



THE COMEBACK TRAIL

NEWS OF THE FORTY MILE CARIBOU HERD

AUGUST 1994

Your input needed:

Cooperative management plan develops

In the last newsletter we stressed the importance of developing a cooperative Fortymile management plan to better conserve the Fortymile herd and to meet the needs of different users and managing agencies. During July we began asking members of the public and representatives of the different state and federal agencies, local Fish and Game advisory committees, regional councils, environmental groups and native corporations what important issues should be included in this plan. So far, we have received comments from about half of the agencies and groups but no comments from individuals.

Issues that have been deemed important so far include herd conservation, herd population and harvest objectives, harvest allocation, viewing opportunities and potential management actions. The open period for submitting ideas or topics for the management plan ends in mid-August, and shortly after we

will draft the plan outline. We are confident that we can develop a plan that will enhance the Fortymile Herd and be acceptable to all the herd's user groups, but to do so we will need to work together.

Please send in your ideas of what the plan should address and/or attend any public workshops in your area. See *What's next?*, page 3, and plan to be involved!

Every critter counts:

We don't wait ten years for a census

Each year during late June or early July, we count the Fortymile Herd to learn the population size and trend, to evaluate the effects of our management actions, and to determine the annual harvest quota for the upcoming season.

How are caribou censused?

During most of the year the Fortymile Herd is spread out over a large area in small, loosely associated groups, often in forested habitats. However, during the warm days of June and July the herd concentrates above treeline along wind swept tundra ridges or on snowfields to escape the hordes of mosquitos that occur in the more brushy and swampy areas. While the herd is aggregated, we can fly over and count the groups or take pictures of all the groups and count the individual caribou from the photographs.

We have radio-collared 94 Fortymile caribou to make it easier to locate the groups and ensure a more accurate count of the herd.

We use three different kinds of airplanes during a census. A Cessna 185 or 206 locates the radio-collared animals, determines the general size of the group of caribou and then directs another survey plane to the

group to count it or photograph it.

Three super cubs search the majority of the herd's summer range looking for groups that do not include a radio-collared animal and are not associated with the large aggregations. Groups found separate from the large groups normally consist of bulls. If the spotter planes locate a high number of small caribou groups spread out across the herd's range, that is an indication that the herd was not concentrated enough to obtain an accurate count.

A De Haviland Beaver is equipped with a nine-inch format camera mounted in the belly of the airplane. If the group of caribou is large, tightly grouped or moving rapidly, the Beaver is called in to photograph the group. Once the pictures are developed, we can count the caribou in the photograph in the comforts of our office.

All the spotter and radio-tracking planes carry a 35mm camera and all large or moving groups are photographed as well.

Census Results

This year we conducted the Fortymile caribou census on July 1, 1994. The temperature was hot, the

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Hunters have responsibilities

For most Alaskans, the Fortymile Herd is the closest road accessible herd that is not under a Tier II or drawing permit. Thousands of people participate in the Fortymile hunt each year and many are first time hunters to the state or to the area. This herd is shared by Alaska and Yukon Territory and is used in many ways by different people. For many people, taking a caribou is very important.

The current hunting regulations are in place to make sure that harvest does not keep the herd from increasing. For this reason, the harvest quota is lower than the highest sustainable number, the harvest is limited to bulls only and at times there may be temporary season or area closures. To participate in this hunt, you must be able to tell the difference between a bull and cow caribou and if you do harvest one, you must leave evidence of sex attached, validate your permit and report the harvest within five days of the kill.

It is very important that hunters learn about the herd, hunt ethically and take care of the meat appropriately. Keep the following ideas and tips in mind.

Hunters need to obey hunting regulations and respect property and other hunter's and wildlife viewer's space as well as the caribou. Nonhunters need to respect other people and caribou as well.

Most of the hunting for the Fortymile Herd occurs on state land and there are few access restrictions. However, hunting also takes place on private land (respect private landowners' trespass restrictions) and on federal public land within Yukon-Charley Rivers National Preserve and within the Fortymile National Wild and Scenic River corridor. If you hunt there be sure you know the rules. Some people access a hunt area by using the trail that leaves from behind the post office in Chicken. Look for signs near

the post office that will show no-parking areas. State troopers will help enforce the parking restrictions.

