

THE HISTORICAL ANNUAL RANGE USE PATTERNS OF THE FORTY MILE CARIBOU HERD IN YUKON

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for

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The reference citations are as complete as possible; references without citations are included but noted with question marks. The source documents noted as "REF #" are collected in "Janet McDonald's Fortymile Caribou Report References" in the Environment Yukon library (Call # QL 737.U55.M33 1991). Also included in that collection is a CD with images of the original interview-based distribution maps.

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Executive Summary

The Fortymile Caribou Herd (FMCH) (*Rangifer tarandus granti*) historically ranged both in Yukon and Alaska. The herd has undergone major population fluctuations and shifts in distribution in the last century.

This project involved documenting written materials researched in the Yukon Archives and interviewing long-time residents of the former range to help in the reconstruction of range use in Yukon.

In the late 1880s, it appears that while caribou were still quite abundant, mining activity forced hunters to travel far to get them. By the late 1890s, caribou were described as scarce or non-existent. In 1897, hunters estimated the herd at 10,000 to 20,000 caribou.

It has been suggested that the herd recovered during the 1910s, reaching peak numbers in the mid-1920s.

The data suggests the FMCH did not decline so dramatically in the late 1930s and early 1940s as previously described. Skoog mentions a definite gap in knowledge of the annual movements occurring in the latter half of the 1930s. The data recorded during this report suggests the herd shifted into the Yukon with records of large numbers of caribou migrating past Mayo and Pelly, and caribou wintering in the Dawson Range and near Whitehorse.

In the 1940s and 1950s, there were many (thousands) of caribou; however the majority of reports came only from the Dawson and Sixtymile area and not farther south. While most of these observations were fall and winter reports, one report mentions most of the herd being in Canada for calving in 1959.

By the 1960s and 1970s, reports of caribou were of only scattered bands in the Ladue and Sixtymile River areas. Caribou were not seen in Yukon after 1974.

Starting in the mid 1980s, small numbers of caribou were wintering just across the Alaskan border in the upper Sixtymile area.

The 22,000 caribou recorded in 1990 still only range in a small area of the Yukon. The herd's range has not increased noticeably since 1976 even though the herd has tripled in size.

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INTRODUCTION

The Fortymile Caribou Herd (FMCH) (*Rangifer tarandus granti*) historically ranged both in Yukon and Alaska. The herd has undergone major population fluctuations and shifts in distribution in the last century. In the early 1920s the herd reached a high of 500,000 and ranged well into the Yukon. In the mid-1970s, the herd reached a low of 5,000 to 10,000 and ranged only in Alaska. Recent cooperative efforts in Alaska and Yukon have resulted in a modest increase in the herd to 23,000. A management plan to recover the herd has been developed and a moderate growth rate is expected - 50,000 animals by the year 2001. A herd of this size is expected to reoccupy seasonal ranges in Yukon. In preparation for this possibility, a systematic search of historical knowledge was attempted to more accurately predict the range of the herd in Yukon at a population level of 50,000.

This project involved documenting written materials researched in the Yukon Archives and interviewing long-time residents of the former range to help in the reconstruction of range use in Yukon. The herd's seasonal distribution and movements in Yukon is discussed in relation to the last 90 years, divided into five periods:

1900 to 1929	First recovery
1930 to 1939	Second decline
1940 to 1959	Second recovery
1960 to 1975	Third decline
1976 to 1990	Third recovery
1990 to 2004	Management Plan

The historical FMCH distribution in Yukon has been documented by Murie (1935), and Skoog (1956 and 1968) (Figure 13). Murie described the distribution of the "Yukon-Tanana herds", which is comprised of the present-day FMCH, Nelchina, Chisana, Aishihik, and Carcross herds. This initial Yukon range-use information was very general and relied on some archival sources and personal communications at the time. Skoog's research on the "Steese-Fortymile herd", or the FMCH, was based on some aerial surveys, ground fieldwork, and personal communications. The recent past has been documented by Hemming (1971), LeResche (1975) and Davis et al. (1978), relying on aerial surveys and radio-collared animals.

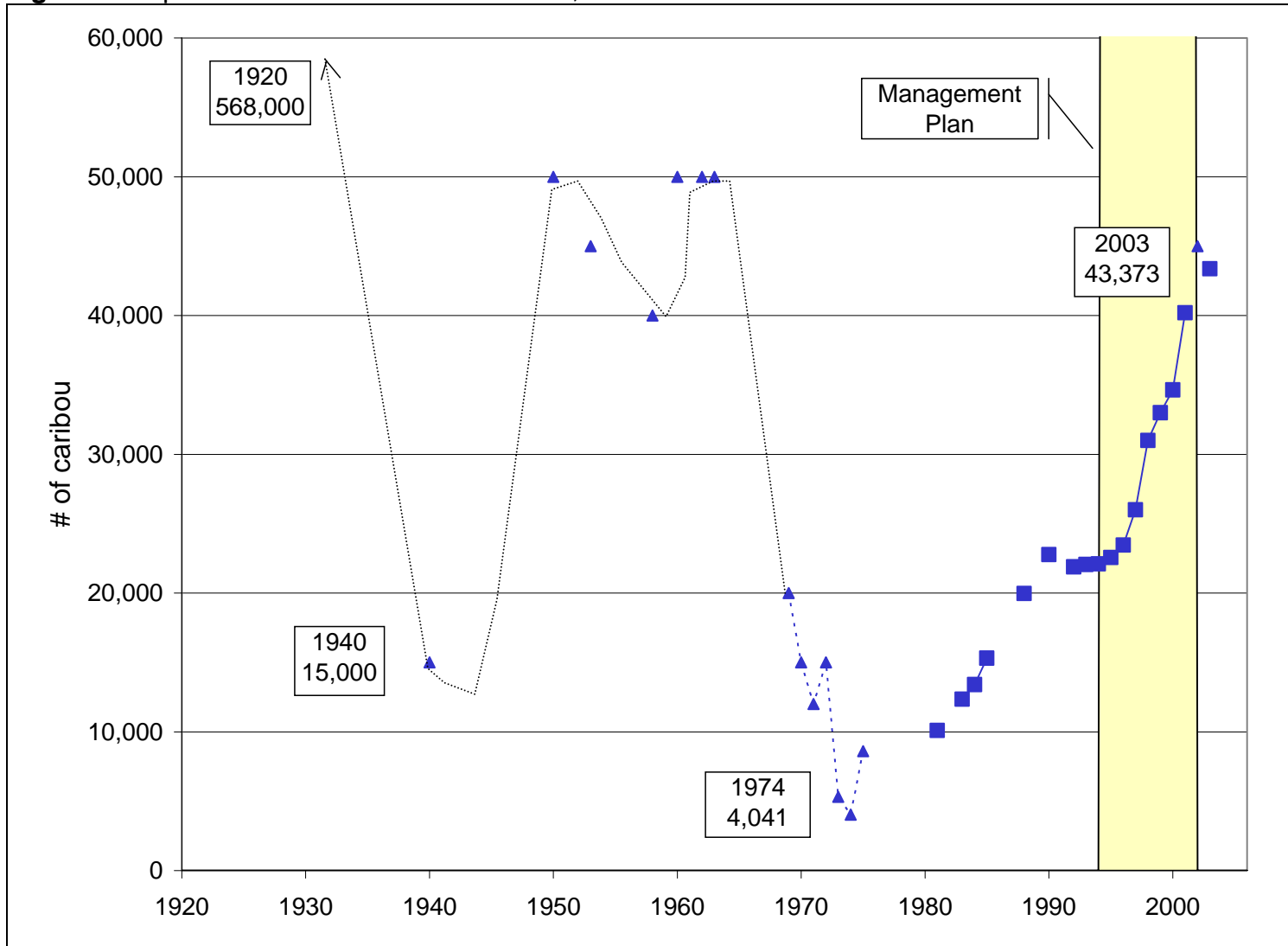
The following Yukon communities are within the former range of the FMCH: Dawson City, Mayo, Carmacks, Pelly Crossing, and Whitehorse. Some abandoned villages include Aishihik, Coffee Creek, Fort Selkirk, Fortymile, Clinton Creek, Stewart, and Copper City.

Table 1. Fifteen annual life cycle periods of caribou

Season	Dates	Characteristics
Rut	8 - 31 October	snow but melting
Late fall	1 - 30 November	beginning of winter snow cover
Early winter	1 Dec - 10 Jan	snow cover shallow shortest day length, very cold
Mid winter	11 Jan - 20 Feb	snow cover increasing, very cold
Late winter	21 Feb - 31 Mar	snow cover peaking, longer day length
Spring	1 - 30 April	snow cover decreasing
Spring migration	1 - 19 May	80 - 100 % snow cover, snow rotting, animals move north of tree line
Pre - calving	20 - 31 May	10 - 50 % snow cover, disappearing rapidly, cotton grass in bud
Calving	1 - 10 June	0 - 10 % snow cover, cotton grass in full flower, willow leaves in bud
Post - calving	11 - 20 June	cotton grass past flowering, willow leaves unfolding
Movement	21 - 30 June	willow in leaf, biomass increasing rapidly
Early summer	1 - 15 July	biomass peaking, mosquitoes peaking
Mid summer	16 July - 8 Aug	biomass at peak, mosquitoes past peak, oestrid flies peaking
Late summer	9 Aug - 7 Sept	vascular forage quality declining
Fall migration	8 Sept - 7 Oct	early snow storms

* adapted from Porcupine Caribou Herd Technical Committee, 1993, for Porcupine Caribou

Figure 1. Population fluctuations of the FMCH, 1920 to 2004



METHODS

Archival Information

A review of available literature and anecdotal information on the FMCH was conducted at the Yukon Archives in Whitehorse, Yukon, and Elmer Rasmuson Archives at the University of Alaska Fairbanks. Books, periodicals, theses, manuscripts (including diaries, correspondence, scrapbooks, and essays), pamphlets, government and corporate records, bibliographies, newspapers, photograph collections and oral history projects were examined for caribou information.

Two Dawson newspapers were examined through indexes: *The Klondike Nugget*, 1900 to 1903, and the *Dawson Daily News*, 1907 to 1952. Photos from archival collections were used if labelled with date and location.

Most post-1952 caribou range information was obtained from published reports of the Alaska Department of Fish and Game, and files of the Yukon Department of Renewable Resources.

Interview information

Interviews of long-time First Nation and non-First Nation residents were conducted in Whitehorse, Carmacks, Dawson, Pelly Crossing, and Mayo. First Nations and other researchers suggested people to interview. Laurent Cyr, a local Whitehorse senior citizen newsletter editor, gave current information on interviewees. Archival oral history recordings and recommendations from interviewees themselves provided additional leads. Thirty people were interviewed: 18 were native and 12 were non-native. Ten people represented the Dawson area, 5 the Mayo area, 12 the Selkirk, Pelly and Carmacks areas, and 3 represented the Whitehorse area.

An interview form was filled out with each interviewee (Appendix A). Caribou observations were mapped on a set of bound 1:250,000 map sheets using the initials of the observer to correspond with the interview form. Caribou information was recorded by the 15 annual periods described by Porcupine Caribou Technical Committee (1993). Range information was also written in the map borders to aid in discussing information with other interviewees. Photocopies of a selection of archival photographs of the FMCH were shown to the people interviewed in order to stimulate their memory.

Questions posed to the person interviewed included the general observations of caribou in the area, when they first remembered seeing caribou, last year of large herds seen, movement and duration, direction of travel, river crossings, group size and composition, knowledge of native caribou fences in the area and what they thought happened to the caribou when they disappeared. Other questions relating to caribou population

dynamics included harvest, presence of disease, forest fires, predators, insects, and adverse weather conditions.

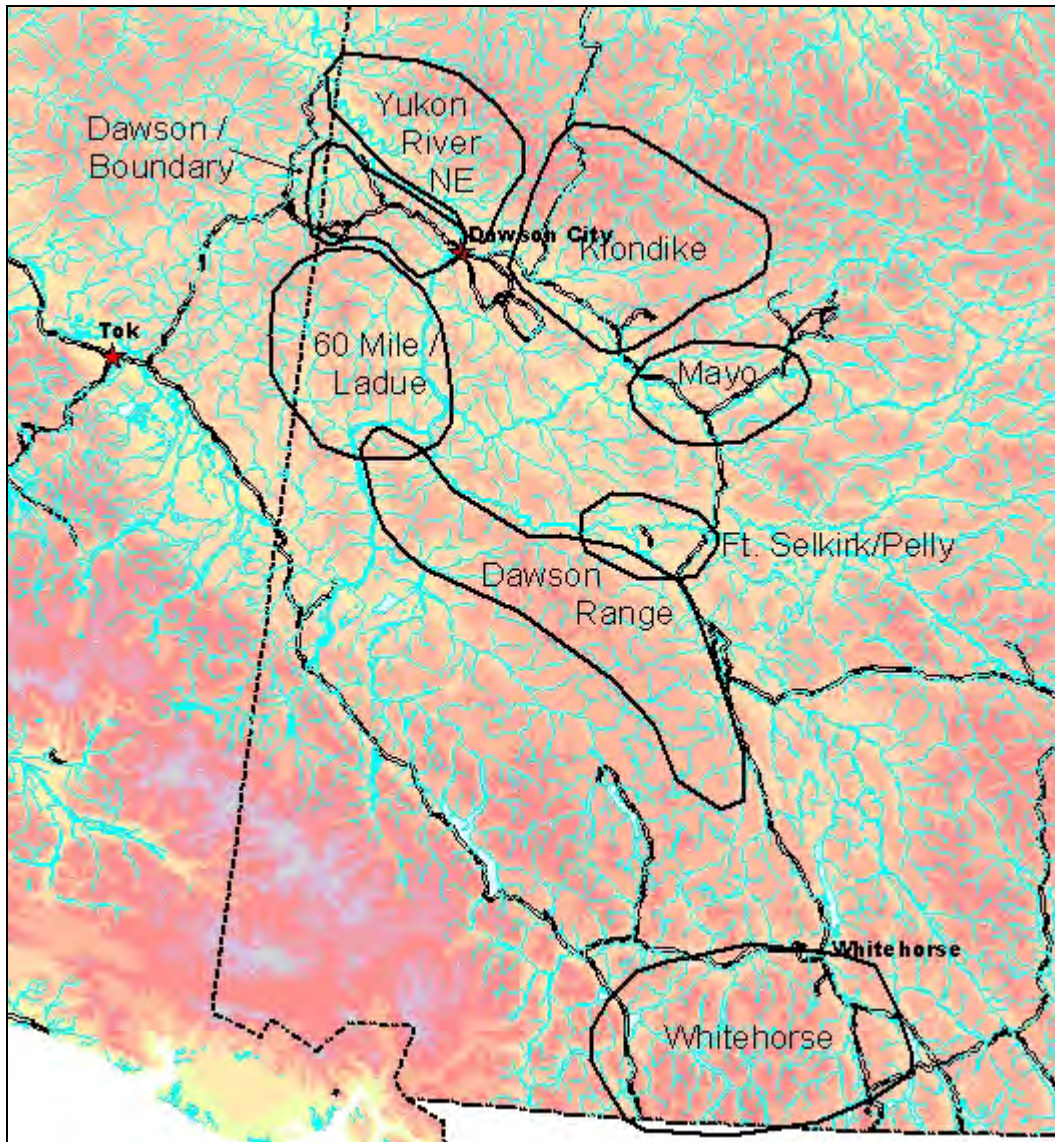
An attempt was made to separate observations of FMCH animals from other Yukon caribou herds using the following assumptions:

1. When interviewees gave observations of caribou, they were asked about the relative body size in order to differentiate between the barren-ground and woodland animals.
2. Summer observations of caribou in the southern range of the Porcupine Caribou Herd would be FMCH animals.
3. The current Hart River Caribou Herd, Porcupine Caribou Herd, Nelchina Caribou Herd, and Chisana Caribou Herd ranges were accepted as their former ranges. Earlier descriptions of FMCH range were re-evaluated by not including observations of caribou if they were located in the accepted ranges of these other herds.
4. All observations that described large numbers of caribou (i.e. "thousands") were accepted as FMCH animals.

