

**Findings of the Alaska Board of Game  
2004-150-BOG**

**Authorizing Wolf Predation Control in the Unit 19(A) Portion  
of the Central Kuskokwim Wolf Predation Control Area  
With Airborne or Same Day Airborne Shooting**

**March 10, 2004**

**Purpose and Need**

This action of the Board of Game (Board) is to authorize a wolf predation control program in the Game Management Unit 19(A) portion of the Central Kuskokwim Wolf Predation Control Area in accordance with AS 16.05.783, Same day airborne hunting, 5 AAC 92.039, Permit for taking wolves using aircraft, and 5 AAC 92.110, Control of predation by wolves. This authorization does not currently include the Unit 19(B) portion of the Central Kuskokwim Wolf Predation Control Area.

There is no expectation that the Intensive Management population and harvest objectives for moose will be achieved in a reasonable time frame unless wolf predation on moose is reduced through a wolf predation control program.

**Identified Big Game Prey Population and Wolf Predation Control Area**

The Central Kuskokwim Wolf Predation Control Implementation Area includes both Units 19(A) and 19(B) and encompasses approximately 17,680 mi<sup>2</sup>, including all land ownerships. The Board has identified moose populations in Units 19(A) and 19(B) as important for providing high levels of harvest for human consumptive use in accordance with the Intensive Management statute and regulations (AS 16.05.255(e)–(g), 5 AAC 92.106, and 5 AAC 92.108).

The Board's present authorization for wolf control using airborne or same-day-airborne shooting includes those portions of the Kuskokwim River drainage within Unit 19(A) defined in 5 AAC 92.450(19)(A), encompassing approximately 9,969 mi<sup>2</sup>.

**Background**

Unit 19(A) encompasses the Central Kuskokwim River and the communities of Lower and Upper Kalskag, Aniak, Chuathbaluk, Crooked Creek, Red Devil, Sleetmute, Stony River, Lime Village, and other smaller settlements. Residents of Unit 19(A) depend on moose as a primary subsistence food source. Residents of communities in Unit 18 travel up the Kuskokwim River to harvest moose for subsistence and other uses, as do other Alaska residents who access the area by aircraft.

Unit 19(B) is also included in the Central Kuskokwim Wolf Predation Control Area. It encompasses the upper portions of several tributaries to the Kuskokwim River. Although there are no communities in the unit, the area provides moose that are important for subsistence use

and personal consumption of moose by Alaska residents. Units 19(A) and (B) have also provided hunting opportunities that are important for non-resident hunters and the guiding and transporting industries.

For several years, the Central Kuskokwim Fish and Game Advisory Committee (CKAC) has expressed concern to the Board about declining moose numbers in Units 19(A) and 19(B). The committee has 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 CKAC and other users, the Alaska Department of Fish and Game (ADF&G) 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 (CKMC) 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 developed by the CKMC 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 CKMC 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.

### Status of the Moose Population

A moose population estimate conducted in Unit 19(A) in March 1998 indicated a density of 1.25 moose per mi<sup>2</sup> in the Holitna and Hoholitna drainages where moose are most abundant. Moose densities are much lower in surrounding areas of lower habitat quality. A March 2001 population estimate in Unit 19(A) in the Aniak River area indicated a density of 0.7 moose per mi<sup>2</sup>. The Aniak survey area is surrounded by other areas of lower habitat quality where moose densities are much lower. Extrapolation of the 1998 and 2001 survey data results in a population estimate of 6,800 – 11,300 moose for Units 19(A) and 19(B). If the moose population has decreased since the last (2001) population estimation survey as is suggested by other moose survey data and observations of local residents and others, the population is probably lower.

There is a great deal of concern about the low calf:cow and bull:cow ratios in the moose population in Unit 19(A). A November 2001 trend count conducted in a relatively small and heavily hunted area along the Holitna/Hoholitna Rivers indicated only 8 calves:100 cows and 6 bulls:100 cows (sample size 196 moose).

A late winter survey to estimate calf survival conducted in April 2003 in Unit 19(A) resulted in

an estimate of 7.6% calves in the moose population in Holitna/Hoholitna drainage (sample size 107 adults and 9 short-yearlings) and 8.9% in the moose population in the Aniak drainage (sample size 61 adults and 6 short-yearlings).

The calf:cow ratios in fall and percent of calves found in spring surveys support the belief that calf survival in the moose population is very low, a decline in moose numbers is occurring, and the actual number of moose is likely lower.

The Department's data is specific to 19(A), but the information is indicative of the entire Central Kuskokwim Wolf Predation Control Area.

