



## Muskox – Life Cycle and Behaviour

### The Muskox Herd

Muskox are social animals and are usually found in herds. Herds can be as small as 3 animals or as large as 100 animals. Usually there are about 15 animals in a herd. For most of the year, herds are mainly made up of cow muskox, calves, yearlings and young bulls. Adult bulls may wander alone or form small groups. During rutting season, bulls join a herd and may remain with the herd for some time.

Within the herd, the dominant bull provides leadership, taking the lead in repelling predators, fording rivers and leading the group. There is also a dominance hierarchy within the cow herd, and certain females assume the leadership role in cow herds. Lone muskox seen during late summer are either old and senile bulls or young bulls that have been driven away from the herd by a dominant bull. Very occasionally lone cows and calves have been seen far from a herd, but this is unusual, for cows and new-born calves rely on herd protection to survive a wolf or grizzly bear attack.

### Defense Against Predators

The band of muskox, often females and their offspring, with or without a bull, works together, co-operating in defense against predators. One of the most interesting features of muskox behavior is their defense strategy of forming a protective ring or line. When disturbed or threatened, muskox bunch together in a group. If there are enough muskox, they will form a tight ring facing outwards. The adults ring the outside, protecting the calves in the inner circle. If the herd is small, or if it is being approached by a single predator, muskox are more likely to form a line, all facing the approaching predator. If it continues to come closer, they may stampede away, running close together in unison. Although known as slow-moving animals, muskox are capable of speed and agility. Their broad hooves have a sharp outer rim and a soft inner pad that helps them grip and turn on rock and ice. This habit of forming a defensive ring or line illustrates the unity of the muskox herd.



## Reproduction

Muskox reach maturity at 3-5 years, and start breeding at this age. Fall is rut time for muskox. As late summer approaches, the bulls become aggressive, and battle to assume leadership of a band of female muskox. The peak of rut is the



first three weeks in August. Bulls charge each other head on, then back off slowly, swinging their heads from side to side. Occasionally, a muskox is gored by the other's sharp horns, in the chest or flanks.

### Muskox Calves

Female muskox give birth to one calf every one to two years, depending on their physical condition. Twins

are rare. Gestation (the length of time the cow is pregnant) is 8 or 9 months. Calves are born with short woolly coats. A newborn calf stands and begins to nurse, suckling on the mother's densely haired udder within a few minutes of birth. After about a week, calves begin to nibble on tender shoots of grass, but they often continue to nurse for 12-18 months.

Calves also begin to follow their mothers around on the first day. For the first few weeks, calves remain close to their mothers and the safety of the herd. Calves play with other young animals, but at any sign of danger the young calf huddles close to the cow's body, nearly hidden by her long guard hairs.

Female muskox form stable groups that include newborn calves as well as immature males and older females. Cows, calves and yearlings have very strong social ties. Often, female calves remain in their mother's group as they age. This may be one reason why muskox are so coordinated and act as a unit in movements and group defense. Muskox usually live for 20-25 years.

*Photos by Ken Madsen*

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For more information, visit the Wildlife Management Advisory Council (North Slope) web site on muskox of the Yukon and Alaska North Slope at [www.taiga.net/wmac/species/muskox](http://www.taiga.net/wmac/species/muskox).