Encounters with muskoxen represent a recurring theme in the literature of the exploration of the Canadian Arctic. Many expeditions relied on them quite heavily as a source of food for men or dogs, and in some cases expedition members might have starved had they not encountered muskoxen. All indications point to the fact that at the time of first encroachment by Europeans into the mainland tundra (the date varying depending upon the location between the late 17th and the late 19th centuries) muskoxen were found across the entire mainland tundra from the Anderson River to Hudson Bay (with the exception of Melville Peninsula) and south as far as the mouth of the Churchill. Although it is impossible to be precise, the author’s feeling is that the reports of muskox sightings during these early journeys across the tundra, on foot or by water, are quite comparable with recent reports of sightings, also from the ground or from a boat or a canoe, from areas of relative muskox abundance during the past few decades.

A major trade in muskox hides conducted by the Hudson’s Bay Company, by a limited number of independent traders and by the whalers, was initiated around 1860, when muskox hides were substituted for bison hides for use as sleigh or carriage robes. From that date until 1916 when the trade ceased entirely due to protective legislation, the Hudson’s Bay Company handled 17,584 muskox hides. The trade peaked in the period 1888-1893; during this 6-year period, the Company traded 7,131 hides. Over half this total number of hides (9,364) was traded in the Mackenzie District, at the posts of Fort Anderson, Peel’s River (Fort McPherson), Fort Good Hope, Fort Norman, and especially Fort Rae, by Indians hunting to the north and east, beyond treeline. The highest total for any single post was recorded by Fort Rae, with 5,073 hides traded between 1877 and 1898 alone, and 2,181 hides traded in the peak three-year period of 1888-1890.

Fort Resolution, in Athabasca District handled a further 1,256 hides, with the peak occurring in 1888-1891. Perhaps surprisingly, in view of southerly location of the post, Brochet on the north end of Reindeer Lake, handled a similar number of hides (1,271) but with the peak occurring substantially later, in 1897-99; these hides were traded by a small number of Inuit making annual trading trips southwards from the lower Kazan, Dubawnt and Thelon basins.

On the Hudson Bay littoral hides were traded by Inuit and Chipewyans directly to Churchill, and also to Company boats on an annual trading trip to Marble Island. Together these two branches of the Churchill trade accounted for 5,586 hides, with the peak occurring around 1890-1896.

It is difficult to make any solid statements about the trade in muskox hides to independent traders. Independents are known to have operated at Fort Resolution, and possibly also at Brochet. A figure of 1000 hides would probably represent a maximum estimate of this aspect of the trade.
The inherent difficulties in trying to reconstruct the trade in muskox hides conducted by the whalers are enormously greater, simply because of the vast difference in the available documentation. Nonetheless, on the basis of surviving logbooks and journals, and making adjustments for voyages for which no documentation has survived, as well as the idiosyncrasies of the logbooks and journals as to the accuracy with which trading activities were recorded, and also the probable numbers of hides lost by spoilage, a minimum estimate of the number of hides traded by the Inuit to the whalers in Hudson Bay over the period 1860-1915 is 2,850 to 3,350 hides. At least 108 of these were traded by Scottish whalers, the remainder by Americans. A further minimum of 200-250 hides was also traded by American whalers in the Western Arctic over the period 1894-1915.

Thus in total, the number of muskox hides killed by Indians and Inuit for trade to the Hudson's Bay Company, the whalers and to independent traders amounted to a minimum of between 21,500 and 22,078. The available evidence suggests that the Indian and Inuit hunters exploited the entire area of the mainland tundra, pushing farther and farther into the interior of the tundra from the west, south and east, as the muskoxen became progressively locally exterminated. There were few areas (if any) which acted as safe refugia due to their remoteness.

There are several lines of evidence which suggest that this drain on the population was primarily responsible for the near extermination of the species on the mainland by 1915. Firstly there are repeated references in the literature to the fact that Indian hunters from the trading posts of the Mackenzie District, e.g. Fort Rae, Fort Norman and Fort Good Hope, were having to go progressively farther into the tundra each year to find muskoxen. Secondly, the annual numbers of muskox hides traded to the Hudson's Bay Company declined steadily after the peak years of 1888-93, and had begun to peter out noticeably from about 1900 onwards. Thus the trade in hides had practically ceased, for lack of muskoxen, prior to the introduction of protective legislation.

The rates of harvesting recorded from the various sources represent an average for the entire period of approximately 390 animals killed per year. But in the peak decades of 1881-1890 and 1891-1900 the average rises to 681 and 632 animals respectively. During the six most productive years of the Hudson's Bay Company's trade (1888-93) the average rose to 713 animals for that component of the trade alone.

Whether or not this level of harvesting exceeds the probable sustainable yield, i.e., whether or not it, on its own, could have led to the near-extinction of the species on the mainland, must remain debatable, in the absence of any data on the original population. However, as suggested above, both the spatial and temporal patterns of exploitation would suggest that the commercial hunting of muskoxen for their hides was of critical importance in the drastic decline in the population. There is no evidence in the historic record which would suggest large-scale die-off due to natural causes or overgrazing. All the evidence tends to suggest that the abnormal stress on the population represented by the commercial trade in muskox hides, in combination with normal losses due to predation, severe environmental stress, and harvesting by the indigenous people for their own consumption, was sufficient to bring the mainland population of muskoxen to a point of near extinction by 1917, when protective legislation was introduced by the Canadian government.

The few available estimates as to the size of the surviving population on the mainland by 1917 are in general agreement; by 1930, i.e. after 13 years of potential recovery, at least two experts estimated the mainland population at 400-500 animals. The main areas of concentration were the Thelon basin, the area south of Bathurst Inlet and the area north and northwest of Wager Bay.

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