book is dedicated to this one species (including progressively less numerous comparisons to other *Pinus* species, other Pinaceae, members of other conifer families, and other gymnosperms). Admittedly, this largely reflects the more extensive and intensive work done on loblolly pine as a model organism compared to other conifers, so that this is the only species for which you can put together the "whole story." Unfortunately, as has long been acknowledged, the life cycle of *Pinus* is far from typical among conifers and a great deal that is known about reproductive biology in other conifers is not included or alluded to here, or only briefly mentioned. Even in *Pinus*, molecular approaches are still in their infancy compared to angiosperms, so while this is a good book, we still need a full-blown, comprehensively comparative *Conifer Reproductive Biology*.

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CONSERVATION BIOLOGY

Tropical Rain Forest Ecology, Diversity, and Conservation.

By Jaboury Ghazoul and Douglas Sheil. Oxford and New York: Oxford University Press. $125.00 (hardcover); $65.00 (paper). xvi + 516 p. + 10 pl.; ill.; index. ISBN: 978-0-19-928587-7 (hc); 978-0-19-928588-4 (pb). 2010.

Not since Richards's *Tropical Rain Forest: An Ecological Study* (1952. Cambridge (UK): Cambridge University Press) has there been a leading textbook on tropical forest biology. Recent candidates dwell on natural history or focus on specialized research aspects. *Tropical Rain Forest Ecology, Diversity, and Conservation*, with its cross-disciplinary approach, geographic balance, and integration of classical ideas and current research, is poised to follow in the footsteps of Richards's volume as the outstanding tropical biology textbook of its time.

The book is arranged into three sections. The first section, The Natural Heritage (four chapters) presents an overview of the taxonomic diversity of tropical forest plants, animals, and microbes and their interactions. Section II, Origins, Patterns, and Processes (eight chapters), the most substantive section, provides historical context from Devonian swamp forests to Pleistocene climate change. It reviews theories for the origins of tropical forest diversity and its ecological maintenance, drawing from ecosystem and community ecology, plant physiology, and evolutionary biology, and is updated with the most recent advances in phylogeny and ecological genetics. The final section, Our Future Legacy (five chapters), covers human impacts and conservation. This section is well done. Instead of reflexively describing humans as a destructive force, the authors attempt to weave humanity into the fabric of tropical forest history and ecology, and then outline political and ecological alternatives to rain forest destruction.

The book is richly illustrated, and relevant asides are expanded upon in boxes. There is an extensive glossary, and 80 pages of bibliography. This volume will be useful for students of tropical biology (with ecological or evolutionary interests), conservation biology, and global change. I would recommend the book to both newcomers and oldtimers for its insightful overview of a burgeoning but vital literature in tropical forest biology.

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Marine Ecosystems and Global Change.

Edited by Manuel Barange, John G. Field, Roger P. Harris, Eileen E. Hofmann, R. Ian Perry, and Francisco E. Werner; Technical Editor: Dawn M. Ashby. Oxford and New York: Oxford University Press. $150.00. xxiv + 412 p. + 28 pl.; ill.; index. ISBN: 978-0-19-955802-5. 2010.

The scarcity of large vertebrates in graduate oceanography curricula has long perplexed new students and other naifs, given the centrality of fishing in humanity's interaction with the ocean. Here at last is a book that addresses this paradox, synthesizing a decade of research by the international GLOBEC (Global Ocean Ecosystem Dynamics) program that aimed to "advance our understanding of the structure and functioning of the global ocean ecosystem … to forecast the responses of the marine ecosystem to global change." The opening chapters provide an outstanding overview of the global ocean as a complex system sensitive to the interacting influences of climate and human activities. But the volume's title advertises only one of its twin foci: GLOBEC was revolutionary in its concerted effort to link physics all the way up to fishes, birds, and even whales. In an important sense, GLOBEC initiated the oceanography of animals, an ambitious effort that has clearly been highly productive.

Importantly, the publication is more than a celebration of GLOBEC: it could serve as a textbook for a dawning era in which global change is the new normal. GLOBEC's central focus on "target