

Slow Comeback on the Fortymile

By Patrick Valkenberg, Alaska Department of Fish and Game

The black-and-white photos of caribou accompanying this article were taken in 1952 by Jim Rearden, then professor of wildlife management at the University of Alaska, Fairbanks. For the past 17 years Rearden has been our Outdoors Editor. All of the photos are of the Fortymile caribou herd in May, as it migrated near the Steese Highway north of Fairbanks, heading for calving grounds in the White Mountains. The now-depleted Fortymile herd no longer makes this migration.—Ed.

Long lines of caribou move out of Birch Creek toward the Steese Highway, which winds northeast to the Yukon River from Fairbanks. Full-bellied cows still carrying last year's antlers plod through muskeg and old snowdrifts, bound for calving grounds in the White Mountains 60 miles north of Fairbanks. Nearing the Steese, the leaders pass through stringers of spruce before breaking into the treeless alpine tundra on the last leg of their journey. A few cars stop as eager passengers watch the migrating animals, but the caribou pay little attention, pausing briefly to stare at the cars, then plodding on.

The Steese Highway is the first man-made structure the animals have encountered since leaving the Taylor Highway 150 miles to the southeast. Some of the

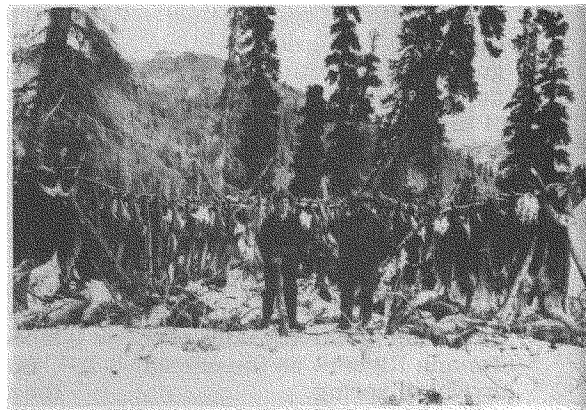
caribou have come from as far as the Sixtymile River in Yukon Territory. Others continue on almost to 40-mile-distant Beaver Creek, beyond the White Mountains, before calving, while some stop short of the road and drop their calves on the ridges along Clums Fork.

Many Alaskans remember such scenes of the Steese/Fortymile caribou herd from as recently as the early 1960s. But the Fortymile herd, as it is now commonly called, fell on hard times and shrunk to a low of about 5,000 animals by 1973. As the numbers dropped, the calving grounds in the White Mountains were abandoned. The long migration, in which caribou from as far away as Rampart and Whitehorse reached the White Mountains, essentially ceased, and the herd spent increasing amounts of time in the Fortymile and Charley River drainages — both tributaries of the Yukon near the Alaska-Yukon Territory boundary. Caribou seldom reached the Steese Highway, and then only in small numbers.

Nearly forgotten today is the tradition of driving along the Steese Highway to watch and photograph the spring caribou migration, or of hunting these great wandering deer during the fall migration. It is difficult to appreciate the part the Fortymile herd played in the early history and development of the Fairbanks area.

► It's been at least 15 years since the Fortymile caribou herd migrated near the Steese Highway in relative abundance. Prospects are good, however, that these scenes will be repeated in the years ahead. (Jim Rearden, staff)

▼ Shortly after the turn of the century, the Army depended heavily on the Fortymile caribou herd for meat. Officers organized hunts to supply men working on the Valdez-Eagle telegraph line. On some days more than 100 caribou were killed. (University of Alaska Archives)



When we compare reports of past abundance to caribou numbers in the same areas today, it is tempting to believe that, as with the bison of the western plains, the good old days are gone forever. But there is reason to be more optimistic. The large-scale fencing and habitat destruction that accompanied agriculture development in the western states and doomed the bison hasn't occurred in Alaska. With careful management we might yet again see the "good old days" of caribou abundance. A brief look at the history of the Fortymile herd supports this view.