For each of the five periods of time, observations are summarized into eight main regions.

Region	Description
Dawson/Boundary	Dawson City, the Top of the World Highway and the Clinton Creek mine area.
N.E. of Yukon River	The area northeast of the Yukon River to the upper reaches of the Fifteenmile and Tatonduk River drainages.
Klondike	The Klondike River drainage
Sixty-mile/Ladue	The area west of the Yukon River, south to the confluence of the Ladue River, and includes the goldfields.
Mayo	The area from Mayo to Stewart Crossing, to McQuesten.
Ft. Selkirk/Pelly	The community of Pelly Crossing, and Ft. Selkirk, now abandoned.
Dawson Range	The Dawson mountain range, from the Stewart / Yukon Rivers south to roughly Braeburn Lake.
Whitehorse	The area west of Whitehorse to Haines Junction, and south to the Yukon-B.C. border.

Figure 2. Regions in Fortymile Caribou range



GIS maps

Polygons recorded during the interviews were “heads-up digitized” as an ArcView shapefile. Attribute data were entered for each polygon and subset as appropriate to produce the maps in this report.

RESULTS

Prior to 1900

Table 2. Movements and occurrences of Fortymile Caribou, 1848 to 1900

Year	Observation	Source
1843 to 1910	Almost all Northern Tutchone hunted moose exclusively	LeGros, 1981.
1848 to 1852	Han people hunted caribou as far south as Sixtymile River.	LeGros, 1981.
1885	The pants worn by the Selkirk people were made of moose skin, according to Schwatka. He also reported "moose furnishes all the meat that is eaten by these Indians".	LeGros, 1981.
1883	Schwatka describes Carcross as "the place where caribou cross"	Schwatka, 1885a, p. 742.
1883	"The tributary stream is called the Deer River, from the large numbers of woodland reindeer that infest its valley at certain periods of their migrations, but unfortunately the middle of July was not one of these periods. To the northward loomed up a bright green mountain, from whose side a slide had torn a great mass of the turf, thus exposing the red clay in striking contrast to the green. The red space thus exposed resembled a huge moose-skin stretched on the ground to dry, and the Indians had accordingly named this the Moose-skin Mountain.	Schwatka, 1885b, p. 192. [Ref. #20]
prior to 1887	Han people (Dawson area) hunted caribou.	LeGros, 1981; Rice, 1900.
1887	"In some places, up Forty-Mile Creek, for instance, I have been told by good authority that caribou are plentiful in the winter; it is necessary however to ascend the mountains to the limit of timberline, and then hunt on the bald hills. The caribou travel in large bands."	Redmond, 1891, p. 626. [Ref. #10]

Year	Observation	Source
1887	"Game is not now as abundant as before mining began, and it is difficult, in fact impossible, to get any close to the river. The Indians have to ascend the tributary streams, ten to 20 miles to get anything worth after. Here on the uplands vast herds of caribou still wander [there were no caribou in this locality last year]. ... One party went up the Tat-on-duc some fifteen or twenty miles, and in a short time was revelling in game, especially caribou. ... The ordinary caribou runs in herds, often numbering hundreds. "	Ogilvie, 1897, pp. 44-45. [Ref. #15]
1888	Han people were dressed in caribou skins	Ellington, 1888 [no source of reference]
1890s	"The headwaters of the Forty-Mile and of the Klondike are two centres of great abundance. Several years ago three hundred were killed in Forty-Mile town. Early the past fall two white men on the upper Klondike killed forty-seven, and several hunters independently reported the herd, which was then changing its feeding-grounds, as numbering from ten to twenty thousand."	Adney, 1994, pp. 444-445.
1891	The advice Redmond gave to future pioneers was that you cannot count on game in Tuchone country.	LeGros, 1981.
1896	"In this country [Fortymile Post area] at certain times of the year, particularly in the fall, great herds of caribou pass..."	Spurr, 1900, p. 111.
1897	"Game was non-existent or at the very best, very scarce"	Hayne, 1897.
1897	"Game is not now as abundant as before mining began; and it is difficult, in fact impossible, to get any close to the river"	Ogilvie, 1897, p. 44. [Ref. #15]
1898	"It is stated that the country drained by White River is noted among the Indians as a moose and beaver region."	Dawson, 1987, p. 25.
1899	The caribou "seem to cover a large territory in their movements, and are not always found in the same districts during the same seasons in successive years".	Richardson et al., 1964, p. 750. [Ref. #14]
Pre-1900	For the Little Salmon Carmacks band area "the main food staples were the caribou, which crossed the Yukon in a herd south of Selkirk each year..." "By mid-November, the large caribou herd was moving east from Alaska and the men prepared for a collective hunt." "In spring, caribou were said to cross	Arcand, 1966, pp. 6, 89.

Year	Observation	Source
	the river again, though this time not in compact herds and there was no collective hunt.”	
1897	According to Schwatka, “The great Yukon Valley has but little game in it during the summer, for the mosquitoes drive all game to higher altitudes. Formerly during the winter season a living could be made by experienced hunters in bringing moose and caribou meat to camp. I heard one miner say, who had spent four years on the Yukon that he had seen moose and caribou so numerous on the bald hills above timber limit, in the present gold field district, that they gave the snow a mottle, gray appearance. Of course these have now disappeared with the advance of civilization, and fresh meat of any kind is now at a premium.”	Harris, 1897, p. 311. [Ref. #22]
1897-98	A journalist, E. Tappan Adney hunted with Han Indians from Dawson, and reported killing sixty-five caribou about 75 miles up the Klondike River.	Adney, 1902, p. 626. [Ref. #28]

1900 – 1929 (First recovery)

During 1900 to 1929, the FMCH was observed in the Yukon during all seasons of the year (Figure 2). This period follows the gold rush in the Klondike and Fortymile country in the late 1800s, when thousands of miners inhabited the area and relied on caribou. It has been suggested that the FMCH was increasing during the 1910s and reached peak numbers in the mid-1920s. Murie (1935) estimated the FMCH at 568,000 during a fall migration in 1920 near Fairbanks.

Table 3. Regional distribution, 1900 to 1929

Dawson/Boundary	In the fall of 1909, 1913, 1917, 1925 and 1926 the FMCH was found in this area. The FMCH also wintered here in the 1908-09 season and in 1928.
N.E. of Yukon River	In the summer of 1904 and 1915 small numbers of the FMCH were observed.
Klondike River	The FMCH was only found here in the winter of 1900-01 and in the following fall of 1901.
Sixtymile/Ladue	A large spring migration was observed up the Sixtymile and White River in 1909. This suggests that the herd must have wintered to the south and/or east of here.
Mayo	According to Sam Peter, the FMCH migrated by Mayo between 1917 and 1930.
Fort Selkirk/Pelly	Large post-calving groups of the FMCH were observed crossing the Yukon River near Fort Selkirk in the summers of 1926, 1927, and 1929.
Whitehorse	Large numbers were seen near Whitehorse in late fall according to Murie (1935). [Ref. #47]

Table 4. Movements and occurrences of Fortymile Caribou, 1900 to 1929

Year	Observation	Source
1900	There was an abundance of moose and caribou in the "country adjacent to the upper branches of the Stewart River" and hunters were indiscriminately slaughtering them.	<i>The Klondike Nugget</i> , Oct 7, 1900. [Ref. #27]
1901	Mr. A.C. Cleare, the council appointed game warden for the Klondike District, reported large numbers of caribou being killed after the season closure at Ross Creek on the South Klondike, and also on the North Klondike. He estimated that 80 tons of caribou had been killed by 60 hunters and that 43 per cent of these were killed during the closed season.	<i>The Klondike Nugget</i> , April 4, 1901. [Ref. #27]
1901	During the next fall, hunters reported "an immense herd crossed the head of the Klondike going in the direction of the Stewart" before the beginning of hunting season [Oct. 1]. "Old hunters who saw their tracks estimated 10,000 in the band." Caribou were scarce in the headwaters of the Klondike in early winter, according to Charles Hamilton, a hunter on the South Klondike. Ed McBeth, camped on Rosebud Creek, a tributary of the Stewart, reported "he has never seen game (caribou and moose) in that area more plentiful" and he killed six moose and 23 caribou in a three week period. Wolves were a problem eating carcasses if they were left overnight.	<i>The Klondike Nugget</i> , Dec 7, 1901. [Ref. #29]
1902	It was estimated that there were 1,300 caribou carcasses near Dawson that would be surplus to the existing imported non-game meat already in the markets.	<i>The Klondike Nugget</i> , Feb 24, 1901. [Ref. #27]
1904	Wilfred Osgood conducted a biological investigation in the Ogilvie Range in July of 1904. He found caribou "in small numbers only. They were scattered singly or in twos and threes in the high mountains about the head of the west branch of Coal Creek..." However, "certain parts of the mountains about the head of Coal Creek are scored with caribou trails", suggesting larger numbers of animals are found there during other times of the year.	Osgood, 1909, p. 49. [Ref. #33]
1907	"In the winter of 1907-08 they [FMCH] ranged in droves of many thousands- some reports say hundreds of thousands- through the hills and valleys of the	Higginson, 1908, p. 441. [Ref. #31]

Year	Observation	Source
	Stewart, Klondike, and Sixty-Mile rivers, in the Upper Yukon country." She describes that the caribou migration "from the Tanana River valley to the head of the White River consumed more than ninety days in passing the head of the Fortymile valley - at least a thousand a day passing during that period".	
1908	"The large run of caribou this year has been across the White River not far above its mouth and northward across the Sixtymile and toward the Fortymile country." Hundreds of caribou in the Fortymile district were reported for the previous year.	<i>Dawson Daily News</i> , Nov. 17, 1908. [Ref. #30]
1908	Game is reported in large supply in Sixtymile country, and some caribou is reaching Dawson from that direction.	<i>Dawson Daily News</i> , Nov. 24, 1908. [Ref. #30]
1909	"There has been during the last winter [1908-09] 50 miles to the west of Dawson (or much nearer than ever caribou have been killed for the Klondike Market) the near edge of a herd of caribou that has been estimated by several parties, who traveled through it, to contain more than 1 million head, ... George Black described a spring trip down the White River in canoe. " For 40 miles we were running through one continuous mass of caribou. The narrow valley and high bald mountains on either side, swarmed with the animals. Never before did I have the slightest idea of what a herd of caribou signifies until while on that trip up the 60 mile River, I saw where the lower part of the great herd had crossed. About every 100 yards up to where I turned back or for fully 10 miles there were trails a foot deep cut freshly into the soil, and between those trails it was, without exaggeration, impossible to put down my hat and not cover several hoof prints in the inch or so of snow that then covered the ground."	<i>Dawson Daily News</i> , July 21, 1909. [Ref. #32]
1909	"The last few days a remnant of the big herds has been on the Glacier trail west of Dawson, and Moosehide Indians and Whites have killed a good many. A herd of 150 caribou were seen near the Halfway roadhouse [4 miles downstream of Fifteenmile River] trying for some time to get across the river, the caribou turned back, and are supposed to be wandering in the	<i>Dawson Daily News</i> , Oct. 29, 1909. [Ref. #30]

Year	Observation	Source
	hills between Dawson and the Fortymile waiting for the river to close."	
1910	Cairnes reported that moose and caribou are the only species of deer in the Lewes and Nordenskiold rivers district. The former are plentiful in many localities, but the latter are rather scarce.	Cairnes, 1910.
1911 to 1912	Cairnes explored the high White and Donjek areas and does not mention the caribou.	Cairnes, 1912.
1913	Dr. Gillis writes of a mid-September 1913 hunt along the Glacier wagon trail west of Dawson. He estimated three thousand caribou on the one mountain near the Twentyfour mile roadhouse. Over a distance of 20 miles along the trail, from 13 to 34 miles out he observed "every hill covered with caribou and how far north and south the herd extended, I am unable to say, but without exaggeration, there must have been hundreds of thousands in these herds". He easily killed 6 caribou within 50 feet of the wagon road.	<i>Dawson Daily News</i> , March 20, 1914. [Ref. #37]
1914	Auer explored the high White and Donjek and does not mention the caribou.	Auer, 1916.
1914	Mushers on daily trail White River to Dawson do not mention caribou.	<i>Dawson Daily News</i> , Feb. 13, 1914. [Ref. #34]
1915	Peter Alexis came from the Blackstone River country into Dawson and killed 5 caribou at the head of Twelvemile.	<i>Dawson Daily News</i> , June 7, 1915. [Ref. #37]
1915	Chief Isaac reported the Moosehide Indians shot 70 caribou on the Glacier trail, and that white men killed 3,000. In the same paper it reported Mrs. Van Cleave, of the Twenty Four mile roadhouse, had shot 3 caribou from the door of her home. "The big trek is passing on all sides of their place"	<i>Dawson Daily News</i> , Nov 4, 1915. [Ref. #37]
1915	25 miles west of the Yukon River, opposite Dawson, was a southward fall (November 1915) migration. "It is estimated that between 8,000 and 10,000 caribou went south by this route, which is not always the one they follow. There was no wanton slaughter of these beautiful animals by the whites or Indians. Each hunter was allowed three carcasses (all under police supervision); and probably 600 were taken for Dawson's winter food supply." These included both the barren-land caribou (<i>Rangifer Groenlandicus</i>) and	Brownlee, 1916, p. 60.

Year	Observation	Source
	the woodland caribou (<i>R. Caribou</i>)."	
1917	Photographs of migrating caribou were taken on the Sixtymile Road, 20 miles west of Dawson in November 1917.	Emile Forrest Coll. [Yukon Archives: 80/60, PHO 131A]
1921	Photo of about 30 yearling caribou on a slope, labelled "within a mile of Dawson. Spring 1921".	Claude and Mary Tidd Fonds [Yukon Archives: #7691]
1921	Photo of a mixed group of 70 caribou during the late fall, labelled "Caribou herd passing Dawson, 1921."	Maggie's Museum Coll. [Yukon Archives: 82/331]
1924	Large numbers near Whitehorse in late fall for the first time since before 1900.	Murie, 1935. [Ref. #40]
1925	Caribou travelled southeast on the hills along the west bank of the river near Dawson during the fall of 1925 and 1926.	G. I. Cameron, personal communication, 1990.
1926	G.I. Cameron describes thousands of caribou crossing the Yukon river, downstream of Fort Selkirk, in July. The caribou were bedded on the islands and were everywhere. The paddle-wheeler stopped to avoid the caribou.	G. I. Cameron, personal communication, 1990.
1926	An archival photograph of a mixed post-calving group describes this same migration near Selkirk.	Anonymous Coll. [Yukon Archives: acc. 89/23, PHO 370]
1927	Photographs of large bull groups (velveted antlers) in the summer were taken by A. Innes-Taylor. They were inscribed with "The last great caribou migration, 500,000 took 10 days to cross the Yukon River near the mouth of the Selwyn."	Alan Innes-Taylor Coll. [Yukon Archives: #1755 and 1756] [Ref. #43]
1928	Sgt. Cronkhite did a patrol from Dawson to Miller and Glacier Creek. He noted that game was plentiful in this district and that the wolves were following the large caribou herds. Peter Olson, a trapper at the 41 mile roadhouse poisoned 7 wolves in 1 night.	Report by Sgt. H. H. Cronkhite, November 24, 1928. [Yukon Archives: GOV 1682, f. 36, pt. 4] [Ref. #38]
1929	"At [Fort] Selkirk the main caribou herd has passed, but that stragglers were still crossing the river. Past Isaac Creek, we observed caribou trails visible."	Burg, 1930, p. 102. [Ref. #44].
1929	A photo of a large herd titled "caribou swimming Yukon River near [Ft.] Selkirk." [p. 21] "At certain times of the year great herds of caribou cross the Yukon river in this vicinity. Sometimes the steamer surprises them in the water. More frequently they may be seen feeding along the banks." [p. 25]	Kitto, 1929. [Ref. #39]

1930 – 1939 (Second decline)

Maximum distribution of the FMCH in the Yukon occurred during this period, when the herd was observed extensively across central and southern Yukon mainly in the fall and winter, as well as some summer sightings. The last time Carmacks people saw the large numbers of caribou in their area was 1937. Mr. Sam Peter reported last seeing the big herd in 1938 near Mayo (personal communication, 1990). According to Mr. Ed Whitehouse, the herd still moved through the Dawson area during spring and fall, but no evidence of wintering occurred in the Dawson area, except for the Sixtymile river area (personal communication, 1990).

