Native reindeer herders' priorities for research

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Since its foundation in 1993, the Association of World Reindeer Herders has given priority to contacts with groups of researchers who investigate questions connected with domestic reindeer breeding and the management of the land areas in the North. We wish to contribute to the establishment of an international network of researchers who deal with reindeer breeding in the whole circumpolar area. I am positive towards plans for an international forum of professionals with the task of advising nation-states about the management of reindeer husbandry as the basis for the way of life and the culture of the indigenous peoples of the North. The importance of reindeer breeding in the Arctic areas cannot be overstated.

The position of domestic reindeer breeding in Arctic research

The position of reindeer breeding in the northern areas is unique. No other land-based agricultural branch in northern areas has such long traditions in the Arctic as this economic activity. The superior ability of reindeer husbandry to exploit marginal land resources has no doubt been very important for settlement in large parts of the North. Surely, it has been a key factor for the growth of the many viable indigenous societies that have resided in these areas for millennia. Said another way, *nature itself* prescribed this way of life for large portions of the Arctic. Domestic reindeer breeding represents not only sustainable exploitation of the marginal nature resources in the North, but is also the cultural basis of the many small tribal societies of the North. All of these societies have a long and continuous lines of development in the northern areas, from time immemorial until today. When we talk about securing sustainable development, we are not only talking about securing the ecological basis of life, but also securing possibilities for the continued existence and development of reindeer husbandry. Future considerations about the role of reindeer breeding in Arctic research must be based on this understanding.

Changes in the natural environment

At this workshop, attention was paid to global changes in the natural environment, with special emphasis on changes caused by human influence. From the perspective of Native reindeer herders, this is a very positive focus. As the largest single user of the land areas in the North, reindeer husbandry is very vulnerable to these effects. At the same time, Native herders have little control over such problems. We are not the ones causing them! Alone, we have little power to influence these forces, which together are having a significant impact on our natural environment. We fear that global climate change may contribute to changes in snow conditions and therefore in the accessibility of winter pastures for reindeer. Equally fundamental to us is the question about the possible impact of warming on the growth of non-forage vegetation, which will ultimately reduce the quality of reindeer pastures. Native herders have also experienced airborne pollution, such as in the case of the Chernobyl accident, which represented a serious threat to our economic activities. As is well known, fallout from the Chernobyl nuclear power plant accident resulted in major problems for reindeer breeding regions in Scandinavia.

Another important issue for Native herders is the growth of the populations of large predatory animals. In our opinion the increase in predators

has reached a crisis situation. Until the opposite is proven, we maintain that the explosive growth of large wild carnivores in recent years is due to the impact of humans on the landscape. The increase of human activities in areas wildlife traditionally inhabited, along with measures taken to conserve predator populations, appear to have resulted in a totally new behavioural pattern in these animals: their natural shyness has disappeared. At the same time, these species are enjoying increased reproductive success. In current conditions Native herders face a completely new situation with respect to predation, and it is an issue that occupies us very much. We, first and foremost, experience the damaging effects of increases in predation. This unnatural increase in numbers, however, should also interest others who are concerned about the natural environment.

It is important to us that knowledge about and understanding of *natural changes* (vs. those caused by humans) in the environment in the northern areas is improved. There are still sizeable gaps of knowledge in this field of science. Naturally enough, it is difficult to plan sustainable development in the Arctic if we are not able to identify the special processes that characterize the northern environment and if people are not made aware of them. Neither Native herders nor the environment benefit from the fact that most people think of nature in the northern areas as "static" – that conditions always return to the starting point which it had at a given moment in time. Such a view represents a serious lack of knowledge, which can easily lead to politics and human actions that are dangerous for the balance that nature itself tries to maintain. There are already plenty of examples of environmental protection based on misinformation in the northern areas. There are also numerous examples of decisions taken under the cover of the so-called "precautionary principle." As a rule, these have resulted in completely unintended effects. It should be in the interest of all parties that the use of "precautionary principle" by administrative decision-makers should be limited. The "power to take action" shown by making such decisions, as a rule, contributes to the difficulty of understanding the real problems. Another result is that it effectively kills any motivation for acquiring real knowledge about the issue.

