Alaska's Muskoxen, Born Again

by Carl Grauvogel

Hunted to extinction in Alaska more than a hundred years ago, one of the state's shaggiest creatures is making a strong comeback. The man was standing on a knoll, dressed in a tattered parka, staring intently across the vast frozen tundra. He was very hungry; pain and nausea grew in his stomach, his legs had become leaden. His group had not eaten fresh meat in a long time. Despite long hours every day, and every hunting technique he knew, game had eluded him and the small hunting party he led. Although game had been scarce, he had seen fresh sign and knew that a few animals still roamed nearby. Today he told himself, they must find meat for the pot, and he swore he would die rather than spend the night in another hungry camp.

All day they hunted without success in the still, cold air. Late in the afternoon, before the arctic sun slipped below the horizon, he topped a small rise in the tundra, and his heart quickened. Ahead, mostly hidden by a depression, was a small group of shaggy-haired animals, feeding contentedly, unaware. He sent the other hunters to circle the herd, and then began his stalk ever so carefully. At last, he could see the heave of each animal's chest as it breathed and the short puff of heavy mist when it exhaled. He knew he was close enough to use his muzzle-loading rifle. He took careful aim at the biggest bull and slowly squeezed the trigger. At the crack of the rifle, he saw the animal's knees buckle, and it slumped to the ground. He heard the other hunters fire. He reloaded and fired twice more. Not a single animal was left standing. The hunters were elated at their good fortune, but they had no idea of the true magnitude of their deed. They had just killed the last remaining muskoxen in Alaska.

Such an event occurred on the North Slope, somewhere near Barrow, in about 1850, completing the long decline of muskoxen caused by climatic changes and overharvesting by man. The species had already been eliminated in Europe and Asia. Now, Alaska, the Great Land, had lost one of its distinctive wildlife treasures. During the next 80 odd years, not a single muskoxen would graze upon its tundra.

Then, in 1927, Alaska's Territorial Legislature lobbied the U.S. Congress to appropriate \$40,000 to transport muskoxen from Greenland to Alaska for domestication and reintroduction. In 1930, the first major step toward this goal was taken when 34 muskoxen were brought to the University of Alaska near Fairbanks. Six years later, 31 muskoxen were transplanted to Nunivak Island (a Bering Sea Island 150 miles west of Bethel). This release marked the first attempt to reestablish a wild population of muskoxen in Alaska.

The success of the Nunivak Island transplant was in doubt at first, because several hard winters caused high mortality. However, after 1947 the winters improved and the herd began a strong rebound, showing an average sustained growth of about 16 percent annually. By 1969, Nunivak Island boasted a population of 750 muskoxen.

The transplant became an exceptional success, perhaps too much of one. Biologists were concerned that the Nunivak Island herd had exceeded its long-term winter food supply and would suffer substantial die-offs in the future. To help solve this problem, and to reestablish muskoxen on the mainland of Alaska, the Department of Fish and Game (ADF&G) and the U.S. Fish and Wildlife Service began another transplanting program.

A pilot transplant was initiated in 1967. Thirty of the shaggy beasts were moved from Nunivak to Nelson Island near the Alaska mainland, a distance of 35 miles across Etolin Strait. This experimental transplant was carried out with only minor problems, and the results encouraged biologists to reintroduce muskoxen to areas on mainland Alaska where they had occurred more than a century before. The coastal, wind-swept tundra south of Barter Island in the eastern corner of the North Slope was selected as the first release site, because its terrain and vegetation closely resembled areas where wild muskoxen lived in Canada. The hopes and aspirations of all who wanted to establish a naturally wild population of muskoxen in Alaska strode out on the backs of those 53 animals released in April 1969. The following year, 36 muskoxen were transplanted to the Seward Peninsula, 30 miles northwest of Nome, and an equal number were taken to Cape Thompson, 28 miles southeast of Point Hope and about 140 miles northwest of Kotzebue.

Biologists had high hopes for success but knew the risks of failure were nearly as great. Muskoxen selected for transplant were predominately yearlings, because young animals are much easier to handle and ship. However, yearlings would not be old enough to breed for at least two years. They posed a further risk because, without adults to maintain a herd bond, young animals have a tendency to wander. In transplants to Nunivak and Nelson Islands, water prevented the muskoxen from dispersing too far, but the mainland would have no such natural barriers, and muskoxen would be free to wander a vast territory. For these reasons and others, all three of the 1969 and 1970 mainland transplants were only marginally successful at first.

Of the three, information from 1970 to the present is most complete from the Seward Peninsula transplant and, in many respects, it is indicative of transplants of muskoxen in general.

