



The Role of Old-Growth Forests in Sámi Reindeer Herding

TAIGA RESCUE NETWORK FACTSHEET

Introduction

The Sámi people of northern Scandinavia have been practicing reindeer herding for hundreds, if not thousands, of years, but with the growing pressures from industrial forestry their livelihood and culture are increasingly under threat. For the Sámi people, reindeer herding is not just a source of living, it also forms the basis of their entire culture. Reindeer herding defines the daily and yearly rhythm of life for the families who practice it. The reindeer is the basis of the Sámi people's diet, clothing, decoration and household items. The traditional visual arts, music and literature are largely based on reindeer herding and the communal aspects of it. Even though not all Sámi people participate in reindeer herding, it is, and it has become a strong part of the Sámi identity. It can also be noted, that the Sámi languages, especially Northern Sámi, have preserved their richness and liveliness through everyday use, especially amongst reindeer herders.

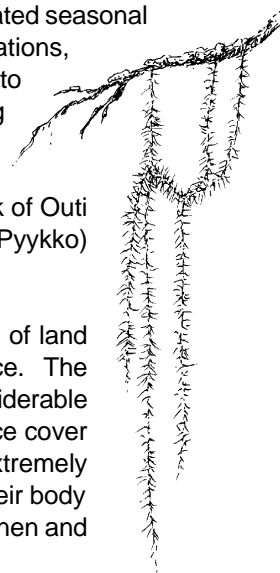
Sámi reindeer herding is based on the grazing on natural pastures, with reindeer moving freely over areas of hundreds, even thousands of square kilometres of hills (fjälls) and forests. The natural character of the Sámi homeland area has been generally well-preserved, making the traditional method of reindeer herding on natural pastures possible – at least until recently. The Sámi method of free reindeer herding faces its biggest problems where winter pastures are damaged by competing land uses, such as forestry, hydro-electric development and tourism. Using industrial forestry as an example, this factsheet will provide an overview of how Sámi reindeer herding is negatively impacted by incursions into northern Scandinavia's endangered old-growth forests. Specific attention will be paid to Inari, a Sámi community in northern Finland that has been engaged in a conflict with Finnish government over the protection of their traditional land rights.



The Importance of Pasture Rotation in Free Reindeer Herding

In free grazing, the reindeers' pasture use is guided by changing natural conditions and shepherding. The dramatic seasonal changes in northern Scandinavia have always necessitated seasonal migrations from the winter and summer pasture areas, but large yearly fluctuations, resulting from competing land uses and other external factors, have added to reindeer herders' difficult working environment. In these ever changing circumstances, rotational grazing is absolutely essential for ensuring sufficient reindeer pastures. Using the reindeer herding cooperatives in Inari and northern Sodankylä, Finland as examples, the following description (based on the work of Outi Jääskö and personal interviews with reindeer herders conducted by Jarmo Pyykko) provides a valuable overview of pasture rotation.

In the summer, there is generally enough reindeer feed that competing forms of land use generally do not threaten the availability of a rich and diverse food source. The reindeer are, therefore, able to prepare for the coming winter by gaining a considerable amount of weight. This weight gain is absolutely essential, as the snow and ice cover make attaining ground lichen - reindeers' primary source of winter nutrition - extremely energy intensive. As a result, reindeer tend to lose between 20 and 40% of their body weight during the winter months, depending on the severity of the winter (Nieminen and Pietilä 1998).



The amount of lichen that is accessible to the reindeer herds varies greatly between different parts of the wintering grounds, and there is considerable yearly variation as well. In the snowless season, these vital pastures must be protected from overgrazing or trampling. Pasture rotation (directing and controlling the natural movements of the reindeers) is aimed at alleviating this problem, where fences are used by many Sámi co-operatives to separate the winter and summer pastures, but are often insufficient.

The shepherding of reindeer is absolutely essential in March and April, as the top layer of the snow cover usually freezes to an almost impenetrable hardness. Digging this kind of snow is no longer possible for reindeers – even the richest lichen pastures could not provide as much energy as would be consumed in digging the feed up. At this time the reindeer herder has to direct the flock to good “luppo-pastures,” areas of old forest where there is sufficient horsetail lichen and other tree-hanging lichens available.

The shepherds lead their herd from pasture to pasture according to a plan, trying to find the best preserved grazing area. The less grazing forests that are left for reindeer, the more difficult the sustainable use of pastures becomes; many herders fear that current reductions to the amount of usable pastures will force them to purchase additional feed to supplement the natural food during the season when reindeer depend on tree lichens.



Forestry's Effect on Sámi Reindeer Herding

As alluded to in the previous section, the forest industry has a significant negative impact on Sámi reindeer herding, by fragmenting and reducing the winter reindeer pastures and recent research findings have confirmed what reindeer herders have known for decades. In the case of tree-hanging lichens, the results are indisputable. Intensive logging methods, such as clear-cut and seed tree logging, not only eliminate nearly all the lichen-bearing trees, but also open the area up to wind and sunlight, making the microclimate dryer and more difficult for tree-hanging lichens (Kumpula 2003). One lichen study has shown that the amount of tree-hanging lichen in harvested forest areas was on average a mere 2.7 kg/ha, compared to the 270-575 kg/ha that is typically found in old-growth forests. Thus, industrial timber harvesting reduces the amount of tree-hanging lichen, reindeers' main source of natural late-winter nutrition, to less than one hundredth of what is found in a virgin forest (Sipilä et al. 2000).

