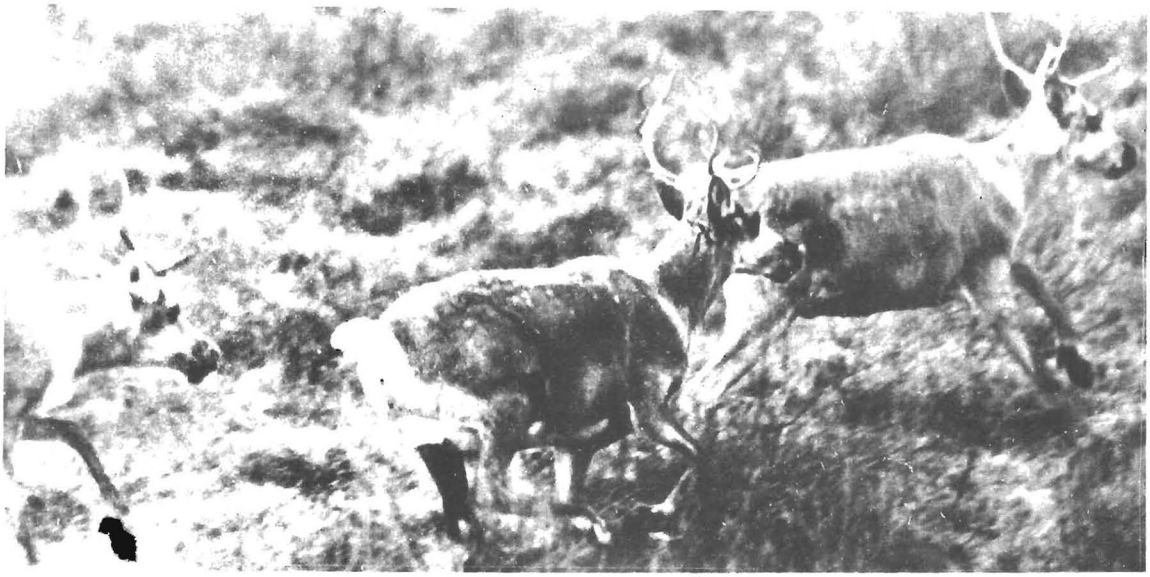


Photos by Al Johnson and Art La Piererre

# NELCHINA CARIBOU

MAY IS A crucial month in the annual cycle of the Nelchina caribou herd. It is the month when calves are born—the time for replacing those animals lost in the preceding year. The success of the calf crop then, is important to the dynamics of the population. It is therefore of concern to Department of Fish and Game biologists who must manage this important herd for long-term consumptive and nonconsumptive uses.

The caribou calving event is unique among Alaskan ungulates in that the major portion of a herd such as the Nelchina will calve in a relatively small area within a period of two weeks.

With large herds this can be a rather spectacular event: large-scale annual migrations from the winter ranges to the traditional calving grounds, the urgent arrival to the upland calving areas of long, single-file strings of caribou, the intense calving activity and the massive post-calving concentrations of caribou which gather prior to dispersal to greening summer ranges.

Over the years, the Nelchina herd has retained a remarkable fidelity to its calving grounds in the northern foothills of the Talkeetna Mountains. Although the winter range has shifted from the Cantwell and Lake Louise areas all the way to the Nabesna country and back again during the past two decades (necessitating in some years one-way spring migrations of more than 130 miles), the herd has consistently returned to its traditional calving grounds each May.

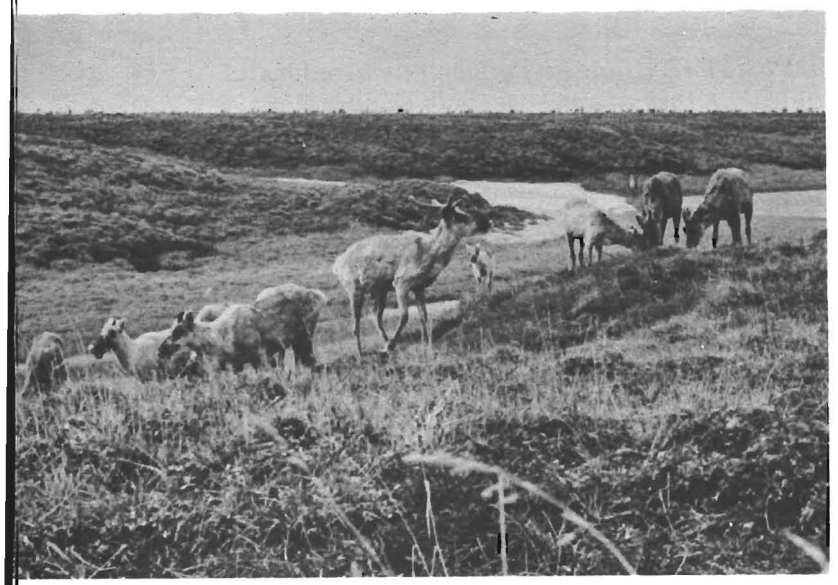
Arriving at their destination in mid-May, the pregnant cows quickly settle into the gentle valleys, dispersing into small but fluid groups. Almost all the calves are born within the space of two weeks, but as many as half may be born within three or four days. Caribou cows have only one calf each year. Calves are on their feet soon after birth and are following their mothers within a few hours.