In the most accessible and populated areas, be aware of other hunters in the vicinity and respect their space. Hunting is not a foot race. Competitive hunting can lead to a very dangerous situation. A couple of years ago a hunter shot at a protection officer because he did not take the time to identify his target. Keep safety in mind!

Show respect for the caribou, too. Take time to consider the privileges we have to hunt Fortymile caribou. In earlier times taking a caribou was life-sustaining and therefore was revered in a very spiritual sense. Today we may not be

as dependent on the caribou, but we need to continue to be appreciative of the experience and of the animal.

Before going to the field, learn as much as you can about caribou behavior and biology. Be ready to take care of meat properly in the field. Locate and hunt the animal fairly and legally. If you witness a violation, report it to the local Fish and Game or Wildlife Protection offices in Tok (883-2971 or 883-4471) or to the Alaska Fish and Wildlife Safeguard program (1-800-478-3377).

Let us know how your hunting or viewing experience goes this fall. Send your letters to the Alaska Department of Fish and Game (ADF&G), Box 355, Tok, Alaska 99780.

Hunting advice:

Meat care to avoid spoilage

Before shooting consider the distance you have to carry the animal. A field dressed caribou weighs 75 to 250 pounds. All of this meat must be carried out.

An information leaflet written by Robert Hunter and available from ADF&G lists several important steps to properly care for an animal in the field.

The meat of any animal can be ruined if not properly taken care of. The first step to ensure excellent quality caribou meat is a quick, clean kill. Once the animal is down the following equipment is used to do a clean field dressing:

- One or more sharp knives
- Axe
- Sharpening stone
- Pack board
- Game bags
- Meat saw
- Cloth wiping rags
- 100' 1/8" nylon rope

If possible, try to do field dressing on a dry, flat area. If the animal has to be dressed in the water, make

sure that you wipe the meat dry with a clean cloth as soon as you get it to a drier area.

The most important thing to do with your meat once the carcass has been processed is to cool it down. Either hang it or construct some sort of structure with rocks or shrubs so that air can get all around the meat to cool it.

As you cut up the animal be careful to keep rumen (intestines) contents, dirt, hair and water away from the meat. Protect the meat by storing inside cloth bags. Do not use plastic bags - they can cause the meat to spoil more rapidly. Plastic prevents air circulation and slows down meat cooling which promotes bacterial growth and spoilage.

The information leaflet describes the entire cleaning and handling of a big game animal. You can get hold of a copy through the Alaska Department of Fish and Game office, 1300 College Road, Fairbanks, Alaska 99701.

Who uses the Fortymile Herd?

According to hunt statistics, the most common hunter pursuing the Fortymile Herd during the fall is from the Fairbanks/North Pole area, uses a three- or four-wheeler as the primary transportation to the hunt area and experiences a 16 percent success rate. The second most common hunter is a local resident of the Fortymile area, and has an eight percent success rate.

Viewing opportunities

During late September to mid-October, the Fortymile Herd normally crosses the Taylor Highway. Crossing points over the years have been in the vicinity of Mt. Fairplay, Jack Wade Creek, and Poly and American Summits. Since the fall

road crossing is often at the same time as the rut, very interesting caribou behavior patterns can be watched at fairly close distances. Not only can you get great photos of caribou but the country along the Taylor Highway can be beautiful. Also, few people may be in the area. Anytime after the hunting season, we will give out information on the herd's whereabouts and travel patterns to anyone interested in viewing or photographing the herd.

The spring migration also offers quality viewing opportunities. However, access is much more difficult. If you are interested in viewing the herd at this time, give us a call.

We will continue to learn more about the different user groups of the Fortymile Herd to make sure our management direction is adequately protecting the herd while meeting the different user group's needs. In the future we will be asking additional questions through surveys or when we issue permits. Please help us out at the time.



CENSUS—FROM PAGE 1

winds were calm and the mosquito level was high. In response, the caribou were highly concentrated. More than 99 percent of the herd had moved onto the ridges above the Charley and Salcha Rivers, and Crescent and Copper Creeks. The largest group we counted totalled 13,113 caribou and was concentrated in a one by two mile area. The caribou density where caribou had gathered during the census was about 40 caribou per square mile. In comparison, the herd density throughout the remainder of the year ranges between one (in winter) and seventeen (during calving) caribou per square mile.

