

History

Reindeer and people have a connection that is thousands of years old in what is today called Norway. First by hunting, then through domestication and herding. Archaeological sources such as hunting pits, stone carvings and settlement excavations speak to this connection.

In 98 AD, the Roman historian Tacitus wrote about a people in Thule, who used fur clothes, hunted reindeer and travelled with skis. In the 800s the Norwegian chief Ottar visited King Alfred and the English court and Ottar related to the king about the Sámi and that reindeer were domesticated and managed in herds. This is the first written source of domesticated reindeer husbandry and is often referred to. However archaeological research is consistently pushing the date of domestication of reindeer and the development of reindeer herding further back in time. Writings after that time tell that the Sámi are using domesticated reindeer for transport and milking.

In the 16th 17th and 18th centuries, Sweden had imperial ambitions and this increased the tax burden on Sámi reindeer herding, which would appear to have stimulated a shift in reindeer herding practices. Sámi reindeer herders were nomadic and moved with their reindeer herds between winter and summer pastures. In the mountain areas an intensive reindeer herding took shape – where reindeer were monitored daily.

The Sámi people lived and worked in so-called “*siidda*” (reindeer herding groups) and reindeer were used for transport, milk and meat production. The

Siida

is an ancient Sámi community system within a designated area but it can also be defined as a working partnership where the members had individual rights to resources but helped each

other with the management of the herds, or when hunting and fishing. The *Siida* could consist of several families and their herds.

During the 1900's reindeer herding becomes more extensive and meat production becomes increasingly important. In the 1960's, the Sámi reindeer herders started to introduce new technologies – the so called snow mobile revolution in their work with reindeer. Later came other mechanical aids and today such tools are major feature of modern reindeer herding. This has had a variety of impacts on reindeer husbandry and as herders no longer ski or walk with reindeer, the relationship has changed somewhat. Today's reindeer herding requires large areas, reindeer are often frightened and are forced to flee from natural pastures. Today's reindeer are not watched year-round and reindeer wander freely during certain periods.

However, reindeer herding would not be possible without the maintenance of traditional knowledge which dates back millennia and is transferred from generation to generation. Its significance remains for reindeer herders because it contains important knowledge about how for instance land should be used during different periods and times of extreme weather fluctuation, for example.

Reindeer husbandry today in Norway is a small industry on a national scale, but both in a Sámi and local context, it has great importance. Reindeer husbandry is not only important economically and in employment terms, it is also one of the most important parts of the Sámi culture.

Borders

Sámi reindeer herding in present Sweden, Norway and Finland has historically been and is in many ways still affected by the creation of national borders. Borders became barriers to reindeer herding which had, since time immemorial been a livelihood that migrated between different areas. The first boundary which affected the Sámi reindeer herding was drawn between Norway/Denmark and Sweden/Finland in 1751. To this border agreement was made a substantial allowance of 30 paragraphs on the rights of the nomadic Sámi - later often called the Lapp Codicil (Lappekodícillen) or the Magna Charta of the Sámi.

The aim with the Codicil was to secure the future reindeer herding for the Sámi people affected by the border. The states agreed that regardless of state borders, the reindeer herding Sámi should be able to continue to migrate with their reindeer to the other kingdom in the same way as they had done before the border demarcation. The migrations have since 1919 been regulated between Norway and Sweden in different so called reindeer grazing conventions (renbeteskonventioner) which are based on the Codicil. The last convention was negotiated 1972 and was in force until 2005. Sweden and Norway are negotiating on a new convention.

(www.sapmi.se)

Rights to Own Reindeer

According to the New Norwegian Reindeer Herding Act from 2007 (*Lov om reindrift 2007-06-15-40*), which regulates reindeer herding in Norway, only those who have the right to a reindeer earmark can conduct reindeer husbandry in the Sámi reindeer herding area. The right to a reindeer earmark requires that the person is a Sámi and themselves, their parents or their grandparents have or had reindeer herding as their primary occupation.

A reindeer earmark is a combination of one to many cuts in a reindeer's ears which all together tells who the reindeer owner is. There are around 20 different approved cuts and in addition some 30 different combinations of cuts, and all those cuts and combinations have their own name. All reindeer in the Sámi reindeer husbandry area shall be marked with the owner's

registered earmark by 31 October the same year as it is born. Before an earmark is implemented, it shall be approved by the earmark committee consisting of 3-5 members. After approval the earmark shall be announced.