Caribou are almost always in motion, even on the calving grounds. As calving ends, maternal cows form bands which grow steadily. Other caribou may join the calving cows until by late June the largest concentrations of the year are formed. Then, usually during July, the caribou disperse to the upland summer ranges and groups larger than 20 or 30 animals are uncommon.

Relatively few persons have witnessed caribou calving. The experience provides a very real awareness of the vitality and endurance of the caribou. Also apparent, however, is the uncompromising character of nature itself. Not all calves that are born survive. Fewer than half may live through their first year. Some may be stillborn or may be too weak to survive the first few hours. Storms bringing rain, snow and freezing temperatures may kill many new calves. Some calves are abandoned by their mothers or are separated and lost. Others are taken by various predators. In the end, the strongest, healthiest and luckiest calves survive.

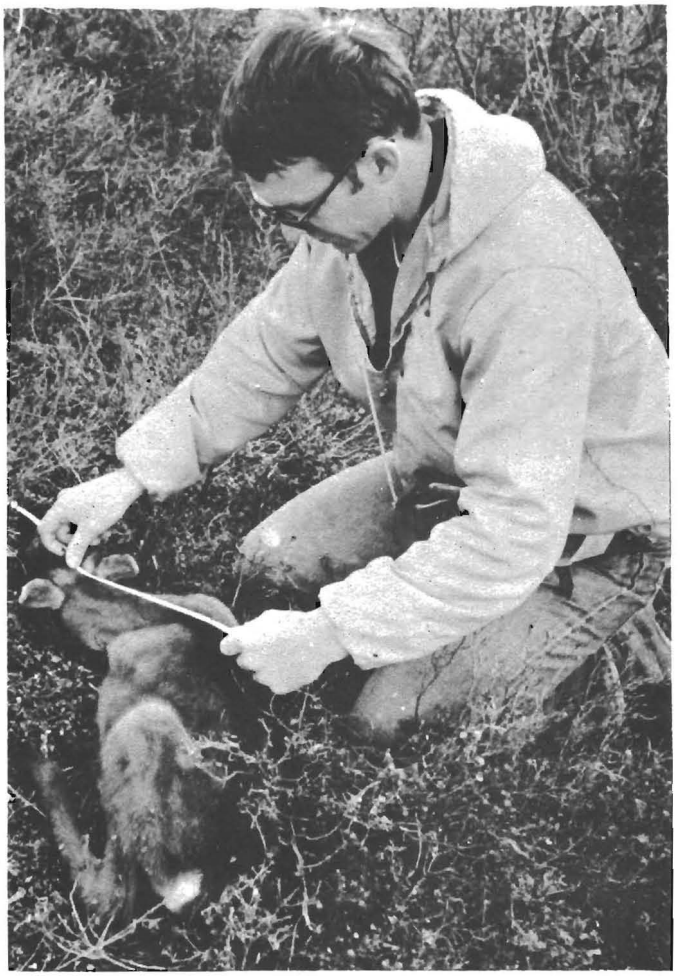
During 1971 and 1972 calf crops were small and this contributed to the recent decline in the size of the Nelchina herd. During these two years, lingering deep snows and inclement weather during calving were believed to have been the major factors limiting calving success.

The need to determine the factors affecting Nelchina caribou calving success prompted Department of Fish and Game biologists to spend eight days on the Nelchina calving grounds in May, 1973, dur-



# CALVING

By Greg Bos
Game Biologist
Anchorage



*CALF CHECK—Calving time in the Talkeetna foothills provides opportunity for gathering information on young animals. Charles Lucier, game biologist stationed in Anchorage, measures a very young calf.*

*Gregory N. Bos holds a B.S. degree in wildlife management from Humboldt State College and an M.S. degree in wildlife management from the University of Alaska. He began work with the department in 1967 as game biologist II and returned to the Game Division in 1972 after two years with the Army.*

ing the peak of calving activity. There they monitored the success of this year's calf crop, made observations on mortality factors affecting calves and noted the general health of the herd. Here are some of the things they found:

* Calving success was quite good this year. Counts showing high proportions of cows with calves at the end of May were substantiated by counts conducted in late June. More than half of all females in the herd were accompanied by calves in late June.

* Weather conditions were generally very good during the entire period of calving. Days were mostly warm and sunny, with only occasional snow showers. The snowpack from last winter was relatively light. The area of greatest calving activity was largely snow-free.

* The progression of calving, from the arrival of the cows on the calving grounds to the peak of calving, was very similar to the pattern established by studies in the mid-1950s.

* The general health of the herd is good. Almost no crippled or sick caribou were noted. Special emphasis was placed on observing cows with retained placentas—a sign of brucellosis (abortion disease)—but only a few questionable examples were noted.

* Only a few dead caribou calves were found. These were probably killed by predators. Some losses were attributed to grizzly bears and eagles. No wolves were observed at any time during the study.

* Abandonment of calves appeared to be an important potential cause of calf mortality. Several instances of separation of the calf from the cow were observed which were followed by unsuccessful searches by the cow. Some cows were seen rejecting strange calves which approached them, at times by striking at the calves with their hooves or antlers. Young calves unable to find their mothers would probably have little chance of survival.

Biologists are planning to repeat the study in May, 1974. Information obtained then will be compared to that gathered in 1973 and will be used to better assess the welfare of the Nelchina herd. For the time being, the prognosis is good. ■

Alaska

# FISH tales & GAME trails

NOVEMBER - DECEMBER, 1973

ALASKA DEPARTMENT OF FISH AND GAME