

### Book review

JUNK, Wolfgang J. (ed.): *The Central Amazon floodplain. Ecology of a pulsing system.* Ecological Studies 126. xxiii + 526 p. Springer. DM 248, US\$ 197. ISBN 3-540-59276-8.

In ecological literature a separation of terrestrial and aquatic systems has generally helped detailed exposition and analysis. It is, however, defied by some intergrades in space and time. One of the most celebrated time-intergrades is the Amazonian floodplain. It has attracted many intensive studies, ably summarised in this book by 23 authors linked with the 35-year cooperation between the Max-Planck-Institut for Limnology at Plön in Germany and the Instituto Nacional de Pesquisas da Amazônia (INPA) at Manaus in Brazil.

As a compendium the work has the advantage of specialist expertise with the potential disadvantage of 23 separate chapter contributions. However much linkage of the latter is achieved by the skill of the editor, Dr. W.J. JUNK, in structuring the whole, in providing generalised introduction and conclusions, and in co-authorship of 10 chapters dealing with an impressive range of subjects. The main body of the book is arranged in 3 sections around the physical and chemical environment, plant life, and animal life. In all these aquatic and terrestrial aspects are interleaved. Emphasis is placed upon the concept of the **floodpulse** as the dominant controlling influence, with organic inputs from distant parts of the catchment of little significance compared to those exchanges between waters and their surrounding floodplain.

In many respects the book is complementary, rather than an updated successor, to the 1984 monograph on the Amazon edited by H. SIOLI. It is devoted to the floodplain rather than the river as a whole; quantitative functional ecology is emphasized, with a strong chemical background. The last appears, for example, in discussions of chemical stocks in soils and biota, nitrogen turnover, methane emission, and decomposition. The largely predictable time-variation of water level is an inevitable reference for almost all aspects of ecology, although other aspects of physical limnology are but briefly treated.

Although the book describes and analyses a single geographical region, it is pre-eminent as a contribution to general issues that surround the periodic interconversion and exchanges between aquatic and terrestrial habitats. In this respect one could have welcomed a fuller comparison with other floodplain systems, as surveyed world-wide by Welcomme. Further, the consequences of the river floodpulse can - in the general case - be varied according to the precipitation input, the river gradient involved, and the climatic restrictions upon adjacent biomass development. Nevertheless such vistas of comparative ecology must be soundly based upon intensive regional studies, of which this book is a distinguished example. It is well produced, well illustrated, and generally readable; unfortunately the price is high.

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