

# **Annual Report to the Alaska Board of Game on Intensive Management for Moose with Wolf Predation Control in Unit 19A**

**Prepared by the Division of Wildlife Conservation  
February 2012**



Interim annual updates are limited to sections that have changed substantially since the prior annual report in February. For complete information, see the prior annual report.

1) **Description of IM Program<sup>1</sup> and Department recommendation for reporting period**

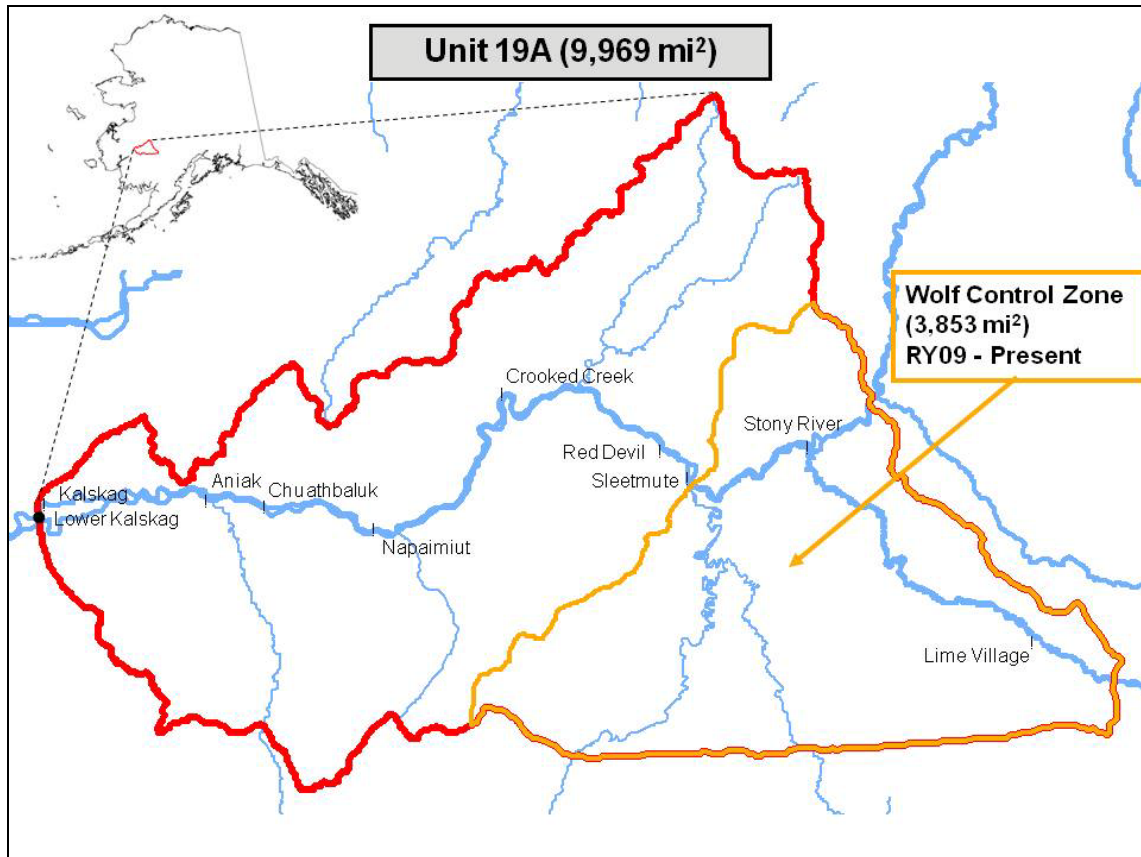
- A) This report is an interim review X or renewal evaluation \_\_\_ for a predation control program authorized by the Alaska Board of Game (Board) under 5 AAC 92.125
- B) Date this report was submitted by the Department to the Board:  
1 February X (annual report) 1 August \_\_\_ (interim annual update<sup>2</sup>) Year 2012
- C) Program name (geographic description/GMU and species/herd): Unit 19A wolf predation control program (Fig. 1)
- D) Existing program has \_\_\_ / does not have X an associated *Intensive Management Plan*
- E) Game Management Unit(s) fully or partly included in IM program area: Unit 19A
- F) IM objectives for moose: population size 7600-9300 harvest 400-550
- G) Month and year the current predation control program was originally authorized March 2004 by the Board. Indicate date(s) if renewed: March 2009
- H) Predation control is currently active X or temporarily inactive \_\_\_ in this IM area
- I) If active, month and year the current predation control program began December 2004 or resumed \_\_\_.
- J) Indicate if a habitat management program funded by the Department or from other sources is currently active in this IM area (Y/N) N
- K) Size of IM program area (square miles) and geographic description: Unit 19A- 9969 mi<sup>2</sup>
- L) Size and geographic description of area for assessing ungulate abundance: Central Kuskokwim Villages Moose Management Area (MMA)- 3,853 mi<sup>2</sup>
- M) Size and geographic description of area for ungulate harvest reporting: MMA- 3,853 mi<sup>2</sup>
- N) Size and geographic description of area for assessing predator abundance: MMA- 3,853 mi<sup>2</sup>
- O) Size and geographic description of predation control area: MMA- 3,853 mi<sup>2</sup>
- P) Criteria for evaluating progress toward IM objectives: moose abundance and harvest