Muskoxen were captured on Nunivak Island in March by surrounding animals with snowmachines and then, borrowing from the western cowboy's arsenal, lassoing selected animals with lariats. After being tied firmly to sleds, the muskoxen were taken to the village of Mekoryuk, where they were held in temporary corrals before being loaded into wooden crates and flown to the mainland. Those destined for the Seward Peninsula arrived in Nome aboard a C-119 flying boxcar. Usually, muskoxen were released near the landing site, which was often a frozen lake, but those bound for the Seward Peninsula were unloaded at Nome and trucked to the release site. Within a few days most of the new arrivals had scattered in a wide arc. Interested spectators on snowmachines, eager to get a glimpse of their first muskox, contributed to dispersing the animals. Having been captured by men on snowmachines, the muskoxen usually ran when they heard engine noises. Continued on page 15.

When threatened, muskoxen form a defensive line or circle facing the source of danger. Although this tactic worked well against wolves, it allowed human hunters of the last century to slaughter whole herds for food, driving Alaska's muskoxen to extinction around 1850. All muskoxen in Alaska now stem from animals transplanted from Greenland beginning in 1930. The largest herds are on Nunivak and Nelson Islands and in the Arctic National Wildlife Refuge.

Fortunately, some muskoxen stayed together during this critical period. Two groups totaling 22 joined together during late fall and began a trek northwest, traveling over 100 miles before finding an area to their liking. From these 22 animals, two permanent herds became established northwest of Brevig Mission: the Black Mountain and Nuluk River herds, named after prominent landmarks in the area. During the first five years, the herds grew slowly. In fact, the first calves were not born until 1973. However, muskoxen found life good on the Seward Peninsula and, with few natural predators, the herds continued to increase at a rate of 16 to 20 percent annually. By 1980 the Seward Peninsula population numbered more than 100 muskoxen.

In 1981, when it was apparent that this transplant had succeeded, ADF&G captured another 35 muskoxen at Nunivak and flew them to the airfield at Port Clarence north of Nome. All 35 animals, including four adults equipped with radio-collars, were escorted by snowmachine to the Black Mountain area. By including some adults, biologists hoped that these newcomers would remain together in larger groups or that they would readily join resident herds. Once again, we found that muskoxen have a slightly different perspective and, given the opportunity to explore new country, often do just that. Tracking the four radio-collared adults gave us new insight into the movement of transplanted animals.

All of the radio-collared muskoxen stayed in the vicinity of the transplant site for about a month. Then, one radio-collared cow moved to the east 50 miles and wandered aimlessly for five months, eventually returning to one of the resident herds near Black Mountain. Beginning in May, the other three radiocollared cows began moving eastward at a steady march. We lost track of two cows for several weeks, but I finally determined that both had traveled at least 240 miles to the east and then had died from unknown causes. The other radio-collared cow, accompanied by four yearlings, moved more than 90 miles during a two-month period and took up residency 15 miles north of Nome. This group has remained there ever since. Two large bulls joined this small herd in the fall of 1982, and the radio-collared cow gave birth to a calf the following spring. Since then, the yearling cows have matured, producing calves of their own, and the herd now numbers 14. In all likelihood, it will grow substantially larger in the near future. The fate of most of the other muskoxen from the 1981 transplant is largely a mystery. However, sightings by the public and our own field



people indicate that most dispersed widely across the Seward Peninsula.

Since the first transplant in 1969, it has often been impractical to locate any one of the mainland muskox herds on a regular basis. Not only do biologists face the task of trying to find several small groups in an expansive, extremely diverse terrain, but they must do so on a budget. Therefore, information about herd size, growth, and distribution was often obtained on a hit or miss basis, with misses probably outnumbering hits, until recently. The use of radio collars has made the acquisition of management information much more accurate, efficient, and inexpensive. From 1981 to 1984, ADF&G radio-collared 24 mainland muskoxen, most on the Seward Peninsula. The U.S. Fish and Wildlife Service collared 38 muskoxen in the Arctic National Wildlife Refuge, south of Barter Island.

The use of this new technology has helped biologists determine the size of muskox herds now residing on the Alaskan mainland. The Seward Peninsula herds number 250 to 300 muskoxen, the Cape Thompson herds number 150 to 200, and Arctic National Wildlife Refuge population has grown to about 360. These figures do not include many strays and small groups scattered throughout these areas. The total number of muskoxen roaming across Alaska's mainland may approach 1,000 animals. Limited hunting is once again possible on the larger herds at Nunivak Island, Nelson Island, and the Arctic National Wildlife Refuge.

Alaska's muskox population is small when compared with the 300,000 caribou living north of the Yukon River, but the success of transplants of muskoxen cannot be measured strictly in numbers. All three locations where mainland transplants occurred resulted in the establishment of resident muskox herds that are reproducing and growing. The outlook for all these herds is promising. Research has shown that as the herds grow, they expand into areas unoccupied by muskoxen in recent times. It is now clear that muskoxen are firmly established in Alaska, and that Alaska is well on the road to seeing them return to many areas where they once occurred.

More than a century ago, man in his ignorance pushed muskoxen to extinction in Alaska. Now man, in a more enlightened age, has found a way to amend his mistake and is attempting to ensure that it does not happen again. We can all be proud of that accomplishment.

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