK REVIEW . . .

The Philosophy and Practice of Wildlife Management, Frederick F. Gilbert and Donald G. Dodds. Robert E. Krieger Publishing Company, Malabar, Florida 32950, USA. 1987. 279 pp. $24.50 U.S.

Frederick F. Gilbert and Donald G. Dodds took on a truly ambitious task with their new textbook *The Philosophy and Practice of Wildlife Management*. Their goal was "to fill the existing void in literature suggesting how to apply . . . basic (biological) knowledge to management of wildlife species." I am not convinced that they fully succeeded. However, I believe some explanation of my perspectives and context are needed before I discuss the positive and negative aspects of this introductory-level wildlife management textbook.

During the late 1960's and 1970's, faculty and students had no options regarding comprehensive introductory-level wildlife management textbooks. Certainly the majority of practicing wildlife disease professionals owe their first glimpse of modern wildlife management to Raymond Dasmann. The decade of the 1980's has seen many practitioners of the written word attempting to fill the relative void in this area.

The current "competition" within the "population" of introductory-level wildlife management textbooks necessitates that we split the old "niche" into two or three categories. The first category covers an introductory-level course designed for nonmajors; one that provides a broad, but cursory coverage of pertinent ecological principles and their applications to wildlife management. The second category involves a majors-oriented, in-depth presentation of ecological principles with appropriate applications (i.e., the "science" of wildlife management). The third category involves a majors-oriented, in-depth presentation of management applications highlighting the importance of biopolitics (i.e., the "art" of wildlife management). It is into this last category that Gilbert and Dodds's stated goal falls.

A quick glance at the Table of Contents gives the reader an idea of the breadth of subject coverage. Chapter One, titled "Then and Now—Wildlife Management, Jurisdictional Responsibilities, Legislation, and Administration," goes beyond the usual listing of dates and hardened descriptions of appropriate legislative efforts in two areas. First, it provides a needed personal slant to the historical facts. Second, it includes the Canadian perspective to the history of wildlife management. Chapter Two, titled "Man and Wildlife—Culture, Conflicts, and Values," addresses some of the more important philosophical issues facing wildlife. These first two chapters are two of the best.

Chapter Three, titled "The Biological Basis for Management," addresses many of the animal-related ecological principles used in wildlife management. It includes the topics "nutrition and energetics, behavior, populations, resource partitioning, and parasites and disease." The nutrition and energetics section is incomplete: it includes an excellent discussion of energetics and metabolism, but ignores most other nutritional components. The behavior section continues to key in on energetics. The remaining sections, including the one on parasites and disease, give only a cursory discussion of selected topics.

Chapter Four, titled "Management Systems," was less effective than it could have been due to its confusing organization. The introduction mirrors the strength of the book: it provides background historical perspectives into not only how but why management systems developed. The section on management "principles" is a good discussion on how biological and political/social issues interact in shaping a management system, but not a single "principle" is stated. The first actual description of a management system does not occur until the last section of the chapter.

Chapter Five, titled "Habitat Management," is weak relative to principles but contains some excellent material on applications. Again, the "people perspective" is well represented.

Chapter Six, titled "Species Management," includes excellent sections on the caribou, harp seals, beaver, black duck, ruffed grouse, and peregrine falcon as examples of the management needs of ungulates, marine mammals, furbearers, waterfowl, upland game birds, and raptors, respectively. Except for some annoying editorial inconsistencies, which I will discuss later, this chapter was excellent.

Chapters Seven through Nine cover some very pertinent specialized areas of management, but again organization is a problem. Chapter Seven, titled "Some Specialized Areas of Management," has sections on migratory animals and exotics which would have been better placed in Chapter Five's species management sections. The same could be said for Chapter Eight's material dealing with endangered species. The remaining topics in these chapters, including protected areas, shooting preserves, urban wildlife, depredation, trapping and environmental impact assessment could have been appropriately in-

Downloaded From: https://complete.bioone.org/journals/Journal-of-Wildlife-Diseases on 28 Mar 2024
Terms of Use: https://complete.bioone.org/terms-of-use

cluded as "areas" of management in Chapter Seven.

Chapter Ten, titled "Wildlife International—Aid, Policies, Problems, and Management," provided an interesting comparison of United Nations versus single-nation support for wildlife management in developing countries. However, organization again was a problem. Separate sections on wildlife policy were presented for Africa and Europe, but Asia and Australia were glaringly ignored.

Chapter Eleven, titled "Wildlife 1987–2000—The Profession and Management," presents the authors' views on future directions for the wildlife profession and wildlife management in general. They solidify their view of the importance of "people management" to the future of wildlife resources and their management.

Although the content (i.e., the subject coverage) is the real "meat" of a textbook, a good "flow" and editorial consistency are the trappings that make a good book into a really enjoyable educational experience. Unfortunate as it may be, subtle annoyances often distract from the value of an otherwise rewarding effort. I have already discussed some of the organizational problems that affected the flow of the book. Additionally, I was generally annoyed by editorial inconsistencies and typographical errors throughout the textbook. One major inconsistency was the use of citations within the text. The section dealing with harp seals was full of factual data without a single citation and presented "Suggested Readings" at the end of the section. Data presented in the section on the beaver were consistently cited. Equivalent sections in Chapters Six and Eight were titled "Suggested Readings" and "Recommended Readings," respectively. Subheadings within Chapter Four are set in bold type while equivalent subheadings in Chapter Five are set in italics. The Table of Contents for Chapter Ten lists "The Country, Botswana" and "The Resource, Elephants" as subsections under "Problems to Ponder," yet in the text there is no editorial differentiation among these three sections. One example will be used to highlight the abundant typographical errors: the title of Chapter Eleven is "Wildlife 1987–2000—The Profession and Management," yet the running head for this chapter is "Wildlife 1985–2000—The Profession and Management."

In summary, Gilbert and Dodds succeeded in their efforts to stress the importance of the "people component" to wildlife management applications. The effectiveness of their efforts were dampened by editorial and organizational inconsistencies. This textbook's effectiveness as a classroom textbook is hampered by its organizational problems. However, until another introductory-level textbook enters the market which does a better job of stressing the people component of wildlife management, I recommend it for general reading by interested students and professionals.

Stephen Demarais, Department of Range and Wildlife Management, Texas Tech University, Lubbock, Texas 79409, USA.

Downloaded From: https://complete.bioone.org/journals/Journal-of-Wildlife-Diseases on 28 Mar 2024
Terms of Use: https://complete.bioone.org/terms-of-use