

detail the human factor in the ecosystem, as a long-standing resource user (Chapter 8) and in the less charitable role of an agency for change (Chapter 9).

No reader will fail to be impressed by the complexity of the picture of the ecosystem that Dr. Mabberley generates. A long history of events is reflected in what survives today. There is an infinity of intricate and changing associations through seasonal, developmental and even catastrophic events. Evidence is accumulating of dramatic and accelerating transformation of long-established relationships, and indeed the ecosystem overall, in recent decades. Copious references, the majority very recent, are given (as in the original edition, in concise format, which users may find inconvenient). Few errors have survived the editorial process: still fewer will confuse, although *P. globosa* for *P. biglobosa* on p. 182, and some irreconcilable Sri Lanka population figures at the top of p. 259, may be mentioned.

With professional foresters in the humid tropics being not only a sizeable part of this book's potential readership but an audience much needing to broaden its awareness of rain forest ecology, there are features I found disconcerting. There are no concessions in writing style to cater for readers whose first language is not English and an attendant disadvantage of packing so much information into only 300 pages is brevity of treatment of individual points in places (e.g. in Chapter 6). The many citations are, of course, leads to further information but in many of the world's rain forest countries little of this will be accessible. Nevertheless, the importance of the message overrides these shortcomings and the book is a worthwhile investment for both ecologist and forester.

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TROPICAL FORESTS IN TRANSITION

Tropical Forests in Transition: Ecology of Natural and Anthropogenic Disturbance Processes, J.G. Goldammer (Editor), Birkhauser Verlag, Basel, Switzerland. 1992, 270 pp., price SFR 98, ISBN 0-8176-2601-8 (Boston), 3-7643-2601-8 (Basel).

Change is the inescapable theme of our times in tropical ecology and forestry, and this book is one more contribution to that discourse. The volume, comprised of 16 chapters by 24 authors from six countries (primarily Germany), is the legacy of a meeting convened (no date given) at the University of Freiburg to strengthen interdisciplinary thinking in disturbance ecology.

To some extent, the book meets the editor's objectives, and it does so by including contributions from several disciplines that look at tropical forest change at many temporal and spatial scales. In addition to an excellent, synthetic introductory chapter by the editor, the book has three chapters that deal with paleoecology, eight that cover contemporary land use and disturbances, and four that treat models and global climate change.

There are many useful tidbits in the book: Flenley's presentation of Merton's hypothesis concerning the effect of UV-B radiation on altitudinal zonation; W. Schüle's intriguing case for the dominating role of megaherbivores in shaping the landscape (intriguing, that is, until he headed for outer space with his "Gedankenexperiment", at which point my intrigue turned into skepticism); two rare glimpses of the highland ecosystems of Ethiopia (by Uhlig and by Ubrig); and a report (by Werner and Balasubramaniam) of foliage from high elevation Sri Lankan forests containing more than 1000 mg g⁻¹ of aluminum, for example.

Inevitably, some of the detail herein should have gone first to a refereed journal, where it would have received the peer reviews it deserved. Examples include Fölster's treatment of naturally degraded forests on impoverished soils of southeastern Venezuela; R. Schmidt's chapter on degraded forests and succession in the Shimba Hills of coastal Kenya; and K. Schmidt's documentation of vegetation change and the forces responsible in Aberdare National Park, Kenya.

Of the modeling efforts, the detailed presentation in English (by Schäfer, Krieger, and Bossel) of FORMIX (and its monospecific cousin, TREE-GROW), process- and mechanism-driven forest growth (biomass and numbers) models, will be particularly welcomed by many in the international community. Esser puts the impact of the tropics on global change into excellent perspective with respect to the rest of the world; his cautionary interpretations are exemplary. Smith, Smith, and Shugart (the only North American contributors) show scenarios of tropical life zone change based on four global circulation models. Their work gives us reasonable ranges of change that might be anticipated, and their results are nicely illustrated through the judicious use of color on maps (also used successfully in Goldhammer's introductory chapter).

The weak point of this volume is editing — technical, copy, and linguistic. More effort on the part of the authors, the editor, and the editorial assistants would have converted this satisfactory volume into one of excellence. Peer review was obviously not part of the production effort, and a computerized spell checker and a read-through of page proofs would have eased the reader's burden.

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