Chapter 4
Perpetual Adaption? Challanges for the Sami and Reindeer Husbandry in Sweden

Peter Sköld

Abstract Reindeer husbandry is of vital importance for the Sami living in Sweden, Norway, Finland and Russia. With a focus on Sweden we can conclude that through a colonial history the reindeer herding Sami have achieved legal rights that to some extent guarantee their existence. This is largely due to a successful political mobilization. On the other hand conflicts over land use with non-Sami settlers and the Swedish state have been a frequent element in the industry. The Sami must also combat a stereotypical understanding of reindeer herding that often has difficulties in understanding the constant modernization and technical development. Today the reindeer herders compete with industries such as mines, hydropower, windmill parks, forestry and tourism. An additional threat is the predators and state policies around them. Reindeer herding is of vital importance to all Sami, but the legal system prohibits the large majority to be involved, something that has had recent political complications in the Sami society.

Keywords Reindeer husbandry • Sami • Indigenous • Political mobilization • Indigenous culture

4.1 Introductory Overview

Reindeer herding is an important traditional economy of about 30 indigenous peoples in the Arctic. Reindeer herding is conducted in all Arctic countries except Iceland, and also in Mongolia and China. Reindeer herding is ancient and still today performed with few differences in the Arctic. It is important in different ways for all members of the indigenous socities, herders and others. The relation between humans and reindeer is characteristic for the Sami, who is an indigenous people living in an area covering parts of northern Norway, Sweden, Finland and Russia, an area known as Sápmi in the Sami language.

P. Sköld (✉)
Arctic Research Centre, Umeå University, Umeå SE-901 87, Sweden
e-mail: peter.skold@umu.se

B. Evengård et al. (eds.), *The New Arctic*, DOI 10.1007/978-3-319-17602-4_4

In the early history of reindeer husbandry, domesticated reindeer were used as decoys in the hunting of wild reindeer and for transport purposes in wintertime. Reindeer husbandry, being a nomadised occupation, requires large areas of pasture for transhumance. By virtue of their longstanding use of northern regions for reindeer husbandry, hunting and fishing, the Sami have acquired a right to this land use through what is termed the *time immemorial principle*. Both this right of reindeer husbandry and protection of Sami culture are inscribed in Swedish constitutional law (Allard 2006). The right of reindeer husbandry entitles the Sami to use land and water for their own sustenance and that of their reindeer and entitles them to reindeer pasturage, hunting, fishing and the erection of certain chalets and other structures as well as the taking of timber from the forest for fuel, building material and handicraft activities (Karlsson and Constenius 2005).

The Lapp Codicil of 1751 continues to govern the right of the Sami to cross the border between Sweden and Norway. No such right exists between Sweden and Finland. A convention has existed since 1925, indicating how reindeer straying onto the wrong side of the border are to be returned. It was still possible at the beginning of the twentieth century for the Swedish Sami to drive their reindeer out to the islands of North Norway in summertime. That right, however, has become increasingly circumscribed, and at the close of the century the Norwegian-Swedish Reindeer Pasture Convention became a subject of protracted negotiations between the two countries (Regeringen 2004, 2009). There are also areas in Swedish conifer forest regions where Norwegian Sami are entitled to graze their herds in wintertime (Gustavsson 1989).

The areas used by the Sami began to be nationally colonised by farmers – "colonists" – above all from the seventeenth century and some way into the twentieth (SOU 2006). In Lappmarken this was based on the so-called parallel theory (Göthe 1929), whereby reindeer herdsmen and farmers were to work side by side without impinging on each other's preconditions. This theory, however, did not always tally with reality, because during the snow-free period of the year the reindeer used the same pasture as the colonists' cattle (Lundmark 2008). Exact figures concerning the head of reindeer in Sweden have always been hard to come by. There is much uncertainty as to which reindeer have been included in the statistics. The first official reindeer count took place in 1911 and the most recent in 1970 (SOU 2006) (Fig. 4.1).

Sweden today has 43 reindeer herding communities, so called Sami villages, and 9 concession areas. The Sami villages are voluntarily affiliated to the National Association of Swedish Sami (SSR), whose mission is to safeguard the economic, social, administrative and cultural interests of the Sami, with special emphasis on the continuance of reindeer herding and its ancillary occupations. A number of Sami associations are also affiliated to SSR, which is open to Sami who are not members of any Sami village (Gustavsson 1989) (Fig. 4.2).

There are today some 950 reindeer husbandry enterprises. For a full-time livelihood the family undertaking needs between 400 and 600 reindeer, but for many families a sideline occupation is a matter of necessity. The biggest earnings are derived from the sale of reindeer meat. Other sources of income are the sale of fish and game and various encroachment compensatory payments (Karlsson and Constenius 2005).

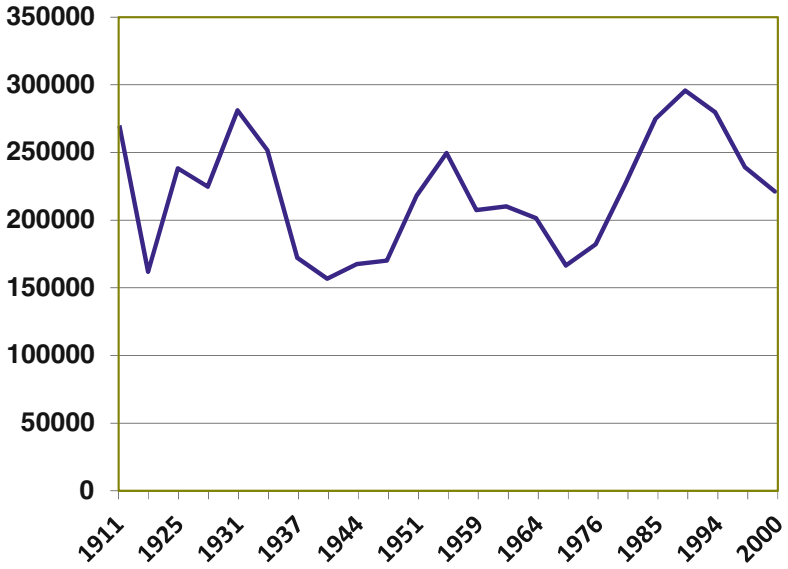

Fig. 4.1 Sweden's reindeer population, 1911–2000 (Source: Lantto (2000: 427), SOU (2001: 71, 2006: 88))

