

Unit 19A Wolf Predation Control Implementation Plan and Activities
Division of Wildlife Conservation Report to the Alaska Board of Game
March 2007

Background

For several years the Central Kuskokwim Fish and Game Advisory Committee expressed concern to the Board about declining moose numbers in both Units 19A and 19B. 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 19A 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 19A and 19B 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 developed by the planning committee is a comprehensive plan for the area that includes a recommendation for a wolf predation control program for Units 19A 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 19A is where the majority of subsistence moose hunting by local residents and residents of Unit 18 occurs.

A wolf control implementation plan was first adopted by the Board of Game in March 2004 for the Central Kuskokwim and consisted of Units 19A and 19B. It was approved for 5 years and began on July 1, 2004. The Board authorized the commissioner to issue public aerial shooting permits on public land and shoot permits for Unit 19A only as methods of wolf removal pursuant to AS 16.05.783. In January 2006, the Board adopted a revised implementation plan in the form of an emergency regulation. The emergency regulation limited control activities to Unit 19A to make it consistent with the Board’s previous findings that implemented wolf control in Unit 19A only. Also, the emergency regulation clarified and updated key components of the plan that included: wildlife population and human use information, predator and prey population levels and objectives, plan justifications, methods and means, time frame for updates and evaluations, and miscellaneous specifications. In May 2006, the Board further modified the emergency regulation and adopted it as a final regulation. Authorization to issue

public aerial shooting permits or public land and shoot permits was reaffirmed, and the following prey and predator population estimates and population objectives were specified.

- 2006 moose population: 2,700–4,250
- Moose population objective: 7,600–9,300.
- Fall 2004 precontrol wolf population: 125–150
- Wolf population control objective: 30–36

Plan Implementation Activities

2005–2006 CONTROL PROGRAM

We conducted control activities during regulatory year (RY) 2005–2006 in Unit 19A under authority of the wolf control implementation plan adopted by the Board in March 2004 and modified in January 2006 (regulatory year begins on July 1 and ends June 30, e.g., RY05 = July 1, 2005–June 30, 2006). We received 95 applications for public wolf control permits and issued 82 permits, 30 to pilots and 52 to gunners. The control program began on December 3, 2005, and was suspended on April 4, 2006 because the wolf population was reduced to the control objective of 40–53 specified in the predator control implementation plan adopted by the Board in January 2006. It was also temporarily suspended during January 18–27, 2006 due to a court injunction. Permittees took 47 wolves, and an additional 30 wolves were taken by hunters and trappers (Table 1). All take of wolves by hunters and trappers, was also suspended on April 4, 2006.

Table 1. Wolf harvest and wolf control take in Unit 19A, RY01–RY05.

Regulatory Year	Hunting and Trapping Harvest	Wolf Control Take	Total Kill
2001–2002	49	-	49
2002–2003	25	-	25
2003–2004	29	-	29
2004–2005	27	43	70
2005–2006	30	47	77

2006–2007 CONTROL PROGRAM

We are conducting control activities during RY06 in Unit 19A under authority of the wolf control implementation plan adopted by the Board in May 2006. We received 73 applications for public wolf control permits and issued 38 permits, 17 to pilots and 21 to gunners. The control program will be in effect during November 1, 2006–April 30, 2007 or until the wolf population is reduced to the control objective of 30–36 specified in the in the May 2006 plan. We estimate that 9–35 wolves will need to be taken in order to reach the upper end of the control objective. No wolves have been reported taken by control permittees during this regulatory year. To date, 1 wolf was reported taken by a hunter and 1 by a trapper.

Status of Prey and Predator Populations

MOOSE POPULATION

Population Composition. In November 2005, we conducted composition surveys in central Units 19A and B in the Holitna–Hoholitna drainage and in western Unit 19A in the Aniak drainage including the Kuskokwim River from Lower Kalskag to Napaimiut. In central Units 19A and B, a total of 307 moose were observed and the bull:cow ratio was 8:100 with most bulls classified as yearlings (12 of 19). The calf:cow ratio was 24:100. The low bull:cow ratios observed during this and past composition surveys indicate that hunting pressure has been high in this area. In western Unit 19A, a total of 410 moose were counted, with a bull:cow ratio of 20:100 and a calf:cow ratio of 23:100. No composition surveys were completed during November 2006 because survey conditions were unsuitable, and current data are insufficient to evaluate the effect of the wolf control program on the moose population. Composition surveys are planned for November 2007 if survey conditions are suitable.

Population Size. In March 2006, we estimated 2,700–4,250 moose ($0.27\text{--}0.42$ moose/mi²) were present in Unit 19A. This was based upon extrapolation of population estimation surveys conducted in the entire area south of the Kuskokwim River in February 2005 (0.27 moose/mi² $\pm 16\%$, 90% CI) and south of the Kuskokwim between Kalskag and Crooked Creek in March 2006 (0.39 moose/mi² $\pm 15\%$, 90% CI). The estimated population is well below the objective of 7,600–9,300 moose. A population estimation survey is planned for March 2007 if survey conditions are suitable.

Harvest. Based upon current estimates of recruitment, population density and bull:cow ratios, there is no harvestable surplus of moose in eastern Unit 19A (upstream from and excluding the George River). The hunting season was closed in eastern Unit 19A beginning in RY06, with the exception of the Lime Village Management Area (LVMA). Hunting is currently allowed in the LVMA under a state Tier II permit during August 10–September 25 and November 20–March 31 with a bag limit of 2 bulls and under a federal community harvest system during July 1–June 30 with a quota of 28 bulls. Inquiries in Lime Village indicate that 3 bulls have been taken during this regulatory year under the state and federal hunts.

In western Unit 19A (downstream from and including the George River), the harvestable surplus is 60 bulls. Beginning in RY06, hunting in this area was restricted to a state Tier II permit hunt and a federal permit hunt during September 1–20. A total of 300 permits were issued under both hunts, and the bag limit was 1 bull. Reported harvest during RY06 was 32 bulls.

WOLF POPULATION

Population Size. We conducted a complete wolf survey in Unit 19A in January and March of 2006, and estimated 107–115 wolves in 26–27 packs or approximately 1.1–1.2

wolves/100 mi². Sixty-seven wolves were reported killed after the survey was completed, leaving an estimated 40–48 wolves in the population when all take of wolves by control program permittees and hunters and trappers was suspended on April 4, 2006.

No surveys have been completed thus far during winter 2006–2007 because of unsuitable survey conditions. However, we estimated the fall 2006 population at 45–71 wolves using our PredPrey model. The model uses the relationship between spring 2006 wolf and moose population size to predict a likely growth rate for the wolf population. Mathematical equations which define model functions were taken from published predator-prey studies conducted across North America. Surveys are planned for March 2007 if survey conditions are suitable.

Harvest. Hunting and trapping harvest over the past 5 years (RY01–RY05) averaged 32 wolves annually (Table 1). Periodically, higher harvests occurred and are probably related to effects of snow on travel in the Aniak and Holitna drainages. An additional 43 and 47 wolves were taken in the wolf control program during the last 2 regulatory years, respectively.

Recommendations to Achieve Plan Objectives

We recommend continuing wolf control activities as approved by the Board.