reader with the impression that these are three different and exclusive approaches. These approaches are interwoven and interdependent, of course, which the author states only weakly at the beginning of the book and then again in the last section. Unfortunately, the organization of the book and the targeted audience make it less likely that the reader will synthesize the three sections of the book into coherent themes. For example, the concept of succession is covered in each of the sections, but students will need to integrate these chapters themselves. Another example is the discussion of the Kirtland Warbler in the preservation section. Because it is presented in this section, Weddell describes the problem and tells the story through 1982 (preservation focus). The reader is left wondering what has happened to the Kirtland Warbler in the intervening 21 years. Likewise, although it is important to understand the historical perspective of German forest management, Weddell does not describe the current situation (p. 124). Because of the book's organization, the author constantly refers to other sections for additional reading. Generally this is helpful, though at times it is frustrating because it leaves the reader wondering how the story ends or began.

That the reader is presented with ideas not adequately substantiated with data (e.g., case study on coyotes, p. 150) is another shortcoming of this book. Other times the reader is primed for discussion of an issue only to be disappointed. For example, the author introduces the reader to an issue such as the impact of hunting but, instead of providing hunting statistics, offers a weak treatment of the ethics of hunting. This is unfortunate because the author does an excellent job of stimulating the reader's interest in the subject but then doesn't follow through.

The book is extensively documented and includes a strong bibliography. A wealth of classical citations alongside current works provides the reader with opportunity to pursue additional reading. The absence of a dictionary is a minor omission for an introductory textbook, compensated by an index that is adequately referenced. Title diagrams found at the beginning of each section are excellent, although a summary of these diagrams in the introductory section would have done much to help the student reader understand that these approaches are complementary and not exclusive.

Weddell has fallen short of producing a book that provides nonmajor students with an easily integrated perspective of conservation biology. Course discussions will help students integrate the ideas presented in the different sections. *Conserving Living Natural Resources* does present concepts, such as the tragedy of the commons and the historical context, that are often overlooked in other conservation biology textbooks. Ultimately, the basic tenants of this text are good; it simply lacks polish.

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Using a Magnetic Mammal to Conserve an Ecosystem

The Return of the Unicorns: a Natural History and Conservation of the Greater One-Horned Rhinoceros. Dinerstein, E. 2003. Columbia University Press, New York. 334 pp. (316 + xviii). $59.50 (hardcover). ISBN 0-231-08450-1.

Although the scene could be anywhere in the world, and repeated with any appealing mammal, this case derives from southern Asia. A government worker confronts angry villagers:

> "Who is more important, people or rhinoceros?"
>
> "There are only four hundred rhinoceros in Chitwan, and . . . over 80,000 human residents. I am sorry, but it is my duty to protect the rights of the minority."

This all-too-familiar refrain—limited space, too many people, a rare but very large species, and the human face of conservation—sets the stage for Eric Dinerstein's description of a fascinating real-world success story. This detailed account, spanning parts of nearly 20 years in Nepal's Royal Chitwan National Park, offers significantly more depth than reflected in the modest subtitle, *Natural History and Conservation of the Greater One-Horned Rhinoceros*. Dinerstein's thesis stems from concepts steeped deeply in the basics of conservation biology—genetics, metapopulation structure, reserve design, restoration biology, and keystone ecological roles—but moves far beyond these ideas because he masterfully integrates the science of conservation biology with the human dimension. Sections on local economics, tourism, farming, and human perspectives are mixed with others rich in natural history, behavioral ecology, and landscape ecology.

The central question that frames the book is simple: Is optimism about the conservation of large mammals in human-dominated landscapes misplaced? Getting to an answer has not been an easy road, however, and has involved far more than applied science. Dinerstein depicts dedicated local people, Nepalese government officials, and conservation practitioners within the context of the challenges of work in remote locations and with people whose aspirations for sustenance depend on the same lands as the rhinoceros.

This rhinoceros field project was conceived and supported jointly by the Smithsonian Institution's once fertile Conservation and Research Center, a hub that brought in situ conservation to the global forefront, and the Nepalese government. Dinerstein subsequently joined the senior ranks of the World Wildlife Fund, where,

as is clear in this book, he continues to facilitate the protection of global biological treasures such as the Terai Arc.