Sweden's reindeer pastures total 160,000 km^2 in area, which is nearly one-third of the whole country's area. Reindeer are moved in a fixed order between the east coast and the mountains bordering on Norway, according to a system geared to their differing needs of climate and nutrition at different times of the year. For this reason the Sami are sometimes referred to as the People of Eight Seasons. The reindeer have to grub up their staple diet – reindeer moss – themselves in wintertime, from under the snow and icy crust. A pregnant doe weighing 70 kg needs to find about 6 kg reindeer moss in order to meet her daily energy requirement (Gustavsson 1989). Reindeer can intermittently subsist on a more monotonous diet such as hay, but their main problem is coping with periods of starvation which occur, for example, when the snow crust makes the reindeer moss hard to get at. In summertime the reindeer move mainly on bare mountain areas, in forestry cutting areas, in natural meadows and in fenlands. The nutrient plants most vital to reindeer include above all various grass species and wetland plants, the most desirable being garden angelica, fireweed (Chamerion angustifolium), wood crane's bill, common cow-wheat and water horsetail. In autumn reindeer mostly eat fungi, preferably large Boletales, but also hay, sedge and grass. As nutrient content diminishes throughout the autumn, reindeer consume more shrubs, such as ling and blueberry (Svenska Samernas Riksförbund 2010b).

In wintertime lichen (reindeer moss) becomes more important as a vital basic feedstuff. It contains an abundance of energy, especially easily digested carbohydrates, but its protein content is low. Apart from reindeer moss, the most important nutrient plants for reindeer are shrubs of various kinds and wintergreen parts of hay and grass which the reindeer grub from beneath the snow. Reindeer meat is lean

Fig. 4.2 The Sami villages of Sweden, from North Dalarna County to the County of Norrbotten. *Thick blue line* limit of cultivation, *orange line* Lappmark boundary and *thin blue line* boundary of the Sami villages (Source: Samebyar (2010))

with a mild gamey flavour. The killing-out total can vary considerably, from 40,000 to 120,000 animals. The composition of the reindeer herd in terms of sex, age and weight greatly depends on the meat production outcome and an judicious choices of grazing areas and culling rates (Svenska Samernas Riksförbund 2010b).

The Reindeer Herding Act (SFS 1971) guarantees the Sami exclusive reindeer-herding rights. The definition of Sami is here based on descent, and parents or grandparents must have had reindeer herding as a permanent occupation. Since reindeer husbandry and the traditional land is of immense cultural value, far beyond the group of reindeer herders, it is a problem when the whole ethnic group is not included in access rights. As a reaction to this the largest Sami political party in Sweden, Jakt- och fiskesamerna (the hunting and fishing Sami), is against a ratification of ILO 169 until the internal distribution of rights among the Sami has been solved.

The right of reindeer herding is held by about 8,000 people in Sweden but can be lost if the occupation is not sustained (Gustavsson 1989; Torp 2008). It is, however, very difficult to state the total number of Sami, since ethnicity as a variable has been excluded in official registers in Sweden since 1945. This causes serious problems to address any kind of statistical approach to the Sami society. We simply do not know how many Sami that enter universities or immigrate to other countries. Before 1945 there is on the contrary excellent population statistics that literary makes it possible to create complete digitized life biographies at the individual level for every person that was ever living in any of the parishes in the traditional Sami area (Axelsson 2010). An initial challenge for the Sami is to decide the principles of Sami ethnicity, or to simply answer the question who is a Sami. The Sami Parliament states that the criteria for inclusion in the electoral register is that a person can prove that they within three generations back have used Sami language in the home, and to state that they have a Sami identity. Every year a number of applications are rejected by the Sami Parliament. There are also informal systems of ethnic hierarchies where Sami can experience that they are not always included into the Sami community on equal terms. Notions exist where a "real Sami" must be able to talk the language, live in the traditional area and have a tight connection to reindeer herding (Åhrén 2008).

Box 4.1: How Many Sami Are There?
Sweden, Norway and Finland lack statistical data for the Sami people for the last 50 years. This makes it very difficult to estimate numbers, also for reindeer herding. Since it is an industry there is some accessible information relating directly to those who have reindeer husbandry as a direct income, but the overall figures are only estimates. There are reasons to believe that the figures presented here might be considerably higher.

	Sweden	Norway	Finland
Sami	20–40,000	50–65,000	8,000
Reindeer herders	2,000	2,700	500
Reindeer	250,000	200,000	200,000
Sami Parliament electoral register	8,322	13,890	5,155

Source: www.sametinget.se

4.2 National Sami Policy

Many of the preconditions of reindeer husbandry have hinged on national government policy (Mörkenstam 1999; Rumar 2008). The twentieth century was a period of turmoil, with many chops and changes in Swedish policy-making. When the century was only a few years old, the State adopted an approach based on the principle that "A Lapp must be a Lapp", the idea being to protect the Sami from what to them would be the harmful effects of *civilisation*. In the eyes of the politicians, the

Sami's only aptitude was for reindeer herding, and if they attempted anything else it would assuredly end in failure and poverty. Indeed, the politicians took these conclusions so far that they were convinced the Sami would die out and vanish as an ethnic group if they abandoned reindeer herding (Lundmark 2002).