Table 5. Regional distribution, 1930 to 1939

Dawson/Boundary	The FMCH was observed here in the fall of 1933, 1934, and 1936 and in the spring of 1934. There was no documentation of wintering caribou.
N.E. of Yukon River	No observations.
Klondike River	The FMCH was only found here in the winter of 1937.
Sixtymile/Ladue	There are fall observations only for the Yukon River crossings at the junction of the Sixtymile [in 1938], and from the junction of the Stewart down to Sixtymile junction and the White River junction [during the late 1930s].
Mayo	The FMCH migrated by Mayo in 1933 and 1934. A large 1938 fall migration heading north occurred south of Mayo in the MacArthur Range.
Fort Selkirk/Pelly	There were fall [heading south] and spring [heading north] migrations at Fort Selkirk in the 1930s, and fall movements in the 1930s at Pelly Crossing. The FMCH wintered south of Pelly Crossing in the winters of 1930 and 1932. During the spring sometime in the 1930s caribou were observed to the east of Pelly Crossing, possibly suggesting a wintering group further east.
Dawson Range	This appears to have been the main region for the FMCH in the 1930s. The herd wintered here extensively in the 1930s and was last seen in great numbers in 1937. Large post-calving aggregations were observed in the mountains in 1932 and 1933 and on the Yukon River downstream of Coffee Creek in the 1930s. Murie (1935, pp. 71, 73. Ref. #40) mapped some major fall migration routes coming off the junction of the Ladue River/White and extending SE into the Dawson Range.
Whitehorse	Tanner (1966) documented caribou in 1932. A 1933 winter distribution of Fortymile caribou from

Fish Lake extending as far as Rainy Hollow in B.C. was described by Smith. During the winter of 1936-37 the FMCH extended as far south as Lake Laberge and Takhini Crossing and were reported at Kluane Lake.

Table 6. Movements and occurrences of Fortymile Caribou, 1930 to 1939

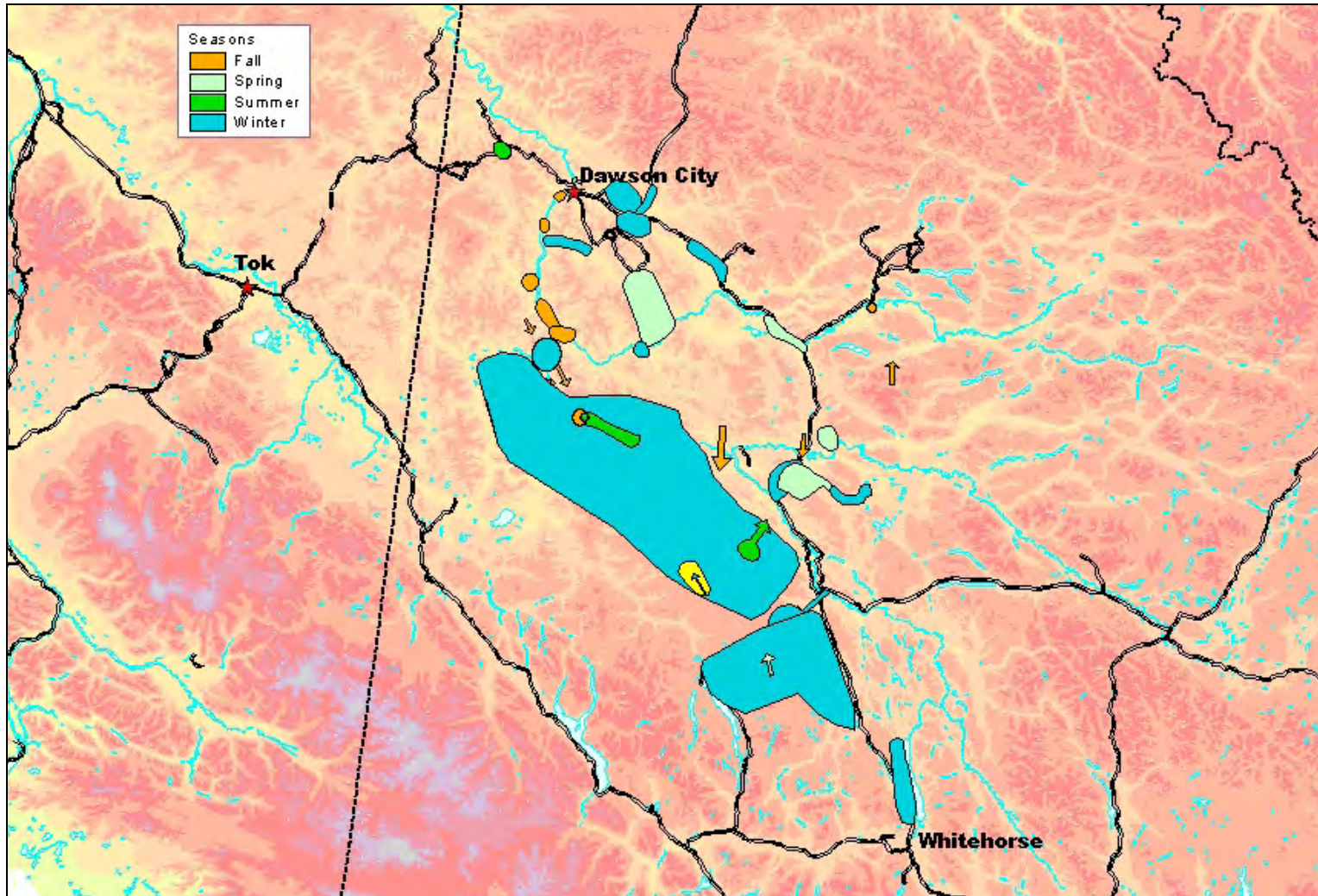
Year	Observation	Source
1924, 1932	Caribou seen in the Whitehorse area.	Tanner, 1966.
1930s	Caribou were observed in the 1930s in the Aishihik-Nansen-Little Buffalo Lake [Tacama] area near Carmacks (in the southeast part of the Dawson Range).	Luke Skookum, personal communication, 1990.
1930s	Thousands ran through Mayo, heading north, in October in the 1930s	William Profeit, personal communication, 1990.
1930s	Caribou could be seen lying on the lakes near Pelly in the spring during the 1930s	Dan Van Bibber, personal communication, 1990.
1930s	"...various crossings of the Yukon are well known ...others are near Eagle and Fortymile, as well as at points above Dawson... The main migration passes within a few miles of Eagle, and goes thence on into Yukon Territory, across the Sixtymile River, parallel with the Yukon River and principally on the south side... Above Dawson many local crossings, where caribou habitually swim the Yukon are known...It was reported that many caribou wintered in the hills near the mouth of the White River, in the Kluane River region, and elsewhere southeast of Dawson... It is known that caribou winter to some extent on Ladue Creek, along the upper White River, in the Chisana River region"	Murie, 1935, pp. 70-71. [Ref. #40]
1930s	Pauline LePage, in an interview, said that caribou were "streaming down those crossing hills by the hundreds" [Woodcutters Range]. When she first arrived in the area all the people "could talk about was steamboats and caribou".	Yukon Government, Heritage Branch, 1984.
1930s	A herd of a thousand caribou near Freegold Mountain in the Dawson Range during July.	Bostock, 1979. [Ref. #49]
1930s	Dan Van Bibber described a big herd coming through the Dawson Range near Mount Freegold and heading out towards the Yukon River above Minto in July.	Dan Van Bibber, personal communication, 1990.

Year	Observation	Source
1930s	Thousands of caribou in the winter southwest of Carmacks. "They came over the hill [Buffalo Mtn] and went as far as Aishihik. By March the caribou would take off north again."	Max Skookum, personal communication, 1990.
1930s	Mary Luke, May Roberts, and Frank Goulter reported lots of caribou southwest of Carmacks, from November and throughout the winter in the 1930s.	Personal communications, 1990.
1930s	Lots of caribou wintering from Fish Lake over to Rainy Hollow in the Haines Pass.	Elijah Smith, personal communication, 1990.
1930s	"The whole country is a hunter's paradise ... there are always plenty of caribou..."	Berton, 1933.
1930s	A bunch of caribou in early September a half day travel upstream of Dawson.	Bostock, 1979. [Ref. #49]
1930s	Many caribou headed north about 100 miles northwest of Whitehorse in spring.	Skoog, 1956.
1930s	From what we were told the caribou in the 1930s were scattered in bands of 10 to 200 in winter over the region of which the Dawson Range formed the backbone. On the northeast we found their trails as far as a general line through Mica Creek on the Pelly, lower Lake Creek on the Stewart and to Dominion Creek in the Klondike. Their trails were most common, widest, and most deeply worn along a zone extending from Rowlinson Creek, northwest to Selwyn River and thence across the Yukon between the mouths of the White and Stewart rivers, pointing towards the headwaters of Sixtymile River. All the well-worn trails ran northwest-southeasterly. In the spring they gathered together into herds and moved northwestward into Alaska... In July the caribou returned as we had seen them, grazed along the Dawson Range and then went back towards Alaska finally returning again to scatter over the general region in October for the winter."	Bostock, 1979, p. 80. [Ref. #49].
1931	Thousands of caribou in July at Coffee Creek.	Billy Jack, personal communication, 1990.
1932	Caribou wintered all over the lakes near Minto in 1932. Beaton (mail run)	Tommy McGinty, personal

Year	Observation	Source
	told him that the herd also wintered there in 1930.	communication, 1990.
1932	There were "hundreds of thousands" crossing the Yukon River just above Dawson, at the head of Swede Creek, heading southwest, in the fall of 1933, 1934 and 1936.	Laurent Cyr, personal communication, 1990.
1933	An August dispersal movement (July 21) of a herd of at least 10 to 15 thousand in the Dawson Range, near Mt. Nansen, that was traveling northwest, coming from the southeast, for three days. "...the big herds could be smelt from at least 20 miles away on a hot day".	Bostock, 1979, p. 79. [Ref. #49]
1933 to 1934	Thousands of caribou crossed the Stewart River, near Mayo west to east in 1933 or 1934. Residents slaughtered many caribou and some went under the ice.	Charlie Taylor, personal communication, 1990.
1934	There was a spring migration of caribou, through Moosehide, headed towards Alaska, in 1934.	[Percy, or Joe and Annie Henry?], personal communication, 1990.
1935	Caribou decreasing in numbers throughout Alaska.	Skoog, 1956.
1936	The FMCH "crossed the frozen Yukon River at Carmacks and reached Kluane Lake."	Tanner, 1966, p. 50. [Ref. #95]
1936	According to Jim Boss in the winter of 1936 "large numbers of caribou had appeared on the west shore of Lake Laberge and this was the first time they had been there for many, many years".	Bostock, 1979. p. 80. [Ref. #49]
1936	Marcel Bobillier said that, according to Mr. Coward, the caribou were at Fort Selkirk "by the thousands, all over in 1936."	Yukon Government, Heritage Branch, 1984.
1937	According to residents of Dawson, large numbers of caribou were last seen near Dawson about 1937, they came each fall before that time.	Skoog, 1956.
1938	Porsild had shot caribou near the mouth of the Sixtymile about 1938 that were definitely migrating.	Klassen and Jack, 1980. [Ref. #53]
1938	"Large caribou herds crossed the Yukon River near Selkirk every autumn, south and crossed back every Spring until 1938."	Arcand, 1966, p. 63.
1938 to	Thousands of caribou headed north down No Gold Creek in November 1938	William Profeit, personal

Year	Observation	Source
1939	or 1939.	communication, 1990.
1939	Many caribou in the vicinity of Indian River, 50 to 100 miles south of Dawson, during winter.	Skoog, 1956.

Figure 4. Range use by Fortymile Caribou, 1930 to 1939



1940 – 1959 (Second recovery)

Aerial surveys began during this time. The FMCH numbered 50,000 in the 1950s.

Table 7. Regional distribution, 1940 to 1959

Dawson/Boundary	The FMCH was observed here in the fall of 1944, 1956, and 1957. The herd wintered here in 1950, 1952 and 1953.
N.E. of Yukon River	A winter distribution in 1957. A summer distribution and fall movements in 1959.
Klondike River	The FMCH was only found here in the spring of 1958.
Sixtymile/Ladue	The FMCH wintered here extensively between 1950 and 1959. At the Yukon River-Stewart River junction, caribou were observed in the winter of 1940-41, and at the White River-Yukon River junction in 1944. In the spring and fall of 1943 to 1946, caribou were observed at the Stewart-Yukon junction.
Mayo	Up to 1945 caribou came through in small numbers.
Fort Selkirk/Pelly	In the fall of 1942 some caribou were hunted at Fort Selkirk.
Dawson Range	A summer observation of a thousand caribou in 1941.
Whitehorse	No observations.

Table 8. Movements and occurrences of Fortymile Caribou, 1940 to 1959

Year	Observation	Source
1940	A lot of caribou wintered near the mouth of the Stewart River, in a fifteen-mile area on both sides of the river.	Ole Lunde, personal communication, 1990.
1940 to 1941	Caribou quit coming through the Dawson Range before Snag was built [1940-1941].	Billy Jack, personal communication, 1990.
1941	A thousand or more caribou south of Mt. Cockfield, heading east, on June 28, 1941.	Bostock, 1979. [Ref. #49]
1942	Marcel Bobillier hunted caribou in November 1942 at Fort Selkirk.	Yukon Government, Heritage Branch, 1984.
1943 to 1946	During this time period, Athol Retellack was living at Stewart City and would see caribou floating down river on ice floes in the spring and fall.	Yukon Government, Heritage Branch, 1984.
1943	"The herd crossed the Yukon River above the mouth of the Stewart River, and traveled in a SE direction along the ridges between the Stewart and Yukon River. When Jeckell flew over area on Dec. 12 he observed the beaten trails of this migration. (must have consisted of a very large no. of animals."	Letter from G.A. Jeckell, to R.A. Gibson, January 13, 1944. [no source of reference]
1944	Charley Mason caught a caribou in a lynx snare on the trapline in the Twelvemile area.	<i>Dawson News</i> , April 20, 1944. [Ref. #52]
1944	Abundant near Dawson in late fall.	Skoog, 1956 (Milan).
1944	"...a large winter herd was seen at the confluence of the White and Yukon Rivers. According to one observer, it formed a block 1 1/2 miles long by 1 1/4 miles wide..."	Tanner, 1966, p. 50. [Ref. #95]
1945	Small groups of caribou were still crossing the Stewart River near Mayo up until 1945 in late September, early October.	Wilf Gordon, personal communication, 1990.
1947	Caribou were plentiful in the Nisling River in 1947 and there was good hunting.	Billy Jack, personal communication, 1990.
1940s to 1950s	Caribou wintered on Sixtymile and Ladue Rivers ...Cows usually migrate first.	Skoog, 1956.
1940s to	Caribou begin to move out of Fortymile region, and head up the Middle Fork	Skoog, 1956.

