



Muskox

A guide to identification, hunting and viewing

Prepared by the Alaska Department of Fish & Game

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A Note to Readers

The information in this booklet will help you learn how to identify muskox, prepare for a muskox hunting trip, or provide you with interesting information about muskox in Alaska.

Details in the Muskox Information section are adapted from the Alaska Wildlife Notebook Series prepared by Tim Smith and revised by John Coady and Randy Kacyon. Alaska Wildlife Notebook Series © 2008

Many photos in this booklet are provided to aid in your understanding of muskox and their habitat. Not all photos are referenced within the text. Photos indicate seasons to illustrate the significant changes that occur to muskox appearance over the course of the year.

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Cover photo: Patrick Jones, back cover photo: Sue Steinacher

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Begin Online

The Alaska Department of Fish and Game (ADF&G) website provides valuable information for hunters and other wildlife enthusiasts. Online you will find links to information that will help you have a successful hunt and ensure your actions are legal. The following information and more can be found at:

www.hunt.alaska.gov

Muskox hunter orientation

Hunt Alaska

Planning your hunt

Alaska big game hunting information

Alaska hunting regulations

Licenses and purchases

Maps

Emergency orders

Management reports

Leave no trace camping

Game Management Unit 23 pilot and hunter orientations

Muskox Information

Location Muskoxen (*Ovibos moschatus*) are northern animals well adapted to life in the arctic. At the close of the last ice age, muskoxen were found across northern Europe, Asia, Greenland and North America, including Alaska. By the mid-1800s, muskoxen had disappeared from Europe and Asia. By the late 1800s, muskoxen were extirpated from Alaska and Asia, leaving remnant muskoxen populations only in Eastern Greenland and Arctic Canada. Through restoration and conservation efforts, muskoxen are now found throughout the Arctic.

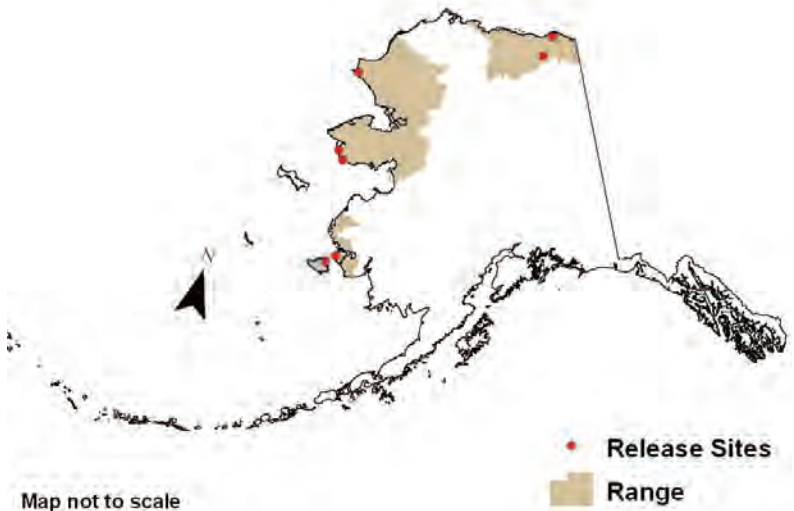


Photo 1: Alaska muskox range 2010

ADF&G 2010

Physical attributes

Muskoxen are stocky, long-haired animals with a slight shoulder hump and a very short tail. Both sexes have horns; however, the horns of bulls are larger and heavier than those of cows. Mature bulls are about 5 ft high (1.5 m) at the shoulder and weigh 600–800 lbs (273–364 kg). Cows are smaller, averaging approximately 4 ft (1.2 m) in height and weighing 400–500 lbs (182–227 kg). An 800-lb bull will dress out at about 480 (218 kg) lbs, providing roughly 275 lbs (125 kg) of meat.

Muskox Information

Life history Muskoxen herds may include groups of up to 75 animals. Smaller mixed groups contain from five to 15 females and sub-adults, with one dominant bull. Mature bulls can range far, becoming solitary individuals searching for a harem, before joining mixed-sex herds in winter. Some bulls segregate into bull-only groups during spring and summer.

