

THE CONSUMPTION OF CARIBOU BY WHALEMEN AT HERSCHEL ISLAND, YUKON TERRITORY, 1890 TO 1908

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ABSTRACT

It has been maintained by several writers that American whalers substantially depleted the Porcupine caribou herd while wintering at Herschel Island, Yukon Territory. My research, based on the logbooks and journals of their vessels, has led me to conclude that the hunting pressure was not deleterious to the herd.

From 1890 to 1908, during the last heyday of the American whaling industry, whaleships made 73 winterings at or nearby Herschel Island, Yukon Territory (Figure 1), to be close to the summer feeding grounds of the bowhead whale. Because it was expensive to procure provisions in San Francisco for crews of as many as 50 men on voyages of a minimum of 20 months, the whalers tried to acquire as much food as possible in the Arctic.

They obtained their supplies several ways: by trading with Eskimos and Indians who visited the island; by outfitting local Eskimos for hunting; and by sending out parties of officers and "ship's natives" (Alaskan and Siberian Eskimo crew members) either on hunting trips or to set up satellite camps for hunting and trading, from which meat would be sent to the ships. The hunters ranged over a wide area, travelling more than 250 km from the island—as far as Camden Bay, Alaska, Richards Island in the Mackenzie delta, and throughout the mountains to the south. Some

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of the native traders came greater distances: from Kittigazuit in the Mackenzie Delta, Rampart House and LaPierre House in the Yukon drainage, and Peel River and Fort McPherson (Bockstoce, 1977).

They took a wide variety of game: moose; mountain sheep; polar and grizzly bear; seals; fish; hares; ducks, geese, and swans and their eggs; and ptarmigan. But by far the most important game was caribou. Caribou were taken throughout the year but in especially large numbers during the spring, when the Porcupine herd made its annual migration past Herschel Island to its calving grounds.

The whalers' meat consumption was substantial, but in the winter of 1894/95, with 15 vessels and more than 500 men wintering at Herschel Island, it was prodigious. Andrew Jackson Stone, a naturalist who visited the island a few years later, reported that the whalers consumed 300,000 pounds of caribou meat, mostly saddles, that year (Stone, 1900: 57).

Several analysts have maintained that the whalers' hunting seriously depleted the Porcupine herd (see, for instance, Gubser, 1965: 307), and their accounts are based, directly or indirectly, on the size of the foreign presence at the island and the reports of witnesses such as Stone. The startling size of Stone's figure and its implications for the native residents of the region prompted me to study the question.

The only reliable data on meat consumption are found in the logbooks and journals kept aboard the ships that wintered at Herschel. After determining the names of the ships that wintered there each year (Bockstoce

and Batchelder, 1978) and locating the manuscripts from those voyages both in public collections and in those private collections to which I had access, I found that, of the 73 winterings, useful documents (that is, complete for the winter, sufficiently detailed, legible, and credible) survived for only 17.

The nature of the data presented other problems. The recording of the meat intake varied from document to document—and sometimes within them as well—in the units of measurement: some entries recorded the number of carcasses; others, the sections (quarters and saddles); others, merely the sled loads of meat arriving at the ship; and others, rarely, the weight of the meat (including bone, sinew, etc.).

I used the following equivalents to integrate the data: I assumed that a “dressed” caribou (minus head, lower legs, entrails, and hide) weighed about 155 pounds; that a hind quarter averaged 40 pounds (35 to 45 pounds, depending on the cut); that a shoulder was about 30 pounds; that a saddle without the rump was 10 to 15 pounds; and that a sled load was about 800 pounds, or five dressed carcasses. These estimates were arrived at from informa-

tion supplied by the Alaska Department of Fish and Game at Fairbanks and from data in the manuscripts.

By chance the useful manuscripts covered two periods of time, 1893-1896 and 1903-1906: two documents for 1893-1894, five for 1894-1895, three for 1895-1896, two for 1903-1904, two for 1904-1905, and three for 1905-1906 (Table 1). Strangely enough, although the size of the wintering crews generally varied from 30 to 50 depending on the size of their ship, no correspondence could be found between the number of the vessel's crew members and the amount of caribou meat obtained; nor was a ship's intake of meat from year to year consistent proportionally with others, leading to the conclusion that the meat procurement depended on the needs of the ship, the energy and resources of the captain in organizing the hunting and trading effort, the skill of the hunters, the situation of the hunting camps, the routes taken by the caribou in a particular year's migration, and the other sources of game available in that year.