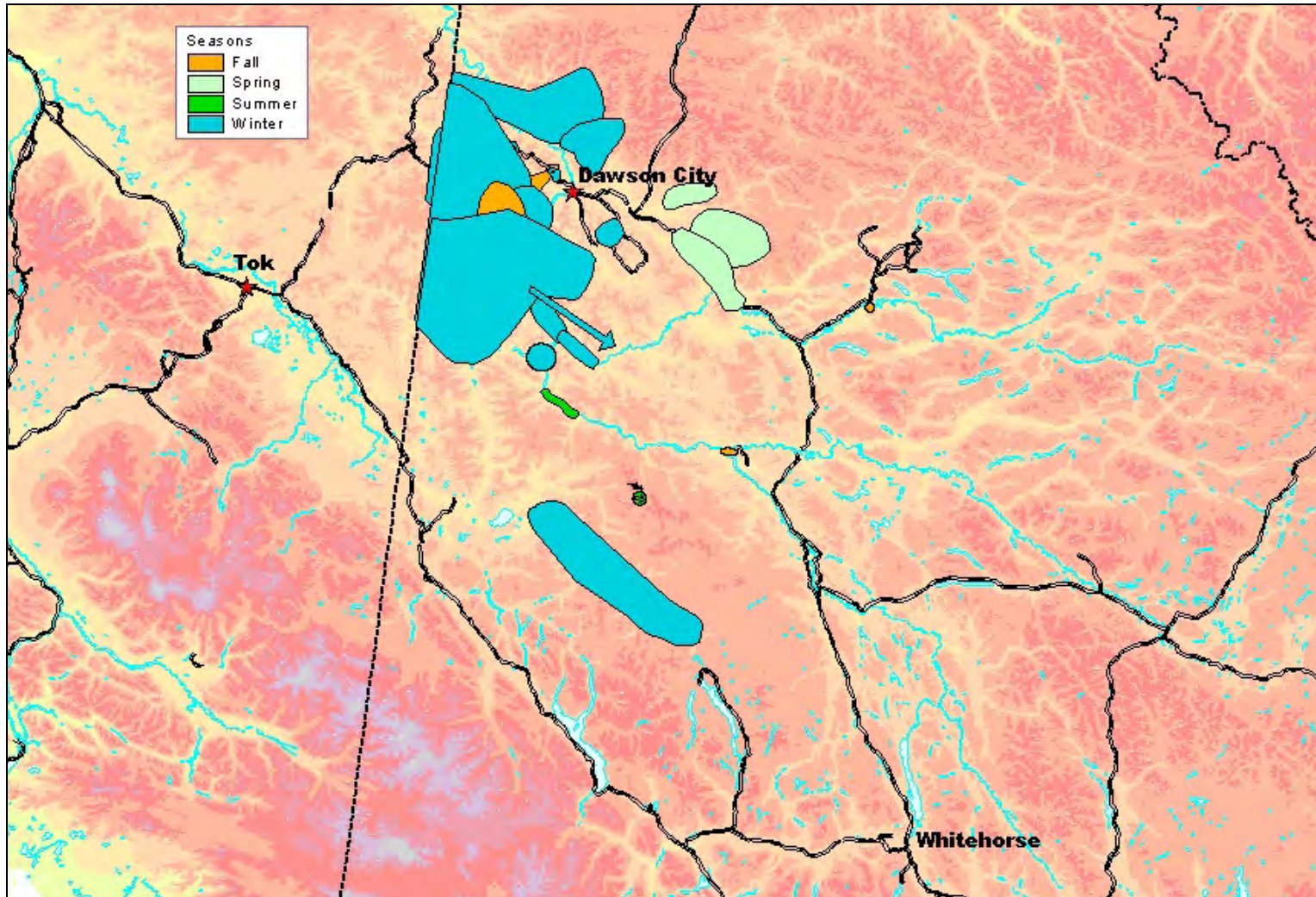
Year	Observation	Source
1950s	of the Fortymile River, as soon as the weather warms up in the spring.	
1940s to 1950s	The caribou that were in the Sixtymile area in the fall did not cross the Yukon River before the freeze up. The native harvest took place after freeze up and they brought meat to town with dog teams all winter.	Letter from Geo. E. King, Dawson, to Ray Woolford, Fish and Wildlife Service, Fairbanks, Alaska, Feb. 3, 1956. [Ref. #68]
1940s to 1950s	"From 18 to 24 July, the caribou moved south-east into Canada between Boundary and Chicken and then south to the White River and Sixtymile Country".	[Skoog's notes?]
1940s to 1950s	Caribou scattered in small bands and abundant tracking sign all through the hills on both sides of the Yukon from seven miles up the Stewart River to the Indian River. He observed few caribou between the Indian River and the 60 mile road, however local pilots and cat drivers said that caribou were scattered through this area during the winter.	Olson flight notes. [???
1940s to 1950s	"I haven't seen any caribou lately, but there still are a few crossing over on the Sixtymile road, and also between Gravel Lake and the McQuesten".	Letter by John Wren, Forestry Service warden, Dawson, March 1958.
1940s to 1950s	On an August 1st survey, Bedlake of the CWS observed a summer dispersal of 20,000 caribou fifty miles northeast of Dawson in the Seela Pass area heading north-northwest. These animals were believed to have crossed back into Alaska in the vicinity of the Seventymile River, later in the fall. By November, caribou had moved into the Alaskan-Yukon border area and along the Sixtymile and Ladue Rivers. Some groups wintered along the Sixtymile and Ladue Rivers.	[???
1950	"Hundreds" of caribou from Sixtymile to the 24 mile post.	<i>Dawson Weekly News</i> , Dec. 14. 1950. [Ref. # 58]
1952	Caribou in Canada during early spring; began moving into Alaska again in mid-April.	Skoog, 1956.
1952	The caribou have been straddling the border west of Dawson from fall to Dec 18. [Fortymile to Border].	Letter from R.F. Scott, Biologist, Fairbanks, Alaska, to David Munro, Department of Zoology,

Year	Observation	Source
		UBC, Vancouver, December 18, 1952. [Ref. #59]
1953	"Thousands of caribou roaming the hills trekking northward, 12 miles out on the 60-Mile Road." Harry Sogoff reported.	<i>Dawson Weekly News</i> , Jan. 1, 1953. [Ref. #60]
1954	Much of the herd remained in Fortymile-Sixtymile country during summer. There was an August to September migration northwest-ward across the Taylor.	Davis et al., 1978. [Ref. #99]
1954	From April to December 1954, the FMCH made 2 1/2 round trips from the Sixtymile River in Canada to the Steese Highway a total of about 1,500 miles.	Skoog, 1956.
1955	"October 14-31: most of herd crossed Taylor between mileposts 6 and 112 headed southeast into Canada. December: Herd settled in Fortymile and Sixtymile regions for the winter".	Skoog, 1956.
1955	The Tok enforcement agent, Pinkham, reported "a considerable number of caribou, mostly bulls, wintering in the Ladue River-Sixtymile River country below the Taylor Highway". The fall migration across the Taylor highway moved eastward following the Dennison and South Forks, across the divide to the west side of the Sixtymile River. A group of 10,000 turned back northwest in November and later wintered in the hills above the Fortymile River and the Taylor highway". The bulk of the herd though wintered somewhere in Canada."	"Job No. 2-b... Mgt. Studies Alaska Caribou Movements, Distribution, and Numbers", [1955?]. [Ref. #65]
1955 to 1956	Burien notes that during the winter of 1955/1956 a few caribou came into the area at the mouth of the Stewart River in the late fall but they did not winter there.	Field notes [by Olson and Burkholder] – "Caribou reconnaissance Steese-Fortymile Herd, Dawson and vicinity, Yukon", March 1957. [Ref. #70]
1956	"March 29: 2000 near Dawson moving slowly west."	Skoog, 1956.
1956	"November: many near Dawson and in Sixtymile area; followed the Yukon River south-ward. Apparently remained for the winter."	Skoog, 1956.

Year	Observation	Source
1956	"October 17: many caribou in Sixtymile area."	Skoog, 1956.
1956	"Many caribou near Dawson in early November; some on Bonanza Creek."	Skoog, 1956.
1956	50,000 to 65,000 caribou had moved into Canada from the Fortymile area during the fall migration. The herd was in the vicinity of the Sixtymile River near the Old Ogilvie Village above Dawson.	Letter from Sig Olson, Wildlife Management Biologist, Fairbanks, Alaska, to Joe Bryant, Canadian Wildlife Service, Aklavik, N.W.T., February 9, 1956. [Ref. #67]
1956	300 caribou killed in Dawson in the 1956 hunting season	Field notes [by Olson and Burkholder] – "Caribou reconnaissance Steese-Fortymile Herd, Dawson and vicinity, Yukon". March 1957. [Ref. #70]
1956	Callison, a local Dawson pilot reported a fall migration beginning in early October into the 60 mile River. The caribou crossed the Yukon and spread out over the hills between the Stewart River and the Twelvemile River.	Field notes [by Olson and Burkholder] – "Caribou reconnaissance Steese-Fortymile Herd, Dawson and vicinity, Yukon". March 1957. [Ref. #70]
1957	"It is noted that the migration this year appears much smaller than last year and if this trend continues, it may be necessary to consider closing the season entirely or reducing the number of caribou that can be legally taken".	Letter from J.T. Parsons, RCMP, Whitehorse, to RCMP, Dawson, August 22, 1957. [Ref. #79]
1957	According to Burien, the store keeper at Stewart River this was the first time in 14 years that large numbers of caribou have wintered in this area [mouth of Stewart]. Olson estimated a minimum of 5000 caribou in the Chandindu River drainage [12 mile] in groups sizes of 5 to 300 on the high ridges and hills.	Field notes [by Olson and Burkholder] – "Caribou reconnaissance Steese-Fortymile Herd, Dawson and vicinity, Yukon". March 1957. [Ref. #70]

Year	Observation	Source
1957	Caribou checking station, Dawson City. 175 harvested - total did not exceed 200 by January 1958.	Fuller, W.A. "Caribou Checking Station, Dawson City, Yukon," October 1957. [Ref. #75]
1957 to 1958	FMCH movement to the calving area was later than usual? in 1957 or 1958	[???
1958	Caribou dribbling back across the Yukon above Dawson, especially near the mouth of the Sixtymile. Very little sign below Dawson as yet.	Letter from Bill Fuller, Canadian Wildlife Service, Whitehorse, to Sig [Olson, U.S. Fish & Wildlife Service], April 14, [1958?]. [Ref. #82]
1958	93 caribou between Lee Creek and Aussie Creek, on a helicopter survey on March 21, 1958. There was no sign in the Hamilton Creek area. Another 71 caribou and abundant sign in the Klondike-Clear Creek divide. There was no fresh sign of caribou in the Sixtymile, despite occasional local sightings of animals crossing the road in twos and threes. He felt small numbers were still present around Hunker Summit and King Solomon's Dome.	Fuller, W.A. "Report on Dawson Caribou", [April 14, 1958?]. [Ref. #82]
1958 to 1959	"Most of the herd spent the 1958-59 winter in Canada".	Davis et al., 1978, p. 2. [Ref. #99]
1959	Most of the herd remained in Canada during the calving season. Jones believed the largest number of cows calved in the Yukon.	Jones, 1960.

Figure 5. Range use by Fortymile Caribou, 1940 to 1959



1960 – 1975 (Third decline)

By 1960 the herd had grown to about 60,000 (Skoog, 1968). The human harvest level increased along with a high wolf population, contributing to a population decline. The FMCH reached a historic population low of 6,500 animals in 1973.

The FMCH ranged in the Dawson area during 1965 to 1970. Fall migration movements were documented in the Sixtymile and Fortymile areas in 1970. In 1974 a local miner described summer observation of caribou on the Sixtymile drainage. Caribou were not reported in the Yukon after 1974.

Table 9. Regional distribution, 1960 to 1975

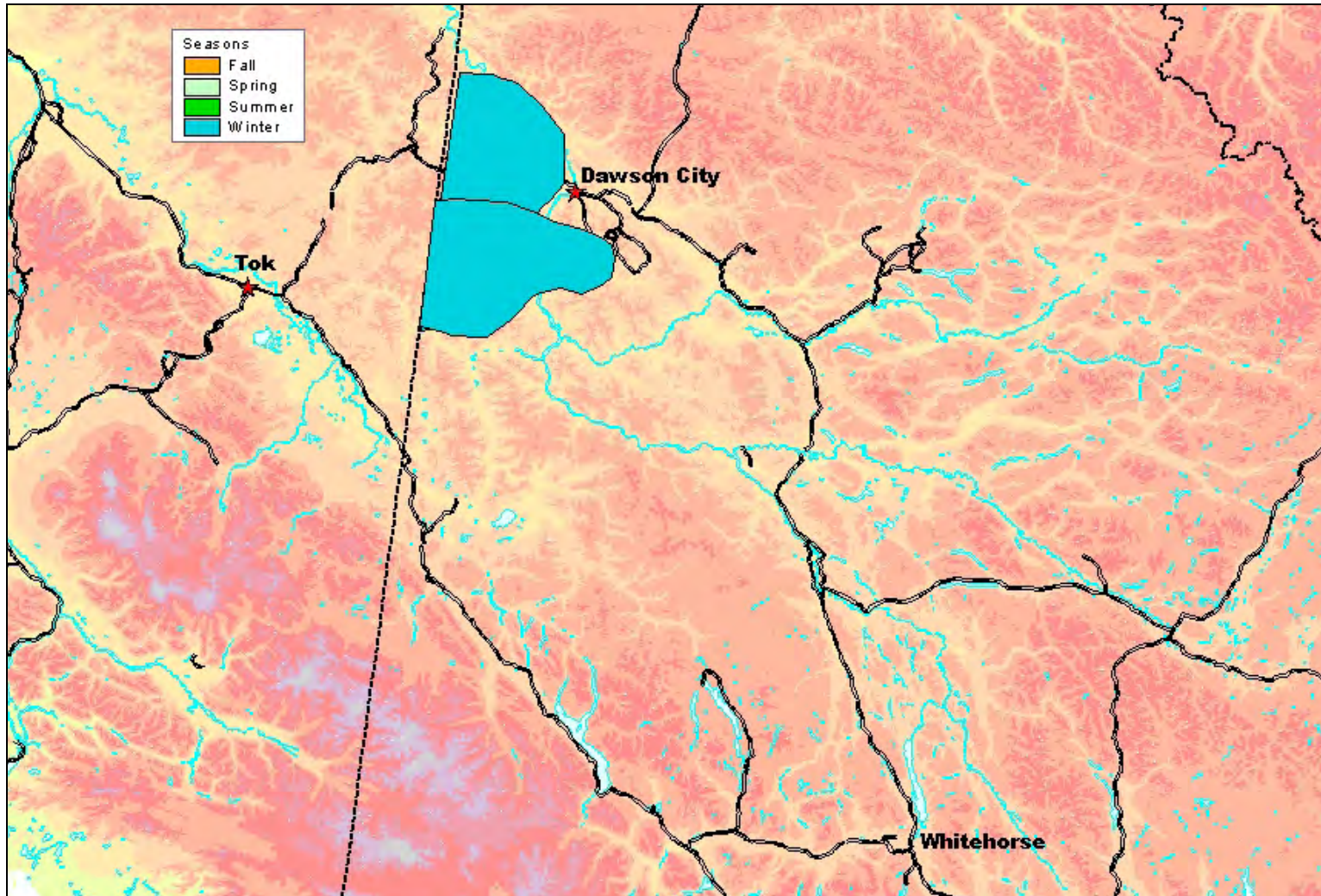
Dawson/Boundary	The FMCH was observed here in the winters of 1965 to 1970 [inclusive?].
N.E. of Yukon River	A winter distribution in 1957. A summer distribution and fall movements in 1959.
Klondike River	No observations.
Sixty-mile/Ladue	The FMCH wintered here extensively between 1960 and 1970. There was a summer observation in 1974 southwest of the Sixtymile River.
Mayo	No observations.
Fort Selkirk/Pelly	No observations.
Dawson Range	No observations.
Whitehorse	No observations.

