

**Central Kuskokwim Wolf Predation Control Implementation Plan and Activities  
Report to the Alaska Board of Game  
March 2005**

***Background***

For several years the Central Kuskokwim Fish and Game Advisory Committee expressed concern to the Board about declining moose numbers in Units 19(A) and 19(B). The committee submitted several regulation proposals and recommended wolf predation control to stop the decline of the moose population and boost moose numbers in the area. In response to the concerns of the advisory committee and other users, the Alaska Department of Fish and Game initiated a comprehensive planning process for the area with a citizen based planning committee composed of a broad cross-section of stakeholders in Units 19(A) and (B) wildlife management. Upon reviewing information on the moose populations the majority of the Central Kuskokwim Moose Management Planning Committee agreed:

***“There is a major concern that the moose populations in Units 19(A) and 19(B) will not meet the needs of local subsistence users and other consumptive users. Local observations and available scientific data indicate that the moose population has substantially declined and in some areas is very low and will continue to jeopardize subsistence and other uses.”***

The Central Kuskokwim Moose Management Plan (CKMMP) developed by the planning committee is a comprehensive plan for the area that includes a recommendation for a wolf predation control program for Units 19(A) and (B). The control program is one component of a multifaceted plan to rebuild the moose populations in the Central Kuskokwim region. The planning committee recommended that the first priority for wolf predation control efforts should be the areas most important for providing moose for subsistence uses. Unit 19(A) is where the majority of subsistence moose hunting by local residents and residents of Unit 18 occurs.

A wolf control implementation plan was adopted Board of Game for the Central Kuskokwim and consists of Units 19A and 19B. The plan is in effect for 5 years and began on July 1, 2004. The objective for the program as listed in 5 AAC 92.125 (7)(A) is:

- To initiate an increase toward the intensive management moose population objective of 13,500–16,500 moose with a sustainable annual harvest of 750–950 moose.

***Plan Implementation Activities***

Wolf Control. Permits for the wolf control program were issued beginning in November 2004. It is still too early to evaluate the success of the program.

***Status of Prey and Predator Populations***

Moose Population. Composition surveys and population estimates completed this winter suggest moose numbers have declined in Unit 19A over the past 7 years. In Unit 19B, no trend count data or population estimates are available. However, extrapolation of data from Unit 19A and other information suggest the Unit 19B population has also declined.

In November 2001, a trend count area survey on the Holitna-Hoholitna Rivers in Unit 19A indicated a declining population. The bull:cow (6:100) and calf:cow ratios (8:100) were very low, and the number of moose counted was the lowest ever recorded (196) in the trend area. Some of the decline could have been due to atypical moose distribution caused by shallow snow and relatively temperate late fall weather.

In November 2004, a modified Geo-Spatial Population Estimate (GSPE) technique was used to estimate population composition in the Holitna-Hoholitna and Stony Rivers portion of Unit 19A. The bull:cow (19:100,  $\pm 53\%$ , 90% CI) and calf:cow ratio (32:100,  $\pm 38\%$ , 90% CI) were higher than in November 2001. Some improvement in the ratios is indicated, however, results of the two surveys cannot be directly compared because the 2004 survey covered a much larger geographic area and was done using different methods than the 2001 survey. The estimated percent moose calves during the November 2004 composition survey was 22%.

Moose population size was calculated for Unit 19A during the planning process and for the March 2004 Board of Game meeting, based upon earlier estimates of density in portions of the Unit. In March 1998, 1.25 moose/mi<sup>2</sup> ( $\pm 14\%$ , 80% CI) was estimated using Gasaway survey methods in a portion of the Holitna-Hoholitna drainage. In March 2001, 0.7 moose/mi<sup>2</sup> ( $\pm 21\%$ , 90% CI) was estimated using GSPE methods in a portion of the Aniak drainage. Extrapolation of data from both estimates to all of Unit 19A resulted in a total population size of 4300–6900.

The population size for Unit 19A was revised in February 2005, based upon an estimate of 0.27 moose/mi<sup>2</sup> ( $\pm 16\%$ , 90% CI) obtained using GSPE survey methods for the portion of the unit south of the Kuskokwim River. Extrapolation of this data to all of Unit 19A resulted in a total population size of 2350–3250, which is lower than our 2004 total and suggests numbers have declined over the past 7 years.

Estimated percent calves in the population during the February 2005 survey was 17%, which was consistent with the 22% calves estimated during November 2004. It was also within the 16–22% calves commonly observed in southwestern interior late winter surveys. However, it was higher than 11% calves estimated in the March 2001 survey in a portion of the Aniak River drainage.

A moose population size of 2500–4400 was calculated for Unit 19B during the planning process, based on extrapolation of survey data from Unit 19A, habitat characteristics, harvest data, and information from local hunters and guides. The estimate was revised downward in February 2005 to 1800–2850, primarily based on new survey data from Unit 19A.

During the Central Kuskokwim moose management planning process, many of the local representatives and other participants believed the Unit 19A and B moose population estimates provided by the Department were too high. Because of this input and lack of conclusive moose population data, the CKMMP includes a statement that “ADF&G survey data is limited and traditional ecological knowledge and the knowledge of all users has played an important role in judging the status and trend of the moose population.” The February 2005 survey data support the supposition incorporated into the CKMMP that the moose population has declined significantly since previous moose population estimation surveys were conducted.

Combining current extrapolations for Units 19A and 19B results in a total estimate of 4150–6100 moose, which is well below the intensive management objective of 13,500–16,500.

Preliminary reported moose harvest by Alaska residents and nonresidents during fall 2004 in Units 19A and 19B was 158, which is well below the intensive management harvest objective of 750–950.

Wolf population. There is no population objective for wolves in Units 19A and 19B. Unitwide surveys have not been conducted since 2002. The fall 2002 population estimate was 220–300 wolves in 31–43 packs in Unit 19A and 170–230 wolves in 24–33 packs in Unit 19B. Hunters and trappers reported taking 25 and 35 wolves during 2002–2003 in Units 19A and 19B, respectively and 29 and 30 wolves during 2003–2004. Hunting and trapping harvest over the past 5 years averaged 30 and 38 wolves annually in Units 19A and 19B and has not exceeded sustainable levels.

### ***Recommendations to Achieve Plan Objectives***

Continue to implement the plan as approved by the Board.