

espoused by Østrem and Brugman are used the world over; this book is sure to be an invaluable reference.

Erik W. Blake  
Icefield Instruments Inc.  
P.O. Box 5567  
Whitehorse, Yukon, Canada  
Y1A 5H4

**WILDLIFE MANAGEMENT AND SUBSISTENCE HUNTING IN ALASKA.** By HENRY P. HUNTINGTON. London: Belhaven Press, in association with the Scott Polar Research Institute, University of Cambridge; and Seattle: University of Washington Press, 1992. xvii + 177 p., 19 figs., 3 tables, index, bib. Hardbound. £32.50; US\$50.00.

Henry P. Huntington's *Wildlife Management and Subsistence Hunting in Alaska* examines "currently active management and regulatory regimes . . . to discover what characteristics are shared by effective regimes." Huntington defines effective management as that which 1) protects wildlife populations and 2) "allows local people to provide for their needs," where a need is "a nutritional, cultural, or spiritual requirement that cannot be readily or adequately replaced." He deliberately focuses only on the interactions between wildlife management regimes and local subsistence hunters. Another delimitation is that most of the management regimes discussed pertain to "northern Alaska," defined as the North Slope Borough. The book's conclusions are intended to have broader applicability, however.

The first three of the book's eight chapters are introductory. The first chapter illustrates Huntington's multidisciplinary approach, which incorporates elements of wildlife management, anthropology, political science, and polar studies. The second is a short but informative history of wildlife management in Great Britain and the United States, which concludes with issues in contemporary Alaska. The third chapter is a brief overview of the history, culture, and economy of the Inupiat of the North Slope. The continuing nutritional, social, and cultural importance of subsistence hunting despite economic development is emphasized.

The next four chapters describe and evaluate various federal, state, local, and cooperative wildlife management regimes. Chapter four begins with a discussion of international treaties governing migratory waterfowl, whales, polar bears, and caribou. It then describes the two federal laws that most affect subsistence hunting in Alaska, the Marine Mammal Protection Act and the Alaska National Interest Lands Conservation Act (ANILCA). Finally, the chapter reviews the roles of the Fish and Wildlife Service, the National Marine Fisheries Service, the National Park Service, the Bureau of Land Management (BLM), and the Minerals Management Service in land and subsistence management.

Several examples of the activities of each federal agency are evaluated. One case is the National Park Service's implementation of ANILCA's provision requiring that subsistence resource commissions, consisting largely of local

hunters, develop subsistence hunting plans for national parks in Alaska. Another example is BLM's reintroduction of muskoxen to several areas of the North Slope Borough. Huntington views the latter as a successful program because it effectively involved local hunters, while the establishment of park subsistence resource commissions is a program that was intended to provide meaningful local involvement but has so far not done so. The reasons for this failure are not fully analyzed, however, pointing to a limitation in the book's evaluative method. While Huntington acknowledges that factors such as an agency's responsibilities to other interest groups or its professional culture may affect its interaction with subsistence hunters, he places these factors outside the scope of his analysis. Consideration of such factors would have assisted the reader in understanding why effective involvement of subsistence hunters in management systems often does not occur.

Chapter five examines the state's regulatory process, including the local advisory committee system, the Alaska Board of Game, and the Alaska Department of Fish and Game. As Huntington acknowledges, this chapter was written before an Alaska Supreme Court decision (in the *McDowell* case) fundamentally changed the way in which the state of Alaska could implement the subsistence provisions of federal law (ANILCA) and Alaska's own subsistence statute. Nevertheless, the chapter contains several important observations about the state system, such as some of the difficulties encountered by Alaska Native people when they participate in a formal regulatory process that itself attempts to respond to competing, statewide interests.

The chapter also gives examples of state subsistence regulations that reflect a view of hunting "as a recreational pursuit, not the economic basis of a way of life." Examples include individual bag limits for caribou and other game, which may inhibit sharing, and requirements that hunters obtain tags before hunting brown bears. The latter requirement contradicts cultural prohibitions against speaking openly about hunting bears out of respect for the animals. Huntington contends that such regulations serve no conservation goals. Further, because they have been adopted with little local input and have no local relevance, they are largely ignored and result in disinterest or hostility towards resource management in general. According to Huntington, adopting more culturally appropriate regulations in consultation with local hunters should result in better compliance with conservation efforts and better information for resource managers.

Chapter six reviews efforts by the North Slope Borough to develop its own resource programs. Although the borough lacks regulatory authority, it has formed a Department of Wildlife Management, a Fish and Game Management Committee, and a Science Advisory Committee to conduct research and promote local involvement in state, federal, and international management systems. According to Huntington, these organizations provide local involvement where the state and federal systems fail to do so. He notes, however, that the cost of these programs will place them out of reach of most local governments.