Table 10. Movements and occurrences of Fortymile Caribou, 1960 to 1975

Year	Observation	Source
1960	The calving segment of the herd moved out of Canada to the White Mountains arriving in early May. By early November the herd had crossed the Taylor Highway and entered the Yukon by the Ladue and Sixtymile Rivers.	Jones, 1962.
1961	A large segment of the FMCH did not cross the Steese Highway in the spring and "are believed to have calved somewhere south of the highway, possible even as far as into Yukon Territory".	Letter from Robert A. Rausch, Department of Fish and Game, Alaska, to J.B. Fitzgerald, Game Department, Whitehorse, December 4, 1961. [Ref. #87]
1961	The main herd was not located during the 1960-61 winter but it was believed to have wintered south of Dawson and east of the Yukon.	Jones, 1962.
1962	Few caribou were harvested on the Sixtymile Road as the ferry was pulled out early at Dawson City.	Letter from J.B. Fitzgerald, Game Department, Whitehorse, to Jim B. Whelan, Department of Fish and Game, Tok, Alaska, March 11, 1963. [Ref. #89]
1963	The FMCH wintered in the Ladue-Sixtymile River area east of the Yukon River in 1962-1963.	Skoog, 1968.
1964	In December-January, the easternmost part of the herd crossed to Ladue River.	Davis et al., 1978. [Ref. #99]
1965	Scattered small bands of caribou were present as far east as the Lower Ladue River in Canada during Jan to late March. A group of approximately 5000 animals separated from the main herd on the North Fork of the Seventymile and moved into the Sixtymile River area of the Yukon in August.	McGowan, 1966.
1966	From August 5 to 10, probably 5 to 10,000 animals crossed the Taylor Highway between Mile 100 and 145 heading southeast into the Lower Fortymile and upper Sixtymile drainages. These animals returned west in	(Glenn, 18) [??? flight report]

Year	Observation	Source
	late August to re-cross the Taylor Highway.	
1968	On February 23, 1968, Wood observed scattered trails at the Canadian border at the Yukon River heading towards the Seventymile drainage.	[???
1970	Old trails leading into Canada from the Boundary area during an October 25 flight.	[Caribou Observation Forms by Larry Jennings, Tok, Alaska], 1970. [Ref. #98]
1970	The Canadian Wildlife Service reported several thousand caribou north of Dawson in August.	[???
1972	Suggests that the majority of the herd might have wintered in the Ladue River/Walker Fork area determined by the October and November direction of movement.	Davis et al., 1978. [Ref. #99]
1974	Most of the FMCH wintered along the South Fork of the Ladue River	Davis et al., 1978. [Ref. #99]
1975	"A more southeastern distribution probably occurred during the winter of 1974-75."	Davis et al., 1978. [Ref. #99]

Figure 6. Range use by Fortymile Caribou, 1960 to 1975



1976 – 1991 (Third recovery)

The FMCH increased from 6,500 in 1973 to 22,000 in 1990.

Conservative caribou hunting seasons, a natural decline in wolf numbers in the mid-1970s and a wolf control program (1981 to 1983) helped to reduce the mortality and promoted herd growth.

The FMCH was not observed in the Yukon between 1976 and 1984.

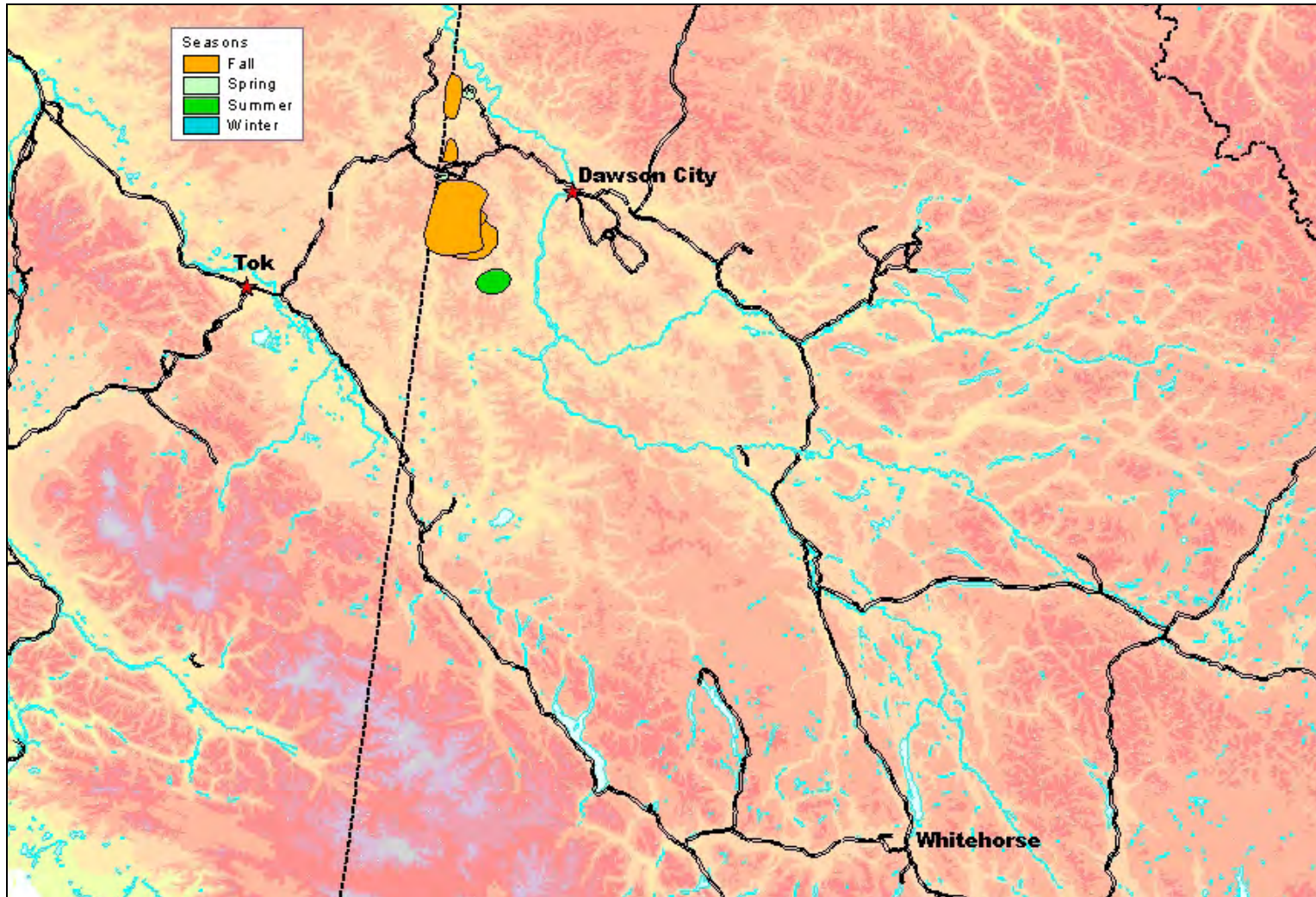
Table 11. Regional distribution, 1976 to 1991

Dawson/Boundary	Fall migrations and rutting groups were in this area in 1985, 1989, and 1990. Some sign was observed in the spring of 1986.
N.E. of Yukon River	No observations.
Klondike River	No observations.
Sixty-mile/Ladue	Some animals spent the fall here in 1985 and 1990.
Mayo	No observations.
Ft. Selkirk/Pelly	No observations.
Dawson Range	No observations.
Whitehorse	No observations.

Table 12. Movements and occurrences of Fortymile Caribou, 1976 to 1990

Year	Observation	Source
1984	"The herd wintered throughout the Fortymile River drainage, and some caribou ventured as far east as western Yukon Territory" during the winter of 1984-85.	Kelleyhouse, 1986, p. 34. [Ref. #103]
1985	In the fall of 1985, 5 radio-collared FMCH animals and lines of trails were located in the Yukon, west of the Sixtymile River during mid October. He described a late October movement back NW into Alaska.	Valkenburg, 1985 flight sheet. [Ref. #101]
1986	The following spring of 1986, tracking sign of about 50 animals was observed in the abandoned Clinton Creek mine site area and trails, south of the Top-of-the-World Highway, heading into Alaska, suggesting that caribou had wintered in the area.	Russell, John. [Handwritten note], March 27, 1986. [Ref. #104]
1989	The YTG Dept. of Renewable Resources conducted a moose survey west of Dawson in November 1989 and observed a minimum of 200 FMCH caribou during their stratification survey flights. The caribou groups and tracking sign were observed in the Baldy Mountain area north of the Top-of-the-World highway and the Mount Nolan and Crag Mountain areas west of the Sixtymile River.	Report by B. Gilroy, October 30-November 7, 1989. [Unpublished file report. Yukon Department of Renewable Resources, 4 pp.]
1990	Also on October 19, 1990 YTG Renewable Resources conducted a radio-tracking flight to locate collared FMCH animals. 14 collared individuals were located generally with high level fixes and tracking sign was recorded in the Crag Mountain and Mount Nolan area, near the Alaska-Yukon border. The caribou had not crossed the Yukon River.	Memo from Bruce Gilroy, Yukon Department of Renewable Resources, Whitehorse, to Patrick Valkenburg, Alaska Department of Fish and Game, October 22, 1990. [Ref. #113]

Figure 7. Range use by Fortymile Caribou, 1976 to 1990



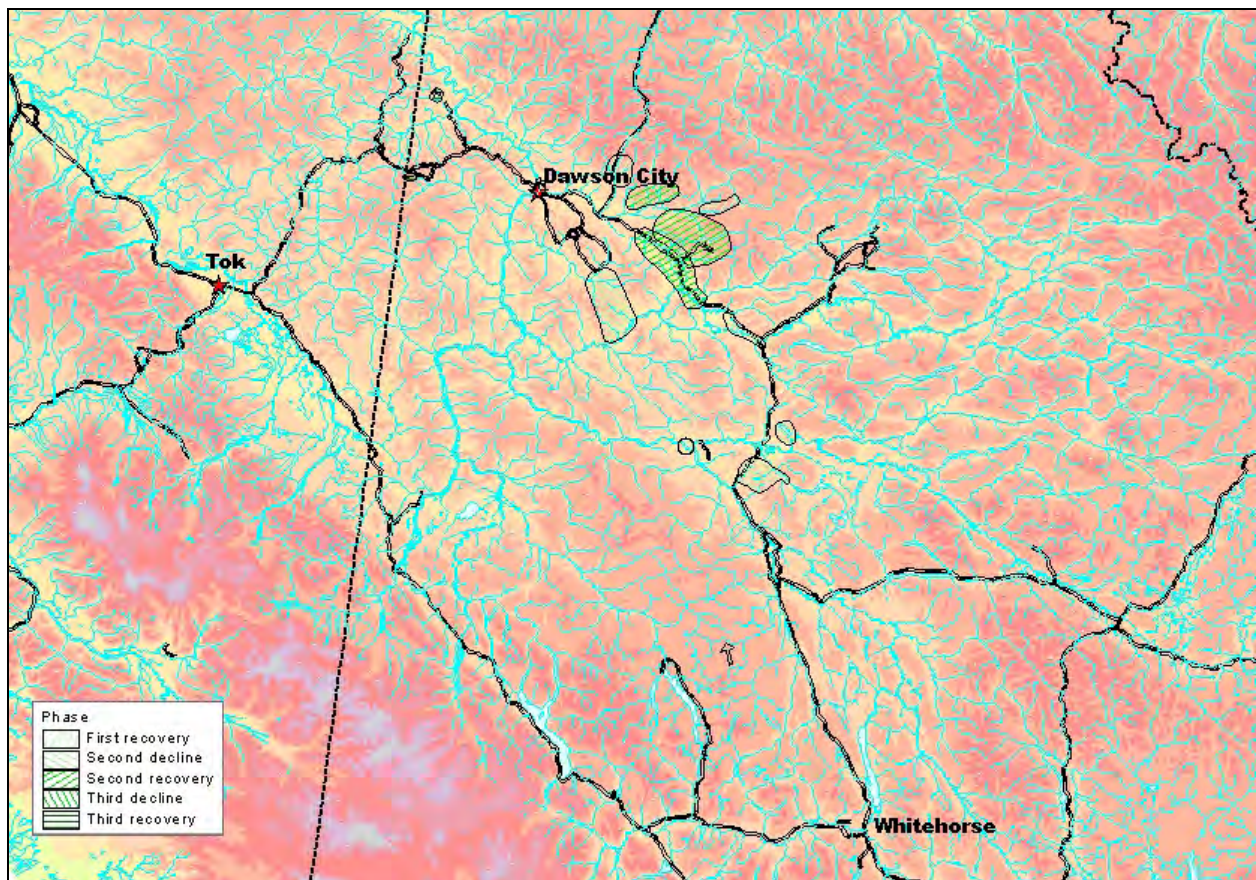
DISCUSSION

Seasonal Range Use

Spring and calving range use

There was one observation of calving in the Yukon documented in 1959. Post-calving groups were reported in 11 years. Half of those observations were during the second decline and recovery (1930 to 1959).

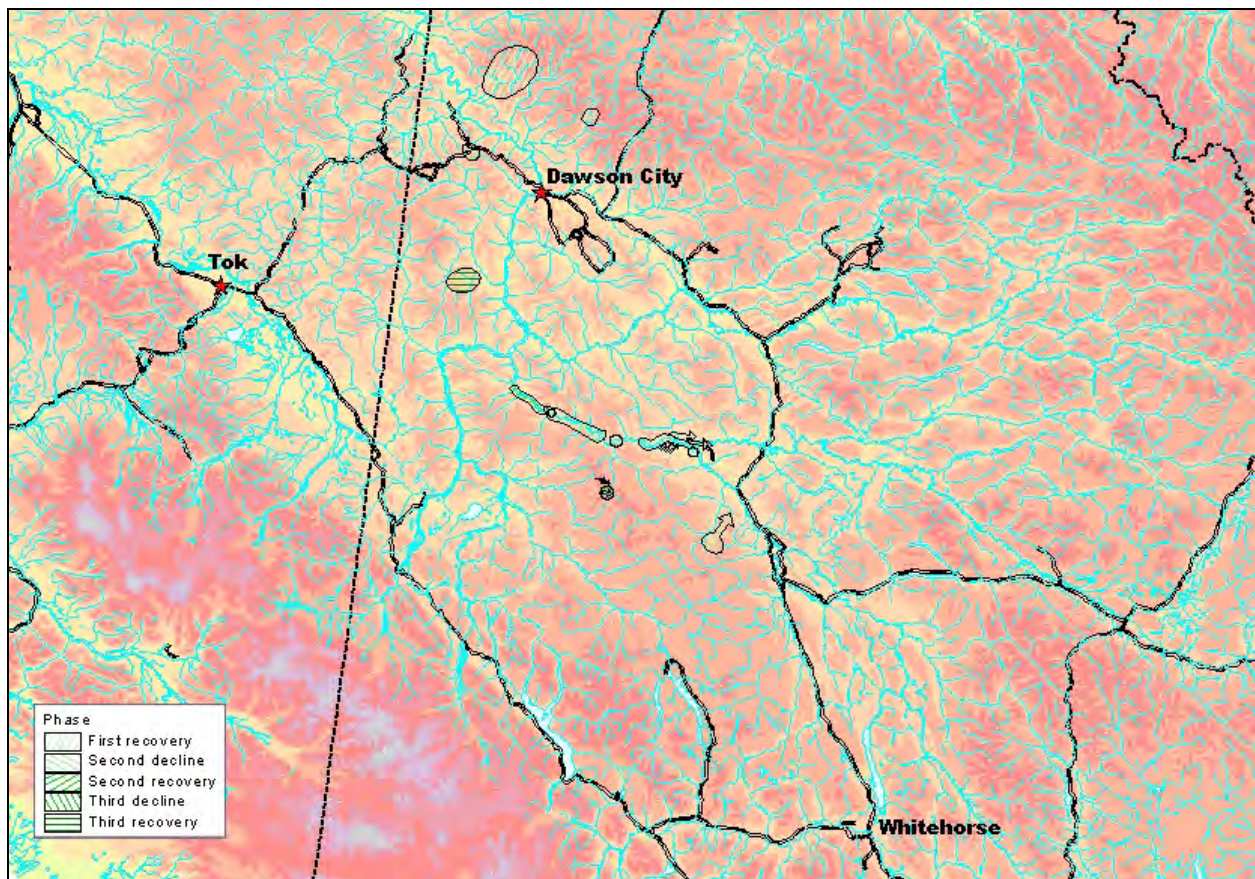
Figure 8. Spring range use, 1900 to 1990



Summer and post-calving range use

The large post-calving aggregations observed in the 1920s and 30s in the Yukon can be compared to the present PCH. The summer photos of large groups with velvet antlers indicate movement and dispersal of post-calving aggregations into Yukon much like the PCH. The chances for observations in the mountainous summer ranges in Yukon is slight as these areas were not traveled or occupied by many people except for occasional geologists.