The reindeer must also belong to a *Siida unit* or an equivalent *Siida unit*. The Reindeer Board (*Reindrifststyret*)

) may give special permission to own reindeer in the Sámi reindeer herding area, although that the person/those persons do not meet the requirements to get hold of reindeer earmark. There is also a limited reindeer herding activity outside the Sámi reindeer herding area, in a so called Concession Area (in southern Norway), which consists of about 10 000 reindeer where both Sámi and non-Sámi are engaged in reindeer herding.

According to the Reindeer Herding act the Reindeer husbandry in Norway must be economically, ecologically and culturally viable and it will be based on Sámi culture, Sámi traditions and Sámi customary practices. The right to conduct reindeer husbandry in Norway is based on the Sámi's immemorial claim of lands and the area where these lands are is called the Sámi reindeer herding area.

(Lov om reindrift (reindrifstloven) 2007-06-15-40, Landbruks- og matdepartementet)

The Reindeer Herding Area

Reindeer husbandry in Norway is conducted primarily in the Sámi reindeer herding area, which is divided into six regional reindeer herding areas; East-Finnmark, West-Finnmark, Troms, Nordland, Nord-Trøndelag and Sør-Trøndelag/Hedmark. The Reindeer herding area comprises approximately 14,000 km² or 40% of Norway's surface area.

In addition to these are four so-called semi domesticated reindeer herding districts (tamreinlag) outside the Sámi reindeer herding area and the work with reindeer in these is of non-sámi character.

The right to own reindeer according to the reindeer husbandry act includes the right to graze reindeer in the mountains and other sites, including former cultivated fields and hay meadows outside and which are not linked to inhabited areas or facilities in operation, unless they are kept in the claim and not used as pasture, unless the area is fenced to keep out reindeer.

Grazing rights include the right to seasonal grazing as necessary, such as spring, summer, autumn and winter grazing and also migratory routes, calving areas and rutting areas.

Outside the Sámi reindeer herding area, reindeer husbandry may not be conducted without the King's special permission. Such permission can be granted only to a person who by written sources can prove that they are associated with the current landowners and rights holders, or can access large enough areas with good reindeer pastures. A permit may not be granted within the wild reindeer area, nor so close to the Sámi reindeer herding area that it might cause conflict. The permit can be given for a certain period and the management can be subject to certain conditions.

(Lov om reindrift (reindriftsloven) 2007-06-15-40, Landbruks- og matdepartementet)

Management of Reindeer Husbandry

The management of Reindeer Husbandry is divided into 3 main levels; the national, the regional and the local level.

On the national level the reindeer husbandry issues belongs to the Ministry of Agriculture and food (*Landbruks- og matdepartementet*). Most of the decisions concerning reindeer husbandry on the national level are delegated to the "Norwegian Reindeer Husbandry Board" (

Reindriftstyret

in Norwegian and

Boazodoallostivra

in Sámi

)

which consists 4 members appointed by the Ministry and 3 appointed by the Sámi Parliament (

Sámediggi

). The daily responsibility to implement the State's reindeer husbandry policy lies with the Norwegian Reindeer Husbandry Administration, (

Reindrifstforvaltningen

) where the reindeer husbandry head is the supreme head. The reindeer husbandry administration should both implement state policies primarily through control measures and support reindeer husbandry as a secretariat and adviser to the reindeer husbandry management bodies. Once a year, the administration also produces reports about Sámi reindeer husbandry based on data collected through the official reindeer owners report, from the reindeer owners tax forms and from reports given from the slaughterers etc.

On the regional level each reindeer herding area has its own board of 5 or 7 members appointed by the Sámi Parliament and the County council (*Fylkestinget*) but also a regional Reindeer Husbandry Administration. The reindeer agronomist is the head of the administration on the regional level and mainly works as a contact between reindeer herders and managers of reindeer herding. The administration on the regional level also works as a secretary to the area board.

On the local level the districts themselves manage the district's internal affairs, such as the district's economy. According to the new act and in comparison to the previous Act, reindeer herders have, gained more power and more responsibility as regards administering reindeer husbandry. For example, the district must produce so-called land use plans (*bruksplaner*) in which the districts land use plans are laid out along with predicted reindeer numbers.

