

Chapter 3 gives students guidance from an advisor's perspective. Students are counseled "Education Is an Investment in You—Who Better to Invest In?" (p. 16). Important points in this chapter will help aspiring students to get ahead of the pack—achieving a good GPA, cultivating references, networking, volunteering, and making professional contacts. The following chapter provides advice on how to prepare and market yourself. The nine summary points are excellent.

Chapter 5 is the core of this book, presenting a wide array of potential careers in the wildlife profession. Descriptions are mostly written by recognized professionals who have held these positions, hence more authoritative than if written by a human resources person. I was surprised at the breath of the list, and the quality of the job descriptions. All include a job description, the background needed, education required, and pay scale. The chapter covers the whole gamut of wildlife positions: federal, tribal, state, private corporations, photographers, and writers, all the way to nongovernment organizations. Anyone interested in a wildlife career will find an appealing position described somewhere in the chapter.

The next chapter covers professional societies—more than just The Wildlife Society. How professional society involvement is important for both getting a solid start and continuing to thrive in your career is emphasized. An important sidebar provides tips for students on how to attend a professional meeting—guides on planning, networking, and making personal contacts.

Chapters 7 through 9 cover the necessities of landing a position or getting into graduate school: resume preparation, the professional interview, and being a professional and acting professionally. Again, the advice provided is wonderfully helpful.

Chapters 10 and 11 cover graduate school from the perspectives of both the student and the advisor. The nuts and bolts of selecting and finishing a program are provided, including creating a research proposal, data collection, conferences to network and present your research, and thesis writing. There is even advice to bring light refreshments to your graduate defense—always a good way to entice your committee.

The final chapter covers professional diversity—with a review of the historical lack of diversity in the wildlife profession—and how diversity is increasing through more women and ethnic minorities. A starter guide is provided for researching the diversity commitment of prospective universities, organizations, and employers. Advice is provided to help minority students be successful.

Every high school career counselor, undergraduate student advisor, and graduate student advisor should have a copy of this book to loan to students to

get them thinking strategically about pursuing their career.

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REWILDING. *Ecological Reviews*.

Edited by Nathalie Pettorelli, Sarah M. Durant, and Johan T. Du Toit. Cambridge (United Kingdom): Cambridge University Press. \$125.00 (hardcover); \$49.99 (paper). xiii + 437 p. + 12 pl.; ill.; index. ISBN: 978-1-108-47267-8 (hc); 978-1-108-46012-5 (pb). 2019.

I love the idea of rewilding, even in its most outrageous permutations. It provides a bold vision in a field (conservation) where timidity has recently reigned, and provides a narrative that can capture the imaginations of the humans who will determine the future of the planet. The volume *Rewilding* is a broad introduction into the bases and controversies of this vision. It succeeds admirably in presenting a rich introduction to this approach to conservation while embracing its particular emphasis on large carnivores and ecosystem processes.

There are chapters on the history of rewilding, ecological and practical issues, examples, and conceptual frameworks. There are also chapters examining rewilding from semantic, psychological, sociocultural, economic, and even artistic perspectives. There is the usual conservation/restoration angst throughout, which academics will relish and practitioners will continue to largely ignore. The final chapter is an insightful synthesis of these diverse contributions. Only rarely do chapters cite others in the book. The volume is well produced, crisp, and readable, although many of the color plates do little to improve upon their black-and-white counterparts.

This book reaffirms that rewilding has its roots firmly in contemporary conservation, which has long emphasized large carnivores and megafaunal herbivores, often at the landscape scale. It does consider more deeply the restoration of trophic relations and ecosystem processes, which parallel the (risky) embrace of ecosystem services by modern conservation. Rewilding also incorporates aspects of restoration ecology (albeit presented here often in outdated caricature). The definitions of rewilding in the introductory chapters are essentially indistinguishable from modern definitions of ecological restoration (less so, the other definitions scattered throughout). Rewilding may be essentially an innovative integration of established ideas but, more importantly, it is a new and visionary expression of some of humanity's boldest conservation and restoration ideals.