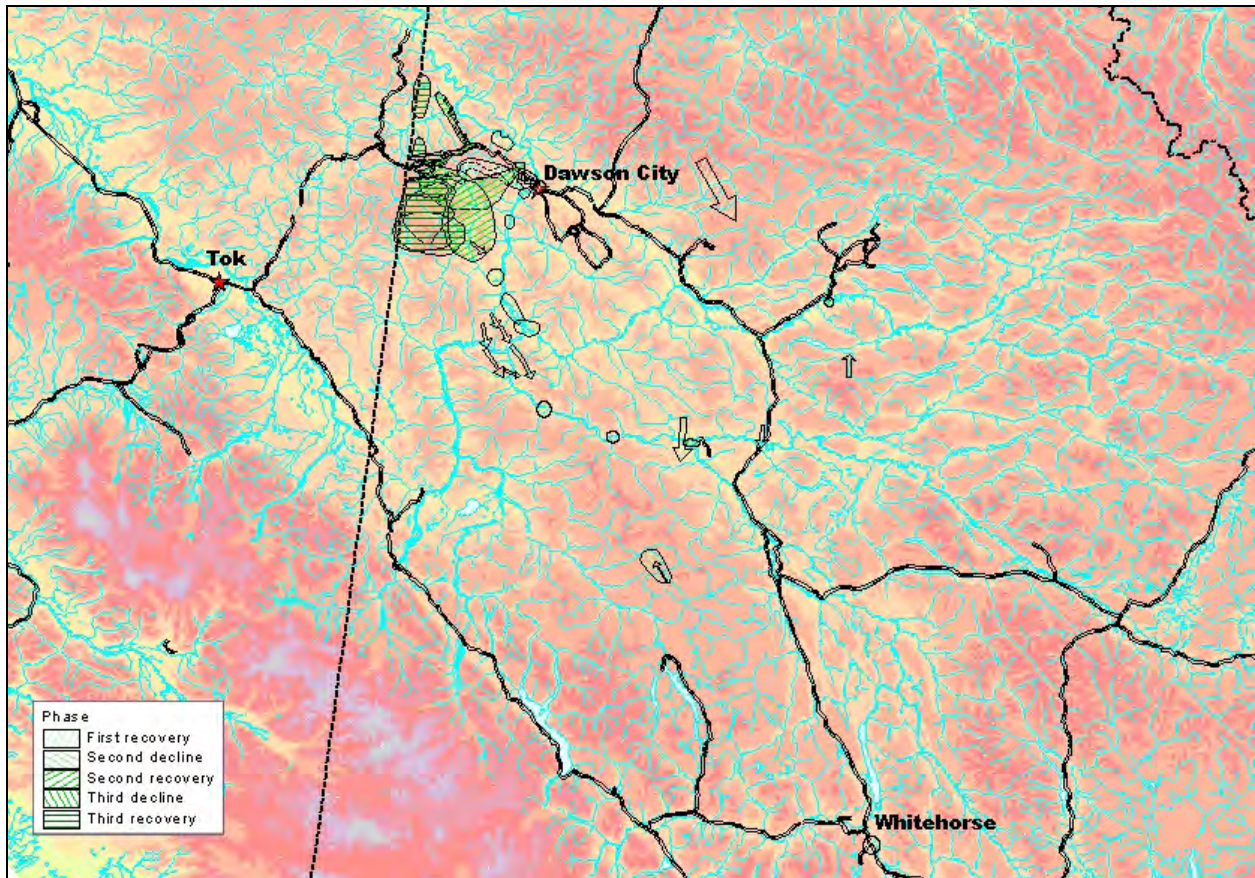
Figure 9. Summer range use, 1900 to 1990



Fall migration and rut range use

There were 49 observations of fall occurrences recorded during all phases of herd size however 24 were made starting in 1940 but ending in 1957 of the second decline and recovery. Typically fall migrations were South-East movements into Canada from Alaska. Caribou weren't seen again until 1970, then again in the late 1980s.

Figure 10. Fall range use, 1900 to 1990

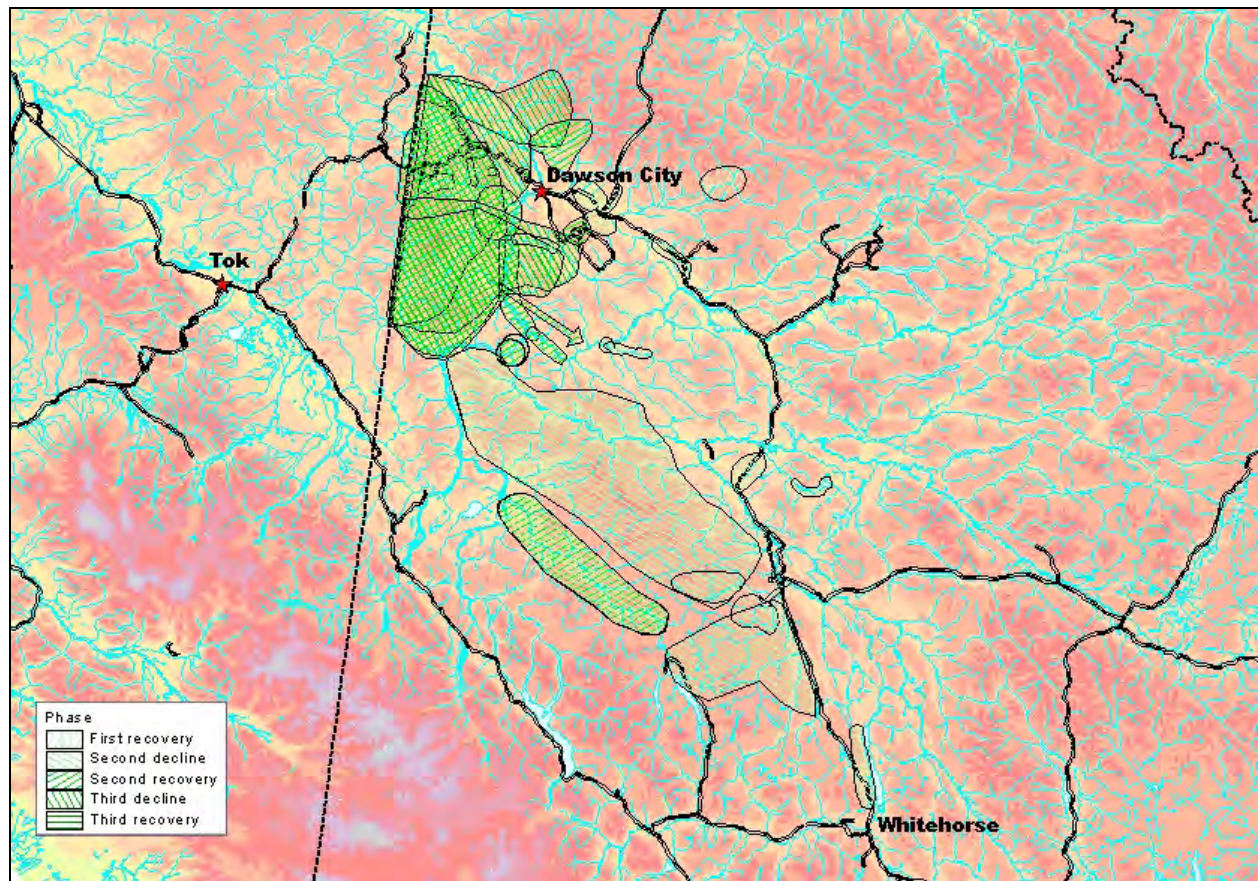


Winter range use

Only 40 observations were made in winter but it is during winter when the most extensive distributions of caribou in the Yukon were recorded. Again, the majority of observations were made during the second decline and recovery of the herd (1940 but ending in 1957).

The Ladue River - Sixtymile River area is an important winter range. Glen (1967) [??? There is a Glenn referred to in 1966 on p. 35 but nothing in bibliography] described the Ladue River area as "generally hilly and low-lying with extensive lichen cover". He observed extensive use of the white spruce bottomland and black spruce hillsides by the caribou.

Figure 11. Winter range use, 1900 to 1990



Total Range Use

There is some question on the SE boundary of the FMCH distribution in the Yukon.

Figure 12. Total range use by Fortymile Caribou, 1900 to 1990

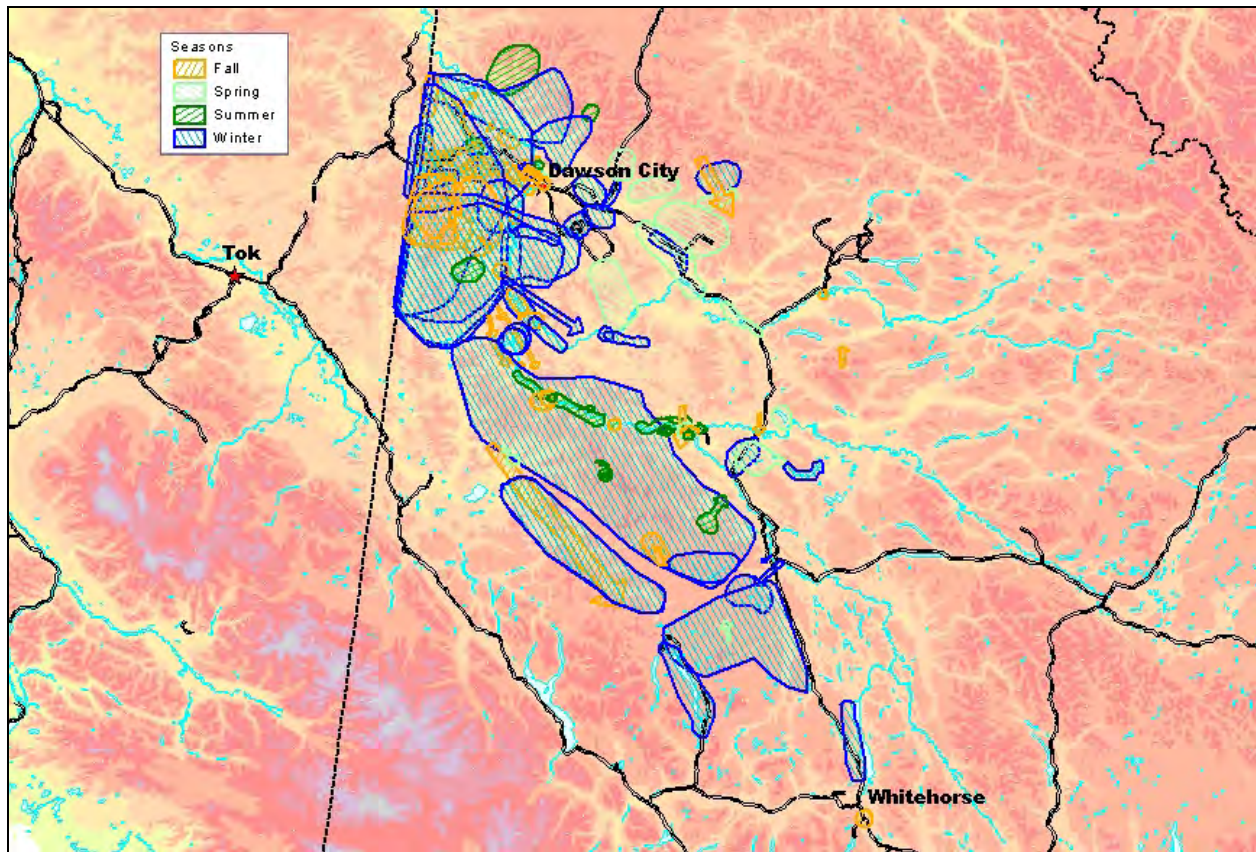


Figure 13. Former range of the FMCH

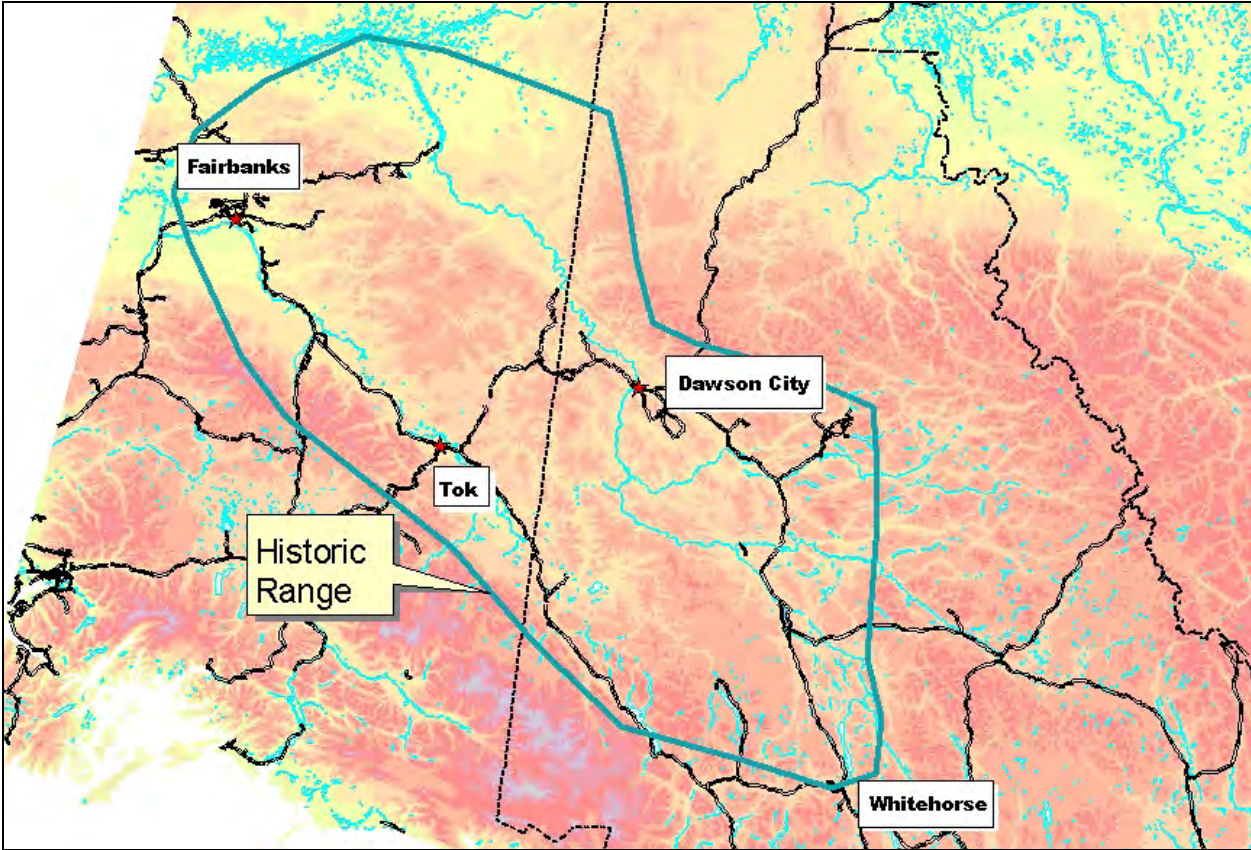
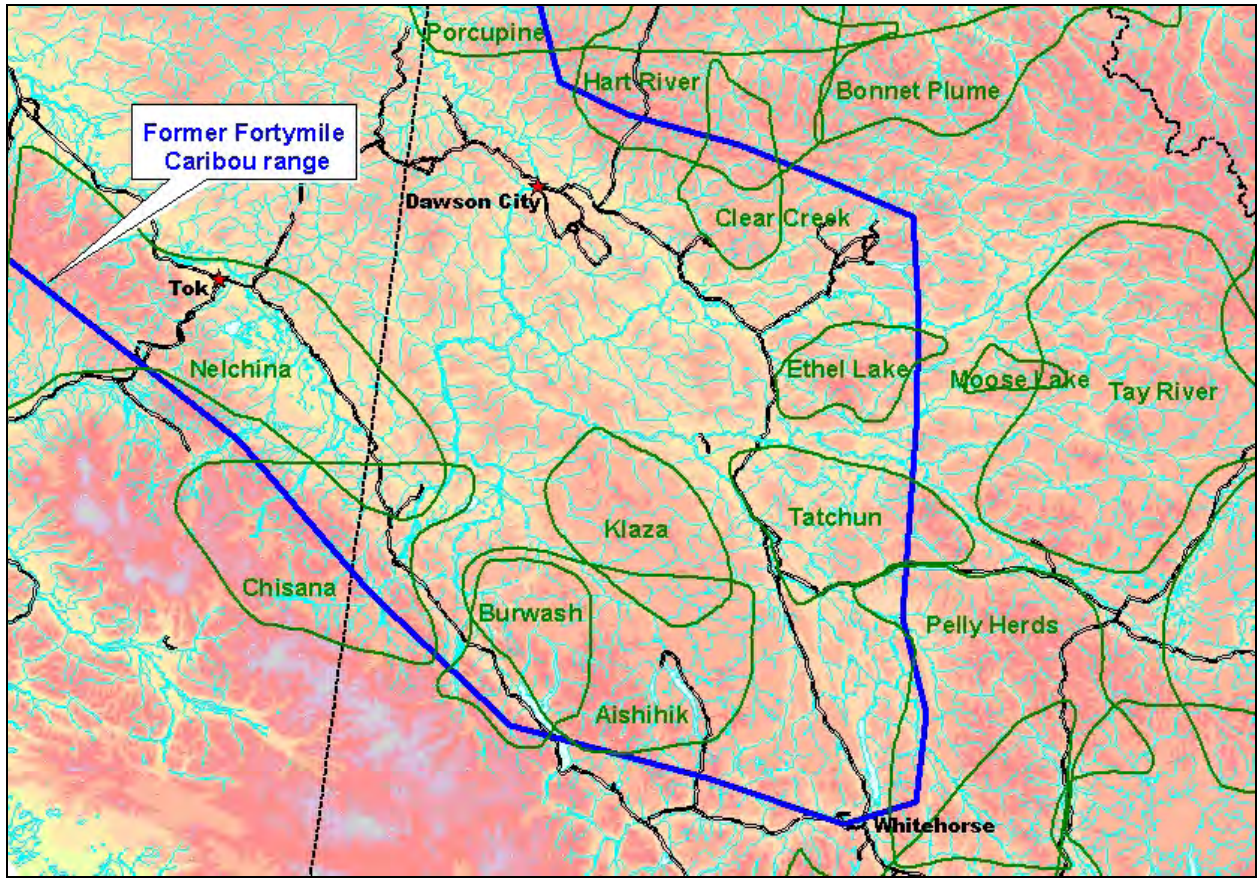


