

Biodiversity and Native America. Minnis, Paul E. and Wayne J. Elisens (editors). University of Oklahoma Press, Norman. Pp 310, x, maps, figures, and illustrations, index. \$34.95 cloth. ISBN 0-8061-3232-9.

Biodiversity and Native America is a significant and essential read for students and researchers interested in past and present environmental relationships among Aboriginal peoples in North America. The book spans most of the geography of the United States, with representative articles covering portions of Mexico and Canada. This book is a beginning of what will hopefully be many books on the subject, the editorial product of Paul Minnis and Wayne Elisens, University of Oklahoma. The papers largely came together as a result of a 1997 symposium workshop organized around the topic of "Biodiversity and Native North America." The book showcases 10 articles reflecting a variety of geographical and cultural perspectives, set in three sections.

Section one: Issues and Overviews contains three articles that examine First Nations' management and conservation (Sonora Desert), ethnobotany (Mexico) and ethnopharmacology (broad U.S. overview with implications for Peru). The first article by Gary Paul Nabhan bridges issues from linguistic anthropology with conservation biology. Robert Bye and Edelmira Linares offer a fine paper summarizing the complex and evolving ethnobotanical relations among the over 54 Indigenous language groups in Mexico. These groups have extensive knowledge for the Holarctic and Neotropical plant kingdoms. Walter Lewis presents an informative, but narrow, discussion of ethnopharmacology and a possible future built on collaborative agreements. Lewis does not discuss how the influence of tremendous amounts of capital on traditional systems, including issues of ownership (is knowledge of medicinal plants individual or collective property), will be worked out.

Section two: Ethnographic Case Studies, gives the greatest representation of "biodiversity and Native America" in this volume. The three papers represent the sampled knowledge of Northern Paiute, Owens Valley Paiute, Southern Paiute, Timbisha (Panamint), Shoshone, Ute, and Washoe; Stl'atl'imx (Lillooet/Lil'wat); and Rarámuri. Catherine Fowler recounts in her paper how fieldwork with Numic speaking Great Basin Indian people in the 1960's and 1970's brought forward the concept "we live by them." This "Native knowledge" may be gathered and focused as ethnobiological constructs, but it is embedded and expressed in the cultural practices and daily lives of untold numbers of Aboriginal peoples from whom she learned/studied. The article by Sandra Peacock and Nancy Turner is an excellent example of collaborative ethnobotanical research. The authors balance academic/scholarly knowledge with traditional plant knowledge to understand traditional resource management and biodiversity conservation for a portion of the traditional territory of the Secwepemc, Stl'atl'imx, Nlaka'pamux, and Okanagan people. In the third paper in this section, Enrique Salmón examines the Rarámuri concept of iwígara. The paper is a well researched and important paper that made me question the role of traditional environmental knowledge.

Many of the papers in this edition advocate changing western land management practices and thinking (and I support such efforts). However, if the role of

ancient knowledge really is to reform science and western constructs we need to know how they will and can function within our commercialized modern world. What the potential and real impacts on how the Rarámuri are able to practice iwígara in the northern Sierra Madre Occidental is left unstated. A dominant view among most Indigenous groups is that ancient knowledge has intrinsic and cultural value, which scientists have a hard time understanding and accepting.

Section three, Prehistory and Biodiversity, contains three interesting papers. This section will disappoint those readers who may have grown somewhat accustomed to the culturally specific, situated, and interdisciplinary tone of the volume to this point. The three papers in this section are more general with an over-riding anthropological perspective. Furthermore, the contributions in this section reflect a much narrower geographic focus, which does not fit with the rest of the book. With this said the three papers should not disappoint readers, as they offer significant contributions. Focussing his discussions on Northern New Mexico, Richard Ford examines the significance of human disturbance on biodiversity, arguing that "it is a mistake to regard Native Americans as insignificant managers of biotic resources or as passive participants in the shaping of the landscape and the diversification of habitats" (219). Gayle Fritz describes some inferences available through archaeological research for sites that cover a broad area of the eastern United States and a portion of southern Ontario. Fritz's paper suggests the difficulties that biologists and anthropologists run into when assessing the scale of environmental impacts and changes to anthropogenic influences. Unfortunately, this paper appears to reflect a classical positivist research approach by failing to involve or even consult local knowledge in understanding prehistoric changes. While this may be the least informative paper regarding Traditional knowledge, Fritz is able to dispel myths that Eastern Amerindians were non-agrarian nomadic peoples, and so it is nonetheless an important paper for readers to consider. The final paper in this edition by Julia Hammett, an already published journal article (was originally her master's thesis), examines the ethnohistory of the southeastern United States. Hammett cautions that historical accounts are "loaded with distortions, biases, and contradictions" and suggests that it is important to understand the cultural context of the original authors, an ambitious project to say the least (p. 253). This paper is both informative and provocative and completes the book in a way that urges readers on to further research.

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