A. BORHIDI

PHYTOGEOGRAPHY AND VEGETATION ECOLOGY OF CUBA

Akadémiai Kiadó, Budapest, 856 p., 380 Figs., 165 colour plates, 145 ass. Tabs., 22 pp. of references, 1 colour map 1: 1,250,000.

After absorbing a course of tropical botany in Paris the author of this comprehensive book worked in Cuba for 14 and later for 29 months, preparing a vegetation map of the whole island. With help of the Cuban collaborators, Borhidi worked out about 500 vegetation relevés.

Phytosociological data were prepared by computer processing. This task was not easy one as the Cuban flora contains at least six and a half thousand vascular plant species. The synthetic table of 20 woody communities is here presented on 158 pages! The expedition collected about 20,000 herbarium sheets worked out with help of the best Cuban taxonomist, J. Acuña Gallé; the collection gave 350 new taxa, including 5 new genera.

The above data illustrate the amount of material necessary to prepare this book.

The first part of the monograph deals with bioclimatology (p. 29-114), the second with pedology (p. 117-155). Special interest is given to serpentine soils. They occur on 7,500 km² in different parts of the island. About 920 Cuban endemic species and 24 genera of plants grow on serpentine. The third part (179-272 p.) discusses the phytogeography of Cuba and the Caribbean region. More than 50 % of Cuban plants are endemic; there are several tertiary relics, like *Microcyas* etc.; there are numerous genera with a very disjunct area, e.g. the genus *Cneorum*, occurring in the Mediterranean in Europe and in Cuba, the genus *Oplonia*, growing in Madagascar, on the W coast of S. America and in the Caribbean etc. The 4th part gives the phytogeographical regionalization of Cuba; the 5th characterizes the vegetation mapping units, including rainforests, seasonal evergreen forests, semideciduous forests, tropical karst forests, dry forests and shrubwoods, semidesert cactus shrubs, coniferous forests with *Pinus tropicalis*, *P. caribea* and *P. cubensis*, savannas and grasslands, freshwater vegetation including i.a. riverside gallery forests, swamps etc. and lastly coastal vegetation, including i.a. mangroves and the vegetation of sandy beaches.

The last part of the book (p. 469-643) gives a systematic survey of the plant communities of Cuba, including 27 classes and 56 orders.

As far as I know this is the first such big and complex geobotanical modern monograph from the Neotropics. It can be used as a model of such monographs elsewhere. It is a pity that in view of the high percentage of endemic species, the vegetation syntaxa described in this book can hardly be used elsewhere outside the Caribbean region.

The monograph by A. Borhidi brings a wealth of interesting data and ideas concerning not only phytocenology, but also bioclimatology, phytogeography, pedology and plant ecology and is worth reading not only by those who have had the opportunity to work in this tropical island.

EMIL HADAČ