

## BOOK REVIEW

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*Vegetation of the Tropical Pacific Islands* by Dieter Mueller-Dombois and F. Raymond Fosberg, Springer Verlag, New York, 1998. 733 pages, 521 illustrations. ISBN 0-387-98285-X (hardcover), \$135; ISBN 0-387-987-98313-9 (softcover), \$59.95.

THIS IMPORTANT WORK is the culmination of nearly 100 yr of combined research and experience of both authors concerning the vegetation of the islands of the tropical Pacific. Unfortunately, F. Raymond Fosberg died in 1993 before the completion of the manuscript, but his contributions are substantial throughout. The tropical Pacific encompasses one of the largest geographic regions of the world, with literally thousands of islands ranging from tiny islets and atolls to larger continental fragments such as New Caledonia. Encompassing several floristic regions, the area is particularly rich in endemic species, many of these giving rise to unique vegetation types. Before the publication of this book, no comprehensive or comparative treatment for this vast region's vegetation was available. Drawing upon both personal knowledge and extensive literature reviews, the authors bring together virtually all pertinent information on the subject, including climate, geology, floristics, and vegetation ecology for all island groups (including all islands of general biological significance) within the region. Additional information about the impacts of humans (both aboriginal and after European contact) and the prospects for conservation within the region is also included, which makes the work not only useful for ecologists and biologists, but for a wide variety of other users.

The book is both well written and pre-

sented with 521 illustrations, including excellent maps, diagrams, tables, and color photographs, many of which were previously unpublished. Logically structured, the text builds on a chapter discussing the factors that control vegetation including geographic, geological, and climatic setting, and general vegetation types within the region. The following chapters then treat each region separately, detailing each of the factors described previously. The regions covered are western Melanesia, eastern Melanesia, subtropical islands of New Zealand (Lord Howe, Norfolk, and the Kermadecs), Micronesia, central Polynesia, western Polynesia, eastern Polynesia, northern Polynesia, and the oceanic islands of the eastern Pacific (including the Galápagos and Juan Fernández). The treatments for all these areas are generally very good, including even complex ones such as New Caledonia. However, as in any work drawing upon large numbers of previously published works, not all of the primary source information is necessarily reliable. The book suffers slightly in some chapters where the primary literature is incorrect or wanting. In some cases, improvements might have been possible by consulting more specialists familiar with the floras of some of these lesser-known regions.

This work, being a synthesis, draws upon many previously published works, and the extensive reference section provides all necessary literature citations. A particularly useful feature is a checklist of Pacific plant names that includes important families, genera, and many species. The book is also well indexed, which makes it a handy quick reference as well.

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My only major criticisms concern typographical and nomenclatorial errors within the text that could have been caught by a more rigorous editorial process. The nomenclatorial errors are to be expected because taxonomic names published in older literature have in some cases changed, but these may cause some confusion to readers unfamiliar with the older synonyms. Care must be taken in using the checklist of Pacific plants, because it is neither comprehensive nor taxonomically correct in its entirety.

Unlike many other academic publications, the book is fortunately available in a "student" or softcover edition (also printed on acid-free paper like the hardcover edition) at a substantially reduced price, which will

make it available to a much wider audience.

The book is a landmark achievement and will serve as the definitive source of information on the vegetation of the tropical Pacific for many years to come. For the first time ever, a reader can gain an excellent overview of the vegetation and related information for a specific island or region of the Pacific from a single source. It forms an outstanding framework from which to base future terrestrial research and conservation efforts within the region and is an essential reference for anyone studying the vegetation and flora of the Pacific or adjacent regions. It is also highly recommended to anyone with advanced interests in the evolution and ecology of the insular tropical Pacific region.