Some interest groups, of course, may try to exploit the lack of accurate knowledge. This is something that reindeer herders have experienced far too often. This example aptly illustrates this problem: in Finnmarksvidda ("Finnmark open plateau," in the Norwegian county of Finnmark), there are remains of long-dead pine trees in areas which today have open fields. This change in the environment must have taken place before the era of reindeer breeding in the area, or during the very beginning of it. This change could not have been caused by human activities. In spite of this, the extinct pine forest in Finnmarksvidda was used as a 19th century argument against reindeer breeding to limit the areas that could be used for reindeer husbandry in Norway. Because real knowledge was lacking, it was easy to blame reindeer herding – at that time the main human activity taking place on the open plateau – for the die-out of the pines. Today, of course, nobody propounds such a frightening picture of reindeer breeding. Yet much of the direct and indirect damage such ideas have done to reindeer breeding in Norway and in Sweden is irreparable.

What can be done to increase our knowledge of *natural* changes in the environment? We wish, for example, to obtain a better understanding of and more exact knowledge about the effects of changes in climate and temperature on the reindeer population. The correlation found between the growth and population development of deer and the changes registered in the so-called North Atlantic Oscillation (NAO) is very interesting. Similar investigations done for reindeer would contribute to an increased level of knowledge about reindeer/caribou and the natural conditions of these animals. Such studies would also yield vital new information about natural environmental processes in the North. It would also be useful to map the effect of the climate and light on the growth and nutritional content of the vegetation used for grazing in the northern areas. There are now especially big gaps in our knowledge about these issues.

Research dealing with reindeer husbandry

A considerable increase in research input in connection with reindeer breeding is needed. The size of this economic activity, and the fact that reindeer herding peoples possess a large body of accumulated knowledge about how to manage the northern areas, makes research into reindeer

breeding a likely area for the acquisition of new knowledge useful for future management of the Arctic. Reindeer herders can contribute to a better understanding of the different reindeer breeding peoples who have lived in these areas for thousands of years, including questions regarding their social organization and the way different groups have managed their economies. One must not forget the special cultural character of each group of reindeer breeding people. These special characteristics have not developed in isolation, but are closely adapted to the reality in which they have been created. Such an approach has the potential for making our knowledge about the natural environment in the northern areas more complete. Seen from our position, it would be both inattentive and irresponsible when funding agencies allocate only "pennies" to research on reindeer husbandry in the Arctic.

Concluding remarks

I would like to mention that this workshop has strongly signalled that the relevant research centres want to take local knowledge seriously. Even though we have already felt this for some time, this is actually the first time that this has been said explicitly in an international, professional forum. For this we are, of course, very happy. We take these signals very seriously. We understand this first and foremost as an announcement about the reorientation of research. But we also consider this as a challenge to those of us who believe that we have something to contribute to this research. On behalf of the Association of World Reindeer Herders, I promise you that we will do our best to contribute where you think this to be useful.

Joe Tetlichi from Old Crow, Yukon, tries on a Yamal Nenets herder's parka for size during a break in the Rovaniemi Workshop. Photo: G. Kofinas.

Workshop participants listening to simultaneous translation of remarks by Maria Pogodaeva of the World Reindeer Herders Association during the closing session of the workshop. From left are Bruce Forbes, Elna Sara, Violet Camsell-Blondin, Nicholas Flanders, David Klein and Piers Vitebsky. Photo: G. Kofinas.

Violet Camsell-Blondin makes a point for Leonid Baskin during one of the working group sessions. Photo: G. Kofinas.

Gary Kofinas makes a new friend during the excursion t Nivankylä. Photo: G. Osherenko.

An "automatic" food dispenser at Nivankylä reindeer farm near Rovaniemi. Supplemental feeding of animals during winter is common in the southern portion of the reindeer husbandry area in Finland. Some reindeer owners, such as Nivankylä, combine tourism with meat production, taking advantage of their close proximity to Rovaniemi, a major node for tourism in northern Fennoscandia. Photo: G. Kofinas.

Work in progress, the Herding Systems Working Group. Photo: G. Kofinas.