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Review of Dispersal. Based on a conference held in Roscoff, France, 23 April–1 May 1999.

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DESERT PUMA: EVOLUTIONARY ECOLOGY AND CONSERVATION OF AN ENDURING CARNIVORE.

By Kenneth A Logan and Linda L Sweanor; Foreword by Maurice G Hornocker. Washington (DC): Island Press. \$70.00 (hardcover); \$45.00 (paper). xxxi + 463 p + 12 pl; ill.; index. ISBN: 1-55963-866-4 (hc); 1-55963-867-2 (pb). 2001.

This new book presents the results of the longest and most complete puma study that I am aware of. I found it highly informative and easy to read, with a less technical but thorough review of the authors' own data and that of others. In my opinion, it is a "must read" for anyone interested in mountain lions, and particularly those who are new to mountain lion research or management. Besides the authors' own data, readers will find an excellent literature review of systematics and evolutionary origin, capture techniques, population demographics and social structure, diet, and conservation. Unlike journals, where space is understandably limited and methods and complete explanations of results are often very brief, readers will be able to understand how and why Logan and Sweanor collected their data, and how they came to their conclusions. I found the summary and statistics sections at the end of each chapter helpful, and it reduced the cumbersome role of reading through lines of *P* values with associated statistics. In some cases, I wondered if statistics were necessary; why use population estimators when you know about the whole population? The data are that complete in some instances.

Although many of the authors' conclusions will spark new debates, one cannot disagree with the thoroughness of their data, and the rigorous design used to experimentally manipulate large carnivore numbers. I also appreciated their frankness with possible differences resulting from studying a more isolated puma population and the need for further study on more contiguous puma populations. The conservation section is thought provoking, and I believe the zone management scheme has merit and may even be affordable in today's financially strapped management agency world.

From my own standpoint, as a field biologist who has studied pumas, I see a personal angle here as well. This is also a story of a husband-wife team, with the help of many field assistants, who put their personal life on hold by spending more than 250 days a year in the field to collect data for over ten years, and actually do experiments on the most allusive beast I have ever tried to learn about. This book is a product of determination, endurance of heat, cold, insects, rattlesnakes, numerous muscle aches, dehydration, airsickness from circling colored pumas in the heat induced updraft, learning to like the taste of dust, along with the red eyes,

carpal tunnel syndrome, and late, late nights that come from any large writing endeavor. In my opinion, the result is a good one, and I appreciate that they were able to put it together. In the scientific world where we strive for "replicates," it is doubtful that many groups will reproduce such a thorough look at a population of pumas over the long term as Logan and Sweanor did.

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CARNIVORE CONSERVATION. *Conservation Biology, Volume 5.*

Edited by John L Gittleman, Stephan M Funk, David W Macdonald, and Robert K Wayne. Published by Cambridge University Press, Cambridge and New York, in association with The Zoological Society of London. \$130.00 (hardcover); \$49.95 (paper). xiv + 675 p; ill.; index. ISBN: 0-521-66232-X (hc); 0-521-66537-X (pb). 2001.

This comprehensive book addresses the key issues and obstacles facing the world's carnivores in the 21st century. Perhaps more than any other taxon, carnivores elicit the full range of human emotions: from fear—based partly on age-old myth and superstition and partly on the fact that carnivores do kill to survive—to awe and respect for the skill, cunning, and strength embodied by predators. Large carnivores in particular often inhabit extensive territories and come in direct conflict or competition with humans. As a result, carnivores confront a daunting array of policy, management, and biological challenges.

From genetics to invasive species to the difficulties of predator restoration, *Carnivore Conservation* adeptly brings experts from diverse disciplines together in a single volume to examine these topics. Part 1 identifies the past and current problems in carnivore conservation, Part 2 discusses possible approaches and solutions, and Part 3 outlines prospects for future research and conservation initiatives. This volume will be a useful tool to biologists working in the field of carnivore conservation, as well as to informed laics concerned about this issue.

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DISPERSAL. *Based on a conference held in Roscoff, France, 23 April–1 May 1999.*

Edited by Jean Clobert, Etienne Danchin, André A Dhondt, and James D Nichols. Oxford and New York: Oxford University Press. \$95.00 (hardcover); \$45.00 (paper). xxi + 452 p; ill.; index. ISBN: 0-19-850660-0 (hc); 0-19-850659-7 (pb). 2001.

