



ON  
VACATION

# CARIBOU



FAQ

RESOURCES

SIGHTINGS

MAPS

HOME

## Population Studies and Decline in Porcupine Caribou Herd

Alaskan wildlife biologist **Dr. Stephen M. Arthur** sheds some light on population changes in the herd in recent times. Here are some of his thoughts:

"There are several factors that may be involved in the decline of the Porcupine Caribou Herd (PCH) during the mid to late 1990s.



See:  
Reading  
and Writing  
Connections

[>>](#)

**Increase in Mortality of Adults:** The most likely explanation is that there has been an increase in mortality of adults compared to the 1980s when the herd was increasing. There are several possible causes of this, but we don't have enough information to say which ones are the most important.

**Mid Winter Weather:** Severe mid-winter weather the past two winters may be one of the factors leading to the herd's population decline, although we have not seen a reduction in body condition of cows during mid-winter, which would be expected if winter weather were reducing survival.

**Predators:** Predator populations in the summer and winter ranges seem to be fairly high, and we have had many reports of wolves preying on caribou on their winter range.

**Moose Population/Wolves:** Also, the moose population (which would be the primary alternate prey for wolves) in much of the herd's summer range has declined dramatically since the 1980s, so wolves in this region must have increased their reliance on caribou.

**Human Harvest:** Meanwhile, the human harvest of Porcupine caribou, which occurs mainly on the winter range and during migration, has not declined and may have increased slightly.



Dr. Stephen Arthur  
Alaska Department of Fish  
and Game

### ...Or is this part of a Natural Cycle?

However, this may be part of a natural cycle where a period of increase is followed by a period of decrease. Most arctic caribou herds fluctuate over periods of several decades. We haven't been studying this herd long enough to understand how the different pieces of the puzzle fit together. So, my best guess is that there has been a combination of things that increased adult mortality."