Up until WW2, Sweden's Sami policy bore the imprint of ideologies which were conspicuously apparent in education and housing policy (Pusch 2000). Basically, the children were to be kept clear of Swedish culture and were only to be taught together with other Sami children, in ambulatory "nomad schools" (Sjögren 2010). At mid-century the aim instead was to educate Sami children to be *Swedish*. Speaking Sami in school was therefore still prohibited in the 1950s, and schooling has all the time made Sami society invisible, hence the striking ignorance prevailing in most connections (Sköld 2005). In addition it was firmly intended that reindeer husbandry should be conducted in accordance with ancient methods. The end of the war, however, was followed by a sea change. The new policy was aimed instead at integrating the Sami with welfare society and restructuring reindeer husbandry so as to maximise its financial return. The State wanted efficiency, with technology and modernisation replacing intensive manning. In addition, it advocated extensive reindeer herding only, thus completely abandoning the focus on intensive forms of herding. Compensation would be payable for damage and changed circumstances on the same terms as in agriculture (Lantto and Mörkenstam 2008). Today there are special environmental grants within the EU, aimed at preserving Sami heritage environments through reindeer grazing (SOU 2003). With the implementation of the new Reindeer Herding Act in 1971, it was deemed logical to do away with the old so-called Lapp Administration, with its special Lapp Bailiffs and transfer responsibility to the county agricultural boards (Lantto 2000). The Ministry of Agriculture became the central government agency responsible for reindeer husbandry issues. Reindeer husbandry was still portrayed in national government remits as being highly important, but its existence was now a prerequisite for the survival of other cultural manifestations, such as language and handicraft (SOU 2006; Green 2009).

In 1998 the Swedish Government publicly apologised for the oppression which the Sami had suffered at the hands of Swedish society (Jordbruksdepartementet 2004). Much remains to be done, however, and Sweden has been massively criticised, e.g. by the United Nations, for its way of dealing with Sami issues (Internationella justitiekommissionen (International Commission of Jurists) 2010). It is unclear how the Rio Declaration has been observed in the exploitation of the reindeer husbandry region (Antonsson 2003; Baer 1998) and Sweden has yet to ratify ILO Convention No. 169 (Indigenous and Tribal Peoples), adopted more than 20 years ago (SOU 1999, 2006).

4.3 Sami Political Organisation

To a great extent it was reactions against Sweden's reindeer grazing legislation that prompted to the Sami to begin seriously organising themselves politically in the early years of the twentieth century. Following some years of tentative efforts, the

first Sami Congress took place in Östersund in 1918, and in that connection a central federation was formed and *Samernas Egen Tidning* ("The Sami people's own newspaper") began to be published (Lehtola 2002). The Sami had now equipped themselves with a forum for discussion and action. The 1919 Reindeer Pasturage Act impeded migration to the Norwegian side of the border in summertime, and the resultant problems became the core issue of the debate which followed.

Compulsory relocation of Sami from the Karesuando region and compulsory culling of reindeer herds had the effect of also initiating Norrbotten into the political process (Lantto 2004, 2008). For a few decades into the twentieth century, Sami politicians entertained a fairly pessimistic vision of the future prospects for reindeer husbandry and to a great extent envisaged having to phase it out and switch to a more agrarian activity. Even so, it was reindeer husbandry issues that intensified the political organisation of the Sami, and when SSR (the National Association of Swedish Sami) was formed in 1950, it was above all in order to represent the interests of the Sami villages. By and large, though, the Sami were tied to the Swedish Government's definition of Sami policy, which left a profound imprint on the political issues which the Sami were in a position to pursue actively. The State emphasis was on reindeer-herding Sami, which created a division between them and non-reindeer-herding Sami (Lantto 2000).

The scope of Sami political initiative expanded during the second half of the twentieth century, due above all to the revolutionary changes occurring in the sphere of reindeer herding. Rights issues, the international perspectives and the survival of reindeer husbandry became increasingly heated topics (Lantto 2003). From the 1970s onwards, the Sami became more and more closely involved in the Government Commissions which, ever since then, have done much to inform governmental actions in the field of Sami policy. But criticism was frequently expressed regarding the substance of participation. The formation of the Sami Parliament (Sametinget) occurred in 1993. This body has a dual task, being both a national authority and an elected assembly (Jordbruksdepartementet 2004).

Since 2007 the Sami Parliament has taken over much of the responsibility formerly invested in the County Administrative Board where reindeer husbandry issues are concerned, especially as regards reindeer counts, allowance within reindeer husbandry for nature conservation and heritage conservation interests, registration of business undertakings, price support, predator compensatory payments, the reindeer branding register and conciliation. The Parliament is also responsible for administrative affairs relating to the Sami villages (Fig. 4.3).

The Sami Parliament is also responsible for the maintenance of national boundary fencing, certain reindeer pasturage facilities and communication of knowledge concerning reindeer husbandry in the context of urban planning. The County Administrative Boards, however, retain certain responsibilities relating to reindeer husbandry, such as defining the maximum head of reindeer, supervising consideration by the Sami villages for the interests of nature conservation and heritage conservation, deciding on grants of user affecting land above the cultivation boundary and on reindeer pasturage mountains, and mediation in disputes concerning reindeer grazing on arable land (Central rennäringsförvaltning 2010).

Fig. 4.3 The Members of the Sami Parliament in 2009 (Photo by Hans-Olof Utsi, Sametinget)

4.4 Co-operation and Conflicts

Conflicts within Sápmi (Sameland, Lapland) receive a good deal of media coverage, but it is important to remember that cultural co-existence has in no way been entirely a matter of disagreements but has above all entailed unique forms of co-operation. This close conjunction of the cultures of northern Sweden has entailed reciprocal influence, manifested by language, culture and identity (Sköld 2009).

Perhaps one of the best examples of good co-operative relations between reindeer herdsmen and colonists was the so-called contract reindeer system (*skötesrensystemet*), whereby the in-migrating population were able to own reindeer which the Sami tended in return for assistance with overnight accommodation and other benefits. It is also likely that the reindeer owners favoured this co-operation for the simple reason that they appreciated the value of good relations. The colonists often had reindeer pastures of their own and gained access to meat, transport and hides. The crisis years of the 1930s brought widespread mortality among contract reindeer, and subsequent industrialisation transformed the structures on which the contract reindeer system had been based. The contract reindeer remaining today are a manifestation of the cherishing by the Sami villages of relations built up over a long period of time, apart from which they give non-reindeer-herding Sami an opportunity of close contact with the industry (Nordin 2002).