During the census, we counted a total of 22,104 caribou, which is the minimum estimate for the herd. Not all the bulls join large groups and although we intensively fly most of the summer range there are small groups of caribou we still miss.

The radio collared animals help insure that we get an accurate count. We can judge how completely we locate the caribou by how many collared animals we find. During the census we located all 94 radio collars distributed among only 11 groups and within a relatively small area. Survey conditions and the fact that we located all the collared animals helped us obtain an accurate estimate this year.

WHAT'S NEXT?

1994

Aug. 10 - Sept. 20	Fall registration permit hunts.
August	Solicit ideas from public on proposed management plan content.
September	Draft outline for Management Plan and get public feedback.
late Sept.- early Oct.	Composition survey conducted (also great viewing opportunities).
October	Collar 15 female calves for productivity research.
Oct. - Nov.	Discuss management plan issues, desired objectives, allocations and acceptable management activities with public.
Nov. - May	Monitor herd movements and determine mortality rates and causes.
December	Accept proposals on harvest management for April Board of Game meeting.

1995

Dec. - Jan.	Draft management plan and distribute it for public review.
Jan. - Feb.	Revise draft plan as necessary to address public's concerns.
March	Finalize management plan. (We plan to submit it to state and federal boards for adoption in April.)

RESEARCH NEWS

Why do so many caribou calves die in the Fortymile Herd?

by Rod Boertje

Midnight May 28, 1994. Pilot Rick Swisher landed the 2 place Robinson Helicopter near the spot where I homed in on a radio-collared Fortymile calf. The collar was beeping at twice the normal rate, so we knew the collar had not moved for several hours. Yet another of the 50 newborn calves Rick, Craig Gardner and I collared in early May was dead. As we searched for the collared calf, we made a startling discovery.

"Hey!" Rick called, "Here's a dead calf without a collar."

"There's two more over here. And look, a couple more over there!"

All together we found 16 dead calves within 100 yards of each other. We examined the calves' wounds and the kill site. The evidence was clear. All 16 calves were killed by wolves a few hours before our arrival. None of the calves had been fed on. In fact, their cows were still prancing nearby. Fives days would pass before the wolves returned to consume the calves.

This case of mass killing was the most unusual discovery in the first season of monitoring the early lives of Fortymile caribou calves.

We began a three-year study of calf mortality in 1994 because recent surveys showed 4,000 to 5,000 Fortymile caribou calves died every spring. These deaths kept the herd from increasing as rapidly as most people desire and we want to know if there is a way to reduce them.

Calf mortality studies in Denali National Park told us to suspect wolves and grizzlies as major predators of young calves. These studies showed that each wolf on the calving ground can kill dozens of calves during May and June. Although an individual bear probably wouldn't take as many calves, bears are more abundant, so they can be a major factor as well.

Results in the Fortymile country so far this year reveal that grizzly bears were the main predators on this year's calves, and wolves were a close second. By August 1, these predators killed nearly half of the 50 collared caribou. A few other calves were killed by minor predators such as eagles, black bears, and wolverines and a few died from accidents and problems at birth.

So what does this mean? Grizzly and wolf predation on calves is probably one of the main reasons the Fortymile herd is not growing rapidly. Continued wolf predation throughout the lives of the caribou also takes a toll. The liberal hunting regulations passed in the early 1980's to encourage harvest of wolves and grizzly bears may eventually help reduce this predation. To date, though, there appears to be little effect from hunting. Management plans for the Fortymile herd and the other species in this area must recognize the true impact of predation and balance herd growth objectives with the needs of predators.

How do we determine the annual quota?

The harvest quota is based on the herd's growth rate over the past year. If the herd is growing at a rate greater than ten percent, the harvest quota is three percent of the total herd and may include one and one half percent of the females. If the herd grows less than ten percent the harvest quota is reduced to two percent or less, and no more than half a percent of the females may be taken. Since the herd increased by only two to five percent over the past year, this year's harvest quota will be limited two percent of the total herd: 442 caribou. Current management objectives would allow the harvest of 64 females in the quota. However, since we are managing for maximum herd growth and also, due to the difficulties of trying to limit the female harvest to such a low level, we will continue to have a bulls only bag limit.