The first white prospectors found an abundance of caribou between the Tanana and Yukon rivers in the late 1800s, and large numbers of caribou were regularly seen near Dawson. The Fortymile herd, and perhaps the Porcupine herd (which today trades between northeastern Alaska and Canada), supplied the bulk of the meat needed by prospectors at the then-busy towns of Eagle (on the Yukon River) and Chicken (in the Fortymile country), on gold-producing creeks, and by Athabascans living in the villages of Mansfield Creek, Ketchumstuk,



Tetlin, Northway and Joseph.

Before 1900, when firearms were scarce, Native Alaskans built fences and used rawhide snares in the openings to catch caribou during migration. Remains of some of these fences can still be seen near Joseph airstrip and in the Ketchumstuk area. In 1901, when the Army telegraph line was built between Valdez and Fort Egbert at Eagle, caribou meat fed the men at stations along the line. Billy Mitchell (later the famed air-advocate general) and other Army officers organized caribou hunts to stock up on meat for winter, and sometimes as many as 100 were killed in one day near American Summit and Champion Creek near Eagle.

Despite hunting by miners, the Army and Natives, between 1900 and 1910 the Fortymile herd apparently remained large. After 1910, Fort Egbert was abandoned — the telegraph became obsolete — and gold mining slumped as men left to enlist in the Army for World War I. The human population in the Fortymile country decreased by about two-thirds by 1920, and the caribou population probably increased.

The human population slump

was short-lived. During the 1920s the Fortymile again boomed as gold mining stabilized, fur prices climbed and men returned from war.

The Fortymile caribou herd was Alaska's largest during the 1920s. Olaus Murie, one of Alaska's first wildlife biologists, tried to estimate its size in 1920. It was a crude estimate by today's standards, but the herd must have been immense. Here's how Murie described the migrating herd in 1920: "The southeast migration of the herd covered a strip approximately 60 miles wide, 40 miles representing the part traversed by the main body and 20 miles that was covered by scattered bands. The herd took about 20 days to pass one spot. During eight of the 20 days about 1,500 animals in the main herd passed each day over a one-mile strip, and during the remaining 12 days about 100 animals a day."

Based on these observations and some guesswork, Murie estimated that the herd contained 568,000 caribou, but he commented, "In the light of subsequent experience, this figure seems conservative and it is safe to say that the herd numbered

well over half a million, possibly much nearer a million."

By the 1930s, most of these animals were gone, despite stricter enforcement of hunting regulations and a closure to hunting along the Steese Highway between Twelvemile and Eagle summits, once a favorite fall hunting area. No counts were made during the 1940s, but the herd probably declined below about 20,000.

What happened?

There are plenty of theories. Some biologists speculate that the once-large herd had overgrazed its range, while others suggest that wildfires destroyed winter range, causing a shortage of food. In 1975, ADF&G biologists reviewed historical records and found little supporting evidence for either theory. The herd increased quickly after predator control in the late 1940s, which seems to shoot down the idea that food was in short supply.

Ironically, the 1930s decline of the Fortymile herd occurred after the conservation consciousness of

Continues on page 62

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performed his duties fairly and
honestly.

He flew for Wien until his 70th
birthday in 1962, when another
government rule forced his
retirement. Sam surrendered his
commercial pilot's license, but
continued to fly his own
Stinson L5 for several more years.
The Stinson was finally sold, but
it was destroyed by fire a few
days later.

"Died of a broken heart," Sam
said.

During nearly 40 years of
flying, Sam recorded more than
11,500 hours in the air and
experienced 11 forced landings
and only two accidents. Bud
Helmericks remembers, "Every
Indian and Eskimo, their fathers,
and most of their grandfathers,
knew Sam. They all thought he
was the patron saint of aviation,
and several named their children
after him. One cute little girl at
Alatna [1969] is called 'Sam
White,' and the little rascal has
the independence of her
namesake, too."