The breeding season begins in late summer; mating takes place from August to October. Single calves, weighing 22-31 pounds (10-14 kg), are born in the spring (April to June) to cows three years and older. Growth is rapid and the animals weigh 150-235 pounds (68-107 kg) as yearlings.

Battles between bulls for herd or harem dominance are spectacular and violent. After a period of aggressive display, bulls charge at top speed from distances of 50 yards (46 m) and collide squarely on the horn bosses. Following several clashes, they may resort to close contact, rapidly circling while trying to hook each other. Most fights are brief, but sometimes they become prolonged when bulls are evenly matched. Bull muskoxen have heavily armored skulls to protect them from the shock of impact. Four inches of horn boss and three inches of bone lie directly over the brain. Bulls also have thick dermal skin over their necks and

shoulders to help protect against puncture wounds.



Peter Bente

Photo 2: snow free habitat, Seward Peninsula, spring

Muskox Information

Life history continued

When danger approaches, muskoxen typically run together. If only one predator is approaching, the defense formation takes the form of a line with all muskox facing the predator. If several predators surround a group the formation becomes a compact circle with all adult muskoxen facing outward. Occasionally, a bull will charge the predator. These charges are accompanied by loud snorting, blowing and pounding of hooves to intimidate the predator. This defense strategy is particularly effective against wolves and bears, but during a stampede, individual muskoxen are vulnerable to all types of predators. Running to escape predators is a last resort for these animals, especially in the winter. Early hunters exploited this defensive behavior with the help of dogs and wiped out entire herds. Commercial whalers and arctic exploring parties also exploited muskox in Alaska.

History in Alaska

Over-hunting likely contributed to the disappearance of muskoxen in Alaska by the late-1800s. By the 1920s, their distribution was further reduced to Arctic Canada and East Greenland. Concern over declining muskoxen numbers throughout the Arctic led to a movement to restore a muskox population in Alaska. In 1930, 34 muskoxen captured in East Greenland were brought to Fairbanks. In 1935-1936, 31 of the surviving muskoxen and their calves were transported from Fairbanks to Nunivak Island. Muskoxen continue to thrive on Nunivak Island and



Photo 3: new calf, spring

increased from 31 in 1936 to an estimated 560 today. Nunivak Island muskoxen have been successfully transplanted around Alaska.

Muskox Information

Population As of 2010, there are approximately 5,300 muskoxen in Alaska: with the majority, approximately 3,400 on the Seward Peninsula, 560 on Nunivak Island, 540 on Nelson Island, 400 in northwestern Alaska, 250 scattered throughout north central and northeastern Alaska, and 100 animals in captivity.

Habitat In summer, muskoxen can be found along streams and vegetated valleys, eating a wide variety of plants, including grasses, sedges, forbs, and leaves of woody plants. In contrast, winter range for muskoxen is restricted to areas with shallow snow accumulations or areas blown-free of snow because, unlike reindeer and caribou, they are poorly adapted for digging through heavy snow for food. Muskox habitats are largely unchanged across broad areas and, given public support and proper management, they are capable of supporting expanded populations of muskoxen. Potential habitat changes due to human activities or climate change may influence the future distribution and abundance of muskoxen.

Muskox and humans Muskoxen are considered a unique and valuable wildlife species to many, but not everyone. Muskoxen meat is highly valued among those who have tried it. Muskoxen are also an important attraction to tourists, photographers, researchers, and students of wildlife. However, many people who live in muskoxen country have felt threatened by muskox because

they can create a disturbance to homes, camps, and dogs.



Photo 4: muskox in formation, Seward Peninsula, fall

Muskox Information

Qiviut The soft brownish wool-like under fur, or “qiviut,” has been called the rarest fiber in the world. People collect the naturally shed fur clinging to bushes in the early summer (photo 5). Qiviut is softer, finer, and eight times warmer than wool. Qiviut fibers are spun by hand into yarn and

used for making scarves, hats, and other warm garments.



Photo 5: qiviut on willows, Seward Peninsula

Muskox and other animals

Muskoxen, caribou, and reindeer often use the same habitat (photo 6) but almost never mingle. Although these species are commonly found in proximity to each other, they seem to select different types of plants when feeding. At this point in time, each species has good body condition indicating they are not competing for food. In summer, muskoxen occupy habitats used by moose. Even though their dietary relationships and forage selections are

uncertain, there is little evidence of competition or displacement between these species.