Nevertheless, relations between various groups in the reindeer husbandry region have been characterised by conflicts. The disagreements concern winter pasturage for the reindeer and the right of reindeer farmers to use areas which they have been using for ages past (Bäck et al. 1992). Reindeer herding leaves relatively few traces on the ground. This, coupled with the late development of a Sami written culture, has made for an onerous burden of proof. The concept of usage from time immemorial (*urminnes hävd*) has been of pivotal importance in the litigation which several conflicts have led to. Landowners suing Sami villages for trespass and damage maintain that it is only lately that the areas concerned have come to be used for reindeer husbandry, and problems occur when the Sami have difficulty in proving the contrary. Lawsuits of this kind are major undertakings, with preparations lasting several years and hearings lasting for several weeks. In the so-called Härjedalen Case, which ended in 2004, the court ruled that the reindeer owners had failed to prove rights of reindeer pasturage in large areas (Lundmark 2008). This has had far-reaching consequences. Negotiations for a settlement have deadlocked, and several landowners have claimed damages for encroachment. The Nordmaling Case, in which 120 landowners sued three Sami villages, was won by the reindeer owners, partly because this time the question of proof and the construction of ancient usage were viewed in a different light (Svenska Samernas Riksförbund 2010a).

Mining and reindeer herding operate in the same areas of northern Sweden. Their relation is complex, and there are evidence of both good cooperation and conflicting interests. Good forms of partnership have now been devised for the interaction between reindeer herding and forestry, e.g. through the setting aside of large eco-parks for the preservation of valuable lichen areas (Nilsson Dahlström 2003; SOU 2001).

4.5 Modernisation and Changes in Family Life

Up until the 1950s, reindeer herding was still based on traditional methods, with the herdspeople following the reindeer's migrations on skis and on foots. The whole family travelled with the *rajd* (pron. "ride"), consisting of between four and six traditional Sami *ackja* sleds pulled by special draught reindeer. Everything, from food and cooking vessels to the *gåetje* tents and the children, was loaded onto the different sleds. The intensive period came with migration down to the spring and autumn pastures, when the reindeer needed help with feeding (Kuhmunen 2000). A quieter period followed in the winter pastures, if grazing conditions were reasonably normal. Sami settlements leave few traces in the landscape. The hearths are usually easiest to find, and on closer inspection one may also find postholes (Halinen 2009). Hearths and hut floors often consist of a single ring of stones big enough to carry. Other remains are the areas of land with higher nutrient content due to natural manuring, indicating the spot where small herds of reindeer were penned in as a part of traditional reindeer herding. The flora there is more nitrogen-fixing than in the surroundings. Since 1998 the EU has been paying grants for the preservation of

such sites (SOU 2003). Remains also occur here and there in the landscape in *sjïele* votive locations. A site of this kind may perhaps be just a natural formation, but still an important place redolent of tradition.

Towards the middle of the century, many reindeer-herding families settled near a main road or railway. They built themselves rudimentary houses consisting of one or two rooms. They retained their *lavvu* "*smoke huts*" as summertime accommodation and went on using them for smoking meat and fish. When reindeer husbandry entered a rationalisation phase in the 1960s, technical innovations began to be introduced. The snowmobile has been the most important among them. It is used all through the winter season and today is indispensable for corralling reindeer, watching over them and moving them. Off-road motorcycles and, more recently, helicopters have also come to be used for gathering and driving reindeer herds. In this way the work situation has been radically transformed within a short space of time (Kuoljok 2008; Kuhmunen 2000). Lorries are used for carrying reindeer long distances. Reindeer farmers have often been on the leading edge of technology use. When radio phones came on the market in the 1960s, the Sami quickly made use of them, and since then they have kept abreast of developments by means of MRG technology, computers and GPS monitoring of reindeer (Kuhmunen 2000; Skarin et al. 2008).

The rationalisation of reindeer husbandry also includes changed strategies regarding slaughter, the composition of reindeer herds, and feeding (Beach 1981). At the same time as reindeer husbandry can be seen to have developed successfully on the technical side, the fact is that people have had little choice in the matter. Extensive rationalisation notwithstanding, reindeer husbandry is still wrestling with financial problems. It is above all new technology and mechanisation (petrol) that have made reindeer husbandry an expensive operation to run (Jernsletten and Klokov 2002), which in many cases means poor profitability. The fact of the Sami nonetheless continuing with reindeer herding has to do with its being part of a long-standing cultural tradition, a way of life which leaves its mark on the whole of existence and makes for good quality of life. Often this makes families dependent on ancillary sources of income, such as craft occupations, land clearance and transport. Just like small farmers in parts of Sweden, the Sami are often dependent on the woman of the family going out to work and thus bringing home an extra income (Nordin 2007; Riseth 2003).

The traditional reindeer-herding community presupposed complete families consisting of man, wife and children. Their work was resource-demanding and all hands were needed. Today more than half of all reindeer-herding enterprises consist of single men. This contrast epitomises the extensive changes undergone by Sami society in the twentieth century. Up until 1971, Sami women forfeited their reindeer-herding rights if they married a man with no such privileges (Amftt 2000). In modernised reindeer husbandry, women assume a great deal of responsibility for money matters and children, but there are also women who are employed full time on reindeer herding. Here as in many other connections, gender equality issues have

been highlighted in Sami society of late. One important aspect concerns the changed position of women in reindeer husbandry, and another concerns their role in politics (Blind 2003; Sunna 2004).

4.6 Landscape and Environment

Many river beds were drained and large areas of pasturage flooded as a result of extensive water regulation between the 1940s and 1960s. Valuable riverside pasturage, natural pasturage boundaries and migration routes disappeared. The pasturage areas have been replaced with paddocks and the natural migration routes by road transport. Reindeer husbandry has received a measure of financial compensation for these impaired circumstances, but the far-reaching consequences are not easy to size up (Össbo 2014). Through clear-felling, soil scarification and the construction of new roads, forestry has broken up winter pasturage areas and reduced the supply of winter grazing for reindeer. In year-round areas, the Silviculture Act enjoins consultation of the Sami villages prior to clear felling. Peat-cutting and extraction activities also have an adverse impact on pasture lands (Karlsson and Constenius 2005).