The Reindeer Herders Association of Norway (*Norske Reindriftssamers Landsforbund* in Norwegian or

Norgga Boazosámid Riikkasearvi

in Sámi) is an organisation for the Sámi reindeer herding in Norway. NRL does not in any way

manage the Sámi reindeer husbandry, but has since 1970's negotiated annually with the state about economic support to the reindeer husbandry. NRL's purpose is to promote the Sámi reindeer husbandry interests economically, academically, socially and culturally. NRL works foremost for unity among the Sámi reindeer herders and for that the Sámi people themselves should control the development of the reindeer husbandry industry.

Both districts and individuals can be members of NRL and membership is voluntary. The highest decision-making body is the national congress which is held annually.

The secretariat of the organization, which has a budget of millions of Norwegian kronas, is based in Tromsø).

(Lov om reindrift (reindriftsloven) 2007-06-15-40, Landbruks- og matdepartementet)

(www.regjeringen.no)

(www.reindrift.no)

(www.nrl-nbr.no)

(The Encyclopedia of Saami Culture)

Districts, Siidas and Siida units

Sámi reindeer husbandry in Norway is divided into 89 districts. A district is an administrative unit which includes a specific geographical area and whose main task is to organize reindeer husbandry within the district. The districts were established in 1978 and from the beginning, the districts were established so that liability for wrongful conduct could be placed on the reindeer owners collectively within a naturally defined reindeer grazing area. A district is not a legal entity which can borrow money or issue a contract, but a district can represent individual reindeer herders in any disputes.

The New Norwegian reindeer husbandry act from 2007 has retained the system of districts but has incorporated some parts of the traditional siida system and places the Siida and the Siida unit (Siida oassi) at the centre. In the Act, the Siida is understood as one or several groups of reindeer owners within a district engaged to carry out the practical work with reindeer in a given area. The work within a Siida can be seasonally orientated, like a summer or winter Siida or be a year round Siida. In the Act, the Siida unit is understood as a family which, or an individual who, represents a unit within the district and are/is engaged in reindeer herding in a Siida with leadership of an individual, a married couple or a couple living together. The system of Siida units, or operational units (driftsenhet) as they were named until 2007, was introduced by a desire to monitor the industry and to keep control of reindeer numbers. Sámi who do not belong to a Siida unit fall outside the legal bounds now established for reindeer husbandry in Norway.

In order to lead a Siida unit, a person is required to have reindeer husbandry as his or hers main profession. The leader of a Siida unit determines who may own reindeer in the unit and how many reindeer can be owned within the unit. Members of one unit may not have reindeer in other units. Only a minor whose parents do not live together can have reindeer in his own earmark in the units in which the mother and father belong to. In Norway, as of 2006/2007, there are a total of 556 Siida units which have a member total of 2 936 people. Of these, 403 Siida units and 2 200 persons are in Finnmark, making it the most numerically significant region for reindeer husbandry in Norway.

The Siida unit leaders in a district can, if they agree, decide to establish a new Siida unit within the district. But this decision must take into account that the new Siida unit will not threaten the district's ability to conduct an ecological, economic and culturally sustainable reindeer husbandry. The area board (Områdesstyret) takes the final decision on the establishment of a Siida unit. The average age of a Siida unit leader in Norway is 45.

(Lov om reindrift (reindriftsloven) 2007-06-15-40, Landbruks- og matdepartementet) (Resursregnskap for reindriftnæringen, reindriftsåret 2006/2007, Reindriftsforvaltningen 2008)

(www.reindrift.no)

Number of Reindeer

The number of reindeer in Norway, which are calculated after slaughtering reindeer has been drawn from the herd and before the calving starts in may, fluctuates but is normally around 200 000. In Norway the reindeer numbers where 242 000 year 1990, 172 000 year 2000 and 241 000 year 2007. The most common reasons for these fluctuations include for example difficult climatic situations during several winters, increasing predation levels and poor pasture conditions.

As Norway modernized in the post war period the new regulations and administrative structures were introduced into reindeer husbandry, which had the effect of increasing state control over the livelihood. The rapid development of Norway in this period has brought significant economic and infrastructural and social development to the North. However it has also radically altered traditional Sámi reindeer herding structures.

There has been considerable public debate regarding the number of reindeer in Finnmark since the passing of the 1978 Reindeer Herding Act and this discussion intensified in the late 1980's and early 1990's. The commonly stated mainstream view is that there are too many reindeer and that the number of reindeer should be reduced, for environmental reasons, as it is argued that reindeer pastures, particularly the lichens in the winter pastures are being severely damaged.

