

This is a unique achievement in the course of political life in the Pacific for as the author puts it "the attainment of independence by the Nauruan people has wider significance for it shows that where economic and social circumstances are favourable, the attainment of legal sovereignty need present no insuperable problems." (p. 177)

The author also provides an excellent set of tables and references as an appendix to her work. This tale of one people's journey to nationhood is readable, informative, and enjoyable. A fine gift to a new island nation!—FR. THOMAS B. MCGRATH, S. J., *Micronesian Area Research Center, University of Guam, Agana, Guam.*

THE SEA-GRASSES OF THE WORLD. By C. den Hartog. 1970. *Verhandelingen der Koninklijke Nederlandse Academie van Wetenschappen, afd. Natuurkunde, 2nd Ser.*, 59(1): 1–275, 63 line figures, 31 half-tone plates. \$15.40. This valuable contribution to Pacific botanical literature provides a workable taxonomy for the ecologically important flowering-plant segment of the marine vegetation. Since the times of P. Ascherson, F. J. Ruprecht, and K. D. E. König seventy to a hundred and seventy years ago no similarly comprehensive single monographic treatment of this ecologically, evolutionarily and sometimes commercially important group of plants has appeared. The author of the present volume has combined the results of his many years of active field and laboratory study at the Rijksherbarium of the Netherlands with a review of the world's widely scattered published information and produced what would seem to be both an illuminatingly detailed and logically reduced, useful, comprehensive treatise.

One could use a guide to the nontaxonomic information such as a subject index. However, the Table of Contents at the front is accompanied by page numbers leading to the sections within the genera, and there is an index to the recognized taxa and names. A book reviewer would conventionally conclude this treatise is nicely printed and serviceably paperbound. The text is accompanied by 31 well-selected photographs of different of the seagrass com-

munities from a wide geographic range. The few typographic goofs will only really disturb the author himself.

Several taxonomic novelties are presented. Two new genera are described, the monotypic *Heterozostera* (Holotype: *Zostera tasmanica* (Ascherson) and *Thalassodendron* (Holotype: *Zostera ciliata* Forskal), with two species. New names at the species level are: *Amphibolis griffithii*, *Heterozostera tasmanica*, *Posidonia ostenfeldii*, *Thalassodendron ciliatum*, *T. pachyrhizum*, *Zostera americana*, and *Z. mucronata*. All these novelties applying to newly recognized or named specific taxa are provided with Latin descriptions, illustrations, and Type specimen selections. However, the Type specimen for the basionym of *Heterozostera tasmanica*, which is the Type for the generic name, *Heterozostera*, is not designated. Most of these new species names are for entities previously recognized but which would not otherwise have tenable names in the present taxonomy.

The vegetative morphology of the species is given detailed attention with many of the taxonomically useful criteria being illustrated by clear line drawings. A key to the genera is based on sterile material. This key is found to be a blessing to the nonspecialists, the ecologists, and morphologists, for it will greatly aid them in identifying these usually sterile plants and will thus serve as an inducement to experimental nontaxonomic studies. Likewise the keys to the specific taxa are also largely based on the leaves and rhizomes.

Frequently the author clearly notes gaps in our knowledge of this group, e.g., he draws attention to the structures that need interpretation, such as the inflorescence and flowers of the Zosteroidae and their retinaculæ. Similarly attention is directed to gaps in distributional, ecological, phenological, and chromosomal information. Thus, this treatise should form a guide to those having opportunities to make such special studies of these plants.

Perhaps a major interest of den Hartog's is in the extensive ecological information, including biogeography, derived from personal observations in the field and herbarium. Again, numerous odd situations are revealed. For example, *Heterozostera* is known from a good many collections in all the southern

Australian states and one collection from Chile. While *Zostera*, *Phyllospadix*, and *Heterozostera* are extratropical, most of the remaining genera are tropical or predominantly so.

The fascinating distributions of these monocotyledons lead the author naturally to postulations concerning their paleo-distribution. Assuming monocots moved into the sea in Cretaceous or more recent times, it is accepted that many contemporary species arose in the late Cretaceous or early Tertiary. If this is true for the vicarious species pairs of the Indo-Pacific and American Mediterranean regions, those of this latter region could be expected on both sides of the Isthmus of Panama, a fact also true for *Halodule wrightii* which occurs on both sides of the Isthmus of Suez. The American species, *Halodule besudettei* and *Halophils baillonis*, do not tend to occur on both sides of the Isthmus of Panama and den Hartog feels the populations of *H. wrightii* are sufficiently distinct that they may be considered at least as incipiently two species. Fascinating examples of pan-tropic, bipolar, and other distributions are common in the group, all well documented. In this respect den Hartog's monograph is provided a fine complement in the even more broadly based biogeographic study by A. C. Smith, "The Pacific as a Key to Flowering Plant History" (26 pages. Published in 1970 by the Harold L. Lyon Arboretum of the University of Hawaii) which, likewise, is a result of many years spent in accumulating and analyzing empirical evidence.

Den Hartog's ideas often contrast with the classical as in the case of the origin of the sea grasses. He believes they arose from "salt-tolerant shrub-like terrestrials with sympodial rhizomes and cymose inflorescences" able to tolerate some salt water as would be necessary if they were intertidal. One cannot help but wonder at the lack of such ancestors in today's floras. The classical concept suggests an evolution of species from land to fresh water to brackish water to the sea.

Other times den Hartog does not use evidence or does not interpret interesting information as in the case of the species of *Enhalus*, *Posidonia*, and *Thalassodendron*, genera unique in having buoyant fruits. In a few cases he ignores international practice as in the case of typifying

Halophila where he chooses an illegitimate name for a species that was neither described by the author cited nor for which there is a Type specimen or any obligate connection to the genus via Du Petit Thouars, author of the name, *Halophila*. However, lack of application of the type method and other requirements of the International Botanical Code are common in taxonomic literature and as often they are for reason of expediency as from lack of either sympathy for the Code or lack of knowledge as to how to apply it.

All in all it is a splendid monograph to have at hand; biologists concerned with shallow marine communities will find this book most useful. Botanists concerned for these plant families—the Potamogetonaceae and Hydrocharitaceae—will find this treatment of their marine members indispensable.—

MAXWELL S. DOTY, *Botany Department, University of Hawaii, Honolulu, Hawaii.*

THE CONGRESS OF MICRONESIA. By Norman Meller (with the assistance of Terza Meller). 1969. University of Hawaii Press, Honolulu. × +480 p. \$12.00.—This book is a comprehensive account of the development of legislative bodies in the Trust Territory since the beginning of American administration in 1945. Based on ten years of research the work is divided into fifteen chapters which provide background data and a description of the development of district legislatures (Chapters 1–6), discuss the emergence and development of a pan-Micronesia legislature (Chapters 7–9), and describe the form and functions the latter assumed at its initial sessions (Chapters 10–14). In the concluding chapter the author offers some predictions for the future.

The book is written by a political scientist and is primarily directed to students of that discipline, but information contained in it will interest cultural anthropologists who have worked in Micronesia and others involved in acculturation studies. Chapter 5 which describes the traditional leadership of the various districts and, Chapter 6 which gives an account of the problems in negotiating the Yap District legislature are of special interest.

Early in the book Professor Meller makes a