The emphasis in this volume is focused on large carnivores and trophic rewilding, which results in some blinkered perspectives. The assertion that large mammals have strong and deep impacts on ecosys-

tem processes is central to this conception of rewilding. Yet documentation of these impacts in this book is mostly limited to nonexperimental and often mixed evidence for carnivores, largely ignoring the rich and strong experimental evidence for large herbivores. The chapter on land abandonment overlooks the rich restoration-related literature, and the volume fails to mention the continental-scale rewilding of the North American deciduous forest ecosystem. Elsewhere, ecological restoration is criticized for being strongly plant-biased, in a publication whose own taxonomic biases are even narrower.

These biases are reflective of the current field of rewilding, and these quibbles come from someone who is steeped in plant-herbivore ecology and ecological restoration. *Rewilding* will engender lively and productive discussions in many settings. As a review of myriad aspects of rewilding as it stands today, and its vision for the future, this book is as ambitious as rewilding itself, and will find a place on the shelf of many students of conservation, restoration, and applied ecology. Its vision of rewilding may be the harbinger of both conservation's and the planet's future.

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A THEORY OF GLOBAL BIODIVERSITY. *Monographs in Population Biology, Volume 60.*

By Boris Worm and Derek P. Tittensor. Princeton (New Jersey): Princeton University Press. \$49.95. xi + 214 p.; ill.; index. ISBN: 978-0-691-15483-1. 2018.

This monograph addresses a long-standing and challenging problem in biology: explaining latitudinal variation in biodiversity. Using an ambitious approach termed "mechanistic macroecology," the authors develop a predictive algorithm based on identified patterns and purported drivers of biodiversity in both marine and terrestrial systems. We reviewed this volume as part of a graduate-level seminar at the University of California, Santa Cruz. The book, written by two marine macroecologists, is geared toward a scientific audience seeking to understand large-scale patterns and processes of biodiversity.

The volume is organized into seven coherent and well-integrated chapters. The authors first describe empirical global trends in species richness over four distinct realms (terrestrial, coastal marine, pelagic, and deep sea) and identify the predictors most commonly associated with these patterns at the scale of 800x800 km grid cells (Chapters 2 and 3). After asserting that species richness patterns are mainly driven by temperature, the authors develop a spatially explicit metacommunity model based on Hubbell's neutral theory, but in which temperature drives speciation rates in accordance with Brown

et al.'s metabolic theory (Chapter 4). Incorporating additional realm-specific factors associated with habitat area and productivity, Worm and Tittensor predict patterns of species richness in the four realms and compare the results to empirical data (Chapter 5). The final two chapters cover the conservation implications and major conclusions of the study.

The inclusion of marine systems as three distinct realms was interesting and novel, and counterbalances historic terrestrial biases in global biodiversity research. However, the selected realms and large spatial scale employed did have some limitations. Not much could be said about the deep sea, for which conclusions were drawn from only a single taxonomic group (brittle stars), whereas a more thorough exploration of terrestrial realms (e.g., freshwater ecosystems) or subgroups of taxa (e.g., plants) might have provided greater insight. Furthermore, the authors try to incorporate niche theory into their model, but only consider thermal niches, which do not expand far beyond metabolic theory. Local-scale aspects of the Hutchinsonian niche such as biotic interactions are largely ignored. Finally, the proposed conservation implications of the model may not apply at the local scales of most current conservation work. The authors acknowledge some of these limitations and invite the scientific community to modify and apply their model to answer new questions.

We applaud their efforts to develop a synthetic, biogeographic model based on first principles. However, we would have liked more details about the model itself, including an online supplement containing the model code. The design of the graphics occasionally hinders interpretation, in particular regarding the relationship between predicted and observed species richness presented in Chapter 5. The model generally underpredicts the steepness of observed latitudinal gradients, raising new questions as to which additional drivers of biodiversity might explain this result. Overall, Worm and Tittensor's book generated lively discussions and provides a useful starting point on which to build vertically or laterally in the effort to understand global-scale patterns of biodiversity.

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