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.

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
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 Atalna [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.
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...
When you take your car or RV on a Sundance cruise to Alaska, your vacation starts the moment you're aboard. You'll enjoy fabulous meals, dazzling nightlife and a friendly international crew that waits on you hand and foot. And there's incredible scenery you'll never see from any highway.

Your vehicle travels safely below deck from Vancouver, B.C. until you drive off in Skagway or Haines. Explore Alaska's magnificent interior and Canada's picturesque Yukon on your own. Then catch up with the Stardancer in either port for the return cruise and more incredible scenery, saving the long drive home.

There's no other way of taking your car or RV to the Great Land that's as enjoyable and affordable as a luxury Sundance cruise. One-way passenger fares begin at only $385 per person double occupancy. One-way vehicle rates are only $10-15 per linear foot during value season and $13-20 in peak season.

Get started on your Alaska vacation now.

For a free brochure, call toll-free 1-800-222-5505, Dept. AWK.

SUNDANCE CRUISES

ALASKA AND MEXICO

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.

Patrick Valkenberg is a game biologist with the Alaska Department of Fish and Game in Fairbanks.