

Reindeer in North America

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The United States of America (USA) purchased the Territory of Alaska from the largest country in the world, the Union of Soviet Socialist Republics (USSR) in 1867. Almost a third of Alaska is north of the Arctic Circle. This area was considered worthless at the time of purchase.

Canada is the second largest country in the world and has more mainland north of the Arctic Circle than Alaska. It also has many large islands north of the Arctic Circle which are predominantly tundra. The tundra blankets the coastal regions of western and northern Alaska, the northern part of the mainland of Canada and its Arctic Islands. The tundra is a treeless area. The long, cold winters and low precipitation prevent trees from growing in this plant zone, but some sections of tundra have large meadows. Grasses and sedges cover the meadows. Other plants growing there are dandelions, poppies, and wall flowers along with heather, fern and lichens. Joining the tundra on the east and south are boreal forests. These northern forests comprise an area larger than the tundra in both Canada and Alaska. The wooded interior has different plant communities, which consist of shrubs, trees, grasses, sedges, mosses, and lichens. The plant communities blend from one type to another depending on the soil, moisture, altitude, and exposure.

Both Alaska and Canada support large herds of caribou (*kaï-uh-boo*), the Fench-Canadian name for the wild reindeer of North America. Domestic reindeer were introduced into western Alaska between 1891 and 1902 from Siberia to replace the depleted sea mammal food items which had been the main diet of the coastal natives. The sea mammals were depleted by whalers and hunters of fur bearing animals. The introduction of the 1,280 live reindeer near Teller, Alaska, was mainly through the efforts of Dr. Sheldon Jackson, a turn-of-the-century Colorado Rocky Mountain pioneer, who was interested in Alaska.

Four Siberians were brought with the reindeer to aid in their care, but after a short stay they returned home. Seventy-three Lapp reindeer husbandmen were then brought to Alaska to give technical assistance to the reindeer industry and help with the transition from a sea-culture to a pastoral way of life. Descendents of the Lapp husbandmen live in many different areas of Alaska. Some Lapp descendents are the best bush pilots in North America. Alaska reindeer numbers steadily increased to over 600,000 by 1932. In 1935, the Lomen Reindeer Company delivered 2,382 reindeer to the Canadian Government on the Mackenzie River delta. This herd establishment was considered a success.

Other introductions of reindeer into Canada were not so successful. Recently a small reindeer herd has been introduced to the Belcher Islands, Canada.

Similar to the stock market crash in the United States of America in the "Dirty" thirties, so crashed the reindeer population in Alaska. The numbers of reindeer in domestic herds have varied from thirty to forty thousand head in the last several years. Why did the Alaska reindeer population crash? Some said it was over-grazing, others blamed losses to predators, lack of herding, blizzards with crusting snow, killing improper numbers of the wrong sex, and other reasons—in other words, inefficient range and livestock management.

In 1975, the estimated numbers of caribou in Alaska were 330,000 in addition to an estimated 35,000 reindeer. The number of caribou that grazed in both Alaska and the Yukon Province of Canada was estimated at 120,000. It was further estimated that 574,000 caribou grazed in other parts of Canada. The present number of reindeer in Canada is about 8,000.

The Reindeer Act was passed by the United States Congress on February 1, 1937. This Act restricted private ownership of reindeer in Alaska to Alaska natives. Ownership of reindeer should be allowed to all resident citizens of Alaska if the reindeer industry there is to expand.

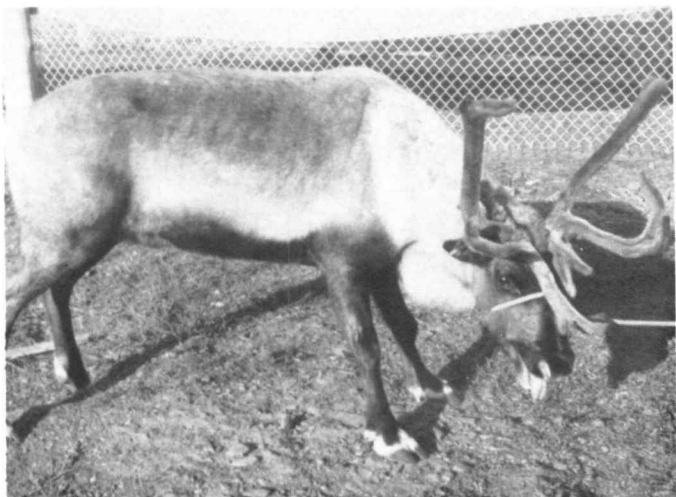
Efforts have been made to revitalize the industry in spite of all the natural and man-made problems. In the late 1960's some things were done to identify some of the problems and to stimulate growth of the reindeer industry in Alaska.