Logging also has a large effect on the amount and availability of ground lichen: reindeer's primary source of nutrition. In clear-cut and seed tree logging, approximately one third of the surface area is covered by slowly decaying felling waste (Kumpula 2003), impeding reindeers' access to the precious ground lichen that lie below. Reindeer herders have long known, and scientific studies have recently confirmed (Kumpula et al. 2003) that reindeer will not dig through the snow to get access this lichen and avoid such areas. They cannot afford to waste energy in digging in a logged area where the felling waste hinders or even makes it impossible to get to the lichen, meaning that lichen-rich pastures are effectively lost to the hands of industrial logging.

Estimates on the duration of the negative impacts caused by the felling waste vary considerably. According to the Finnish Game and Fisheries Research Institute (RKTL) clear-cut and seed tree logging cause considerable harm to the reindeers' winter grazing in the Lappi (Lappu) cooperatives' area for 40-50 years after logging (RKTL 1999). Reindeer herders, on the other hand, often note that, once a forested area has been used for timber harvesting, it is effectively lost as late winter pasture forever, due to the regular intervals at which the different forestry measures proceed one another. The next phase of felling always covers the ground with fresh felling waste just as the felling waste of the previous phase has rotted, meaning that the lichen is unable to recover.



The forest economy has other harmful effects on reindeer herding, the majority of which have not been the subject of much scientific research. There is, however, clear evidence of the negative effects of forest machinery and soil tilling on the growth of ground lichen. The dense network of roads, typical in Finnish forestry, have also been shown to have a negative impact on reindeer, as roads are often built on the driest forest areas where lichen typically grows. Still more research needs to be done, as there is little scientific knowledge on the affects of forest fragmentation.

In many cases, forest loss and fragmentation has caused the collapse of the pasture rotation system, forcing herding co-operatives into massive and expensive rearrangements. The traditional system of grazing is built on a system of small herding groups (tokkakunta) of few reindeer owners shepherding their animals together on distinct winter pastures. With increased forest harvesting, whole herding groups have been lost or have melded into others as their winter pastures have been destroyed. Still, governments across Scandinavia are continuing to sanction logging in these precious reindeer herding pastures.



Case Study: Inari, Finland

The reindeer herding cooperatives of Inari, Finland have been engaged in a multi-year conflict with the Finnish government, as the result of the Forest and Park Service's (Metsähallitus') continued exploitation of the areas' old-growth, lichen-bearing forests. As the carrying capacity of Inari's pastures decreases, the government has been lowering the number of reindeer that are allowed to be kept in each cooperative, disrupting the Sámi culture and lowering the number of people that can live and earn a living in the Sámi communities.

Words from Inari:

"Preserving the area and quality of reindeer pastures is no longer a question of adaptation, but of survival..."



The people of Inari's fight to preserve their traditional land rights is complicated by the fact that Metsähallitus has the dual role of being both the relevant state authority and a competing land user, as over 90% of the Inari area is state-owned and Metsähallitus plans and implements all of the forestry operations in the area. However, the Constitution of Finland, the law on the Forest and Park Service (Metsähallitus), the International Covenant on Civil

and Political Rights and the 3rd supplementary protocol of the Finnish membership agreement to the European Union all protect the Sámi people's right to economically sustainable reindeer herding and its development. As a result, the majority of Inari's reindeer herders have been calling on the Finnish government to resolve this inherent conflict of interest and to serve the rights of the Sámi people by halting all forestry operations in the most important winter grazing areas.

After local-level negotiations proved to be ineffective, representatives from five reindeer herding cooperatives in the Inari region (Hammastunturi, Muddusjärvi, Muotkatunturi, Paatsjoki and the Nellim herding group from the Ivalo co-operative) went to Helsinki in 2002 to bring their message to the Finnish Members of Parliament, personally. The paper they took to ministers proposed that future logging on state land should be directed to second-growth forests, as opposed to old growth, and the financial objectives of Metsähallitus would need to be lowered so that this exclusion is possible. From those propositions, the Minister for Agriculture and Forestry initiated a process to review the Natural Resource Plan for Upper Lapland, ahead of Metsähallitus' original schedule.

However, the review of the Natural Resource Plan has not resulted in a moratorium on logging in the important winter grazing areas and Metsähallitus had been continuing its operations, until very recently when increased NGO and citizen pressure forced it to stop. However, this stoppage may not hold and the livelihood and culture of the people of Inari is still under threat and they are continuing to call on the support of environmental organizations and concerned citizens. For as the Inari case study illustrates, the conflict between reindeer herding and the logging of old-growth forests is not just about land rights or ensuring access to a natural resource, but rather it is about ensuring that the civil and political rights of the Sámi people are also upheld.



Words for Inari

"While one hand is shaking Inari in support, the other is holding a chainsaw, cutting down forests vital to sustain reindeer husbandry."

Avenues for NGO and Citizen Activism



1. Write a letter to the Finnish Minister of Foreign Affairs in support of the Sámi people of Inari, Finland. The Taiga Rescue Network can provide you with the relevant contact information and a sample letter.
2. Continue to educate yourself about the issues faced by reindeer herding communities across Scandinavia and Russia, since Inari's reindeer herders are not alone in their struggles for traditional land rights.
3. Become involved in forest management planning processes in your area, whenever possible, as the Inari case study has shown that governments and forestry companies often need to be reminded of their obligation to uphold the social and land rights of forest-dependent communities.
4. Network with people and organizations that are knowledgeable about forest exploitation and indigenous land rights. By doing so, you will tap into a valuable, pre-existing knowledge-base. Contact the Taiga Rescue Network to begin!

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