Sam's struggle to "hold back
the killin' and the burnin'" has
not been forgotten. To help
preserve the memory, a
handmade wood stove and other
articles used in the Swallow
biplane, along with photos of Sam
working as a warden, are
displayed at the Alaska Pioneer
Museum at Fairbanks. His field
diaries, oral tapes and
publications are part of the
archives of the Elmer E.
Rasmuson Library on the
Fairbanks campus of the
University of Alaska. □

*Dave Hall is a U.S. Fish and Wildlife
Service special agent who has worked in
Alaska.*

SLOW COMEBACK ON THE FORTYMILE

Continued from page 21

the Territory was well developed.
At the time, however, the
vastness of the Territory hindered
biologists and game wardens.
Further, there was a poor
understanding of the dynamics of
game in Alaska.

The Alaska Game Commission
was formed in 1925, but it was
not until the late 1940s that
aircraft were routinely used for
monitoring game populations.
Without aircraft, biologists were
not sufficiently mobile to collect
the information needed for game

management. Regulations were
conservative, for widespread
declines of bison, antelope, elk
and deer in the Lower 48 were
still within memory.

In Alaska caribou had declined
throughout most of the Territory,
and they had been eliminated
from Nunivak Island. Muskox
were wiped out on the North
Slope, and beaver and white-
fronted geese were severely
reduced. During the late 1940s
and 1950s, hunting seasons for
moose, caribou and other species
were short; hunting was generally
restricted to males; and wolves
were kept at low levels by federal
agents who poisoned, trapped,
snared and hunted them with
airplanes.

Game thrived, and the decline
of the Fortymile herd was
reversed. By the late 1950s the
herd again numbered more than
60,000. Caribou hunting
continued to be popular along the
Steese and Taylor highways until
the early 1970s. All seemed well.

Then came another disaster:
the Fortymile herd declined
dramatically and unexpectedly in
the late 1960s and early 1970s.
The hunting season was closed
by emergency order in 1973 after
the herd reached the record low
level of about 5,000 animals.

Mismanagement? Many
Alaskans faulted the Alaska
Department of Fish and Game,
perhaps justifiably, but
management decisions were
based on the best information
available.

Prior to the 1970s, most studies
of game had been in the Lower
48 states where large predators
had been largely eliminated. In
such a situation, some extremely
dense deer populations did suffer
from overcrowding. Predator
control was thought to be
counterproductive, or at least
unnecessary, because it was
generally accepted that predators
remove mostly the old and infirm
animals that were going to die
anyway.

After 1960, when the new state
of Alaska started to manage its
wildlife, controversial predator
control programs were ended, and
hunting seasons for big game
were liberalized. Alaska's new
cadre of college-trained wildlife
biologists feared that game
populations in Alaska were in
danger of overusing their range.
Predators were thought to be
beneficial to the health of game
populations. This thinking
continued to dominate decisions

of wildlife managers until the early 1970s when, after a series of hard winters, several dramatic moose and caribou declines became apparent.


First it was the Nelchina caribou and moose. Then moose on the Tanana Flats. Next, the Fortymile caribou and moose. Then the Western Arctic caribou herd crashed.

At first biologists were at a loss to explain the declines, although those of moose were clearly tied to severe winters. Reasons for the declines became apparent during the 1970s after a series of studies on moose, wolves, caribou, deer and grizzly bears by state, federal and university biologists in Alaska, Minnesota and on Isle Royale in Michigan.

Improved technology made it possible for biologists to follow individual animals through several years, using radio transmitters. It became possible to census animals more exactly, and with computer models to more precisely calculate birth and death rates of both predators and prey. Biologists thus came to realize that in some situations, predators, especially wolves, can cause moose and caribou populations to decline. They may also keep depressed populations low for many years. In many cases where wolves were numerous, no harvestable surplus of game was left for man. Hunting of females caused accelerated declines in moose and caribou.

It is clear now that during the late 1960s and early 1970s there was little or no harvestable surplus in many Interior game populations, and the long and liberal hunting seasons then in effect caused already declining populations to plummet. There is disagreement among biologists about whether harsh winters, predation or overhunting started the declines in caribou, but it is clear that they were the major factors involved. However, some caribou herds like the Denali herd (in a national park) declined even though hunting was insignificant. Overhunting was certainly an important contributing factor to the decline of the Fortymile herd from 1968 through 1973.

The hard lessons learned during the 1960s and early 1970s have helped lead to a more conservative approach in managing game populations where large predators are still an important part of the ecosystem.



