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BOOK REVIEWS

Island Biospheres

VIRGIN ISLANDS BIOSPHERE RESERVE BASELINE STUDIES: MARINE AND TERRESTRIAL ECOSYSTEMS OF THE VIRGIN ISLANDS NATIONAL PARK AND BIOSPHERE RESERVE. 1988. Published jointly by the U.S. Department of the Interior National Park Service and by the Virgin Islands Resource Management Cooperative. The individual reports and a 30-minute videotape of the "biosphere reserve" concept can be purchased from Island Resources Foundation, Publications Center, 1718 P Street NW, Suite T-4, Washington, D.C. 20036.

This series of 29 technical reports, totalling over 2,300 pages, is the product of 5 years of work by over 50 researchers from a dozen institutions. The information presented in these reports largely pertains to the ecosystem, including terrestrial and marine components, of a specific island, St. John in the U.S. Virgin Islands. Emphasis in these studies was given to long-term monitoring sites. Despite the details of the habitats and the particular species in the individual reports being relevant to the Lesser Antilles, the combined product can be considered on a global basis as a landmark example of a biosphere program. One hundred fourteen nations are now participating in the UNESCO Man and the Biosphere (MAB) Program. But a case study of a biosphere program in operation has been needed so that resource managers can evaluate the role of biosphere reserves in developing sustainable economies. This series of technical reports may begin to fulfill this need, especially for systems of small islands like Micronesia.

The concept of the biosphere program is that in order to develop a sustainable economic system, it will be necessary to have an understanding of both the regional ecological processes and the socioeconomic system. To be realistic, conservation measures must take into account the local socioeconomic pressures, and the direction of economic development must take into account the local ecological constraints. The basic design for a biosphere reserve includes one or more natural areas in which the region's characteristics may be studied free (as possible) of human influence. This will provide a baseline against which the effects of human activities can be assessed in other nearby areas. The program includes experimental and demonstration areas where scientists, managers, and local people work together to plan, test, and implement economic uses and activities that are culturally and ecologically appropriate.

The broad-scale perspective of the UNESCO Man and the Biosphere (MAB) Program has led to reports on disparate aspects of the ecosystem at St. Croix, although all relate to resource management and economic development of the small island. Among the 29 technical reports, topics include assessment and long-term monitoring of fish and mollusc populations, long-term monitoring of fisheries yields, the impacts of human activities such as anchoring and coastal development, descriptions and maps of habitats, monitoring of diseases of corals, socioeconomic and cultural role of fishing, historic patterns of land use, sedimentation and reff development, and the basis for a zoning plan for the reserve.

The first volume contains an executive summary and an abstract of each of the reports. The final volume (No. 29) is a synthesis which summarizes what has been learned about ecosystems and the socioeconomic environment of St. John. A synthesis of selected resource management information, an overview of the history, geography, geology, climate, marine and terrestrial habitats, stresses to the habitats, human uses, fisheries, and recommendations for future research and resource management are included.

CHARLES BIRKELAND, *University of Guam*

New Guinea Flora

AN ANNOTATED CHECKLIST OF THE FLORA OF KAIRIRU ISLAND, NEW GUINEA. O. William Borrell. Bulleen, Vic., Australia. Publ. by the author. i–xii, 1–241. 1989. ISBN 0 7316 4463 8. Price $A20.00. Order from Marcellin College, 160 Bulleen Rd., Bulleen, Vic. 3015, Australia.

O. W. Borrell, or Brother Borrell as he is widely known, is a Research Associate in the University of Melbourne's School of Botany. Between 1974 and 1979, while teaching at St. Xavier's high