set of appendixes. Once the readers' feet are fully wet, the authors walk through a series of ecological applications.

Although the book draws largely from questions and issues relevant to wildlife management, it serves as a useful guide for individuals outside the field. Overall, *Bayesian Analysis for Population Ecology* makes a great addition to a practicing ecologist's statistical bookshelf. As the author's state, the volume can also serve as a textbook and form a strong base for teaching an upper-division or graduate-level course in Bayesian statistics.

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Basic Phylogenetic Combinatorics.

By Andreas Dress, Katharina T. Huber, Jacobus Koolen, Vincent Moulton, and Andreas Spillner. Cambridge and New York: Cambridge University Press. $65.00. xii + 264 p.; ill.; index. ISBN: 978-0-521-76832-0. 2012.

Much of the theoretical work in phylogenetics has been undertaken by mathematically inclined biologists, including the development of new methods and the production of associated computer programs. However, phylogenetics has also been a source of interesting intellectual problems for mathematicians, and this book is about one notable field in which challenging questions have led to what mathematicians refer to as "beautiful" or "elegant" pieces of work.

Combinatorics is that branch of mathematics concerning the study of finite or countable discrete (i.e., noncontinuous) mathematical structures. This usually includes, for example, integers, graph theory, and logic statements. Phylogenetics has not hitherto been a notable component of discrete mathematics, although discrete mathematics, particularly combinatorics, has long been a major part of phylogenetics (for example, with parsimony-based methods). The other major mathematical contribution to phylogenetics, statistics (with its likelihood-based methodology), is not covered in this volume.

The book also does not cover sequence-based phylogenetic methods, but focuses instead on what are called splits, quartets, and metrics (i.e., distances). Specifically, the central topic of discussion is leaf-labeled trees (the so-called X-trees), which in graph-theoretical terms include reticulating networks. The reciprocal relationships between unrooted trees and these splits, quartets, and metrics are thoroughly explored, as are the analogous relationships between rooted trees and clusters, triplets, and ultrametrics, respectively. The latter relationships are of more direct relevance for evolutionary biologists, since only a rooted tree can represent an evolutionary history.

The volume describes the field of phylogenetic combinatorics in a succinct and self-contained way, starting from the basics and proceeding to an advanced level, often with novel results. The book is aimed at a mathematical audience, focusing on the mathematical foundations of phylogenetics rather than on the computational aspects and applications. It provides complete proofs of all of the lemmas and theorems, and is thus full of mathematical notations, formulae, and proofs. Therefore, it will be challenging even for mathematically inclined biologists.

The book can be thoroughly recommended as an excellent introduction to the field for interested mathematicians, and also for those biologists who are prepared to work their way carefully through the proofs.

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ECOLOGICAL ECONOMICS AND SUSTAINABILITY

Saving a Million Species: Extinction Risk from Climate Change.

Edited by Lee Hannah; Foreword by Thomas E. Lovejoy. Washington (DC): Island Press. $70.00 (hardcover); $35.00 (paper). xii + 417 p.; ill.; index. ISBN: 978-1-59726-569-0 (hc); 978-1-59726-570-6 (pb). 2012.

This book offers a variety of perspectives on extinctions related to anthropogenic global climate change. The lynchpin for these diverse contributions is the seminal paper in *Nature* by Chris Thomas and colleagues on extinction risk from climate change. The book is organized into six parts, the first two of which deal with the background and refinement of the first estimates of species at risk and the approach that produced them. Subsequent contributions probe in more detail the current trends, those of the past and the ecological mechanisms that are likely to drive extinction outcomes across a range of habitats and taxa.

One of the opening chapters is by Chris Thomas himself. It provides some interesting retrospective insights into the development of ideas that led to the first major synthesis on extinction risks, as well as the impact of its outcomes on public awareness and climate policy. Perhaps more importantly, it