Photo 6: muskox and caribou, sharing habitat, fall

Muskox Identification Tips

Mature bulls Mature bulls (four years and older) develop a thick boss at the base of each horn with little hair in the gap between the bosses. Horn tips may be worn, cracked, or entirely broken off (photo 7). Bulls have horns that are thicker and more massive than cows.

Mature Cows Cows do not grow a boss at the base of their horns like bulls (photo 8). Horn bases on mature cows (four years and older) are small, dark and visible. Horn diameter in cows is smaller and less massive than on bulls. From a distance the length of the hook on cows may seem similar to bulls.

Color of horn tips is not a diagnostic characteristic to distinguish sexes. Dark or black horn tips are found on many cows and most bulls. It is unreliable to identify sex based solely on the color of horn tips.

Immature bulls Young bulls have incomplete growth of the horn boss and show considerable amounts of white hair between the horn bases. Most confusion in identification occurs between a mature cow and a two or three-year-old bull. The cows horns are not as thick at the bases or hook and there is more white hair between the horns on cows. Other clues to identify cows include body size and presence of calves.



Photo 7: mature bull, fall

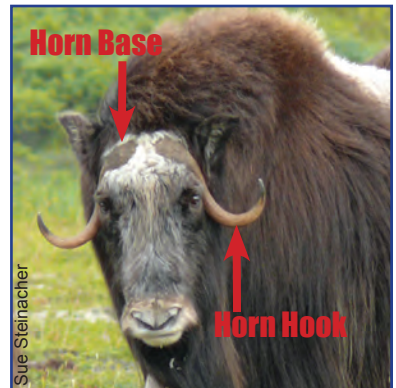


Photo 8: mature cow, fall

Muskox Identification: Calves & Yearlings

Sex is indistinguishable in calves. Horns are not present and size can vary since calves are born between mid-April and mid-June. Since the long guard hairs have not yet grown, the coat at this age appears very short (photo 9).



Photo 9: calf, summer

Yearling muskox can change drastically from spring to fall. Horns start growing in the late spring and are most visible on yearlings in the late summer.



Photo 10: calf, fall

In yearlings the forehead is covered by short white hair. Horns are short and no horn bases have developed. Guard hairs are longer than in calves, but still appear short compared to adults. Males are usually larger and may have black horn tips (photo 11).



Photo 11: yearlings, fall

Muskox Identification: Two-Year-Olds

Horns in two-year-old bulls curve down and then forward and are much thicker than cows (photo 12). Horn tips point up and forward in bulls and are often black tipped. The forehead of both sexes is covered with white curly hair and no horn base is visible.



Photo 12: 2-year-old cow (left), 2-year-old bull (right), spring

Horns in cows are more slender than males but otherwise very similar in shape. Horn tips curve up and forward and are generally not black tipped. Forehead is covered with white curly hair and the horn base is not visible (photo 13).



Photo 13: 2-year-old cows, spring

Horns of both sexes change drastically in the second year. A spring two-year-old has shorter horns that stick outward (photo 14). By the following fall, horns have increased in thickness and curve downward.



Photo 14: 2-year-old bulls, spring

Muskox Identification: Three-Year-Old Cows

In three-year-old cows, horns are near full size and forehead is covered with hair. Horn bases in cows are much smaller and thinner than bulls. Body size approximates that of an adult (photo 15).



Photo 15: 3-year-old cow, spring

Three-year-old cows have thin tipped horns that curve upward and a considerable amount of fuzzy hair between the horn bases (photo 16).



Photo 16: 3-year-old cows, spring

Three-year-old cows may or may not be accompanied by a calf (photo 17).



Photo 17: 3-year-old cow, summer

Muskox Identification: Three-Year-Old Bulls

In three-year-old bulls, horn bases are well developed, but not as thick as those in mature bulls. They have a crease of white hair in the middle and horns point upward. Body size is smaller than mature bulls, and approximately as large or slightly larger than a fully grown cow (photo 18).



