

ground information in historical and geographical contexts rather than making sweeping generalizations about all indigenous peoples. She accomplishes this through a well-documented discussion of the environmental impacts of the mixed foraging and farming systems prevalent among eastern indigenous peoples. Her chapter recognizes Eastern North America as an important independent center of plant domestication, and discusses the historical effects of diversified foraging and farming strategies on species diversity, community level diversity, and ecosystem diversity. However, Fritz cautions against the current reactionary trend to overestimate the impact of Native Americans, and warns that such arguments may be appropriated by profit-oriented industries to justify currently destructive practices. Julia Hammett's final chapter utilizes ethnohistorical evidence to describe the initiation and maintenance of a shifting mosaic of environmental "patches" in the Southeast prior to European contact. By providing a valuable assessment of how to use documentary records as data sources, Hammett broadens the scope of methodological possibilities for exploring historical human-environmental interactions.

Collectively, the contributors to this volume provide an insightful and well balanced understanding of the relationship between biodiversity and Native Americans, past and present, as well as a much needed commentary about the utility of this knowledge. Although the theme of indigenous empowerment, intellectual property rights, and involvement in management projects could have been developed further, this book clearly demonstrates that issues of native biodiversity have more than mere academic relevance. As a result, this book is useful for students, scholars, and environmental managers of North American biodiversity, as well as persons interested in human-environmental relations throughout the world.

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**Participatory Approaches to the Conservation and Use of Plant Genetic Resources.** Esbern Friis-Hansen and Bhuwon Sthapit (eds.). International Plant Genetic Resources Institute Publications, Rome. 2000. Pp. 214. \$32.00 (paper). ISBN 92-9043-444-9.

Several sections of the Convention on Biological Diversity (hereafter, the Convention) highlight the relationship between indigenous and peasant peoples and the sustainable use of our world's biodiversity. Signatory countries to the Convention have agreed to recognize this relationship and respect the ecologically sound traditional knowledge that indigenous and peasant communities employ in managing their resources. The Convention signatories also have agreed to involve and equitably share benefits with these local communities in development interventions undertaken by their governments and their partners. One of the international organizations that appears to have taken these sensible and ethical prescriptions to heart is the International Plant Genetics Resources Institute

(IPGRI), based just outside of Rome, Italy. IPGRI is the premier NGO that undertakes, facilitates and coordinates research, conservation and educational programs on plant genetic resources (PGR) worldwide, especially in less-developed countries. While engaged in a broad range of activities linked to both wild and domesticated plants, the greater part of IPGRI's efforts focus on agrobiodiversity. With funding from Denmark's Center for Development Research, IPGRI published this most welcome addition to a growing collection of texts on participatory agrobiodiversity conservation. This body of work, and specifically this book, is an important mechanism for helping agricultural scientists, development specialists, and NGOs understand how they can better involve and assist indigenous and peasant peoples in sustainable agricultural development.

Composed of a preface, an introduction, 25 chapters distributed over five sections, and two appendices (a list of acronyms and a glossary), this edited volume provides a methodological initiation to participatory approaches in the conservation of PGRs, and a compilation of case studies describing the successful application of these approaches in developing countries. A "participatory approach" (or "informal model" approach) is the agrobiodiversity community's way of labeling what occurs when indigenous or peasant farmers are invited (and they accept) to become fully involved in defining problems and seeking solutions within the context of PGR conservation and sustainable use programs. In other words, traditional peoples and their ecological knowledge are integrated into a range of agricultural developmental undertakings from planning, to research and conservation, to production system change, to public awareness and policy revision. Many anthropologists, and especially ethnobiologists, will not be surprised by the positive results attributed to this approach, which is described on p. 12 of the book as a "dramatic change" from existing approaches. Ethnobiology as a field took the lead in promoting this change, and it is a pleasure to read how this paradigm shift is now bearing fruit in so many agrobiodiversity conservation and agricultural development projects around the world. The relative lack of success with the "top-down" (or "formal model") development approach, especially when compared to results achieved through participatory approaches, is also described in several chapters. This conclusion is especially relevant because the agricultural development specialists from the less-developed countries reached it themselves, indicating the extent to which the participatory approach is now accepted and being applied at local levels throughout the world. Similarly encouraging are the calls throughout the chapters for greater involvement of social scientists in agricultural development programs.

The editors have grouped the contributions into five thematic sections: participatory approach methods and gender issues; descriptions of how gene banks now serve local communities and not just formal sector scientists; participatory approaches in crop selection; public awareness raising; and policy changes associated with plant genetic resource conservation and use. Several weaknesses in the presentation detract from the book's readability. It is perhaps inevitable in a book with 25 short chapters that many of the introductory statements repeat the same theoretical justifications and methodological prescriptions. But after reading similar opening paragraphs five or six times, I wished the editors had exerted more control over introductory statements by the chapter authors. The strength

of the case studies resides in how and why participatory approaches succeeded in location- and culture-specific contexts. In this regard, the chapters providing background on ethnicity, history, and geography are the ones that succeeded best. Though the editors tried to overcome jargon and institutional naming with the addition of an acronym appendix and a glossary, overuse of acronyms and jargon in some chapters also weakened the book's readability.

These relatively minor criticisms aside, this is a useful book for ethnobiologists and other experts specializing in the area of plant genetic resources, and especially for those people who are working or planning to work in the area of agricultural development in less developed countries. The book confirms that many of the theoretical, ethical and methodological positions fashioned by ethnobiologists over the last 20 years are beginning to influence professionals in other disciplines. At the same time it also provides many useful tips for field-oriented PGR conservation and agricultural development specialists as they plan and implement their own interventions.

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**Mayo Ethnobotany: Land, History, and Traditional Knowledge in Northwest Mexico.** David Yetman and Thomas R. Van Devender. University of California Press, Berkeley. 2002. Pp. 359. Illus.; scientific, Mayo and Spanish name lists; index. \$48.00. ISBN 0-520-22721-2.

A valuable resource for ethnobotanists in northwestern Mexico, this book provides a detailed account of plants used by the Mayo of Sinaloa and Sonora, Mexico. According to the authors, this arid region is losing both its biological diversity and traditional plant knowledge. Their book does a great service by increasing the reader's awareness of indigenous plant knowledge in general and the sophistication of Mayo plant knowledge in particular. The first third of the book is dedicated to Mayo history, culture, and biophysical landscapes, and the remainder lists the ethnobotanical information compiled by the authors over a ten-year period.

The chapters on Mayo ethnography and history are interesting and well written, but leave the reader with only a taste of the complex political and cultural ecologies that characterize landscape and knowledge change in northern Mexico. The title of the book led me to expect more historical ecology and biocultural synthesis, but this book is really a text of economic botany with an ethnographic introduction to the Mayo region. The authors do deliver discussions on land (vegetation and ecotypes), history (political and economic), and traditional knowledge (botanical), but these are presented as separate entities. All the elements are there but, for the most part, the connections amongst them are left for the reader to make.

The few glimpses of biocultural synthesis that are provided do keep the reader interested. For example, the discussion of landscape transformations from pro-