According to the new act the maximum number of reindeer in a *Siida* is determined in light of the district's land use plan. The

Siida

itself calculates out the number, with respect to the

Siida

pastures and the slaughter weights of the reindeer. When establishing a new

Siida,

the reindeer numbers should stay within the reindeer numbers which have been decided for the *Siida*

. But the Area Board (O

mrådesstyret

) can deny the establishment of a new *Siida* unit if its average reindeer number goes below 250 reindeer in relation to the determined highest reindeer number for the

Siida

. According to the act, fewer than 250 reindeer are considered to be uneconomical and from an ecological perspective the total number should not threaten the pastures.

The average number of reindeer in Norway is 70 reindeer per owner.

(Lov om reindrift (reindriftsloven) 2007-06-15-40, Landbruks- og matdepartementet)

(Resursregnskap for reindriftnæringen, reindriftsåret 2006/2007, Reindriftsforvaltningen 2008)

Economy

The economic situation among reindeer herders in Norway varies greatly, and today's reindeer herders have to adapt to a wide variety of changes in the local, regional and national economy. Reindeer and their pastures should be managed in both a rational and sustainable manner, while at the same time reindeer herders need revenue to survive. Reindeer herding is in terms of taxation seen as a for-profit-business and for a reindeer herder a common tax form is as a private entrepreneur (*enkeltmannsforetak*). The basic rule for this is that all income should be taxed, with the exception of the income that is tax free, and that the costs of acquiring revenue is tax-deductible. A *Sida* unit may have one or more entrepreneurs.

Today, the income of individual reindeer herders consists of the production of meat and raw materials such as skins, bones and horns. Additional sources of income include financial subsidies and compensation. There are some variations between the six regions but also between individual reindeer herders in how much meat production represents of their total revenue. Meat production in general brings more than 50 % of the income to reindeer herders in

all four regions except Troms and Nordland. On the individual level the number of reindeer and the production of meat are related. It is not unusual that when the total number of reindeers decreases, the total value of meat production also shows a falling trend. The industry income picture will however change when we add for example subsidies and compensations, then the income from the industry is in average more than the income from other sources of income. But statistics show that all *Síida* units in Norway have an income far below the average income in Norway. Most reindeer herding families have several incomes which can come from additional processing, sale of services, additional industries and salaried work.

More than 50 % of the costs in the industry in all the six areas of reindeer husbandry are related to the costs of running and maintaining mechanical equipment. Other high costs are related to other equipment and constructions.

(Dieđut, Analyse av den samiske reindriftenes økonomiske tilpasning, nr 4, 2006, Sámi Instituhtta, Norden)

State economic Support for Reindeer Husbandry – the Reindeer Husbandry Agreement

Norway has since 1976 an agreement for reindeer husbandry which is called the “Reindeer Husbandry Agreement” (*Reindrifftsavtalen*) and the main purpose of this is to preserve and develop reindeer husbandry based on its traditions. The agreement is a result of the Norwegian authorities' views on reindeer herding and especially in relation to the support of the Sámi culture and reindeer husbandry as a Sámi industry. The agreement reflects the political objectives and guidelines for reindeer husbandry.

NBR, the organization of Norwegian Sámi reindeer herders, and the state through the Department of Agriculture and Food annually negotiate on economic measures but also professional, social and organizational issues. The first agreement was drawn up in the 1970's. The agreement builds on various elements, such as the importance of reindeer husbandry, the main objectives of the Agreement and its primary goals.

The economic support for the years 2008/2009 amounted to 97 million NOK (10.1 M Euro). The financial support agreement includes activity supports, production bonuses, early slaughter supplements, calf slaughter payments, district support, special transition assistances and other payments

According to the agreement for 2008/2009, for example, each *Siida* unit gets an activity support corresponding to 10 000 NOK (1 100 €), and if the

Siida

unit should be able to get activity support with production bonus equal to 25 percent of taxable income, the unit must have sold reindeer meat for at least 50 000 NOK (5 500 €) per year.

Support for early slaughter is 7 NOK (0,77 €) per kilo for reindeer that has been slaughtered in the summer pastures and 4 NOK (0,44 €) per kilo for reindeer slaughtered between the time 11 October and 31 December. Support for early slaughter has led some districts in the past to slaughter before the New Year. The support for calf slaughter in 2008/2009 amounts to 200 NOK (22 €)/ calf. The stated purpose of this support is to promote a certain type of herd structure so that it consists of more productive animals in relation to limited pasture availability. The purpose of district support is to give districts more responsibility with the help of increased economic activity freedom and it will also be used for emergency preparation in the case of poor reindeer grazing conditions.