Winter reindeer herders' camp, Hagemeister Island, Alaska.

The author is a retired range conservationist from the Bureau of Indian Affairs, Flagstaff, Ariz. A few years back he spent nearly 6 years in Alaska as marketing specialist and animal husbandman for the BIA there.

Editor's Note: Temperate and warm climate dwellers will be happy to know that boreal comes from *Boreas*, Greek mythology, meaning god of the north wind. Thus, boreal means relating to, or growing in northern regions.



Brucella-free herd replacement male selected for meat type and weight by age.



Nunivak Island, AK, reindeer herders were taken to inland lake by float plane, from there, they herded reindeer to the Mekoryuk village corrals for handling and slaughter.

- *Brucella suis* was identified as the cause of undulant fever in a native child. This led to reindeer Brucellosis testing and slaughter of suspects, a cooperative effort between the United States Department of Agriculture (USDA) and the Bureau of Indian Affairs (BIA).

- The age of reindeer was determined from a cross-section of the animals' teeth. This was done in cooperation with the State of Alaska's Department of Fish and Game and BIA.

- USDA meat inspection of reindeer slaughter in Alaska was initiated in cooperation with USDA and BIA.

- Warble fly control research was initiated with BIA, USDA, and State of Alaska cooperating. Over 900 fly larvae (grubs) were found under one slaughtered reindeer hide. Insecticides were tested by adding to salt-mineral blocks and as injectables.

- Colorado State University and BIA determined some of the effects of age and sex on palatability of reindeer meat.

The following was done by BIA:

- Improved stunning methods for preparation for slaughter.
- Selected herd replacements by weight and type.
- Reduced reindeer herd on Nunivak Island, Alaska.
- Established a new herd on Hagemeister Island, Alaska.
- Improved product through better processing and packaging.
- Improved marketing from hoofs to antlers.

The main grazing competitor of reindeer on the tundra is the wild caribou. From the grazing-management point of view the reindeer is more desirable. Reindeer grazing can be manipulated and numbers can be controlled. Control and prevention of diseases and parasites can be done easier with reindeer than caribou. The most compatible and controlled use of the tundra and boreal forest grazing resource can be done with reindeer.

Two recent laws that will affect the Alaska reindeer industry are the "Alaska Native Claims Settlement Act of 1971" and the "Federal Land Policy and Management Act of 1976." The 1971 Act granted some 44 million acres of Alaska to twelve

regional profit-making corporations and over 200 village corporations. The corporation lands vary in size, shape, and suitability of use by man and animals. The desired use of these lands may not be compatible with the desired use of adjoining land. The 1976 Act set the stage for excellent range management planning, established the need for broad actions, planning, and implementation. Sound coordinated resource management is a must in the cold desert northland.

There is a definite need to produce more red meat from grazing resources. The present and predicted prices of hamburger meat clearly indicate the need. As the human population increases in the cold regions of North America so increases the need to produce red meat in those regions.

The pig of the north, "reindeer," and the wild boar of the tundra, "caribou," both have a place in the management of the tundra and boreal forest of North America, but research is needed for both range management and increased meat production from this grazing resource in the northland.

The experienced herder is the most important link in the management chain of meat production and grazing management on the tundra and in the boreal forest of North America. He or she must be on the job during times of hard crusted snow or excessive deep snow. For the herders to do their job they must have the best transportation and communication. The reindeer is seldom used as a beast of burden in North America (except for Santa Claus) so the herder's transportation consists of airplanes, dog teams, boats, and snow mobiles. Airplanes can be equipped with skis to land on ice or snow, with floats to land on water and with wheels to land on airports or back country landing strips.

Consideration should also be given to game ranching with muskox, buffalo, moose, other big game and game and livestock (yak) crosses (reindeer and caribou). Whatever grazing animal is chosen for the north, the grazing should be compatible with the vegetative types.

The potential production and harvest of red meat from the North American tundra and boreal forest is many times the present production. Increased input in range, livestock, and wildlife management can bring about the needed increase of meat production from the arctic grazing lands. Then the reindeer will play an important roll in the increased production.