Photo 18: 3-year-old bull, fall

The most variation in bull horn development occurs between early and late in the third year. Early, there is no boss development (photo 19) and late in the year, the boss will have expanded over the forehead (photo 18).



Photo 19: 3-year-old bull (center), spring

The horn hooks are much thicker on the male. The female has thin hooks that curve upward (photo 20).



Photo 20: 3-year-old cow (left), 3-year-old bull (right), spring

Muskox Identification: Mature Cows

Horn bases on mature cows are fully developed, but do not reach the size and bulk of fully grown bulls. Unlike bulls, cows always retain some white hair between horn bases in the middle of the forehead (photo 21).



Photo 21: mature cow with missing left horn, fall

On mature cows horn bases are dark in color and separated in the center by a crease of hair (photo 22).



Photo 22: mature cow, 4-year-old or older, fall

Mature cow and mature bull. Notice the difference in horn thickness. The male has a thick well developed boss (right) and the female horn bases (left) are small and not as thick (photo 23).



Photo 23: mature cow (left), mature bull (right), fall

Muskox Identification: Mature Bulls

In mature bulls, the horn boss is present. The horn boss is thick and massive, covering the whole forehead with slight or no hair between horns. Horn tips may be broken off. In older males, horns are dark brown with a weathered look (photo 24).



Photo 24: mature bull, 4-year-old or older, fall

Mature bull showing a fully developed horn boss (photo 25).



Photo 25: mature bull, 4-year-old or older, spring

Mature bull, notice the mass developing in the horn boss. The horn has complete coverage across the forehead and is now developing into a thicker and more massive horn (photo 26).



Photo 26: mature bull, 4-year-old or older, summer

Muskox Identification: Groups

Groups of muskox

It is common to see muskoxen in groups. The following list describes the groups of muskoxen that you are likely to encounter:

- Mixed sex/age group; mature bulls, cows of different ages, and young muskox
- Bachelor bull groups (five to ten bull muskoxen)
- Single or pairs (these are almost always mature bulls)

When forming a defensive response, cows and immature animals tend to be the first to bunch together. Bulls tend to lag behind and stand slightly apart from the rest of the group. When threatened and their level of agitation increases, all individuals group very tightly together. Once muskoxen are clustered in a defensive circle, it can become difficult to identify the sex and age of muskoxen.

When hunting, it is important to know what lies behind your target before you shoot. Muskoxen cluster together which many hunters are not accustomed seeing. Young muskoxen often stand behind larger animals for protection. Although muskoxen are large solid animals, bullets from high powered rifles are capable of passing through the target animal and wounding another hidden animal. Take your time! The group will eventually disperse giving you a clean shot.



Photo 27: Left to right; 3-year-old bull, mature bull, and 3-year-old bull, spring

Identification Quiz: Can you ID the following?

Quiz Photo # 1



Photo 28: spring

Quiz Photo # 2



Photo 29: fall

Quiz Photo # 3



Photo 30: spring

Answers on Page 16

Identification Quiz: Check your Answers

Quiz Answer # 1

Mature Bull (left) and three-year-old bull (right). Mature bull has fully developed horn boss. Three-year-old will have a boss covering the forehead by summer's end.



Photo 28: spring

Quiz Answer # 2

Mature bull. Well developed thick horn boss with no hair in the crease between horns.



Photo 29: fall

Quiz Answer # 3

Mature cow. Presence of suckling calf, well developed horn bases, and large body size.



Photo 30: spring

Identification Quiz: Can you ID the following?

Quiz Photo # 4



Photo 31: fall

Quiz Photo # 5



Photo 32: summer

Quiz Photo # 6



Photo 33: summer

Answers on Page 18

Identification Quiz: Check your Answers

Quiz Answer # 4

Two-year-old bull.

Boss horn has not developed and no bases are present. The horn hooks are thick.



Photo 31: fall

Quiz Answer # 5

Mature cow, mature cow, mature bull (left to right).



Photo 32: summer

Quiz Answer # 6

Mature bull.

Well developed, thick, massive, horn boss with no hair between horns. Horns also have an old “weathered” look.