### Trends in Moose Harvest

Numbers of reported hunters and moose harvested have declined substantially since the mid 1990s (Figure 1). Total reported moose harvest in Units 19(A) and (B) has declined 48% from the 1994-95 season (331 moose) to the 2002-03 season (148 moose). In Unit 19(A), the number of moose reported harvested by local residents and other Alaska residents declined approximately 65% (from 138 moose to 48 moose) between 1994-95 and 2002-03. Hunting in Unit 19(B) by non-local Alaska residents has declined from 199 hunters who harvested 71 moose in 1994-95 to 80 hunters who harvested 14 moose in 2002-03. Numbers of moose taken by nonresident hunters declined in Units 19(A) and (B) from 101 moose taken in 1994-95 to 83 moose taken in 2002-03. If estimated unreported harvest is added to these figures, the trend of harvest having declined by approximately 50% over the last 8 years is unchanged.

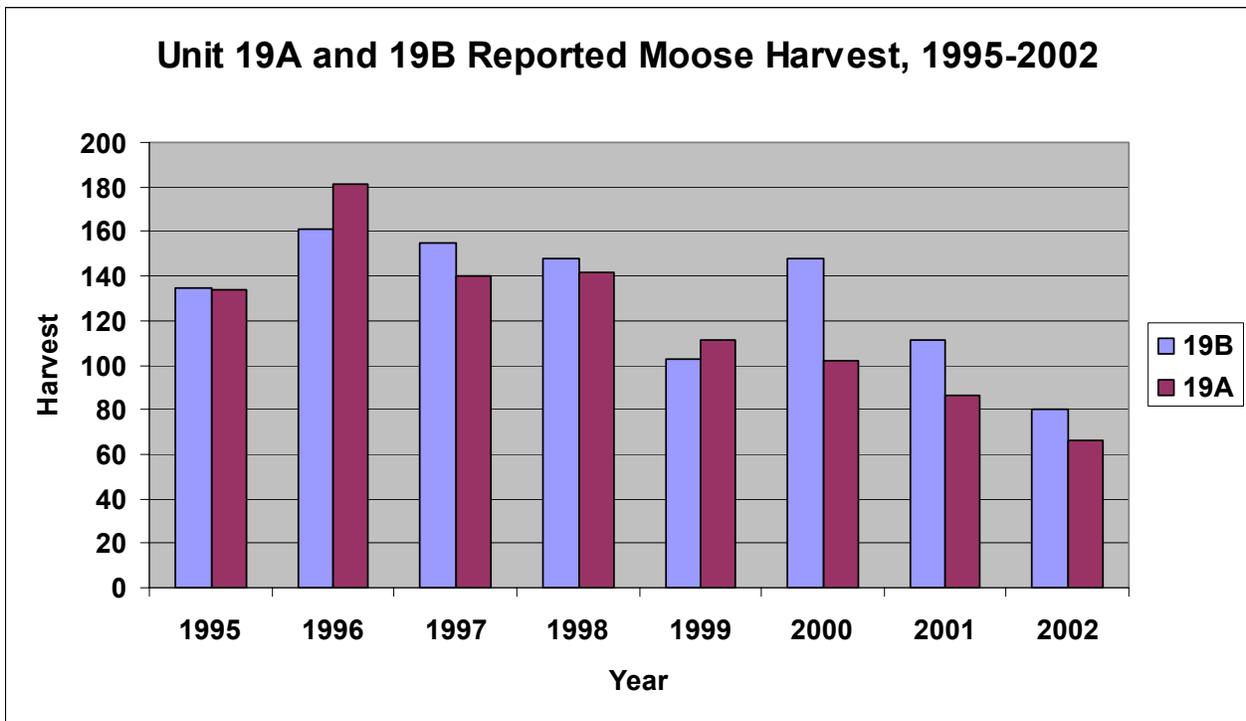


Figure 1. Decline in reported moose harvest in GMUs 19(A) and 19(B) since 1995.

**The Objectives For The Big Game Prey Population Established By The Board Of Game Have Not Been Achieved**

<u>Intensive Management Objectives for Units 19(A) and 19(B) (5 AAC 92.108)</u>	<u>Current Estimated Moose Population and Harvest (reported and unreported) for Units 19(A) and 19(B)</u>
Population: 13,500 – 16,500 moose Harvest: 750 – 950 moose	Population: 6,800 – 11,300 Harvest: 200 – 300

The current estimate of the moose populations and harvest levels are well below the population and harvest objectives established in 5 AAC 92.108, Identified big game prey populations and objectives. The estimated harvest number provided above includes both reported and unreported moose harvest.

