

The Importance of Local Ecological Knowledge in Resource Co-Management Strategies: Local Solutions for Local Concerns

Jack Omelak, Assistant Director, Alaska Nanuuq Commission. Assistant Chief Commissioner, Bering Straits Regional Commission. P.O. Box 946, Nome, Alaska 99762. JO.aknanuuq@gci.net

Recently there has been much post-modernist criticism of research collection efforts. Many of these critiques are with merit. The effects of reflexivity, differing worldviews, the muddling of paradigms and cosmologies, as well as the effects of applying academic structures to understanding individual and group behaviors understandably becomes problematic. One of the most significant scopes of interaction between outside agencies and local communities occurs in the form of resource management. In the past, local and native contributions to studies have been devalued and continue to be underutilized. The continued absence of local insights into resource management strategies often ultimately results in management plans that do not account for local concerns.

Local, state, and federal agencies rely heavily on long established western scientific methods in which animals, people, and cultures become mere figures in mathematical formulas or equations used to develop management strategies. Incorporating local observations and perspectives into early resource management strategies was non-existent, and still faces opposition today. Local indigenous groups argued then, and continue to argue now, that developing management strategies without extensive insight and input from the local communities, affected most by such management plans, would, at best, yield less than accurate management strategies.

Such ideologies continue to affect the inclusion of local participation. Early on in my academic career at the University of Oklahoma, we were told as young anthropologists that natives were discouraged from studying their own cultures because they simply could not be objective. However, times have begun to change, and today's Alaskan rural communities now have the ability to drive and direct scientific research through partnerships formed through co-operative co-management opportunities.

During the summer of 2009, I participated in an ethnographic study on St. Lawrence Island funded by the Migratory Bird Program of the U.S. Fish and Wildlife Service, Alaska region. The study was an attempt to collect baseline population estimates, subsistence usage, and biological information concerning the Yellow-billed Loon (YBL) which had recently been listed as a species of concern under the Endangered Species Act. During the study, many important and interesting facts about loon biology and habits were learned. Previous information concerning the YBL suggested that they only nested on large lakes which provided them ample room to take flight. However local St. Lawrence Island experts stated that the YBL at times preferred smaller lakes to build their nest, this practice decreased the possibility of the nest being swamped by high water and resulting wave actions produced by the nearly constant winds on the island.

Local experts also provided further detailed information on the migratory patterns of the YBL. Recent satellite telemetry tracking of YBL stocks by scientists of the U.S. Geological Survey showed that Yellow-billed loons consistently made short trips between known nesting grounds and nearby marine waters. While the information was useful, there was no explanation offered as to the reason for such activity. Local hunters confirmed these movements and added further insights saying that loons will make trips from their nesting areas to marine waters to feed. According to several contributors, “they [loons] won’t eat until their eggs are incubated, and then the parents will take turns going out to the ocean to get fish. They will go out to the ocean early in the morning and then at night”.

The Yellow-billed loon study is an excellent example of local observation and knowledge providing much needed detailed information about managed resources. Such local knowledge has the potential to directly affect the management processes of resources within the immediate and broader environments. The problems created by individuals and groups who develop policies for rural Alaska from distant locations with abridged understandings of the local ecologies can be devastating to local lifestyles and economies.

Our communities can directly benefit from understanding the power we as indigenous communities possess in the form of the intimate and detailed knowledge of our local environments. Current co-management opportunities such as the Federal Rural Advisory Committees, the Indigenous People’s Council On Marine Mammals, and the U.S./Russia Bi-Lateral Agreement on the Conservation of Polar Bears, provide avenues for participation by locals to influence resource management strategies. Our villages can contribute by providing agencies and management bodies overseeing resource management with more accurate and detailed on-the-ground information.

In summary, we as a people can benefit from the continued development of new approaches to ethnographic studies. We will continue to rely on the village’s cooperation to continue to shape new adaptive co-management approaches. In order to further empower local villages and increase local involvement, we must begin to declare that local ecological knowledge and local observation is not merely supplemental to scientific data, but is a large part of the culmination of an emerging approach where community based methods and systems are flexible and tailored to specific places and situations. This sharing of management power, in contrast to a command and control approach, can ultimately lead to more efficient, informed, and effective management strategies and provide a firm foundation for future local involvement in data collection and management strategies.

Through increased involvement in applied research, we as indigenous communities can begin and continue to reclaim our histories, rather than leaving interpretations of our cultures to outside agencies and individuals. The continued involvement in anthropological research can provide us with the opportunity to define and re-define what we consider relevant, rather than supporting outside agencies and their notions of relevancy. We have the ability to demand that local concerns become validated, and that solutions constructed locally have the potential to become effective policies.