



A publication by:

NORTHWEST WILDLIFE PRESERVATION SOCIETY

Moose

Alces alces



Photo credit: Darren Colello

The word moose is thought to have come from the Algonquian word “mus” or “moos” and means eater of twigs. Today there are about one million moose living in North America. Most North American moose live in Alaska and Canada. Canada has the largest moose population in the world, consisting of approximately 830,000 moose. British Columbia alone is estimated to have more than 165,000 moose.

However, long before moose came to North America, they lived in Eurasia. It is believed that they came over the narrow land bridge called the Beringian Connection. This land bridge connected Asia with North America and was about 90 km (56 miles) long. It joined the Siberian Chukchi Peninsula with Alaska’s Seward Peninsula. It is possible that moose preceded the arrival of man to this area of the world.

Characteristics

Moose are the largest member of the deer family. Moose have long heads with large bodies, they have a hump on their shoulders and they have a short tail. Their long legs help them travel long distances through water and snow. They have a flap of skin called a bell hanging from their throat. The colour of a moose’s coat changes with the season and with their age. Their coat colour may change from a golden brown to almost black. Moose gradually shed their fur and grow a new one each summer and winter.

Moose fur has two layers. The top layer covers the entire body and consists of *guard hairs*. This layer is thicker and longer in the winter than in the summer. Guard hairs are hollow and hold air. This helps moose to stay afloat when they swim. Beneath the guard layer is woolly fur. This bottom or woolly layer only covers the body of the moose and is not found on its face or legs. The woolly fur gives extra warmth.

Bulls are adult male moose. They can grow as much as 2.7 metres (9 feet) long and 2 metres (6.5 feet) tall when measured from the ground to their shoulders. They can weigh as much as 636 kgs (1,400 lbs). Bulls have large spoon-shaped antlers that have spikes at the edges. Their antlers usually grow between 1.2-1.5 metres (4-5 feet) across. Bulls shed their antlers and grow a new set each year.

Female moose are known as cows and they grow to around 1.6 metres tall and weigh around 500 kg. In addition, cows possess antlers. After mating, cows go alone to their home range, where they eat and put on fat for the winter. Cows look for calving sites in the spring. They often choose narrow strips of land near water in order to protect their calves from predators. Cows usually have one or two calves each year.

Calves are born between mid-May and the beginning of June. Calves weigh at birth between 13-16 kg (29-35 lbs). They are able to walk and follow their mother within hours of their birth. However, it takes them four days to walk with a steady gait.

Behaviour

Moose make different sounds. They can make a roar like vocalization when upset, snort when they are angry and whine or moan when they are looking for other moose. Some sounds are too low for humans to hear.

Moose are active in the day. Their vision is average but their sense of smell and hearing are very acute. They are good swimmers and fast runners. Moose can be aggressive when they are hungry, tired or threatened. Bull moose are aggressive during mating season (rut). Cow moose are protective of their young and are known to attack anything that comes too close to their calves.

Adult moose usually are solitary animals and not overtly territorial. They do not protect their home range from other moose and sometimes home do ranges overlap. This enables moose to find each other during mating season. Also, if a particular home range has abundant food, more than one moose may occupy the same home range. Bulls mate with cows between late August and late October. Cows give birth between the middle of May and the beginning of June.

Habitat

Moose like to live in the forests. Forests give moose their food and shelter. Moose may also be found in recently cleared forest areas (e.g. after a fire). The new trees and shrubs growing in these newly cleared areas is a good source of food. Moose also live in forests near streams, ponds and lakes. Moose swim to cool off and to escape insects.

The home range is the area that a moose will occupy during its lifetime. The size of a moose's home range will depend on the season and the amount of available food. Most of their home ranges cover between 13 – 52 km² (5-20 square miles). Calves spend the first two years of their life in their mother's home range. Moose may have one or two home ranges. If a moose has more than one home range, then depending on the season, it will migrate between them. Calves learn the migration routes from their mothers.

Moose prepare for mating season and for winter in their summer ranges. It is at their summer ranges that moose spend most of their time feeding. It is important that moose fatten up enough to survive the winters. Winters are cold and food becomes scarce. Cows that can gain the most weight have a much better chance of bearing healthy calves. Moose will migrate from their summer ranges when mating season begins or when snow becomes too deep.

Food

Moose need a lot of food to survive. Moose can strip and peel-off bark and leaves with their bottom lip. They eat willow, aspen, birch, poplar, balsam fir and red osier dogwood. Moose also eat plants that grow near the water's shoreline, as well as, in the water. They are especially fond of water lilies. Moose are ruminants, their four-chambered stomach helps them to digest their cud. This stomach contains microorganisms that help to break down vegetation. Moose rarely live past 16 years because their teeth wear down as they age. This makes it very difficult for them to eat enough food to survive.

Threats

Moose predators include the black bears, grizzly bears and wolves. Bears can kill up to 75% of newborn calves. The winter tick threatens moose because tick infestations cause hair loss. This is serious because moose depend on their coat to protect them from the extreme cold. The combination of severe winter and heavy tick infestation can cut the moose population down to half of its original numbers.

Conclusions

Moose seem to be remarkably well adapted to the North American environment. However, it is important to understand the degree and range that moose can adapt to a changing environment. Perhaps most of all, it is important to understand man's role in this changing environment, because the moose's long-term survival may depend on its ability to co-exist with man. Moose have become extinct in many parts of Europe and Asia. We do not wish for this to occur in North America.

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