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Reindeer connections across Bering Strait

Modern managed Reindeer herds

By Eva Wiklund

Seven different subspecies of Reindeer (*Rangifer tarandus*) are spread throughout the Arctic and Sub-Arctic regions of the world.

The semidomestic Reindeer (*Rangifer tarandus tarandus*) is managed by the Reindeer herding peoples in northern Fennoscandia, Russia, Siberia, Mongolia, China and Alaska.

In the Yakutian Republic in the eastern parts of Siberia, four different minority groups were traditionally Reindeer herders: the Evenks, the Evens, the Nenets and the Chukchi. Using selection and selective breeding, these four groups developed the semidomestic subspecies in different ways to fit their lifestyle and climate. During the Soviet era, these breeding programmes were supported and organised by scientists at local agricultural universities. Today three of these special Reindeer types still exist (*see Table One*).

In the 1970s some of the Evenki Reindeer breeders imported Reindeer from Irkutsk to use for cross breeding. The results were very positive: the cross-breeds were found to be animals with high meat yields and still good to use for transport. At one stage the numbers of these cross-bred animals reached 30–40,000.

Today, there is no longer organised breeding of the different types of Reindeer in Yakutia or any other part of Russia, as the whole organisation and structure of Reindeer herding co-operatives and government-supported Reindeer breeding efforts fell apart when the Soviet Union collapsed. The numbers and locations of the three different Reindeer types are consequently now declining dramatically.

The semidomestic subspecies is also used in Alaska, where the Reindeer are stocky and docile animals that have been selectively bred over about a century for meat production and a preference to herd and stay in one home range rather than migrating.

The Inupiat Eskimos travelled across the Bering Land Bridge from Asia and settled in North-western Alaska thousands of years ago and have relied upon populations of marine and terrestrial animals for their survival, including seals, whales, fish, caribou and musk oxen. Some hunting-gathering economies of North-western Alaska depended heavily on Caribou, a subspecies of Reindeer (*Rangifer tarandus grantii*), but various factors like an increased demand for food and extensive harvesting encouraged by market hunting and the use of firearms may have contributed to the disappearance of non-migratory Caribou on the Seward Peninsula by the 1890s.

The apparent depletion of available subsistence resources led them to introduce semidomestic Reindeer (*Rangifer tarandus tarandus*) to Alaska from Russia, and the first animals – mainly Chukchi Reindeer – were purchased in 1891. The Inupiat learned handling and herding initially from Chukchi herders and later from Saami herders from Norway and Finland who were brought over.

The introduced Reindeer did well and more than 500,000 Reindeer could be found in Alaska, spread from Barrow to the Aleutian Islands during the 1920s. At this time the federal

government suggested that Alaska Native owners form co-operatives or corporate herd ownership. Under the joint stock ownership system, all the animals owned by the people of one village were herded together by paid herders under the supervision of a chief herder. Herd cooperatives advocated open herding based on the Great Plains ranching model where there were no closed, formal or privatised grazing allotments, and herders were encouraged to move their animals across the tundra in search of the best grazing areas. Many herders at the time were already finding it difficult to keep growing herds separated on adjoining ranges and welcomed the open herding method.

The numbers of Reindeer on the Seward Peninsula decreased drastically from 127,000 in 1927 to 25,000 in 1950 largely due to the influence of World War II when the cessation of close herding, overgrazing brought about by the open grazing method, predation and the presence of Caribou led to large Reindeer losses. After a revitalisation program initiated by the Bureau of Indian Affairs in 1941, 17 new herds under private management were started on the Seward Peninsula. To be granted a grazing permit on government lands the herder must develop a grazing management plan in co-operation with the Natural Resources Conservation Service. In 1971 the Reindeer Herder's Association was formed.

Today, most Alaskan Reindeer herders practice an extensive management style. The herds are left unattended for parts of the year, although many herders check their herds during winter when snow and weather conditions allow travel. Some herders will move their animals between winter and summer ranges, while others let the animals largely move of their own accord. Occasionally, a herder will move his herd to a new grazing area during winter to improve grazing conditions or reduce losses due to predation. All present-day herders castrate excess males to reach a ratio of one male for every 15 to 20 females in their herds.

The use of satellite radio-telemetry and the Internet has been developed to assist herders to more effectively monitor and herd animals. A GIS workstation is used to create real-time Reindeer location maps that are placed on a dedicated website that can be accessed through the Internet.

Since the 1970s, Reindeer herding has been a significant source of income for villages on the Seward Peninsula. Sales of velvet antler and meat generated more than US\$1 million in annual revenue for the rural communities of the Seward Peninsula during the early to mid 1990s.

While the development of the Reindeer velvet antler market during the 1970s and 1980s enhanced profitability, and velvet antler sales generated US \$10.3 million from 1987–2003 while Reindeer meat sales generated US\$9.6 million, most herders continue to focus more on meat, which they view as key to their long-term success.

Recently, the Western Arctic Caribou Herd (WACH) has increased dramatically and is severely impacting Alaska's Reindeer industry. The WACH has increased from 75,000 animals in 1976 to approximately 463,000 animals in 1996. During this time, the winter range of the WACH shifted west on to traditional Reindeer ranges of the Seward Peninsula. The presence of a small number of Caribou in a Reindeer herd will cause otherwise docile Reindeer to become easily excited and difficult to herd. Also, thousands of Reindeer have commingled with migratory Caribou groups and left the Seward Peninsula in the past 15 years. And, wolves have appeared on the Seward Peninsula following the migrating Caribou and have become a significant predator of Reindeer. As a result, many herders have lost their entire herds, and if active herding is no longer practised by families, they will not have the opportunity to pass their knowledge on to future generations. A break in the generational link could have serious cultural and economic implications for future re-introductions of Reindeer herding.

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Table One: BREEDS OF SEMIDOMESTIC REINDEER IN SIBERIA

<i>Breed</i>	<i>Type</i>	<i>Location today</i>	<i>Number today</i>	<i>Liveweight (kg)</i>	<i>Dressing percentage</i>
Even	Meat and transport	12 locations, Yakutia	112,000	Males: 135–145 Females: 90–110	48–50%
Evenki	Transport and meat	9 locations, Yakutian Republic	38,500	Males: 140–180 Females: 110–130	46–49%
Chukchi	Meat	2 locations, Yakutia	18,700	Males: 130–140 Females: 90–96	53–55%

Note: Dressing percentage = carcass weight/liveweight x 100

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