

BIOLOGY AND MANAGEMENT OF REINDEER IN NORWAY

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Facts

Rangifer tarandus tarandus is called “mountain reindeer” or “tundra reindeer” in Norway.

It has its origin from the original Rangifer tarandus, which was earlier found only in Norway, but has spread to Sweden and Finland through semi domestication by the Laplanders in the north.

There is a clear distinction between the wild and the domesticated subtypes of reindeer, and some scientists divide the reindeer into several local subspecies.



(Source: 6)

Biology

Contrary to other deer species, the reindeer thrives on the tundra, mountain areas and in open forests where the winters are long. The reindeers do not tolerate heat very well.

They prefer temperatures below 0 deg, and do not increase the metabolic rate before the temperature reaches below -30 deg. In the winter, when the access to green feed is limited, the animals feed mostly on different species of lichen and twigs of small mountain trees, which they scrape up from under the snow.

During the summer, the reindeer are selective eaters and live of grass, weeds and sprouts of the mountain trees and bushes. They change grassing area after when the different plants sprout and have the highest nutritional value. They only gain weight in the summer. With good grazing grounds, the animal's fat reserves can be several centimetres thick.

The reindeer have special patterns of migration throughout the season, and depend on the availability of grazing. The patterns are inherited, but maintained by learning and experience.

Smell is the reindeer's most developed sense. The sense of smell can give an early warning or lurking predators. In the winter, the animals can smell lichen under the snow.

The animals also recognize each other on the basis of the smell excreted from several scent glands all over the body.

The reindeers are flock-animals. They graze, ruminate and rest together. The community is maintained among other things by dominance and submission, controlled by size, age, size of antlers and body posture.

The exact size of the herd and its composition differs from year to year. The dam, their offspring and the yearlings keep together all year. The males make up smaller groups and search for the females during the breeding season.

The reindeer have a strict social order. Unlike other deer-animals, both males and females have antlers, and its size has big influence on the animal's social position. The males and females change the antlers at different times of the year, and this regulates the social rank between them. When the males change their antlers in the middle of winter, they lose their high rank. The females don't change their antlers until after they have given birth, and this secures them the first grazing available and good nutrition for the foetus. Also the yearling, following their mother, benefits from the dam's high rank.

When mating season approaches, it is the biggest, evenly big males of the same age that fight for the top rank position over the female herd. The fights can be long and exhausting. When the victorious male has successfully inseminated the female, he is often reduced and has lost weight.

The females seek the exact same spots for calving year after year. The dam pulls away from the herd and finds a spot as clear from snow as possible away from the wind when the time for delivery is approaching. When the calving is over, the mother licks its offspring dry and it starts suckling. The dam vocalizes with special sounds to bond with its baby. The newborn can stand up shortly after birth, and a few days later, it follows its mother around.

Domesticated reindeer

The domesticated reindeer live freely, like the wild animals, most of their life, but during some occasions during the year, they are gathered and handled by humans. They are branded, weighed, transported between grazing areas, separated if the herds are mixed and slaughtered. Therefore, the more correct term for these animals is semi-domesticated reindeer.

Management

It is unclear exactly how many reindeer there are in Norway today, but an estimate from 2003 suggests 170000 wild and in 2006 there were about 200000 domesticated animals. The largest wild herd is found on “Hardangervidda”, a tundra area on



mountain range in the south-central Norway. Both the wild and domesticated flocks live freely in their natural habitats all over Norway.

The domesticated reindeer owned by the Laplanders makes up the biggest part of the reindeer trade in Norway, and spreads all the way from the middle of the country to the very northern county of Finnmark.

The first laws concerning reindeer came already in 1751, and have been updated throughout the times. Since a convention set in 1972, only people of Sámi heritage are allowed to run reindeer operations in suited reindeer grazing areas. The right to run these operations comes above the right of land ownership and national borders, meaning that the Laplanders can herd their herds wherever the grazing is the best, not considering who owns the herding grounds or whether these areas are found in Norway, Sweden or Finland.

Reindriftnorge



Norway is divided into six main reindeer grazing areas.

The biggest part of Norway's 200000 domesticated reindeer, are found in the western part of the very northern county called Finnmark.

Total domestication, with for example milking of the female animals, is now replaced by a semi-domesticated nomadic operation, where the herds are only partly held under control, and herded.

(Source: 12)

The only products from the reindeer used today are the hides and meat.

During the year, the calves are marked with an electronic collar in the spring, then the animals are mainly left alone until the autumn, when they are gathered, separated (see picture), and the weak and old



animals are slaughtered. In most areas it is also common to move the herd from a winter to a summer- grazing area.

In the more southern reindeer areas, the herds are more intensively herded. This is due to limited grazing areas, and also the risk of "loosing" the domesticated animals to wild reindeer flocks. In the summer, these animals are herded around the clock.



The reindeer grazing areas where Sámi operations are run makes up about 40% of Norway's total land areas. In the mountain areas in south Norway there are domesticated

In Norway, there are three levels of reindeer management and husbandry. There is a local, a regional and a national control.

The Ministry of Agriculture and food (*Landbruks- og matdepartementet*) is responsible for the national surveillance and policy making. "Norwegian Reindeer Husbandry Board"

(*Reindriftstyret* in Norwegian and *Boazodoallostivra* in Sámi) is responsible for regional decisions concerning reindeer operations. The representatives in this level are appointed by the Ministry of Agriculture and by the Sámi Parliament (*Sámediggi*). Day to day decisions are made by the Norwegian Reindeer Husbandry Administration, (*Reindrifstforvaltningen*).

Problems with managing reindeer

Because the number of reindeer exceeds the amount of *Cladonia* spp of lichen; the reindeer's most important source of nutrition, thousands of animals starve to death during bad years.

Predators and parasites also harm many animals and they may suffer for a long time before the harm is discovered.

The statistics of death varies greatly from year to year. There has been reported everything between 1-50% mortality in different flocks in different parts of the country. During the gathering, there is a risk of injury and stress to the animals, who are not used to being approached or handled by humans. During slaughtering, the weakest and older animals are chosen, and are usually killed with a knife. The knife is curved, and is inserted between the cervical vertebrae to sever the spinal cord. This method can be inhumane and painful if it is not performed in the correct manner.

When the reindeer needs to be transported, the risk of injury to the animals is big, especially for weakened animals. When the herd is moved, it is sometimes chased by snowmobiles over long distances, and might exhaust the animals.

Hunger and malnourishment is maybe the biggest problem in domesticated herds of reindeer. Animals that are weakened by hunger are more prone to illness and attack from predators.

Hypoderma parasites may during some years cause huge problems for the reindeer. The larvae develop in the oesophagus or under the skin of the animals, causing tissue injury, and make the animals susceptible to infections. In 2007, foot rot has been found in some herds, but this problem has not persisted, and was probably caused by wet conditions.



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