Also within the agreement is 35.9 M NOK (3,949 M €) for the Reindeer Husbandry Development Fund (in Norwegian called *RUF*) and money from *RUF* can be used as loans and / or grant support for example to extreme losses of reindeer in the case of accidents, training scholarships and development of related industries to reindeer herding.

(Foreskrifter til Reindrifftsavtalen 2008/2009 m.m., Reindrifftsforvaltningen, Alta 2008)

Challenges - Loss of pastures and Encroachments

Reindeer need large and undisturbed areas during the whole year. For many years, reindeer husbandry in Norway has had to grapple with intrusions, such as mining, defence activities, wind power development and hut-building areas. New activities are continually encroaching on reindeer pastures. Encroachments into reindeer pastures grazing conditions are seen among both reindeer herders and many researchers to be the largest threat to the future of Sámi reindeer husbandry. And the biggest threat may be that there is no overview of how these various activities combined impact on reindeer husbandry.

Encroachment means for the most part that reindeer pastures are lost irreparably. According to the report "Inngrep i reinbeiteland" which was published in 2004, more than 30 % of Norway's reindeer pastures have been lost due to encroachment and exploitation. UNEP's estimates show that if encroachment continues at the same pace then within 50 years, traditional reindeer herding, with some exceptions, will not be able to continue in the way it does today. This means that, even if the Sámi reindeer herding area even extends its large grazing areas, the critically important areas will be so heavily affected that traditional reindeer herding will not be possible. Protecting pastures, in the form of informing other authorities on the special needs of reindeer husbandry for pastures among other things, is the work of the Reindeer Husbandry Administration and this is an area that they will need to prioritize in the coming years.

(Inngrep i reinbeiteland, biologi, jus og strategier i utbyggingsaker, Norges landbrukshøgskole, NINA, Sámi Instituhtta, 2004) (www.reindrif.no)

Predation

Figures from 2006/2007 based on reports from reindeer owners in Norway to the Reindeer Husbandry Administration, show that the greatest losses of reindeers, about 80 % or 51 000 reindeer, due to predators. The predators that in all areas impact most extensive are wolverine (*Gulo gulo*)

) and golden eagles (

Aquila

chrysaetos

). What concerns the lynx (

Lynx lynx

) for example researches from the Norwegian Institute for Nature Research (NINA) shows that a male lynx (

Lynx lynx

) eats on average 22,5 reindeer per month and a female lynx 8 reindeer per month, but also that the lynx can kill up to 20 reindeer during one night. Reindeer herders mean that it is difficult to prove how much is killed by lynx, as it naturally is difficult to find killed reindeer in nature and for example because it can be completely disappeared the next day or be killed at a place where they will not be found.

If a reindeer has been killed by a lynx (*Lynx lynx*), wolverine (*Gulo gulo*), wolf (*Canis lupus*), bear (

Ursus arctos

) or golden eagles (

Aquila

chrysaetos

), the reindeer owner is entitled to full compensation for the loss. The reindeer owner applies for assistance annually through the

Siida

unit he/she belongs. The compensation is calculated on the basis of the respective district slaughtered reindeer average weight over the last three years, and the index price as it sells reindeer meat for to the slaughterhouse.

In Norway the Ministry of the Environment (*Miljøverndepartementet*) has overall authority for all predator management, and manages it through the budget, legislation and management dialogue. The Ministry does government policy and follows up those areas of development within predator policy and the guidelines the government has added.

The

Directorate for Nature Management (

Direktoratet for naturforvaltning

) is subordinate to the Ministry of the Environment, and is the responsible agency for predator management on the national level. The State Nature supervision (

Statens Naturoppsyn, SNO

) is part of the Directorate for Nature Management and is the operative fieldbody which, among other things, assist pet owners with documentation of predator damage to semi domesticated reindeer, does field work in connection with the monitoring of predators, works with preventing / prevent environmental crime directed toward predators.

The Predator Committees (*Rovviltnemnden*) are politically selected for each management region. The Committees have an overall management responsibility for predators within the region, and prepares and adopts, among other things, regional management plans for predators.

According to the Predators Portal, (*Rovviltportalen*) where information about the five large predators is found, the number of lynx in 2008 in the whole of Norway is between 429 and 452, and about half of them are within the Sámi reindeer herding area. In 2007 the number of wolverine were approximately 362 + -39 in Norway and about three-quarters of them are in the Sámi reindeer herding area. The number of bears is in 2008 were 128 and about three-quarters of these were in the Sámi reindeer herding area. Also in 2008, the number of nesting golden eagles in Norway was 850-1 200 and the number of documented wolves was 12-18.