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<sup>1</sup> For purpose and context of this report format, see appendix.

Q) Criteria for success with this program: progress within the MMA that contributes towards achieving the Unit 19A IM moose population objective of 7600-9300 and moose harvest objective of 400-550

R) **Department recommendation for IM program in this reporting period:** continue program (details provided in section 4)



**Figure 1.** Unit 19A intensive management area and wolf control zone (wolf control zone is the same geographic area as the Central Kuskokwim Villages Moose Management Area (MMA)).

**2) Prey data**

Date(s) and method of most recent abundance assessment for moose: March 2011-Goespatial moose population estimate (GSPE) in MMA

Compared to IM area, was a similar trend and magnitude of difference in abundance observed in nearby non-treatment area(s) since program inception Non-Treatment Area Not Established (Y/N) and in the last year Non-Treatment Area Not Established (Y/N)?

Date(s) of most recent age and sex composition survey: November 2011-east/west line transects in Holitna/Hoholitna Drainages

Compared to IM area, was a similar composition trend and magnitude of difference in composition observed in nearby non-treatment area(s) since program inception Non-Treatment Area Not Established (Y/N) and in the last year Non-Treatment Area Not Established (Y/N)?

**Table 1.** Moose abundance, age and sex composition in Central Kuskokwim Villages Moose Management Area (MMA) since program implementation in year 1 since program implementation in year 1 to year 8 . Regulatory year is 1 July to 30 June (e.g, RY 2010 is 1 July 2010 to 30 June 2011).

		Abundance (variation) <sup>1</sup>	Composition (number per 100 females) <sup>2</sup>		
Period	RY		Calves	Males	Total <i>n</i>
Year 1	2004	1085 moose (± 17%; 90% CI)			
Year 2	2005	--	24	8	307
Year 3	2006	--	--	--	--
Year 4	2007	1703 moose (± 28%; 90% CI)	45	35	200
Year 5	2008	--	27	34	124
Year 6	2009	--	36	51	129
Year 7	2010	962 moose (± 18% at 90% CI) 1666 (± 36% at 90% CI) –w/scf	19	48	212
Year 8	2011	--	31	38	164

<sup>1</sup>February/March GSPE surveys (observed moose, not corrected for sightability unless denoted w/scf).

<sup>2</sup>November line transect surveys; 2005 composition survey conducted in a larger geographic area than other years.

Describe trend in abundance or composition: No detectable trend in moose abundance within the MMA

**Table 2.** Moose harvest in Central Kuskokwim Villages Moose Management Area (MMA) since program implementation in year 1 to year 7. Regulatory year is 1 July to 30 June (e.g, RY 2010 is 1 July 2010 to 30 June 2011).