Of particular interest is the discussion in chapter seven of several examples of cooperative management regimes in

northern Alaska. Discussed are the Alaska Eskimo Whaling Commission, the Eskimo Walrus Commission, the Yukon-Kuskokwim Delta Goose Management Plan, and several others. Huntington concludes that cooperative systems have good potential to provide effective management because they can focus on particular issues, have specific goals, and can adapt to the needs of subsistence hunters.

In the final chapter, Huntington suggests a set of criteria, based upon the findings in the previous four chapters, by which ten management regimes are qualitatively evaluated. The criteria concern such characteristics as legality, ecological relevance, cultural appropriateness, flexibility, and local involvement. Those regimes found to be most effective have clearly defined roles, are flexible, and have a high degree of local involvement, while those with low overall effectiveness lack cultural relevance, are difficult to implement, or fail to include local hunters in the management process. According to Huntington's analysis, examples of effective resource management regimes include the Alaska Eskimo Whaling Commission and the Yukon-Kuskokwim Delta Goose Management Plan. In contrast, migratory bird treaties have poor overall effectiveness because they are "rigid, culturally inappropriate, and difficult to change." Following this, the same criteria are applied to the management of walrus, caribou, geese, polar bears, and bowhead whales. Huntington concludes that walrus management is only moderately effective; although subsistence hunters can provide for their needs, there is no mechanism to adopt conservation measures until the population is declared depleted. Huntington views the effectiveness of bowhead whale management as "good," primarily because of the active role of the Alaska Eskimo Whaling Commission in managing the hunting.

Throughout the book, the dominant theme is that effective resource management systems require "intensive local involvement." Huntington views the interests of professional resource managers and local subsistence hunters as mutually supportive. Local hunters possess a great deal of detailed knowledge about game populations that is of value to managers. Also, without the cooperation of local hunters, conservation measures may be ignored and hence be ineffective. Therefore, according to Huntington, the best examples of effective management regimes are those that are "cooperative," where there is "a shared commitment to the ideas of local use and of resource conservation."

This book fills an important gap in that there are few overviews of the complex state of subsistence resource management in Alaska available to a general readership. Overall, the book is accurate, clear, and reasonably up to date. The reader should be cautioned, however, that subsistence management in Alaska is a rapidly changing issue. The book's strength is its dual focus on the needs of both the wildlife resources and the communities that depend upon those resources, as well as its clear acknowledgement that developing solutions to problems in subsistence management requires contributions by several disciplines, including biology, anthropology, and political science.

The book is recommended for several audiences. It will be particularly useful for those with little previous knowledge

about current subsistence issues in Alaska. The book could be effectively incorporated into university courses in anthropology and northern studies. Especially, because of its multidisciplinary approach, it is appropriate for use in courses in wildlife management and contemporary resource issues. Also, specialists may appreciate the overview of recent efforts to develop cooperative approaches to subsistence resource management and the update on the complex resource management situation that presently exists in Alaska.

James A. Fall  
Division of Subsistence  
Alaska Department of Fish and Game  
333 Raspberry Road  
Anchorage, Alaska 99518  
U.S.A.

**LORE: CAPTURING TRADITIONAL ENVIRONMENTAL KNOWLEDGE.** Edited by MARTHA JOHNSON. Ottawa: International Development Research Centre and the Dene Cultural Institute, 1992. x + 190 p., maps, appendix. Softbound. Cdn\$14.95.

Traditional or indigenous knowledge is a rapidly growing focus of interest for Native and non-Native people in government, academia, and private organizations in Canada and throughout the world. Canadian Native people, of course, have historically had more than a passing interest in traditional knowledge. It has for countless generations been a way of life and understanding it intimately has been a prerequisite for a successful and fruitful existence. However, the ravages of a colonial history and social policies geared towards assimilation have distanced many Native peoples from their history and from an understanding of traditional knowledge. The recovery of traditional knowledge has been identified by many Native organizations as an integral tool for cultural repatriation and political empowerment.

In recent years interest in this area has also burgeoned among non-Native groups who are realizing that a wealth of knowledge is at risk of being lost. In Canada, examples of this increased interest and recognition include the creation of an interdisciplinary committee of academics to study indigenous knowledge at the University of Alberta, government utilization of traditional knowledge in studies such as the current Northern River Basin Study, the formation of five Canadian wildlife co-management regimes, and the rapid proliferation of projects documenting traditional knowledge.

*Lore: Capturing Traditional Environmental Knowledge*, edited by Martha Johnson, is a timely and strong contribution to a topic on which there has been little existing information and few descriptive books. Although *Lore* focuses on the environmental components of traditional knowledge, this book does not attempt an exhaustive examination of traditional environmental knowledge (TEK). Instead, the intent of *Lore* is to provide a comprehensive introduction to the subject and to summarize the results of a workshop on TEK held near Fort Good Hope in the summer of 1990.

The objectives of this book appear to be threefold. First, *Lore* seeks to broaden the reader's understanding of the