

BOOK REVIEW

New Directions in the Study of Plants and People: Research Contributions from the Institute of Economic Botany. G. T. Prance and M. J. Balick (Eds). *Advances in Economic Botany* 8. New York: The New York Botanical Garden. 1990. Pp. vii; 278. \$55.00 (paper). ISBN 0-89327-347-3.

This highly readable volume is designed to show the depth and breadth of the research activities of the Institute of Economic Botany of the New York Botanical Garden. While admirably profiling the IEB, it presents numerous articles of significance in the fields of economic botany, ethnobotany, human ecology and

population biology of economic plants. The articles are well illustrated and there are indices of common and scientific names of the species mentioned, but no general index, a minor inconvenience. Fourteen of the 17 articles are focused on the Neotropics. The other three are more globally focused surveys of piscicides, *Paullinia* (a medicinal and stimulant genus) and poisonous Anacardiaceae.

There are two economic botany reviews, one of a species, the other of a genus. Mori and Prance provide an extremely useful review of the Brazil nut, highlighting its long history of use by humans and identifying key references that are hard to find. Prance provides a review of the genus *Caryocar*, many species of which are important fruits and nuts in tropical America with potential to become "new" crops.

Salick and Lundberg study the effect of change on an Amuesha community's agriculture and developing interactions with the modern Peruvian economy. The diversity of agricultural practices and genetic resources are shown to be the result of numerous personal and community decisions, some of which are seldom adequately examined. For example, the difficulty of storing seed in a humid tropical environment can explain the planting of maize in what would normally be the off-season. Newly formed families and the stability of more established ones can also account for considerable variation in plot size and plot species diversity.

Padoch and de Jong trace the history of a Peruvian community during this century and identify the effects of the various forest product booms on it. The tribal origins of many members of the community are identified with the numerous moves made by the community in search of new sources of the forest products that had demand at various times.

Peters and Hammond study the population biology of three Amazonian fruit species, all of which occur at relatively high densities in apparently unmanaged forest. The sustainable harvest of forest products is currently suggested as a way of developing the humid tropics without destroying the forest. The viability of this development option depends first of all on the population biology of the forest species. The authors examine the demographic structure of the populations and discover that all three species show strong recruitment even though they are also subject to significant harvest pressures. They also examine spacial distribution, reproductive phenology and individual tree yield. With this information they can estimate population yield and relate this to market value. The three species studied are found to be good candidates for sustainable harvest. This excellent study is a model for examining any species that is recommended for harvest from the forest.

May examines the recent history of the *babassu* (*Orbignya phalerata*, Palmae) market in the face of technological change in northeastern Brazil. This type of study is essential if one desires to market forest products. May poses and answers several important questions: why is *babassu* (or any other forest product) in decline today? How does the market structure encourage or discourage harvesting and marketing? How is technological change affecting the harvesting, marketing, and processing of this product?

Strudwick provides an interesting look at an apparently new forest management practice to sustainably harvest hearts of the *assai* (*Euterpe oleracea*, Palmae) in the Amazon River estuary. Unfortunately he does not provide the exact location

nor the name of the company (probably at their request), so it will be impossible to accompany this promising practice in the future without the author on hand. This, in fact, is one of the difficulties faced by many ethnobotanical researchers as we attempt to protect our consultant's privacy or see that they receive an equitable return on the information provided.

Williams provides an excellent summary of the late pre-contact and early post-contact literature that bears on the botany practiced by the Nahuatl speakers, the Aztecs and related peoples, of southern Mexico. As with many other aspects of the high Neotropical civilizations, Nahuatl botany appears to have been more advanced at contact than European botany. This important article identifies many of the sources necessary to study Nahuatl ethnohistory and botany and may help shed light on the Nahuatl pharmacopeia and the domestication of numerous Mesoamerican crops.

As with the earlier volumes in the *Advances in Economic Botany* series, this is well worth the rather steep price for a paperback. Fortunately, future volumes are more accessibly priced. The book is highly recommended for students and professionals in economic botany, ethnobotany, population biology, human ecology, and the sustainable development of the humid tropics.

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