South Västerbotten and the north of Jämtland were worst hit by radioactive fallout following the Chernobyl nuclear power accident in 1986. What is particularly serious is that lichens and fungi absorb caesium, thus increasing wintertime toxin concentrations for the reindeer. True, excessive rejection of reindeer presenting caesium concentrations above the permissible 1,500 Bq per kilo can be avoided by slaughtering earlier in the autumn and feeding reindeer in winter, but there is no doubt that the Chernobyl disaster has left its mark on Sápmi for a long time to come (Broadbent 1989; Bostedt 1998).

The Sami have been herding reindeer in the north of Sweden for centuries. Sustainable utilisation of resources has been one of the preconditions of this practice. Thanks to their traditional knowledge of conditions and consequences, the Sami have by and large succeeded in conducting their activities in the region without impacting heavily on the ecology (Utsi 2007; Uddenberg 2000; Hållbar utveckling 2006). In this way the interests of reindeer husbandry have converged more and more with those of nature conservation, and in the Environmental Code the most important areas for reindeer husbandry are classed as areas of national interest. This can apply, for example, to herding points and to difficult passages and fords along the migration routes. If there are more reindeer than the resources can provide for, this will reduce the lichen cover, which has an annual growth rate of about 10 %, which in turn can lead to a transformation of landscapes and biotopes and to soil erosion. The big challenge to reindeer husbandry lies in managing pasturage in such a way as to preserve biodiversity (Liljelund 1997). Reindeer pasturage counteracts the steady advancement of the tree line, in this way maintaining an open mountain landscape and biodiversity.

4.7 Predators and Exploitation

Predators have always been feared by the reindeer-herding community. The predator problem existed all through the twentieth century, but its economic consequences have steadily mounted. Basically, the controversy regarding predators concerns demands for a compromise between predator preservation and the preservation of sustainable reindeer herding. Predators are now estimated to be killing between 45,000 and 50,000 reindeer annually in Sweden. Failing a reduction of this figure, the whole industry will be in jeopardy (Nilsson Dahlström 2003).

The wolf can kill between five and seven reindeer in a single night and often scatters the herd over large areas (Sikku and Torp 2004; Kuhmunen 2000). But the worst damage is inflicted by the wolverine and lynx. For both these species, reindeer are the staple diet in the north of Sweden. The wolverine is slower than the wolf and instead takes advantage of conditions when the snow cover is deep and has a frozen crust that will bear the weight of the wolverine but not that of the reindeer. The wolverine has the stamina to go on hunting a reindeer for miles without giving up the chase. The lynx, a skilled stalker, takes the lives of an estimated 23,000 reindeer in Sweden annually. The brown bear also hunts calves in spring, but not on such a scale as the lynx. The golden eagle hunts on open ground and mainly kills reindeer calves in the spring and early summer, but it is also capable of killing adult reindeer weighting up to 60 or 70 k (SOU 2007). It is important to remember that the size of predator stock is largely regulated by political decisions.

Reindeer herding needs to be able to use different pasturage areas at different times of the year, and winter pasturage is the bottleneck deciding how big a herd one can run. Large-scale mining operations are a phenomenon mainly associated with the twentieth century, and most mines today are located within the reindeer-herding area. Prospecting has led to an escalation of disputes with reindeer husbandry over the past years. And as has already been shown, hydropower development also poses a problem. Compensation rates varied, very much due to the Sami village not becoming a legal entity until 1961 and thus being unable, before that date, to file encroachment proceedings (Lundmark 1998). The wind power development of recent decades also threatens to circumscribe reindeer pasturage, and protests have been voiced in many quarters, though there are also Sami villages which have taken an active interest in wind farms (Labba 2004).

Then again, tourism in Sápmi grew steadily throughout the twentieth century. Mountain treks were already being organised by the Swedish Tourist Association when the century began, and today more and more people are making for the reindeer pasturage areas in order to hunt, fish or indulge in other outdoor activities. There are now between 40 and 50 Sami tourist undertakings in Sweden. Many of them are run by women, and about half of them combine tourist enterprise with reindeer herding or some other Sami economic activity. Sami tourism offers a variety of attractions, such as overnight accommodation in a *gåetje* tent, taking part in reindeer sorting and calving, lassoing, trekking with tame reindeer, visiting a Sami camp, taking part in everyday Sami life, sitting in on storytelling sessions, sampling

Sami food, attending *jojk* performances, going on guided tours and so forth (Pettersson 2004; Sundström 1999).

4.8 Most Important of All: Empathy with the Landscape and Fauna

Relating to the landscape plays an important part in Sami self-understanding, the landscape being a source of clan history insights, through place names, monuments and oral tradition. This contextualises the understanding of skills and of the dynamic between humans, animals and nature. The landscape provides a better reflection of Sami everyday life. Continuity of cultural traditions is best communicated through physical, acquired actions. These can be either informal or ritualised. They can also legitimise power hierarchies. Forms of linguistic expression can decide how a place is perceived. Often this is a matter of collective frames of interpretation. It is through participation that one learns how to behave in different situations. The capacity for deciphering and understanding landscapes can be developed over time (Jernsletten 2010).

In the everyday run of things, fluid boundaries exist between practical chores and religious acts, such as gathering the bones after a meal. Collective memories are created and patterns of action ritualised – often without any verbal explanations. One learns to show respect for different places. Place names encapsulate a meaning at a given point in time. Sami place names are often characterised as precise. The double meaning of place names often has a religious/ritual significance and/or describes topography and reindeer pasturage conditions.

It is not economic motives that make many Sami continue with reindeer herding, but the quality of life, the quasi-existential persuasion that reindeer herding is the meaning of life. Or, as one informant put it to the historian Åsa Nordin:

> Today it's a lifestyle. So long as we carry on reindeer herding the way we do, with extensive herding, migrations and guarding, it's a lifestyle. […] Especially when reindeer herding doesn't bring in most money, you factor other Sami values into it, values which cannot be stated in money terms, and when you assimilate and experiences those values as well, it's a lifestyle (Nordin 2007: 82)

Many families have been herding reindeer for generations, and to them it goes without saying that one must do everything in one's power to perpetuate the heritage and tradition. Love of reindeer and the satisfaction of being out in the wide open spaces with them are the main source of inspiration. To many Sami, the very thought of having to give up reindeer herding is a terrifying prospect:

> No, but I can't stop living. I can't do it. For as I see it, this is my life. To me, this is everything. […] It would be terribly hard. Oh dear, many tears would be shed. The reindeer die and there you sit. I can't sit here prophesying, but it would be terrible. I think it would kill one completely, half of me would surely disappear (Nordin 2007: 114).