The data presented other problems in estimating the total annual consumption of caribou. A number of statistical analyses could

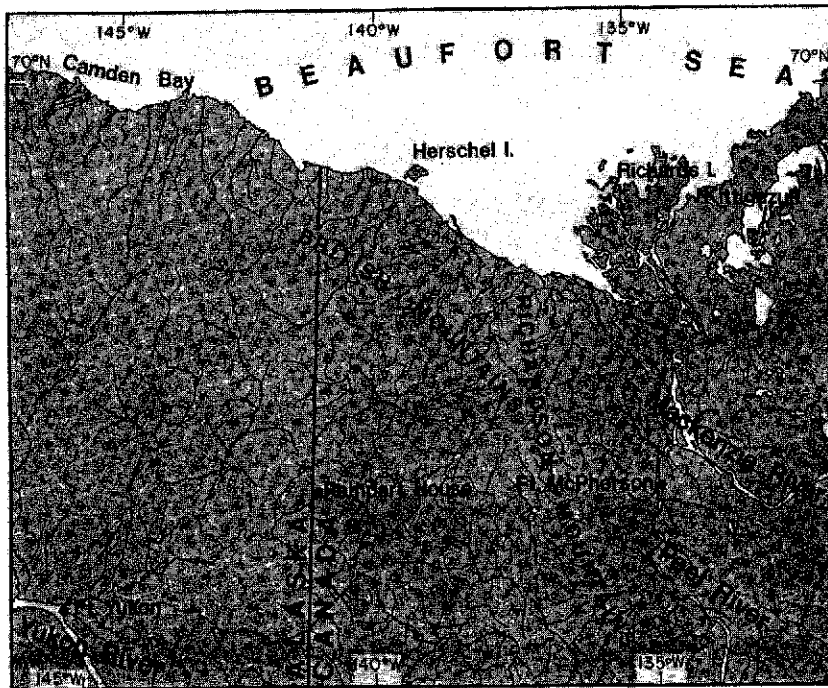


FIGURE 1. Area around Herschel Island.

have been performed on these data, but I remain cautious about distorting their veracity. The most reasonable procedure for extrapolation from the data seems to be the construction of a simple average (181 caribou consumed per ship per winter) to apply to the undocumented winterings. An estimate for the total annual consumption of caribou can then be arrived at by adding these figures to the data for the documented winterings (Table 2).

One consistency in the data was, however, apparent: for the documented winterings the average number of caribou used per ship per year was substantially higher in the period from 1903 to 1906 (260.1) than from 1893 to 1896 (125.6). It is probable that the hunting effort averaged per ship was relatively constant in both periods; similarly the prices paid for meat did not change significantly. The increase may be partially accounted for by the reduction in total hunting pressure: the number of ship winterings in the earlier period was 35; in the latter period, 10 (see footnote b, Table 2). But it is also possible that the number of caribou available to the hunters rose through an increase in the size of the Porcupine herd.

According to Skoog's (1968: 252-266) analysis, during and immediately after the period of whalships' winterings at Herschel the caribou of the region were relatively

TABLE 1
Caribou consumption for documented winterings at Herschel Island

	Vessel's name	Caribou consumed
1893-1894	<i>Mary D. Hume</i>	199
	<i>Newport</i>	193
1894-1895	<i>Mary D. Hume</i>	221
	<i>Newport</i>	143
	<i>Rosario</i>	16
	<i>Triton</i>	27
	<i>William Baylies</i>	78
1895-1896	<i>Beluga</i>	75
	<i>Mary D. Hume</i>	169
	<i>Newport</i>	135
1903-1904	<i>Bowhead</i>	312
	<i>Narwhal</i>	175
1904-1905	<i>Bowhead</i>	421
	<i>Karluk</i>	245
1905-1906	<i>Alexander</i>	230
	<i>Bowhead</i>	189
	<i>Karluk</i>	249

numerous. It would seem, therefore, that despite the whalers' hunting pressure, the Porcupine herd was undergoing a natural increase, either in its population cycle or via recruitment from adjacent herds. Similarly, if one assumes—conservatively—that the size of the herd was about 100,000 at the time (see, for instance, Hemming, 1971: 11), then the annual consumption at Herschel, averaged over the 18 winters would have been 0.68% of its size. Even allowing for the actual kill (those wounded caribou that escaped moribund and those consumed in the field by hunters) to have been 50% higher than the figure for the consumption at Herschel, then, averaged over the 18 winters, the figure would still be equal to only about one percent of the herd's size—a figure which, despite hunting by other natives and natural mortality, would seem not to have been detrimental to the herd.

TABLE 2
Estimated total caribou consumption of whalships wintering at Herschel Island and vicinity

	Number of vessels	Estimated caribou consumption
1890-1891	3	543
1891-1892	1	181
1892-1893	4	724
1893-1894	7	1297
1894-1895	15	2295
1895-1896	13	2189
1896-1897	6 ^a	1086
1897-1898	2	362
1898-1899	1	181
1899-1900	0	0
1900-1901	0	0
1901-1902	2	362
1902-1903	3 ^b	362
1903-1904	4 ^b	668
1904-1905	3 ^b	666
1905-1906	6 ^b	1030
1906-1907	2 ^b	181
1907-1908	1	181
Total	73	12,308

^aOnly three vessels wintered at Herschel Island; three others were trapped by ice nearby.

^bOne of the vessels was a very small schooner owned by local Eskimos; as such, they did not increase the local hunting pressure. It has not been counted in the calculations.

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