Figure 14. Former range use of the FMCH compared to current range use by adjacent herds



Missing information

Geist [???] has Bostock's wildlife maps, which might provide further FMCH information. The following First Nations were not contacted, nor were residents from these communities interviewed: Carcross and Kluane-Aishihik (due to time constraints). More information on the southern range of the FMCH in the Yukon may come from such interviews.

Some long-time residents have not retired in the Yukon and therefore could not be reached for an interview.

The archival information relied on accounts by people living in the area usually near the main towns. Travel along the Yukon River occurred in summer by steamboat and winter by dogsled, allowing for observations after breakup for the summer and then winter observations. Few people except for geologists frequented the mountain systems where the FMCH would be found in the summer or during the rut.

This exercise attempts to combine stories and science to produce the former range of the FMCH in Yukon.

Problems

The interview information depended on people's memories for specific years or time periods and for the calendar period. Relative abundance of the caribou varies with each observer; one person might describe hundreds of caribou while another would suggest thousands or even millions.

It was difficult to delineate the distribution when the archival information describes the headwaters of a river and resulted in a broadly circled area to encompass all the tributaries. Many taped interviews mentioned caribou without specific dates.

The information written by the observer was usually limited in scope unless communication was good with land people to get an overall view.

CONCLUSIONS AND RECOMMENDATIONS

1. Ladue River - Sixtymile - Fortymile is a multi-range use area. It is a fall migration route, rutting area and winter range, and possibly, but not documented summer range.
2. The Top of the World Highway accesses the open sub-alpine habitat that provides an important rutting area. The road has allowed access by hunters to harvest FMCH animals during the late fall, rut and early winter before the ferry is pulled out.
3. The Dawson Range was an important winter and summer range in the 1930s during a population high. It has been 50 years since the FMCH inhabited this area and lichen regeneration has probably occurred. This area has a small population of woodland caribou (Klaza herd). The southeast part of this area is currently being developed by mining. A possible road joining the Dawson Range to the White River/Snag would increase access across a broad front if the herd re-occupies this former range.

The FMCH deserves considerable attention of people to allow it to return to its historical range in the Yukon. It would be a remarkable wildlife management achievement to bring back the herd that is only in Yukon people's memories.

Recommendations for further interviews

Interviews should be conducted with a community representative, who could locate people and perhaps set up the interviews ahead of time. Also an interpreter would have been useful for certain individuals who spoke mainly their native language.

A second interview of some residents would clear up some questions raised after all the information was collected.

Perhaps a questionnaire could be developed for long-time residents who no longer live in the Yukon.

A newspaper advertisement soliciting information on the FMCH might have produced more people to interview, or other photos or diaries.

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We wish to thank the many residents in the Yukon who related valuable observations on caribou:

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Mr. Laurent Cyr	Mr. Walter DeWolfe	Mr. Dick Gillespie
the late Mr. Wilf Gordon	Mrs. Jean Gordon	Mr. Frank Goulter
Mrs. Mary Hager	Mr. Joe Henry	Mrs. Annie Henry
Mr. Percy Henry	Mr. Louis Irvine	Mrs. Peggy Kormendy
the late Mrs. Mary Luke	Mr. Ole Lunde	Mr. Tommy McGinty
Mr. Sam Peter	Mr. George Peter	the late Mr. William Profeit
Mr. Archie Roberts	Mrs. May Roberts	the late Mr. Elijah Smith
Mr. Max Skookum	Mr. Charlie Taylor	Mr. Dan Van Bibber
Mr. Newton Webster	the late Mr. Ed Whitehouse	

Also we thank Dr. Hugh Bostock for kindly sharing his time for an interview, during his trip to Whitehorse for the GeoScience Forum.

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Blackjack, Clyde	Life resident of Carmacks.
Bostock, Hugh	Geologist
Cameron, Gordon	RCMP at Mayo and Keno (1925, 1927-28) and Ft. Selkirk (1935-49).
Charlie, Wilfred	Life resident of Carmacks, trapper and dog musher.
Cyr, Laurent	Worked on steamboats 1933-36
DeWolfe, Wilfred	Long-time resident of Dawson City.
Gillespie, Dick	Life resident of Dawson
Gordon, Wilf	Long-time resident of Mayo, trapped in Granville area in the 30s and 40s.
Goulter, Frank	Long-time resident of Carmacks.
Hager, Mary	Long-time resident of Mayo.
Henry, Joe and Annie	Long-time residents of Dawson
Henry, Percy	Long-time resident of Dawson
Irvine, Louis	Long-time resident of Whitehorse. Trapper. Operated the stage mail run.
Jack, Billy	Long-time resident
Kormendy, Peggy	Life resident of Dawson
Luke, Mary	Long-time resident of Carmacks
Lunde, Ole	Long-time resident of Dawson, operated a sawmill
McGinty, Tommy	Long-time resident of Pelly Crossing
Peter, George	Long-time resident of Carmacks ran dog team for RCMP, worked 5 summers on the sternwheelers.
Peter, Sam	Long-time resident of Mayo
Profeit, William	Long-time resident of Mayo, Dawson, and Whitehorse.
Roberts, May	Life resident of Carmacks
Roberts, Archie	Life-resident of Dawson City
Sam, Kathy	Resident of Carmacks
Smith, Elijah	Life resident of Whitehorse area.
Skookum, Max	Life-resident of Carmacks
Taylor, Charlie	Operated store in Mayo
Van Bibber, Dan	Long-time resident of Pelly Crossing, trapped, fished, and hunted in area.
Webster, Newton	Long-time resident of Dawson
Whitehouse, Ed	Long-time resident of Dawson City. 37 years with Dept. of Highways.

APPENDIX A. Example interview form

Person Interviewed: _____ Age: _____ Eye No: _____
 Date / Place: _____ Other people to interview: _____ Bell # / Photo #: _____
 How many years in area: _____
 Place Lived _____
 Year Season _____
 Activities: _____

MAP tick	WINTER		SPRING	CALVING		MOVEMENT	SUMMER		FALL		YEAR / COMMENT <input type="checkbox"/> first remember seeing Caribou <input type="checkbox"/> movement in d. to <input type="checkbox"/> direction of herd <input type="checkbox"/> river crossings <input type="checkbox"/> group size - composition <input type="checkbox"/> hunting areas <input type="checkbox"/> fires <input type="checkbox"/> mineral licks <input type="checkbox"/> predators <input type="checkbox"/> native fences <input type="checkbox"/> disease <input type="checkbox"/> moose abundance <input type="checkbox"/> location of small or antlers <input type="checkbox"/> cracked areas <input type="checkbox"/> adverse weather conditions - hot winters <input type="checkbox"/> last year of large herds seen <input type="checkbox"/> unusual movements <input type="checkbox"/> diaries, photos, letters? <input type="checkbox"/> native names <input type="checkbox"/> info from other people <input type="checkbox"/> what do you think happened to caribou? <input type="checkbox"/> can use info in report <input type="checkbox"/> tapes to archives - yes - no				
	Early	Mid Lk	MIGRATION	Pre	Post		Early Lk	Late	MIGRATION	Early					
	16 Nov - 31 Dec	16 Jan - 10 Feb	16 Mar - 15 Apr	16 Apr - 5 May	6 May - 15 May	16 May - 25 May	26 May - 5 June	June 6 - 15	June 16 - 30	July 1 - 20	21 July - 25 Aug	26 Aug - 20 Sept	21 Sept - 15 Oct	16 Oct - 15 Nov	

APPENDIX B. Other information gathered

Human Activity

The range of the FMCH in the Yukon was affected by human activity. Market hunting during the Fortymile and Dawson Gold Rush led to significant fall and winter harvests to feed miners.

Harvest

Year	Observation	Source
1897	“Considerable fresh meat was taken into Dawson by various individuals last fall. Beef cattle were driven in over the Dalton trail slaughtered at Pelly River, and the meat rafted down to the Klondike. Several hundred head of sheep were also brought through to the camp. Two rafts loaded with beef were stranded some distance above Dawson, but most of the meat has been sold, not more than 10 or 12 beeves remaining at either point. Numbers of caribou were slaughtered upon the Upper Klondike early in the winter, when a large herd of the animals passed on their annual migration. Some 40 moose were also killed in the same vicinity. There is at present little or no meat upon the Yukon above Big Salmon River.”	Wells, 1964, p. 516.
1898	On board the S.S. Islander between Seattle and Vancouver, en route to Dawson City, March 19, 1898: “I bought a shot gun and 100 shells just before I started. They say there is considerable game up in that country and I am afraid I would have to shoot too many times to kill it with my rifle and I thought it best to get a shot gun and make sure of hitting it for game will help out the provisions wonderfully. They say that in July a person can scoop out the salmon from the small streams with their hands. They are so thick. They come up in the fresh water by the millions to spawn and never get back for they won’t live in the fresh water.”	Jonas B. Houck fonds [Yukon Archives: 82/159, MSS 9].
1898	Dawson City, June 30, 1898: “My dear wife. I am here and find things far worse than I expected. There are thousands of people here. The woods, mountains and streets are crowded.”	Jonas B. Houck fonds [Yukon Archives: 82/159, MSS 9].
1900	“The ‘old-time’ way of hunting caribou was for a band of Indians, number of sometimes fifty and more, to surround the unsuspecting herd and run in upon them at a given signal. The frightened animals were easily shot down, and	Adney, 1900, p. 504.

Year	Observation	Source
	sometime out of a herd of several hundred not a single one escaped."	
1900	"Indiscriminate slaughter of moose and caribou in the upper branches of the Stewart River; 50 animals in a single day, wastage occurred."	<i>Dawson Daily News</i> , Oct 7 1900.
1901	"1300 carcasses to reach the city"	<i>Dawson Daily News</i> , Feb 24, 1901.
1901	The Yukon Council passed an ordinance early this year on which game may be hunted and the number allowed to be killed. A maximum of 6 caribou may be taken between October 1 and January 1. Hunters must report to the first mounted police detachment on his way to Dawson. Information to be reported was the hunters name, the number of animals killed and the location of the kills.	<i>The Klondike Nugget</i> , Sept 11, 1901 [Ref. #29].
1908	In Alaska, it was illegal to kill moose or caribou for sale, not even to miners or prospectors, but one may kill for one's own use. The previous year, 2 Dawsonites killed a few caribou and sold them to miners on the Fortymile. They were promptly arrested and fined heavily.	<i>Dawson Daily News</i> , Nov 17, 1908 [Ref. #30].
1909	Some people went out to try and get caribou reported between Dawson and the Fortymile, crossing the Yukon in a northeasterly direction. The last few days, Moosehide Indians and whites have killed "a good many" caribou on the Glacier trail west of Dawson. "The Yukon game ordinance provides that no person shall kill more than six caribou during the open season, and that no females shall be killed at any time"	<i>Dawson Daily News</i> , Oct 29, 1909 [Ref. #30]
1915	About 600 were estimated harvested for Dawson winter food supply.	Brownlee, J. H. 1916, pp. 58-60
1915	Chief Isaac reported the Moosehide Indians shooting 70 caribou for the winter along the Glacier trail. He also reported the white men shooting 3000 caribou. A local white woman shot 3 caribou from the door of her home.	<i>Dawson Daily News</i> , Nov 4, 1915.
date?	Market hunters sold caribou for 10 cents a pound. C.O.'s fed you with game meat up until the 1930s. U.S. Military shot caribou on the Boundary Road, they used machine gun artillery and there was lots of wastage. In Dawson, someone picked up calf caribou and kept them in the paddocks for the horses, but the dogs would eventually kill them.	Ed Whitehouse, personal communication, 1990.
1920	Van Bibber told Sykes that 2,500 to 3,000 caribou plus 4,000 moose in addition to what sheep Indians killed to sustain themselves (500 Indians on Pelly and Macmillan	Sykes, C.E. 1920, p. 297.