Photo 33: summer

Preventing Wounding Loss

Proper caliber To assure the most efficient killing capability and to reduce the chances of wounding loss, a minimum of a 30.06 or larger is recommended. When hunting muskoxen, hunters should be proficient with whatever firearm they use to avoid poor shot placement.

Proper distance Use good judgment and strive for a clean shot while muskoxen hunting. Patience is a necessity because it is common for muskoxen to group up after the disturbance of a shot. This makes identification of the wounded animal for follow up shots very difficult. Take your time, know what lies behind your target, wait for muskoxen to disperse, and allow your first shot to be the best shot for a clean kill.

Shooting Opinions of the best shot placement on muskoxen vary. Alaska Department of Fish and Game recommends a shot at the broadside center of the shoulder angled slightly forward, so the bullet passes through the heart and lungs and exits through the opposite shoulder. This placement has a high likelihood of resulting in a clean kill. Neck shots are not recommended.



Photo 34: 3-year-old bull, proper shot placement, fall

Preventing Wounding Loss

Common mistakes

Shooting before a clear shot is available.

Hunters often fail to notice smaller animals hidden behind larger animals.

Shooting at one muskoxen and killing or wounding other animals in the process.

Misidentification of animals age and sex can lead to illegal shooting.

Improved actions

Smaller animals are commonly hidden behind larger animals. Be sure to look for extra legs before shooting. Look closely at photo 35. Do you see extra legs behind the bull in the center?

Study the photos in the booklet and review the Muskox Hunter Orientation at www.hunt.alaska.gov. If harvesting a bull, we recommend hunting an all-bull group of muskox and not a mixed-sex group.

After the first shot, the targeted muskox may walk back into the group. By taking your time and waiting-out the injured animal, you will avoid the unnecessary risk of wounding other animals.

NOTICE EXTRA LEGS BEHIND BULL! Don't Shoot! Wait for the animals to disperse.



Photo 35: yearling, mature bull (small muskox behind), mature cow, calf, fall

Hunting Muskox

Licenses Residents: Hunters aged 16 to 59 need a hunting license. Permanent licenses for residents who are 60 or older are available at no cost from ADF&G license vendors at area offices. Tags or permits may be required. Please check with your local ADF&G office to ensure you have the proper paperwork.

Non-Residents: All non-residents, regardless of age, must have a hunting license and apply for a drawing permit for most hunts from November 15 to December 31 each year. Permits are awarded by lottery, and tags must be purchased prior to hunting.

Youth: A hunter who is younger than 10 years of age may hunt muskoxen under the direct and immediate supervision of a licensed adult and the youth's harvest counts as the supervising adult's bag limit.

Don't Forget

- Have license, tag and permits in possession while hunting
- Familiarize yourself with the Alaska Hunting Regulations and understand the different hunting opportunities
- Familiarize yourself with land ownership
- Report your harvest to ADF&G



Patrick Jones

Photo 36: youth registration hunters Hunter Crace and Kyle Jones

Different Types of Hunts

Registration hunts

Registration permit hunts allow a large number of hunters to participate in an area open to hunting. Hunters are required to “register” with ADF&G and sign a permit with hunt conditions unique to the hunt area. Registration permits require a hunter to report their harvest within a short time period, stay within a special hunt boundary, or submit biological specimens to ADF&G. Registration permit hunts allow biologists to closely manage muskoxen hunts and issue emergency orders to close seasons when harvest quotas are reached.

Draw hunts

Drawing permit hunts limit harvest by restricting the number of hunters. Hunters apply for permits in November and December and pay a nonrefundable application fee. Permits are selected by random lottery. To qualify for the drawing, each applicant must have paid fees for a hunting license for the year in which the permit would be issued.

Tier II hunts

Tier II permit hunts are held when there isn't enough game to satisfy all subsistence needs. Hunters answer questions based on their history of hunting or eating muskoxen and the cost of food and fuel in the community. Applications are scored and permits are issued based on highest score.



Curtis Nayokpaik

Photo 37: skinning a bull muskox, winter

Important Information for Hunts

Where to hunt

Currently, muskoxen hunts occur annually throughout Alaska, including Game Management Unit (GMU) 18, GMU 22, and GMU 23. Adjacent units have small muskox populations that do not currently support hunting. Be sure to familiarize yourself with hunt area boundaries prior to hunting. Maps and information can be found at www.hunt.alaska.gov.