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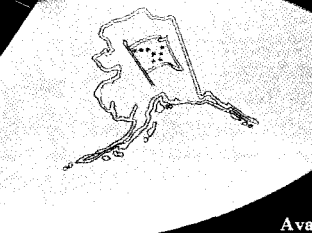
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In fall, parts of the Steese-Fortymile caribou herd can still be found along the Taylor Highway about 75 miles north of Tok. Until 1973, this was an extremely popular hunting area for Interior residents. (Jim Davis, Alaska Department of Fish and Game)

and where severe winters can cause widespread moose mortality.

Token moose and caribou seasons and mild winters that have prevailed in interior Alaska since the mid-1970s, coupled with wolf management in some critical areas, have restored some game populations, although in most of interior Alaska moose populations remain low. Only two of the state's major caribou herds have failed to recover significantly — the Denali herd of about 2,500 animals, and the Fortymile herd, now with about 14,000 animals. Both are increasing slowly, but without some relief from predation it will be at least a decade, maybe more, before they return to anything approaching former abundance.

A wolf management program started in 1982 has probably helped to reduce the number of caribou dying on the Fortymile

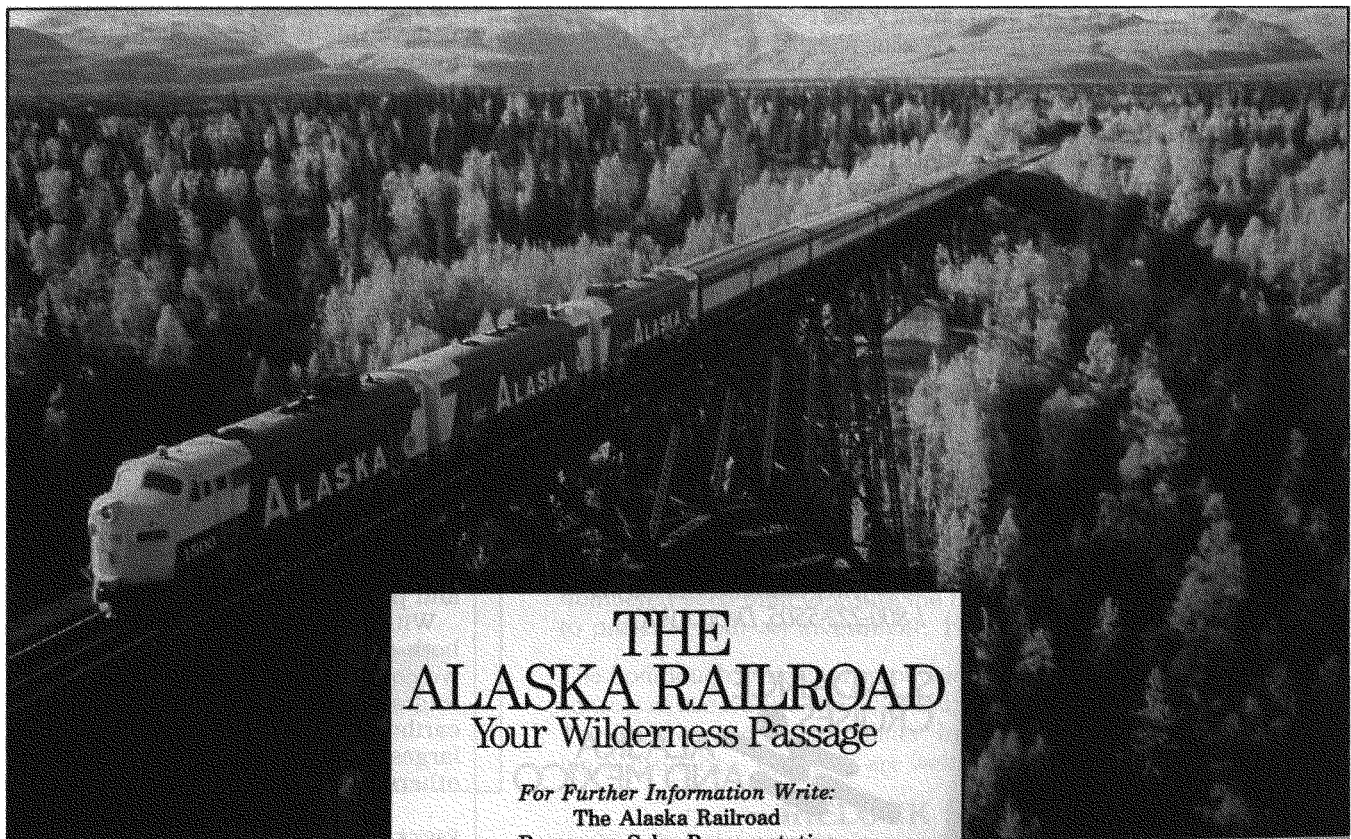


herd's winter range, but this program was interrupted by lawsuits brought by anti-hunting groups and pressure from people who are philosophically opposed to killing wolves. The program was ended by the Alaska Board of Game in 1985.

Periodic short-term wolf reduction programs have been helpful to the recovery of depressed populations of moose and caribou, and, surprisingly to some observers, to increases in wolves as well. The ability of game managers to periodically

reduce wolf numbers may be critical to the recovery and maintenance of healthy caribou and moose populations in interior Alaska.

A good example of the success of wolf management is that which took place in Game Management Unit (GMU) 20A south of Fairbanks. Here a designated number of wolves were removed starting in 1975. The Delta caribou herd, which uses 20A, increased from a low of



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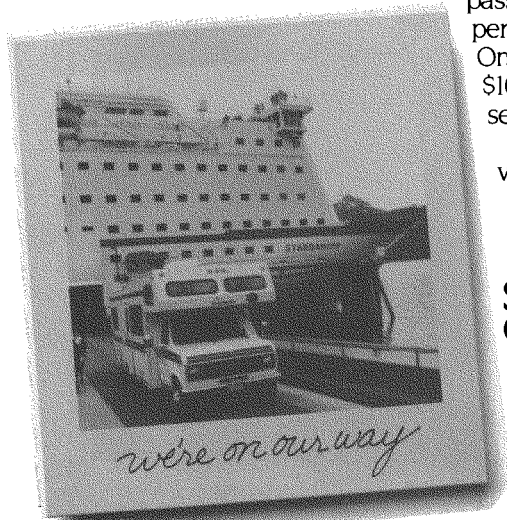