Year	Observation	Source
	rivers and tributaries).	
1920	“It is also a known fact that game is being slaughtered for dog feed, bait and fox farms at all seasons. Why is this? ... To preserve the game, enforce the game laws. Forbid hunters or Indians killing game for bait, dog feed or fox farms and from spoiling the meat. Let the Indians have all they can eat, but limit the number they kill for market, same as the white man is.”	Hill, C. F., Eureka Creek, Letter to <i>Dawson Daily News</i> , May 1, 1920.
1930s	Afe Brown killed 120 caribou one year and let carcasses freeze. He fed his family and dog team.	Hugh Bostock, personal communication [tape 1], 1990.
1930s	Slaughters took place on the Boundary road as hundreds of caribou were shot. The RCMP killed 200 caribou and brought them into town on horse team to feed old timers in the 1930s.	Ed Whitehouse, personal communication, 1990
1930s	Alec Van Bibber and his brother Archie shot about 200 caribou at the mouth of the Pelly River in October. They had to feed about 75 dogs.	Rick Farnell, personal communication, 1990.
1930s	Jack reported early harvest of 50 to 60 caribou at a time to feed people and dogs etc. He personally required 15-20 caribou for the winter, but now (1990) only needs two.	Billy Jack, personal communication, 1990.
1934	The Dawson people shot 50 or 60 caribou swimming the Yukon River.	Wilf Gordon, personal communication, 1990
1955-1956	On the Dominion Road- Sixtymile there was much wounding and wastage. Caribou were left if they died too far off the road. Wilf Gordon was personally disgusted by the carnage. Also it was too dangerous to be hunting with all the careless shooting. If you ever had to retrieve an animal from the bush you could get shot at. Some RCMP were shooting in his direction. He was surprised that no one was killed.	Wilf Gordon, personal communication, 1990.
1956	Clancy Shattuck, of the Department of Lands and Forest, reported a kill of 300 animals by Dawson residents. An insignificant number of caribou were taken by Whitehorse hunters.	Field notes [by Olson and Burkholder] – “Caribou reconnaissance Steese-Fortymile Herd,

Year	Observation	Source
		Dawson and vicinity, Yukon". March 1957. [Ref. #70]
1957	Fuller estimated the total harvest during the Oct 1, 1957 to Jan. 31, 1958 was 200 caribou. The hunter check station that operated on the Dawson Boundary road accounted for 124 caribou by mid-Oct. Later the RCMP estimated an additional 50 caribou were killed by the Moosehide Indians when the caribou were located in the Klondike Valley and along the Yukon River.	Fuller, W. A. "Caribou Checking Station, Dawson City, Yukon," October 1957, p. 5. [Ref. #75]
1960	Known caribou kill = 48, estimated kill (crippling loss) = 68 from Dawson	Source?

Market Hunting

Year	Observation	Source
1897 to 1947	Game meat was freely available for sale in the Yukon for 50 years, from 1897 to 1947. Early accounts and photographs reveal that the meat market was a <i>laissez-faire</i> situation with all varieties of meat available and sold. The game meat was intended to compete with beef on the Dawson market, but with the proviso after 1902 that each meat hunter had to take his animals in season. There was no shortage of beef or other imported meats at prices estimated between 25 and 50 cents per pound in the years prior to World War I.	McCandless, 1976, p. 33. [Ref. # 21]
1897	Two thousand pounds of moose was brought in and sold for 10 cents per pound. The meat was in great demand due to the prevalence of scurvy in the camp.	Ogilvie, 1897. [Ref. #15]
1900	"Several sleds took [moose] meat to town [Dawson] where it readily sold to the miners for \$1.25 to \$1.50 per pound."	Adney, 1900b. [Ref. #24]
1901	A decision by a committee of the Yukon Council prompted an inventory of game meat stocked by meat markets. Caribou and moose totaled 5,225 pounds and 1029 ptarmigans.	<i>The Klondike Nugget</i> , April 4, 1901. [Ref. #27]
1906	Retail prices of commodities at Fortymile for both moose and caribou were \$0.30 per pound.	Innes-Taylor, no date.

Caribou Fences

Year	Observation	Source
	"The use of fences or surrounds for the hunting of caribou, as is reported among the Han and Southern Tutchone, is not known among the Northern Tutchone. This can be explained by the fact that by the time the caribou began to appear in the Carmacks area, people had repeating rifles and group hunting strategies were no longer necessary".	Gotthardt, 1986, pp. 49-50.
1974	"Old caribou fences and corrals are said to be visible between Dawson and Eagle."	Cruikshank, 1974, p. II-7. [Ref. #1]
	Mentions an old caribou fence at Marshal Creek	Auer, 1917
	Other broken down fences are high above the Fortymile River. Parts of them can be seen from the road between Dawson City and Eagle, Alaska	McClellan, 1987.

Forest Fires

Year	Observation	Source
1898	"Other detachments reported that virtually every mile of timber along the Yukon River was burnt during 1898, that Indians were forced to go up to 20 miles to hunt, that there was a general widespread decline in game and fur bearers."	McCandless, 1976, p. 32. [Ref. #21]
1930s and 1940s	During the 1930s there were several large fires in the Indian River and Stewart River country. These fires burnt all summer. YCGC set fires in the 30s and 40s. They cut thousands of cords of wood for camps and for thawing the ground. At Dominion Creek the brush piles caused a fire that burned over to Stewart. 1933, 1945, 1947 and 1958 were years with bad fires. In 1952 the road was built to Mayo and the right of way was burned and that caused fires at Mayo and Stewart.	Wilf Gordon, personal communication, 1990.
1938	Severe forest fire near Carmacks.	Gotthardt, 1986.
1944-45 and 1952	In 1944-45 huge forest fires burned all summer upriver from Selkirk. Forest fires burned near Dawson in 1952, the Klondike and Stewart River areas, now it is all grown up again.	Ed Whitehouse, personal communication, 1990.
1946 and 1957	Carmacks burned in 1946. (put blankets on graves on hill. In 1957 there were big fires that burned to Braeburn.	May Roberts, personal communication, 1990.

Year	Observation	Source
1957	A number of forest fires in the Fairbanks and Dawson areas in the summer of 1957.	Fuller, W. A. "Observations on Yukon Caribou, 1956-57", Canadian Wildlife Service, Whitehorse, Yukon [n.d.].
1966	Large fires north of Tanana from west fork of 40 mile east to 60 mile and Ladue Rivers. Burned a total of 250,000 acres on Canadian side.	[Skoog's notes,33] [??]

Firewood

Year	Observation	Source
1897	"There is a plentiful supply of timber along the Klondike and at Dawson. It is not an open treeless locality, as has been frequently stated. Heavy spruce forests are found upon the Lower Klondike, the trees in many instances being 12 and 15 inches in diameter. There is plenty of timber, both green and dried, along the Yukon, from its head waters to Fort Yukon. The forest growth is also heavy in the Tanana Valley, although the trees will not average more than 10 or 12 inches in diameter. Fairly good lumber can be produced. The growth is mostly northern spruce, with some birch, and willow interspersed."	Wells, 1964, p. 516.
1900-1953	"Much of the vegetation along the river was removed during and after the Gold Rush as a source of fuel for the more than two hundred steamboats which have operated on the Yukon. These boats burned an average of eleven cords per hour traveling upstream and five cord per hour traveling downstream. This wood was supplied by woodlots which operated along the length of the river. The cutover areas which were originally Spruce and Birch have grown back predominantly in Aspen, which regenerates rapidly on disturbed sites.	???
	The engines that turned the massive paddlewheelers on Yukon's riverboats burned a cord of wood per hour. The 500 mile journey from Whitehorse to Dawson City took only 40 hours while it took as much as 4 days the other way [going upstream].	Yukon government. <i>Dawson City, Heart of the Gold Rush Centennials</i> , 1997.

Mining

Year	Observation	Source
1872	Harper and McQuesten established the trading post, Fort Reliance, a few miles below the site of the future Dawson City.	Bostock, 1972. [Ref. #26]
1881	In 1881, four miners found the first paying gold placers on the bars of the Big Salmon River and from then on the number of prospectors in the Territory increased every year.	Bostock, 1972. [Ref. #26]
1882	The first steamboats were brought up the Yukon River from Alaska to service these posts and those of other traders who had come in from Alaska.	Bostock, 1972. [Ref. #26]
1884	About 1884, when rich bars were found on the Stewart River, they build a post on that stream and their business became largely that of supplying the gold miners.	Bostock, 1972. [Ref. #26]
1886	Coarse gold was discovered on the Fortymile River and the following year a post was established there.	Bostock, 1972. [Ref. #26]
1892	Miller Creek on the Sixtymile River was discovered and proved the richest creek until Bonanza Creek.	Bostock, 1972. [Ref. #26]
1896	George Carmack found gold on Rabbit Creek (later renamed Bonanza Creek) on the Klondike River in August, 1896.	Bostock, 1972. [Ref. #26]
1896	By 1896, the population had increased to such an extent that the numerous duties [of the Northwest Mounted Police] were too much for the small group and policemen and civil officers were appointed.	Bostock, 1972. [Ref. #26]
1897	The whole world know of the wealth of the Klondike and the following year the great rush took place, bringing some 25,000 people of all manner of trappings, modern for the day, into the district.	Bostock, 1972. [Ref. #26]
1898	Dawson, a city that didn't exist in 1896, had a population of 30,000 people by the late 1890s, making it the biggest city north of Seattle and west of Winnipeg.	Yukon government. <i>Canada's Yukon Vacation Guide, 1997.</i>
1902	Steam thawing of permafrost replaced wood fires.	Yukon government. <i>Dawson City, Heart of the Gold Rush Centennials, 1997.</i>
1902 to 1905	Individual Hand-method miners began to be replaced by grouped claims and concessions were granted for placer mining on a large scale using hydraulics and dredges, powered by hydroelectric plants. These large operations	Bostock, 1972. [Ref. #26]

Year	Observation	Source
	continued until about 1966.	
1904	In 1904, the Klondike was the largest gold producer in Canada and the fourth largest in the world.	Yukon government. <i>Dawson City, Heart of the Gold Rush Centennials, 1997.</i>

Access routes

The first road in the territory was built in 1899, along the top of the ridge between Bonanza and Hunker Creek. Part of this road is now the Ridge Road Heritage Trail.

The Yukon River was a major transportation corridor with paddle wheelers / steamboats operating from approximately 1882 to 1956. More than 250 sternwheelers worked on Yukon waterways from 1896 to the mid 1950s. At one time, there were up to 70 sternwheelers on the Yukon River alone (YTG, Heart of the... 1997)

The river was also used for winter travel with dog teams.

In 1900, the railroad from Skagway over the White Pass to Whitehorse was complete, becoming the first large scale transportation development and linked the Yukon to a year round, deep water port (Bostock, 1972).

“In 1902 the government began a program of road and trail building, including a stage road from Whitehorse to Dawson by the most direct route, 333 miles. These horse-drawn stages, besides 300 horses, employed many people at the roadhouses and farms distributed every few miles along the route.” (Bostock, 1972, p. 119, Ref. #26).

“.. a big change took place early in the 1920s when the horse stages of the overland winter road were supplanted by trucks and tractors. Many road houses were abandoned and only a fraction of the personnel needed for the horse stages were now employed. About 1924, another change took place when the direct route to Dawson was given up and a new road from Minto on the Yukon River was built north. It forked near the Stewart River and one branch extended to Mayo and the other to Dawson, the routes being much the same as those of today. “ “By 1954, Mayo and Dawson had been connected by all-year roads to Whitehorse and the transport on the roads took the place of that on the Yukon and Stewart Rivers so that after the following year the steamboats finally ceased to run and many of the places along these rivers, not accessible by road, were abandoned.”

The road was started at Minto and worked both ways. Cats were brought in 1948. In 1951, it reached Dawson. Whitehouse said the Dawson road started in 1952, finished in 1955.

The Boundary Road or Top of the World Highway started as a pack train, wagon road, and cat train in 1957-58 for Clinton Creek mine.

Natural Mortality

Accidents

Year	Observation	Source
1933	In 1933 he saw 2 or 3 dead calves in the Yukon River between Thistle Creek and Coffee, while coming to the shore to refuel the boat.	H.S. Bostock personal communication, 1990.
?	When the ice was running in October, down river from Dawson he saw a half dozen caribou frozen in the ice. Also during spring breakup in May (29 April to 20 May) caribou would float down on ice pans and there were some deaths.	Ed Whitehouse, personal communication, 1990.
1947	"Record cold winter- game and dogs died"	Gotthardt, 1986, p. 67.

See Nat Geo Magazine 1930 ---- caribou drowned

Predators

Year	Observation	Source
1897	Wolves were not plentiful	Ogilvie, 1897, p. 45. [Ref. #15]
1920	"There are no more wolves now than there were in 1898. I was up prospecting at the head of the Stewart River during the summer and fall of 1898. There was hardly a day passed that we did not see or hear wolves, and during the winter wolves were always to be seen by mushers on the Stewart and the Yukon, and moose and caribou were numerous then." ... "Why is it so few wolf hides are brought into Dawson if wolves are so plentiful? They are worth from \$15 to \$30. If the Yukon paid a bounty on wolves we would be paying for hides coming from British Columbia, Alaska and maybe Siberia and Russia, and the miners pay for it all, directly or indirectly, as the case may be".	Letter from C. F. Hill, Eureka Creek, to <i>Dawson Daily News</i> , May 1, 1920.
1921-1922	"In the upper Fortymile region, during the latter part of the winter and the spring of 1921, for instance... during an unusual scarcity of caribou in the region, wolves also were not plentiful... The following winter, when caribou were numerous in this locality, wolves were much more in evidence, and many stories of their abundance circulated."	Murie, 1935, p. 8.
1928	"...game is plentiful in this District [Dawson patrol from	Report by Sgt.

Year	Observation	Source
	Dawson to Miller and Glacier in November 24-28, 1928] - moose, caribou, marten, wolves, lynx, ptarmigan... Peter Olson, a trapper at Fortyone Mile roadhouse, poisoned 7 wolves in one night. Wolves at this time of year are following the large caribou herd, in several places along the trail it was notices where the wolves had killed several caribou and ate them".	H. H. Cronkhite, November 24, 1928. [Yukon Archives: GOV 1682, f. 36, pt. 4] [Ref. #38]
1932-34	"In 1932-34 the caribou regularly came along the Dawson Range and the area was full of wolves. I had only one assistant in those years and we traversed alone. To be followed by wolves that howled behind us was not uncommon."	Bostock, 1979, p. 243.
1943	"Increase of wolves in the Yukon Territory": Captain George Black has found "a great shortage of game and an alarming increase in wolves. In localities where a few years ago moose were plentiful, no live moose were seen, but wolf tracks everywhere and in numbers of places the larger bones of freshly killed moose that had been victims of bands of wolves".	<i>Dawson Daily News</i> , November 9, 1943. [Ref. #52]
1956	"Have seen a few wolf signs in area of caribou herds around Granville and along Dawson-Stewart Crossing Road and have had reports of packs in other areas... Krause brothers who spent several months this summer and fall down the Yukon River...reported a pack of 40 wolves near the mouth of the Chandindu River."	Source?
1956	G. King (letter on file, YTG) reported that he had just made a trip to the Indian River, and he "never saw so many wolf tracks in the years I spent in the Fortymile. They had trails padded down like snowshoe trails, and beds all over hanging around a dozen moose."	Letter from George King, to Ray Wolford, Feb 3, 1956.
1957	Olson saw abundant wolf sign in the area between Stewart River north to Dawson in the 12 Mile drainage. He observed 3 wolf kills (2 caribou and 1 moose).	Olson 1957 field notes.
1957	Bill Fuller reported that eleven poison baits on the Yukon River accounted for 21 wolves and 3 more wolves were taken by Shattuck on baits on the creeks.	Fuller, W. A. "Observations on Yukon Caribou, 1956-57", Canadian Wildlife Service, Whitehorse, Yukon, [n.d.]. [Ref. #72]

Year	Observation	Source
1958	Bill Fuller reported the wolf activity was much reduced. 4 wolves taken by bait near Gravel Lake by Johnny Wren, and 3 wolves on a bait set on the 60-mile Road. In 5 hours by helicopter and 2.5 hours by airplane Fuller did not see wolves or wolf kills in the South Klondike-Clear Creek and the Sixtymile Country.	Fuller, W. A. "Report on Dawson Caribou", [April 14, 1958?], p. 3. [Ref. #82]

APPENDIX C. Reference binder

The following references correspond to items (extracts from published works, newspapers, studies, field notes, correspondence, etc.) compiled by the author for this project. Some are found in the published sources list within the report; unpublished items referred to in the report are identified with the corresponding number in the reference binder; others are reference material only.

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