Photo 38: GMU's that support muskox hunting

Seasons and bag limits

Muskoxen seasons and bag limits can change annually. Seasons are closed if changes in population do not support hunting harvest. Please refer to current editions of the Alaska State Hunting Regulations and Federal Hunting Regulations for specific information regarding seasons and bag limits.



Photo 39: mature bull muskox on tundra, fall

Meat Salvage

To be legal

Muskoxen meat you must salvage includes:

- all of the neck meat;
- all of the brisket (chest meat);
- all of the meat of the ribs;
- front quarters as far as the distal joint of the radius-ulna (knee);
- hindquarters as far as the distal joint of the tibia-fibula (hock);
- all of the meat along the backbone between the front and hindquarters (backstrap and tenderloins);
- all of the meat along the spine, including the neck.

You are not required to salvage the meat of the head, guts, bones, sinew, meat left on the bones after close trimming, or meat that has been damaged and made inedible by the



Photo 40: Jeff Mondragon, draw hunt, winter

method of taking. These portions of the animal may be left in the field because they are not included in the definition of edible meat that must be salvaged.

You are required to salvage meat from sick animals. Please contact the

local ADF&G office for information on safe handling and disease.

Improper salvage or wanton waste of big game meat is a serious offense punishable by a fine of up to \$10,000 and one year in jail.

Reporting, Trophy Destruction, Labeling

Reporting It is essential that you report your hunt as soon as possible. This is especially important for registration hunts where hunts can be closed by emergency order when the quota has been filled. Call the local ADF&G office to report your hunt:

- GMU 18 Bethel 800-425-2979, 907-543-2839
- GMU 22 Nome 800-560-2271, 907-443-2271
- GMU 23 Kotzebue 800-478-3420, 907-442-3420

Trophies Trophy destruction may be required for subsistence registration hunts. Regulations vary by GMU so be certain to check the current hunting regulations. If trophy destruction is required, the distal portion of each horn will be cut at or above the position of the eye on the skull (photo 41). Horns are not cut when tag fees are paid by the hunter (i.e., drawing permit hunts).



Photo 41: destruction of trophy value

Labeling Federal law requires that muskoxen transported out of the state of Alaska or between states must have the name and address of the shipper clearly visible. The package must contain an accurate list of contents by species and number of each species. This information must be attached to the shipping container or directly to the hide.

Meat Care Before the Hunt

Before the hunt

Refresh your knowledge about hunting, butchering and meat care from your local library, butcher, or ADF&G online materials.

Double check your equipment and collect materials for butchering, hauling, and caring for your meat. Items to consider: skinning knife, butchering knife, trimming knife, sharpener, bone saw, tarp, heavy-duty game bags, gear bags, heavy-duty backpack, sled, paper towels, rope, gloves and a first-aid kit.

Inventory your freezer and contact a local butcher or have your equipment ready for home butchering. Be sure you have enough room in your freezer or someone to receive the meat.



Photo 42: taking home fresh meat, winter

Taking your meat home.

Before shooting, determine if you can get it back to camp and don't forget packs, sleds, tarps, and game bags to help bring your meat home.

Cool, clean, and dry

However you butcher meat, remember to keep it cool, clean, dry, and in breathable cloth bags. Heat is the greatest threat to good meat. To cool the meat, remove the hide as quickly as possible. Hang meat with a tarp suspended above it while it develops a hard crust.

From Field to Table

Winter hunts and tough meat

When hunting in the winter, cold shortening may affect the quality of your meat. Cold shortening occurs when the meat is allowed to freeze too quickly. Before the rigor-relaxation process occurs, the muscle can shrink due to loss of water, vitamins, minerals, and water soluble proteins, resulting in tough meat. Consider leaving the skin on the meat or pack it with snow to prevent it from chilling too quickly.

Meat care

When meat is hung it can be sprayed with citric acid. Mix two ounces of citric acid to one quart of water, and spray the meat until the mixture runs off. The mixture should dry quickly and will help prevent bacterial growth. Food grade citric acid can be purchased from pharmacies or feed stores.



