

STATE OF ALASKA

DEPARTMENT OF FISH AND GAME

DIVISION OF WILDLIFE CONSERVATION

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MEMORANDUM

TO: Porcupine Caribou Technical Committee **DATE:** October 10, 2007

THRU: Roy Nowlin **TELEPHONE:** 459-7242
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FROM: Elizabeth A Lenart **SUBJECT:** 2007 Porcupine Caribou
Wildlife Biologist Photo Census decision
Division of Wildlife Conservation on quality of photos
Fairbanks

A photocensus on the Porcupine Caribou Herd (PCH) was conducted July 1, 2007. On October 9, 2007, a meeting with members from the Porcupine Technical Committee took place at Alaska Department of Fish and Game in Fairbanks, Alaska to determine if the quality of photos taken during the census was sufficient to use to estimate the population size of the PCH. On July 1, the caribou were aggregated into groups that could be photographed; however, the herd as a whole was spread over an area of more than 6,700 km² and most of the herd was in the mountains. The distance between groups was much greater than observed during previous census attempts. This meant that an entire day was needed to cover all of the groups with one photo aircraft. By the time the photo plane reached the north side of the Brooks Range, the sun angle was low, causing very dark shadows that contrasted with adjacent brightly-lit areas. The amount of contrast on many photos exceeded the ability of the film to produce a useable image in the dark areas. As a result, 38 of the 220 photos cannot be used. These photos involve 6 groups of caribou, including one of the largest seen during the census. The affected photos probably include between 20,000 and 30,000 caribou (based on visual estimates made from the aircraft during the census). Although it would be possible to obtain a minimum estimate of the herd size based on the usable photos, this would likely be at least 30,000 less than the actual herd size. In addition, the true magnitude of the underestimate is unknown, which would make the population number associated with this census of very questionable value. Given the time and expense necessary to count caribou on the photos, and the potential for misunderstanding of such an inaccurate estimate, the Porcupine Technical Committee agreed unanimously that further effort on this census was not warranted.