

Book Review

W. J. JUNK, J. J. OHLY, M. T. F. PIEDADE and M. G. M. SOARES: **The Central Amazon Floodplain: Actual Use and Options for a Sustainable Management.** Backhuys Publishers, Leiden, 584 pp., ISBN 90-5782-074-9 NLG 296.00, US\$ 148.00

The book is a result from a long term cooperation between the German Max-Planck Institute of Limnology and the *Instituto Nacional de Pesquisas da Amazônia-INPA*, Brazil. It contains 36 contributions of Brazilian and German researchers. An expressive number of chapters are lead by researchers from the working group of Tropical Ecology at the Max-Planck-Institute for Limnology in Plön, Germany, one of the most important centers devoted to the study of Amazon ecology. It also testifies the growing reputation of local institutes such as: *Instituto Nacional de Pesquisas da Amazônia-INPA*, *Fundação Universitária do Amazonas (FUA)* or *Universidade Federal do Mato Grosso (UFMT)*.

The first part of the book deals with the description of the floodplain (locally called as *várzea*) ecosystem (chaps. 2–7, 21). Missing in this part, is a chapter about the basic and applied aspects of limnology in the various floodplain freshwater biotopes. The farming and fruit cropping are treated in five chapters (chaps. 8–12). A wide range of topics is treated such as the actual dependence of imports of common vegetables in the Manaus area, new methodologies for the optimization of the existing farming systems and the prospects and constraints of future development of agriculture in the region.

Cattle raising is one of the earliest and still most important land uses of the floodplains. Chapter 13 describes the natural grasslands of the *várzea* including their ecological significance and the potential as food resources for cattle raising. Chapter 14 begins with a brief analysis of the ecological impacts of the use of artificial pastures. The concepts of “grassification” and “africanization” of the *várzea* landscape are discussed. The two next chapters (chaps. 15 and 16), cover beef production and diseases of cattle and water buffalo and their impact for the regional economy and public health.

The next section deals with forestry, including the economic potential of native tree fruit (chaps. 17–18). Although *várzea* can be flooded up to 210 days per year, the forests of this region are highly diverse and the productivity is elevated. Like other tropical woodland, floodplain forests offer a high variety of commercial non-timber products. In chapter 18, D. WALDHOF and ALENCAR bring information about the chemical composition of some tropical tree fruits and its significance for the fish fauna.

According to V. BATISTA *et al.* (chap. 19), the Amazon floodplain possesses the most diversified fauna of freshwater fishes in the world, with more than, 1,500 described species. The chapter describes the most important commercial fishes as well as the most common fishing practices. The differences between commercial and subsistence fishery is the main topic of chapter 20.

In chapter 22, F. NOGUEIRA and W. JUNK bring an inventory of the methods used for gold extraction as well as the spatial distribution of gold mining in the Amazon region. The chapter also presents some alarming values of mercury contamination of the riverine human populations. The next chapter (chap. 23) covers the existing legal network and the necessity of further regulation, specially concerning the identification, demarcation and regularization of dominion on *várzea* lands.

In final chapter (chap. 24), W. J. JUNK reviews the international cooperative research in Amazon floodplains, the impacts of the different land uses on the ecosystem. An analysis of the role of basic and applied research for economic development under sustainable conditions is also presented.

Despite, being a multidisciplinary collection of different contributions, the book has a unifying approach. Different alternatives of integrating aquatic and terrestrial resources are presented in order to achieve a sustainable human occupation of the *várzea*. It demonstrates that increasing profitability of human land use in this region is not necessarily against the maintenance of biodiversity or the necessity of preserving the integrity of habitat structure and ecosystem functions.

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