

ceeds in accurately portraying these remarkable and poorly understood ecosystems, the people associated with them, and the threats they now face.

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TROPICAL FOREST DIVERSITY AND DYNAMISM: FINDINGS FROM A LARGE-SCALE PLOT NETWORK. *Based on a symposium held at the Smithsonian Institution, Washington, DC, August 1998.*

Edited by Elizabeth C Losos and Egbert G Leigh, Jr. Chicago (Illinois): University of Chicago Press. \$95.00 (hardcover); \$38.00 (paper). xiii + 645 p; ill.; index. ISBN: 0-226-49345-8 (hc); 0-226-49346-6 (pb). 2004.

The editors, members of the Smithsonian Tropical Research Institute, have compiled an encyclopedic inventory of results from 15 forest dynamics plots established to understand why tropical forests are so diverse. Using standardized methods, every individual plant stem greater than 1 cm in diameter is mapped, identified, and cataloged at least once every five years in the plots, which range in size from two to 52 hectares.

The book contains seven parts and 38 chapters, with Parts 1 and 2 presenting an eclectic mix of background material on the goals of the plot network, continental drift, and tropical climate, soils, and vegetation. Chapter 2 is certainly worth reading, as Stephen Hubbell provides a fascinating scientific history of the Barro Colorado Island (Panama) plot. Parts 3 through 6 include reports based on data from individual plots, and Part 7 provides standardized data summaries for each plot. In an unsatisfying chapter on the neutral theory of forest ecology, Leigh et al. refer to the vague and outdated "balance of nature" concept (p 251), and claim that "the neutral theory's predictions . . . may be said to transcend the validity of the neutral theory itself" (p 252). I would have traded this unconvincing assertion for more discussion about the utility of the neutral theory as a null model. Part 6 is a bright spot in the book that outlines some novel statistical techniques and provides compelling evidence for density dependence in tree populations. However, the section, *The Diversity of Tropical Trees: The Role of Pest Pressure*, is a misnomer, given that none of its five chapters directly measures pest pressure.

The book's main strength is that it summarizes a truly impressive amount of data about tropical forest structure, diversity, and turnover. Aside from a few chapters that present simple correlations, the enormous value of this dataset is not exploited through rigorous analysis of data from multiple

plots. I was also hoping for a more global synthesis of the ecological factors that determine the interesting patterns in tropical forest diversity and structure presented in the volume.

As Hubbell also suggests in Chapter 2, it is my hope that future research will address these mechanisms for the next compendium of forest dynamics plot results.

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WETLAND AND RIPARIAN AREAS OF THE INTERMOUNTAIN WEST: ECOLOGY AND MANAGEMENT. *Peter T. Flawn Series in Natural Resource Management and Conservation, Number 4.*

Edited by Mark C McKinstry, Wayne A Hubert, and Stanley H Anderson. Austin (Texas): University of Texas Press. \$39.95. xv + 319 p; ill.; index. ISBN: 0-292-70248-5. 2004.

This volume covers wetlands that exist between the Sierra Nevada and Rocky Mountains. This selection of habitat is well justified by the oft-cited statistic that regional wetlands comprise less than 2% of surface area, yet support 80% of the wildlife. Furthermore, a rapidly growing human population coupled with a scarcity of surface water in much of the western U.S. is concentrating pressure on these Intermountain wetlands and generating unique challenges and opportunities for research and management—all within an area of little historic wetland research relative to more densely populated regions of the U.S.

The editors approach their topic broadly, beginning with a well-written contribution on wetland law. They also present a superbly readable synopsis of wetland regulatory history that applies to both the west and the U.S. as a whole. The next two well-organized chapters describe the area covered by the book in a truly comprehensive manner, including formative and ecological processes. Unfortunately, the following chapters on riverine wetland wildlife and management lack depth, perhaps due to limited applicable research from the region. Specifically, Chapter 4 briefly mentions entire wildlife groups and includes only the most obvious species, while Chapter 5 does not mention managing the spread of exotic plants and animals, a topic critical to management of Intermountain riverine wetlands. The next chapter on natural palustrine wetlands provides in-depth information on irrigation and salinity issues unique in the U.S. to the Intermountain West, followed by two chapters on wildlife and management of these habitats. The strong chapter on palustrine wildlife mentions exotic species, but it is glaringly absent from the broad scope management chapter that follows.