There is a great need for improved conditions for reindeer husbandry today. Research show that the current governance structures marginalize and disempower reindeer herders, and that there, not least in the light of additional negative climate change effects, is a need for political awareness, action, and an over-all improved dialogue (Löf 2014). Reindeer herding and the landscape in which it goes on are of pivotal importance to a Sami community and to Sami culture. But the reindeer-herding Sami are not the only ones feeling strong ties to their home areas, and one challenge to be faced by tomorrow's reindeer husbandry will be that of devising forms of co-operation, both within Sami society and with other groups active in the region.

References

Åhrén, C. (2008). *Är jag en riktig same? En etnologisk studie av unga samers identitetsarbete* [Am I a real Sami? An ethnologic study of young Sami's identity process]. Dissertation 2008, Umeå University, Umeå.

Allard, C. (2006). *Two sides of the coin: Rights and duties. The Interface between Environmental Law and Saami Law Based on a Comparison with Aoteoaroa/New Zealand and Canada.* Dissertation, 2006:32, Luleå Tekniska Universitet, Luleå.

Amftt, A. (2000). *Sápmi i förändringens tid: En studie av svenska samers levnadsvillkor under 1900-talet ur ett genus- och etnicitetsperspektiv* [Sápmi in the time of change: A studies of Swedish Sami living conditions during the 20th century in a gender and ethnicity perspective], Kulturens frontlinjer 20. Dissertation, Umeå universitet, Umeå.

Antonsson, H. (2003). Det antikvariska landskapet – Ett paradigmskifte inom svensk landskaps-förändring, *Med landskapet i centrum. Kulturgeografiska perspektiv på nutida och historiska landskap* ['The antiquarian landscape – A paradigm shift in Swedish landscape change'. The landscape in focus. Cultural geography perspectives on present-day and historical landscapes] (pp. 281–300), Meddelande 119 från Kulturgeografiska inst. Stockholm: Stockholms universitet.

Axelsson, P. (2010). Abandoning "the Other": Statistical enumeration of Swedish Sami, 1700 to 1945 and Beyond. *Berichte zur Wissenschaftsgeschichte, 33*, 263–279. doi:10.1002/bewi.201001469.

Bäck, L., Hedblom, M., Josefsson, M., & Rydén, A. (1992). *Rennäringen i konflikt och samverkan. En geografisk markanvändnings- och simuleringsstudie* [Reindeer herding in conflict and co-operation. A geographic land use and simulation studie]. Forskningsrapporter från Kulturgeografiska institutionen 104. Uppsala: Uppsala universitet.

Baer, L.-A. (1998). Renägarens visioner om framtidens renskötsel ['The reindeer owner's visions on future reindeer herding'], *Kungl Skogs Och Lantbruksakademiens Tidskrift*, *137*(4), 55–61. Stockholm.

Beach, H. (1981). *Reindeer-Herd Management in Transition: The Case of Tuorpon Sameby in Northern Sweden.* Dissertation, Uppsala studies in cultural anthropology 3, Department of Cultural Anthropology, University of Uppsala, Uppsala.

Blind, E. (2003). Áhkku: Jämställdhet i Sápmi ['Áhkku: Equality in Sápmi']. *Kvinnoforskningsnytt, 1*, 17–18.

Bostedt, G. (1998). *Reindeer husbandry, the Swedish market for reindeer meat, and the chernobyl effects*. Umeå: Sveriges Lantbruksuniversitet.

Broadbent, N. (1989). The Chernobyl accident and reindeer herding in Sweden. In N. Broadbent (Ed.), *Readings in Saami history, culture and language* (pp. 127–142). Umeå: Centre for Arctic Cultural Research.

Central rennäringsförvaltning [Central Reindeer Herding Administration]. Sametinget. http://www.sametinget.se/1124. Accessed 1 July 2010.

Göthe, G. (1929). *Om Umeå lappmarks svenska kolonisation: Från mitten av 1500-talet till omkr. 1750* [On the Swedish colonization of Umeå Lappmark: From mid-16th century to about 1750]. Dissertation, Almqvist and Wiksell, Stockholm.

Green, C. (2009). *Managing Laponia. A World Heritage as arena for Sami Ethno-politics in Sweden*. Dissertation, Uppsala studies in cultural anthropology 47, Uppsala universitet, Uppsala.

Gustavsson, K. (1989). *Rennäringen – En presentation för skogsfolk* [Reindeer herding – A presentation for forest people]. Jönköping: Skogsstyrelsen.

Halinen, P. (2009). Change and continuity of Saami dwellings and dwelling sites from late Iron age to the 18th century. In T. Äikäs (Ed.), *Máttus – Máddagat. The roots of Saami ethnicities, societies and spaces/places* (pp. 100–115). Oulu: Giellagas Institute.

Hållbar rennäring och övrig samerelaterad forskning [Sustainable Reindeer Herding and other Sami Realted Research] (2006). Rapport 3:2006. Stockholm: Formas.

Internationella justitiekommissionen. (2010). *Sverige får kritik för brister i arbetet med samers rättigheter* [Sweden receives critique for deficiencies in the work for Sami rights]. Svenska Avdelningen av Internationella Juristkommissionen. http://www.icj-sweden.org/. Accessed 1 July 2010.

Jernsletten, J. (2010). *Bissie dajve. Relationer mellom folk og landskap i Voengel-Njaarke sijte* [Bissie Dajve. Relations between people and landscape in Voengel-Njaarke Sijt]. Dissertation, Universitetet i Tromsø, Tromsø.

Jernsletten, J.-L., & Klokov, K. (2002). *Sustainable reindeer husbandry* (157 pp). Tromsø: Senter for samiske studier.

Jordbruksdepartementet. (2004). *Samer – Ett ursprungsfolk i Sverige* [Sami- an indigenous people in Sweden] (64 pp). Kiruna: Jordbruksdepartementet, Stockholm and Sametinget.