(*Resursregnskap for reindriftnæringen, reindriftsåret 2006/2007, Reindriftsforvaltningen 2008*)

(www.rovviltportalen.no)

Climate change

Large areas of pastures are being lost to different industrial activities. Climate change is likely to add new set of stresses. The Arctic Council Arctic Climate Impact Assessment – ACIA (2005), reflects more than 250 researchers' assessments of how climate change will affect the Arctic environment and the communities that live there. The report also demonstrates that temperatures in the Arctic are rising faster than elsewhere in the world. These changes will involve, inter alia, shorter and warmer winters, and new varieties of wildlife in the Arctic. Climate change is also likely to result in increased development, for example in the form of roads and facilities in the Arctic, which both directly and indirectly have impacts on reindeer husbandry and reindeer pastures.

Since reindeer herding is conducted in nature and is very much dependent on the conditions that nature provides, any changes that occur have special impacts on the practice of reindeer husbandry. But no one can yet know with certainty when, how and how much reindeer herding will be affected as a result of increased climate change.

Sources of indigenous knowledge across the Arctic report according to ACIA that the weather seems more variable, unfamiliar and is behaving unexpectedly and outside the norm". According to the ACIA report autumn weather in some areas has fluctuated between raining and freezing, often creating an ice layer on the ground that has reduced reindeer's access to the underlying lichen. These conditions represent a major change from the norm, and in some years, have resulted in extensive losses of reindeer. Future changes in snow in extent and condition have the potential to lead to major adverse consequences for reindeer herding and the associated physical, social and cultural livelihood of the herders.

Frozen ground underlies most of the region and if warming degrades this permafrost, traditional reindeer migration routes are likely to disrupt. Warming is also projected to cause earlier melting and later freezing. The biodiversity of the reindeer herding region is quite vulnerable to climate change. There remains uncertainty about how the mountain flora will withstand warmer climates coupled with the impacts that a warmer climate will have on different insect varieties and how they will affect reindeer. Since snow free time is when reindeer collect important fat and protein reserves, reindeer may according to some researchers, take advantage of this benefit for a longer period of time.

(Arctic Climate Impact Assessment, 2005)

(Sverige inför klimatförändringarna – hot och möjligheter SOU 2007:60)

Traditional Knowledge and Language

The Sámi language is very rich in its terminology for reindeer, reindeer husbandry and landscape generally. Terminology is an important part of Sámi traditional knowledge and it is transmitted from one generation to another, mostly orally. The very exact knowledge about nature demonstrates an ancient and close connection to it and how important reindeer husbandry is for the Sámi.

Reindeer husbandry is often referred to as the corner stone of Sámi culture, not only for subsistence, but also for lifestyle. The conditions in reindeer herding can be extreme and cold. To be able to manage and survive the conditions it has been and still is important for herders to have knowledge of landscape, such as of grazing or snow conditions. The Sámi language and its dialects have hundreds if not thousands of exact terms and descriptive epithets for snow, ice and similar natural phenomena.

Israel Ruong (1903-1986) who was a professor in Sámi language, classifies snow terms as follows: a) amounts of snow, b) the composition of snow c) the bearing capacity of snow, d) the surface, level and slide quality of snow, e) expressions for being covered with snow, f) unmarked snow and tracks in the snow, g) hoarfrost and other coverings of ice and snow on

plants and trees, h) the melting and disappearance of snow, i) ice, j) the appearance of (patches of) unfrozen land, k) places where the snow remains in the summer, l) different kinds of winter pasture, including expressions for the surface quality of the snow.

For a reindeer herder it is also necessary to know exactly what kind of reindeer is in question. Terminology on reindeer is very precise and professional and it can be described according to colour, age and sex, antlers, appearance, nature and some other special characters.

(The Encyclopedia of Saami Culture)

- [Reindriftsforvaltningen - Boazodoallohálddahus - Reindeer Husbandry Administration](#)
- [Norga Boazosapmeleccaid Riikkasearvi - Norske Reindriftsamers Landsforbund - Sami Reindeer Herder's Association of Norway](#)
- [Nordic Council For Reindeer Husbandry Research \(NOR\)](#)
- [Landbruks og Mat departementets side om Reindrift](#)
- [Reinportalen](#)