

BOOK REVIEW

An Amazonian Rain Forest: The Structure and Function of a Nutrient Stressed Ecosystem and the Impact of Slash-and-Burn Agriculture. C.F. Jordan [Ed.]. Parthenon Publishing Group, Park Ridge, NJ. 1989. Pp. xii + 176 plus tables, maps, photographs. \$49.00. This volume represents No. 2 in a series "Man and the Biosphere."

The amount of research on which this book is based, together with the masterly use of scientifically sound literature, make this volume extremely valuable to all who have interests in our rain forests and how to save them from systematic, and unfortunately in some tropical countries, governmentally sponsored or encouraged devastation or destruction.

The primary work on which the book is in part based is the result of intensive research in San Carlos on the Rio Negro of Venezuela. This is probably one of the highest nutrient deficient areas of the northwestern Amazon due primarily to its geological composition. But this emphasis on such an area does

not detract from the wealth of information (from personal and literature sources) that applies well to many other parts of the Amazonian basin. As the author himself states, even though he understandably says that "the book does not ... attempt to present the results of the whole study [at San Carlos] ... it concentrates, instead, on a limited range of questions related to nutrient stress in tropical rain forests ..."

The other aspect of this book concerns the affects of the "slash and burn" agriculture carried on by many, if not most, native inhabitants of the Amazon. The literature is full of criticism of the slash and burn system of agriculture. As a botanical explorer who has spent 48 years in field studies in the northwest Amazon, partly at San Carlos, who has consistently defended this type of agriculture for most upland Amazonian agriculture, I am pleased to see the author did not find it wholly detrimental to agriculture and not detrimental to the ecosystem.

The volume is divided into seven sections: Introduction; The Amazon region and San Carlos site; Nutrient stress and plant/animal communities near San Carlos; Nutrient conservation mechanisms of the forest; Comparison of San Carlos forests with those of Other Tropical Regions; Slash-and-Burn Agriculture and Productivity/Nutrient Dynamics; Secondary Succession and Productivity/Nutrient Dynamics; Implications for Management. There follows four appendices: (A) Angiosperms, Mammals, Birds, Fish; (B) Small Mammals, Fish, Decomposers; (C) Soils, Forest Biomass, Forest Productivity, Post-disturbance Productivity, Nutrient Concentration in Biomass, Water Budget, Nutrient Fluxes; (D) Acknowledgements. There follows a selected bibliography of 283 references and a full index.

The Parthenon Publishing Group is to be congratulated for producing this useful and scientifically valuable book so attractively and in hard cover which will resist the constant use that the volume will certainly get.

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