Photo 43: Agnes Hailstone, processing muskox in Deering, fall

What you can't use, give away

After transporting meat from the field, you can butcher it yourself, take it to a professional, or give it away. If you choose to give meat away, make sure that you fill out a "Transfer of Possession" form (available in the hunting regulations book), keep a copy and give one to the recipient of the meat. Meat you give away should be in the same or better condition as the meat you keep.

Planning Your Hunt

Do it yourself or hire a guide

The key to a successful hunt is careful planning and preparation. You'll find hunt planning pages including an equipment list in the back of the "Hunt Alaska" booklet available at your local Fish and Game Office or online.

There are few road systems in muskoxen country. Most hunting is done from boats, snow machines, and walking. Most registration and all Tier II hunts do not allow use of aircraft to access hunting areas. However, you can fly to state maintained airports to access hunt areas. You can use an airplane to access hunting areas for drawing permit hunts. Check regulations as restrictions vary between GMUs.

Licensed transporters may provide transportation services and accommodations. Check the hunting regulations booklet for more information about transporters. If you are interested in hiring a registered guide, you may purchase a Roster of Licensees from:

Division of Occupational Licensing at (907) 465-2534 or visit their website at: <http://www.commerce.state.ak.us/>



Photo 44: mature bull (facing left), Seward Peninsula, fall

Land Ownership

- General** It is important to understand land ownership boundaries to avoid trespassing or hunting on closed lands. Be familiar with the area you plan to hunt. For current land status maps, call the Bureau of Land Management in Fairbanks at 800-437-7021 or 907-474-2200.
- State** State lands are generally open to hunting, but may be closed by state, local, or municipal laws. Check with your local ADF&G office for state park and refuge lands.
- Federal** If you are planning to hunt on public lands, consult the Subsistence Management Regulations for Federal Public Lands in Alaska or contact the US Fish and Wildlife Service for a copy of the federal regulations.
- Private** A portion of the state of Alaska is owned by individuals or corporations. If you intend to hunt on private land in Alaska, make sure you have permission from the landowner.
- Tribal lands** The largest private landowners in the state are Native village and regional corporations. If you wish to hunt on these private lands, you must contact the appropriate land management office to determine if a land use permit and/or access fees are required. Some tribal lands are closed to use by non-shareholders.
- Local laws** Local restrictions may prohibit the discharge of firearms or access to an area. Check the agency with jurisdiction for more information.

Sharing the Country with Muskox

The following are a few pointers to help you avoid unpleasant encounters with muskox:

- Muskox are not likely to run from you like moose and caribou. Muskox may be very tolerant and allow you to get surprisingly close. However, they are powerful animals and will react if they feel threatened in their space.
- Pay attention to body language. A muskox that has stopped feeding, walking, or resting has noticed you and may become agitated. A stressed muskox group will form a defensive line and face you. Stressed and agitated animals may begin to sway their head from side to side. Give stressed muskox room by retreating from the area quickly.
- As with any other wild animal, do not agitate or approach cows with calves.
- Bull muskox are more aggressive during the fall breeding season which takes place from August through October. Precautions should be taken to avoid disturbing males when in rut.
- Keep dogs under control at all times in muskox country.
- View muskox from at least 150 feet, give the group a wide berth, and do not box muskox in with people or vehicles.
- If you are charged, run; do not stand your ground.
- Muskox stand their ground; as a result, it is very difficult to drive muskox from areas.
- Do not feed muskox, it is both dangerous and illegal.

Enjoy watching muskox from a safe distance and avoid unnecessary disturbances.



Photo 45: left to right: 3-year cow, calf, mature bull, mature cow (behind), 2-year bull, 2-year cow, calf, 3-year bull, 2-year bull, 2-year cow, calf, mature cow, spring



For more information about muskox and other wildlife in Alaska, check out the ADF&G website:
www.wildlife.alaska.gov

Division of Wildlife Conservation
2010



For information and questions on this publication, please contact: Meghan Nedwick, ADF&G/Division of Wildlife Conservation, P.O. Box 689, Kotzebue, AK, or call: 907-442-3420