Dispersal is a phenomenon of central importance in ecology and evolution. Yet many of its fundamental aspects remain poorly understood or barely

investigated. This excellent, broad-ranging volume is a collection of 26 short reviews derived from a Centre National de la Recherche (CNRS)-National Science Foundation (NSF) sponsored workshop held in 1999. As stated by the editors, this book is mainly comprised of "reviews and more theoretical approaches, with a limited number of empirical examples" (p xx) on dispersal.

In general, contributions are of high quality and summarize advances during the past decade, current state-of-the-art, and future directions of dispersal studies. Contributions are also, by and large, integrative and critical, typically comparing and contrasting different experimental or theoretical approaches. The book is separated into five parts, roughly dealing with genetic and demographic measures of dispersal; influences of habitat and inter- and intraspecific (e.g., kin) interactions on dispersal; proximate physiological and genetic causes on dispersal and habitat selection; ecological and genetic consequences of dispersal on populations, metapopulations, and communities; and synthesis, future directions, and importance of dispersal studies in conservation biology. Central topics in dispersal, such as the use of indirect versus direct methods of estimation, are well covered in several sections, with alternate methods being critically evaluated and newer approaches discussed. An important aspect of this volume is the inclusion of newer, less-studied topics such as influence of landscape context on dispersal, habitat selection by dispersers, and effects of dispersal on metapopulation dynamics. Finally, the inclusion of several in-depth reviews of experimental models such as fire ants, pikas, and naked mole rats (my personal favorite) add balance to a volume weighted more toward theoretical aspects.

I highly recommend this book. It will be particularly useful for researchers who want to get succinct updates on recent advances, state-of-the-art, and future directions of dispersal studies. This volume would also be ideal as a focus for a graduate course on dispersal.

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THE PHILOSOPHY AND PRACTICE OF WILDLIFE MANAGEMENT. *Third Edition.*

By Frederick F Gilbert and Donald G Dodds. Malabar (Florida): Krieger Publishing. \$34.50. xiii + 355 p; ill.; index. ISBN: 1-57524-051-3. 2001.

Wildlife management has matured from a profession where biologists were largely concerned with maintaining robust populations of popular game species into a discipline that is a major contributor toward current efforts to preserve the biological

diversity of this planet. Practitioners are expected to be familiar with a number of subject areas (e.g., animal biology, ecology, physiology, and systematics). Any textbook that introduces the major principles of wildlife management should expect readers to have a fundamental knowledge of these subjects as this book does. Twelve chapters span topics such as the historic development of wildlife conservation, the values of wildlife to humans, managing population of wild animals and their habitats, and involvement with environmental impact assessments. Chapter 3 (Native American Access to Wildlife) and Chapter 5 (Parasites, Disease, and Wildlife) are good additions since the first edition of this volume. The authors have extensive experience with natural resource agencies in Canada and the United States, which may explain the nearly exclusive North American focus. Unlike other recent books on the subject, the authors have not blurred the distinctions between wildlife management and the more recently developed discipline of conservation biology. This was especially apparent in chapters that dealt with habitat management and individual species management. Issues relevant to contemporary landscapes and modified habitats (e.g., fragmentation and corridors) are barely introduced, as well as the tools (satellite imagery and geographic information systems) used to address them. Some of the conventional approaches to game management are not covered well either. Although the concept of maximum sustained yield (MSY) is introduced, I did not find any description of density-dependent recruit. This is essential for understanding management plans that include a MSY approach.

To their credit, the authors provide substantial insight into the "philosophy" of wildlife management. Although not presented as comprehensive cases studies, a number of examples are given that illustrate the role of public involvement in affecting wildlife management and legislation. Too frequently information presented by biologists is overshadowed by concerns for political fallout and this is worth emphasizing.

Clearly this book is a revision; however, I was surprised to find most references in chapter-specific bibliographies to be prior to 1990. Illustrations are not used effectively, attractive drawings and black-and-white photographs of individual animals are presented without captions or references in the text. Figures and boxed examples would have aided in presenting more complex topics. Although students should be cautioned against a recipe approach to wildlife management, "how to" examples provide an effective format to cover the complexities of a successful management plan. In summary, the authors have done a good job in pro-