The Return of the Unicorns is divided into three primary areas, each using the greater one-horned rhinos to develop increasingly sophisticated themes while imparting crisp and novel information about rhinoceroses themselves. The first topics under "Vanishing Landscapes" offer details on the evolutionary rise and fall of rhinoceroses, their current endangerment, and the progressively jeopardized existence of southern Asia's flood plain ecosystems. The second section, "The Biology of an Endangered Megaherbivore," examines questions about the dynamics of sexual dimorphism, the role of canine teeth versus that of horns in mating success, predation by tigers on young rhinoceroses, population trends, demographic and genetic threats, and the growing importance of understanding ranging patterns and spatial limitations on population viability. A true bonus in the last chapter of this section is the consideration of the ecological role of rhinoceroses as landscape architects. Here, experimental manipulations are combined with measures of fecal deposition, seedling mass and germination rates in and away from latrines, and feeding habits and gut dynamics to test hypotheses about potentially coevolved relationships involving the tough endocarps of Trewia fruits and rhinos and about their more ecologically relevant influences on current plant community and ecosystem structure.

The book's final theme focuses on recovery of large-mammal populations and their habitats in southern Asia. It is here that Dinerstein excels, detailing the economics of human sustenance and poverty, understanding opportunities and limitations of employment within the context of ecotourism, promoting local guardianship, and outlining the ambitious but very reasoned Terai Arc landscape program to link protected zones from Corbett National Park in India to the Parsa Wildlife Reserve east of Chitwan.

This book offers much to anyone interested in practical, how-to conservation, far-away landscapes, large and exotic-sounding mammals, biodiversity, planning, and tropical ecology. I particularly liked Dinerstein's bluntness in dealing with the failure of some ex situ breeding programs and in his call for the controversial green labeling of scrupulous tourist operators and establishments. Some readers will cherish his attention to factual details that range from variation and changes over time in rhinoceros density to figures on human density. Shortcomings include some maps with fonts so small that they are difficult to read, some univariate analyses (especially those in which sample-size limitations are not considered), and too few literature citations on African rhinoceroses that extend much beyond Norman Owen-Smith's 1988 book on megaherbivores. If readers are interested solely in the evolutionary explanation of a family of mammals that celebrated its heyday several millions years ago, then this is not the book for them.

By contrast, what *The Return of the Unicorn* achieves is potency. It is a beautifully candid account of how to deal with the sobering reality of data collection on a very large species when sample sizes are limited. It illustrates, by example, how ecological investigation is made cogent for conservation. Critically, it demonstrates how people and their economies can be subsumed within a rich and diverse ecosystem so that a healthy future may be possible.

This is a book that all zoo administrators should read to help frame a perspective on how and why field science dovetails with planning and action to maintain systems in situ. And, this is *the* book that conservation pragmatists and cynics should read to discover why optimism about the conservation of (at least some) large mammals in human-dominated landscapes is not misplaced.

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A Bridge to Advanced Statistical Techniques

Experimental Design and Data Analysis for Biologists. Quinn, G. P., and M. J. Keough. 2002. Cambridge University Press, Cambridge, United Kingdom. 556 pp. $110.00 (hardcover). ISBN 0-521-81128-7. $48.00 (paperback). ISBN 0-521-00976-6.

Conservation biology is evolving into an increasingly quantitative discipline. The emphasis of late has been on simulation and analytical modeling, typically under the rubric of population viability analysis. Somehow, in the rush to equip young conservation biologists with cutting-edge quantitative skills, we have begun to overlook the importance of good old-fashioned data analysis, the fundamentals of experimental design and sampling, and, perhaps most important, the ability to consider a biological question, look at an existing data set, and determine which statistical tests are appropriate.

Recently, I informally surveyed several dozen graduate students enrolled in two major environmental science programs, both of which have a strong emphasis on conservation biology. When asked to weigh the importance of a variety of research skills, the overwhelming majority lamented that they had not received more training in data analysis and statistics. Ironically, most of the students I surveyed had in fact taken one or two introductory statistics courses as undergraduates. In these courses, they were typically exposed to the *t* test, analysis of variance (ANOVA), the chi-square test, linear regression, and correlation analysis. Although such courses are an important first step, they simply cannot provide today's conservation biologists with the tools they need to deal with