**Predation is an Important Cause for the Failure to Achieve the Population and Harvest Objectives Established by the Board of Game**

The wolf population in Unit 19(A) is estimated at 180-240 wolves in 24-28 packs; that is approximately 1.8-2.4 wolves per 100 square miles. Wolf population estimates are extrapolated from other areas based on average pack size, land area, and estimated prey biomass and also take into account observations of local hunters and trappers, and department observations not associated with wolf surveys. Extrapolated estimates of moose and wolf populations suggest the current moose-to-wolf ratio is between 18:1 and 24:1. Moose can be expected to persist at low densities with little expectation of increase unless moose calf and adult survival improve. These data, information gained from studies on moose mortality in Unit 19(D)-East and other similar areas of Alaska, and observations of local residents suggest that wolves are currently a major limiting factor for moose in the Central Kuskokwim Wolf Predation Control Area.

**Reduction of Predation Provides a Reasonable Expectation of Achieving the Population and Harvest Objectives**

Data from moose mortality and predator/prey studies conducted throughout Alaska and similar areas in Canada suggest that reducing the number of wolves in the Central Kuskokwim Wolf Predation Control Area can reasonably be expected to increase the survival of calf as well as older moose. Mortality studies conducted in Unit 19(D) East have shown that wolves accounted for 37% of calf mortality and 40% of yearling and adult mortality. In terms of the total population, wolves killed approximately 26% of the calf population and 8% of the adult and yearling population annually. Reducing wolf predation on moose, in combination with reducing harvest (particularly of cows), can reasonably be expected to initiate an increase of the moose population towards the population and harvest objectives.

**The Board Establishes and Recommends the Following:**

1. The first priority for wolf predation control activities in the Central Kuskokwim Wolf Predation Control Area are the areas most important for providing moose for subsistence harvest by residents of the region. In general, Unit 19(A) is the most important for providing moose for subsistence purposes.
2. Methods and means to take wolves may include land and shoot or shooting from aircraft as designated by the Department and in accordance with 5 AAC 92.039. The present Board authorization for airborne or land and shoot taking of wolves is for Unit 19A only.
3. Permits shall be issued to members of the public qualified to operate within the constraints of the program, and able to accomplish the objectives of the program as designated by the Department.
4. The Department should seek to accomplish an approximate 80% reduction in the wolf population in the Unit 19(A) portion of the Central Kuskokwim Wolf Predation Control Area for a period of 5 years beginning on July 1, 2004. Based on the wolf population estimate of 180-240 wolves, approximately 140-190 wolves should be taken the first year of the program.
5. At no time should the wolf population in the Central Kuskokwim Wolf Control Implementation Area be reduced to fewer than 40 wolves.
6. The Board recognizes that the CKMC recommendation for a wolf predation control program is based on available scientific data that indicates low survival in the moose population and the observations of local residents and other users who report significant declines in the moose population. This is the best information currently available. The Board encourages the Department to continue efforts to obtain additional moose population information to increase knowledge about the population and to evaluate the progress of the wolf predation control program.
7. The Department should establish a program to monitor the wolf population that will make maximum use of data obtained from pilots involved in the wolf reduction program. The Department should also conduct wolf surveys to provide additional assurances that the minimum wolf population will be maintained and to measure the success of the program.
8. The wolf predation control program should be re-evaluated after a 5-year period or when the moose population is estimated to reach the Intensive Management population objectives, whichever occurs the soonest.
9. The Board of Game endorses the Central Kuskokwim Moose Management Plan, as modified by regulatory actions taken in the March 2004 meeting, as a general guide to moose management in Units 19(A) and 19(B). In particular, the Board endorses the mission of the plan to increase the moose population of the Central Kuskokwim region to provide for high levels of human consumptive uses of moose. The Board also endorses the strategy of

restoring hunting opportunities as soon the moose population can sustain additional harvest. The Board recognizes that the Central Kuskokwim Moose Mangement Plan may require revisions in the future as additional information is obtained and implementation of the revised regulations is evaluated.

10. The Board requests that the Department provide a progress report on implementation of wolf predation control in Unit 19(A) and other aspects of the Central Kuskokwim Moose Management Plan at its spring 2005 meeting. At that time, the Board will consider if the present authorization for airborne or same day airborne shooting of wolves is sufficient to achieve the objectives of the Central Kuskokwim Wolf Predation Control Implementation Plan and whether the authorization needs to be expanded to include Unit 19(B) or modified in any other way.

Vote: 6/1  
March 10, 2004  
Fairbanks, Alaska

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Mike Fleagle, Chair  
Alaska Board of Game