Karlsson, A.-M., & Constenius, T. (2005). *Rennäringen i Sverige* [Reindeer herding in Sweden]. Jönköping: Jordbruksverket.

Kuhmunen, N. (2000). *Renskötseln i Sverige förr och nu* [Reindeer herding in Sweden now and then]. Umeå: Svenska Samernas Riksförbund.

Kuoljok, A. I. (2008). *Mitt liv som renskötare* [My life as reindeer herder]. Skellefteå: Ord and Visor Förlag.

Labba, N. (2004). *Vindkraft i renskötselområdet* [Wind power in the reindeer herding district], examensuppsats inlämnad till företagsekonomiska institutionen Handelshögskolan vid Umeå universitet 2002, *Diedut* 2004:1. Kautokeino: Sámi Instituhtta.

Lantto, P. (2000). *Tiden börjar på nytt. En analys av samernas etnopolitiska mobilisering i Sverige 1900–1950* [Time begins anew. An analysis of the Sami ethno-political mobilization in Sweden 1900–1950], Kulturens Frontlinjer 32. Dissertation, Institutionen för nordiska språk.

Lantto, P. (2003). *Att göra sin stämma hörd. Svenska Samernas Riksförbund, samerörelsen och svensk samepolitik 1950–1962* [To make your voice heard. The Swedish Sami assocation, the Sami movement and Swedish Sami politics 1950–1962], Kulturens frontlinjer 47. Umeå: Kulturgräns norr.

Lantto, P. (2004). Nationell symbol, etnisk markör eller döende näring? Bilden av renskötseln och dess betydelse inom samerörelsen i Sverige 1900–1960 [National symbol, ethnic marker or dying nurish? The picture of reindeer herding and its importance in the Sami movement in Sweden 1900–1960]. In P. Lantto & P. Sköld (Eds.), *Befolkning och bosättning i norr. Etnicitet, identitet och gränser i historiens sken* (Skrifter från Centrum för Samisk forskning 1, pp. 279–297). Umeå: Centrum för Samisk forskning.

Lantto, P. (2008). Att det för lapparne skulle vara ligiltigt hvar han flyttade": Tvångsförflyttningar som problemlösning i svensk samepolitik ["Like it did not matter to the Lapp where he moved" – Forced migration as a solution in Swedish Sami Politics]. In P. Sköld (Ed.), *Människor i norr. Samisk forskning på nya vägar* (Skrifter från Centrum för Samisk forskning 11, pp. 141–166). Umeå: Centrum för Samisk forskning.

Lantto, P., & Mörkenstam, U. (2008). Sami rights and Sami challenges. The modernization process and the Swedish Sami movement, 1886–2006. *Scandinavian Journal of History*, *33*(1), 26–51.
Lehtola, V.-P. (2002). *The Sámi people – Traditions in tradition*. Inari: Kustannus-Puntsi.
Liljelund, L.-E. (1997). Hållbar utveckling i rennäringen [Sustainable development in reindeer herding]. *Kungl Skogs Och Lantbruksakademiens Tidskrift, 137*(4), 43–54.
Löf, A. (2014). *Challenging Adaptability: Analyzing the Governance of Reindeer Husbandry in Sweden*. Dissertation, Umeå University, Umeå.
Lundmark, L. (1998). *Så länge vi har marker. Samerna och staten under sexhundra år* [As long as we have land. The Sami and the State during six hundred years], Stockholm: Rabén Prisma.
Lundmark, L. (2002). *"Lappen är ombytlig, ostadig och obekväm". Svenska statens samepolitik i rasismens tidevarv* ["The lapp is changeable, fragile and uncomfortable". Sami politics of the Swedish State during the Era of Racism] (Kulturens frontlinjer 41). Umeå: Norrlands universitetsförlag.
Lundmark, L. (2008). *Stulet land. Svensk makt på samisk mark* [Stolen land, Swedish power on Sami ground]. Ordfront: Stockholm.
Mörkenstam, U. (1999). *Om'Lapparnes privilegier'. Föreställningar om samiskhet i svensk samepolitik 1883–1997* [On'Sami privilegies'. Ideas of Saminess in Swedish Sami politics 1883–1997], Stockholm studies in politics 67, Dissertation, Stockholms universitet, Stockholm.
Nilsson Dahlström, Å. (2003). *Negotiating Wilderness in a Cultural Landscape. Predators and Saami Reindeer Herding in the Laponian World heritage Area*, Uppsala studies in cultural anthropology 32. Dissertation, Acta Universitatis Upsaliensis, Uppsala.
Nordin, Å. (2002). *Relationer i ett samiskt samhälle: En studie av skötesrensystemet i Gällivare socken under första hälften av 1900-talet* [Relations in a Sami Society: A Study of the Skötesren system in Gällivare during the first half of the 20th century] (Sámi Dutkan 2). Dissertation, Samiska studie, Umeå.
Nordin, Å. (2007). *Renskötseln är mitt liv. Analys av den samiska renskötselns ekonomiska anpassning* [Reindeer Herding is My Life. Analysis of Economic Adaptation of Sami Reindeer Herding], (Skrifter från Centrum för Samisk forskning 10). Umeå: Centrum för Samisk forskning.
Össbo, Å. (2014). *Nya vatten, dunkla speglingar: Industriell kolonialism genom svensk vattenkraftutbyggnad i renskötselområdet 1910–1968* [New Waters, obscure reflections: Industrial Colonialism through Swedish hydro power expansion in the reindeer herding area 1910–1968]. Dissertation, Umeå University, Umeå.
Pettersson, R. (2004). *Sami Tourism in Northern Sweden – Supply, Demand and Interaction*, ETOUR Vetenskapliga bokserien 2004:14. Dissertation, Umeå universitet, Umeå.
Pusch, S. (2000). Nationalism and the Lapp Elementary School. In S. Peter & L. Patrik (Eds.), *Den komplexa kontinenten. Staterna på Nordkalotten och samerna i ett historiskt perspektiv* (Forskningsrapporter från Institutionen för historiska studier vid Umeå universitet 14, pp. 154–172). Umeå: Institutionen för historiska studier.
Regeringen. (2004). *Upphörande av 1972 års svensk-norska renbeteskonvention* [Cessation of 1972 Swedish-Norwegian reindeer breeding convention]. Regeringens skrivelse 2004/05:79. http://www.riksdagen.se/Webbnav/index.aspx?nid=37andrm=2004/05andbet=79andtyp=prop. Accessed 4 July 2010.
Regeringen. (2009). *Konvention mellan Sverige och Norge om gränsöverskridande renskötsel* [The convention between Sweden and Norway concerning cross-border reindeer herding]. Regeringskansliet. http://www.sweden.gov.se/sb/d/11651/a/121269. Accessed 4 July 2010.
Riseth, J. Å. (2003). Sami reindeer management in Norway: Modernization challenges and conflicting strategies. In S. Jentoft, H. Minde, & R. Nilsen (Eds.), *Indigenous peoples: Resource management and global rights* (pp. 229–247). Delft: Eburon Delft.
Rumar, L. (2008). Renbetesfjällen och sedvanemarkerna vid sekelskiftet 1900 ['Reindeer herding districts and traditional land at the turn of the century 1900']. In L. Lundmark & L. Rumar (Eds.), *Mark och rätt i Sameland* (Rättshistoriska skrifter serien 3, 10, pp. 201–234). Stockholm: Institutet för Rättshistorisk Forskning.