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about 2,500 animals in the mid-1970s to more than 8,000 in 1985. As the herd grew, hunters harvested more than 1,600 caribou from it during the years 1980-84. In most parts of this GMU moose also made a dramatic increase — from about 3,000 in 1975 to about 8,000 in 1984.

To put the frosting on this grand cake of game management, by 1985 wolves had also increased in those parts of GMU 20A where moose and caribou had increased. Nowhere else in interior Alaska have large packs of wolves been seen recently. One pack in GMU 20A had 24 members in 1985, and several others numbered between 9 and 12. Large wolf packs were not uncommon before moose and caribou declined in the early 1970s.

ADF&G biologists now know that the habitat can support several times the number of moose and caribou than are currently present in most of the Interior. In some areas there is so much food for moose and caribou that most of it is never used. In GMU 20E, for example, only about 5 percent of the annual growth of available willow browse is consumed by moose.

The Fortymile caribou herd now uses only a small fraction of its historic range. Game biologists believe this is because all of its food requirements are met in a very small area. Unfortunately, this small area is also rather inaccessible, so humans seldom get to see, photograph or hunt this herd. If the herd does not increase and reoccupy its old range, there is a danger that Alaskans will lose interest in it, and the land it once occupied could be relegated to other uses. Historically, areas with abundant wildlife are more likely to be protected from development.

Too often those who oppose temporary reduction of wolf numbers so that prey species can recover fail to realize that, above all, wolves need healthy game populations if they are to survive and prosper.

With prudent management of both caribou and their predators, we could anticipate having a large migratory herd of Fortymile caribou near Alaska's second largest city for Alaskans and others to enjoy once again. □

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