

Review

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## Book review

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GOMEZ-POMPA, A., WHITMORE, T. C. & HADLEY, M. (eds). 1991. *Rain forest regeneration and management*. *Man and the Biosphere Series, Vol. VI*. United Nations Educational, Scientific and Cultural Organization, Paris; The Parthenon Publishing Group, Ltd., Carnforth, Lancs, UK; and The Parthenon Publishing Group, Inc., Park Ridge, NJ, U.S.A. xxiii + 457 pages. ISBN 1-85070-261-1 (British Library); ISBN 0-929858-31-X (Parthenon) (Library of Congress). Price: UK £35.00, US \$65.00 (hardback).

Forest managers like to say that, while physicians bury their mistakes, foresters are dead before anyone notices theirs. The heyday of tropical silviculture was the first half of this century, and it almost accompanied colonialism to the grave. Sufficient time has passed that we can readily see the defects in those early silvicultural schemes. Most failed for social, economic, and political reasons — primarily human population growth and economic greed, not because their ecological basis was faulty. Partly in response to increased public awareness of the biome's splendour and its endangered status, tropical forest management is in vogue once again. But this time the players are different; ecologists, physiologists, and taxonomists as born-again silviculturists; economists concerned with environmental values, not just raw material exports; political scientists assessing the international implications of forest use; anthropologists fitting management schemes to local peoples' needs and wishes, rather than vice versa; and atmospheric scientists evaluating the global implications of management practices.

This volume, consisting of seven reviews of about 20 pages each (exception: one ponderous monograph of 45 pages), 23 shorter case studies, and introductory and concluding chapters, was intended to convey to managers, teachers, and researchers present knowledge on rain forest regeneration. Five of the seven reviews stick closely to the volume's title: Oldeman & van Dijk, on tree temperament (their term); Whitmore, on gaps; Bazzaz, on physiology; Bawa & Krugman,

on reproductive biology and genetics; and Janzen & Vázquez-Yanes, on seeds. A sixth (Jordan, on nutrient retention) seems only indirectly related, at best, to regeneration.

The seventh review and, to my mind, the best chapter in the book, is a clear, concise overview of tropical rain forest management by R. C. Schmidt (the only forester, incidentally, to contribute to thematic review). His 'round the world tour of tropical silviculture' provides both historic perspective and up-to-date assessments, and he makes good use of FAO documents and in-country reports, where so much tropical forestry research is buried. Here is a chapter to which I can confidently refer students and colleagues in need of a crisp, accurate summary. Every conservationist, for example, should read and heed his conclusion:

'...failure [to achieve sound management] would result in the disappearance of most tropical rain forests.

[E]conomically unproductive areas in tropical countries will continue to be highly vulnerable to agricultural development or conversion to other uses, even if such development is unsustainable. There is no economically profitable alternative use known for large areas of biologically highly productive forests.'

The case studies can be divided into two main categories. First, there are those containing previously unpublished data, many of which might better have been submitted to journals, where they would have received the editing and peer review they deserve. Among the best in this category are chapters on: river dynamics (Salo & Kalliola) that might help explain biological diversification; the demographics of a non-timber tree (*Brosimum*) in Mexico (Peters); seedling recruitment in Nigerian (Okali & Onyechusim) and Papua New Guinean (Saulei & Lamb) forests; and frugivorous birds and bats, and their relevance to rain forest management, in Australia (Crome).

The second category of case studies includes those that give an overview, many in English for the first time, of programmes in the tropics. Among these, I found the following to be most informative: Maury-Lechon's description of forest dynamics in French Guyana; Anderson's treatment of 'tolerant' forestry near the Amazon estuary; Appanah & Salleh Mohd. Nor's synthesis on natural regeneration on Peninsular Malaysia; Nair's stinging but thoughtful indictment of economically driven forest management in India; Maître's overview of silviculture in Côte d'Ivoire, with insights on differences between thinnings and commercial harvests; de Graaf's concise summary of the Celos management system, in which he emphasizes the uniqueness of the Suriname situation; and Dubois' quick tour of ongoing research in the Brazilian Amazon.

The first language of many of the contributors is not English, and this conveys a special editorial responsibility. Because the gestation period of this book was more than four years, I expected better editing by this experienced threesome. Consequently, the book is more difficult to read and at least 100 pages longer than necessary. But many of the morsels it contains are published nowhere else, and several of the syntheses are unique, so everyone interested in this timely and important topic is obliged to adopt the heron approach: wade, pick, and spear, but run the risk of coming up with mud.

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