

DETERMINING THE CAUSES AND MAGNITUDE OF CARIBOU MORTALITY

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EXECUTIVE SUMMARY

One of the recommendations of the Recovery and Implementation Plan for Threatened Woodland Caribou (*Rangifer tarandus caribou*) in the Hart and Cariboo Mountains Recover Area is to reduce moose numbers so that wolf numbers will subsequently decline, predation on caribou will also decline and caribou numbers will increase. Alternatively, as moose numbers decline, and wolves are less able to subsist on moose, wolf predation on caribou may increase. Even though this prey reduction strategy was suggested many years ago and is recommended in the recovery plan, it has never been tested. To promote caribou recovery and to test this hypothesis, The Ministry of Environment has liberalized moose hunting regulations in the Parsnip drainage so that hunters will reduce moose numbers.

This project quantified predation rates on caribou and monitoring the location, timing and causes of any deaths of 25 radio-collared female caribou. Those data were used to evaluate our research hypotheses that:

H1 – caribou survival would be higher in winter than in summer;

H2 – caribou would be more likely to die or wolf predation in summer than in winter; and

H3 – caribou survival would increase as moose numbers decline.

Of the 25 caribou collared, 6 caribou died during this study. Five died in winter and 1 died in summer. Of the 5 death sites we visited, all appear to have been eaten, and presumably killed, by wolves and all but one winter death site was at high elevation on typical caribou range. Our data were most consistent with the alternative hypotheses that as moose numbers decline wolf predation on caribou will increase.

Further research into the long-term demographic relationship between moose numbers and wolf predation on caribou is warranted before moose numbers are reduced on other caribou herd ranges.