Samebyar (2010). Sanskrit information center, Östersund. http://www.samer.se/1221. Accessed 2 July 2010.
SFS. (1971). Rennäringslagen 1971:437 [Reindeer Herding Law 1971].
Sikku, O. J., & Torp, E. (2004). *Vargen är värst: Traditionell samisk kunskap om rovdjur* [The wolf is the worst: Traditional Sami knowledge about predators]. Östersund: Jamtli förlag.
Sjögren, D. (2010). *Den säkra zonen. Motiv, åtgärdsförslag och verksamhet i den särskiljande utbildningspolitiken för svenska minoriteter* [The safe zone. Motives, strategies and action in the separating educational politics for Swedish Minorities], Umeå studies in history and education 3. Dissertation, Institutionen för idé- och samhällsstudier, Umeå.
Skarin, A., Danell, Ö., Bergström, R., & Moen, J. (2008). Summer habitat preferences of GPS-collared reindeer (Rangifer tarandus tarandus). *Wildlife Biology, 14*(1), 1–15.
Sköld, P. (2005). Samisk forskning i framtiden ["Sami research in the future']. In S. Peter & A. Per (Eds.), *Igår, idag, imorgon – Samerna, politiken och vetenskapen* (Skrifter från Centrum för Samisk forskning 4, pp. 15–61). Umeå: Centrum för Samisk forskning.
Sköld, P. (2009). Samerna – Ett sårbart folk? Kulturell samexistens i svenska Sápmi [The Sami – A vulnerable people? Cultural co-existence in Swedish Sápmi]. *Tvärsnitt, 4*, 17–22.
SOU. (1999). *Samerna – Ett ursprungsfolk i Sverige. Frågan om Sveriges anlutning till ILO:s konvention 169* [The Sami – An indigenous people in Sweden. The issue of a Swedish ratification of ILO convention 169], Betänkande av Utredningen om ILO: s konvention nr 169, SOU 1999:25. Stockholm: Fritzes offentliga publikationer.
SOU. (2001). *En ny rennäringspolitik – Öppna samebyar och samverkan med andra markanvändare* [A new reindeer herding politics – Open Sami villages and co operation with other land users], Del 1, Betänkande av Rennäringspolitiska kommittén, SOU 2001: 101. Stockholm: Fritzes offentliga publikationer.
SOU. (2003). *Levande kulturlandskap – En halvtidsutvärdering av Miljö- och landsbygdsprogrammet: Betänkande av Landsbygdsutvärderingen* [Living cultural landscapes – A mid-term evaluation of the environmental and rural programme: Report from the rural evaluation], SOU 2003*:*105. Stockholm: Fritzes offentliga publikationer.
SOU. (2006). *Samernas sedvanemarker* [Sami traditional land], Betänkande av Gränsdragningskommissionen för renskötselområdet, SOU 2006:14. Stockholm: Fritzes offentliga publikationer.
SOU. (2007). *Rovdjuren och deras förvaltning* [Predators and their administration], Betänkande av Utredningen om de stora rovdjuren. SOU 2007: 89. Stockholm.
Sundström, H. (1999). *Funktionella samband i rennäringen* [Functional connections in reindeer herding], Forum 99:1.Östersund: Fjällforskningsinstitutet.
Sunna, A. (2004). Låt fler kvinnor ta steget in i samepolitiken ["Let more Sami women step into Sami politics']. *Samefolket, 2*, 21.
Svenska Samernas Riksförbund. (2010a). *Renbetesmål* [Reindeer herding legal cases]. Svenska Samernas Riksförbund. http://www.sapmi.se/jur_3_0.html. Accessed 1 July 2010.
Svenska Samernas Riksförbund. (2010b). *Rennäring* [Reindeer herding]. Svenska Samernas Riksförbund. http://www.sapmi.se/nar_1_0.html. Accessed 1 July 2010.
Torp, E. (2008) *Renskötselrätten och rätten till naturresurserna. Om rättslig reglering av mark- och resursanvändningen på renbetesmarken i Sverige* [The reindeer herding right and the right to the natural resources. On legal regulation of land and resources use on the reindeer herding ground in Sweden], Dissertation, Universitetet i Tromsø, Det juridiske fakultet, Tromsø.
Uddenberg, N. (2000). *Renarna, markerna och människorna: om svenska samers syn på natur, djur och miljö* [The reindeer, the land and the people: On the Swedish Sami view on nature, animals and environment]. Nora: Nya Doxa.
Utsi, P. M. (2007). *Traditionell kunskap och sedvänjor inom den samiska kulturen – Relaterat till bevarande och hållbart nyttjande av biologisk mångfald* [Traditional knowledge and traditions in Sami culture – Related to preservation and sustainable use of biologic diversity]. Uppsala: Sametinget, Kiruna and Centrum för biologisk mångfald.