Period	RY	Reported		Total harvest	Other mortality <sup>a</sup>	Total
		Male	Female			
Year 1	2004	37	--	37	--	37
Year 2	2005	42	--	42	--	42
Year 3	2006	1 <sup>b</sup>	--	1	0	1
Year 4	2007	2 <sup>b</sup>	--	2	0	2
Year 5	2008	1 <sup>b</sup>	--	1	4	5
Year 6	2009	1 <sup>b</sup>	--	1	1	2
Year 7	2010	3 <sup>b</sup>	--	3	0	3

<sup>a</sup>Mortuary harvest

<sup>b</sup>Hunting season closed, except within the Lime Village Management Area

Describe trend in harvest: declined due to hunting season closure in most of the MMA

Describe any other harvest related trend if appropriate: None

### 3) Predator data

Date(s) and method of most recent spring abundance assessment for wolves: February 2011- aerial reconnaissance survey and public control permittee interviews

Date(s) and method of most recent fall abundance assessment for wolves (if statistical variation available, describe method here and list in Table 3): February 2011- calculated by subtracting total removal from following spring abundance estimate

Other research or evidence of trend or abundance status in wolves: Pre-control wolf estimate was modeled at 75 – 100 in MMA

**Table 3.** Wolf abundance and removal in Central Kuskokwim Villages Moose Management Area (MMA): Removal objective are to reduce wolf numbers as low as possible in the MMA and to maintain 30-36 in all of Unit 19A to ensure wolves persist in the Unit. Regulatory year is 1 July to 30 June (e.g, RY 2010 is 1 July 2010 to 30 June 2011)

Period	RY	Fall abundance <sup>a</sup>	Harvest removal		Dept. control removal	Public control removal	Total removal	Spring abundance
			Trap	Hunt				
Year 1	2004	--	3	0	0	40	43	--
Year 2	2005	44-46	2	0	0	36	38	5-7
Year 3	2006	--	0	0	0	7	7	--
Year 4	2007	27	0	3	0	12	15	12
Year 5	2008	--	1	0	0	19	0	--
Year 6	2009	--	0	0	0	2	2	--
Year 7	2010	30	0	0	0	10	11	19

<sup>a</sup>Calculated by subtracting total removal from following spring abundance in each RY when spring abundance surveys were conducted

**4) Department recommendations for annual evaluation (1 February) following Year 7 for Unit 19A wolf predation control program**

Has progress toward defined criteria been achieved? No. No detectable change in moose abundance within the MMA.

Has achievement of success criteria occurred ? No

Recommendation for IM program (choose one): Continue with the addition of bear removal in a portion of Unit 19A

**5) Appendix: Purpose and context of Department Report**

This document provides a standard format for area biologists in the Alaska Department of Fish and Game (Department) to periodically report on progress in intensive management (IM) programs with predation control to the public and the Alaska Board of Game (Board). Predation control programs are authorized in Title 5, Chapter 92, Section 125 of the Alaska Administrative Code (5 AAC 92.125). The Department Report is premised on the 10 November 2010 draft *Guidelines for intensive management of big game in Alaska*, which describes the legal background, scientific principles, and management factors of producing and maintaining elevated harvests of ungulates (caribou, deer, or moose) in selected areas of Alaska. For IM programs initiated or renewed after 1 January 2012, the intent is that details of rationale, decision criteria involving public process and other biological and management factors for specific IM programs will be found in the corresponding *Intensive Management Plan*.

IM objectives for deer and moose are determined by the Board for a game management unit (GMU), whereas those for caribou are determined by herd. The IM program area may be

described by geography (drainage) or community(s) if it is focused in a smaller area than the one describing the corresponding IM objectives, or if the area is composed of multiple GMUs. A predation control area may be smaller, and contained within, the IM program area or the area used for assessing predator abundance in a game management unit. Thus, the number of wolves, black bears, or grizzly/brown bears remaining in the larger abundance assessment area on a specific date incorporates the potential for recolonization of the smaller control area by predators on surrounding lands (where hunting and trapping but not control methods are allowed), in addition to reproduction by predators remaining in the control area.

The Department Report to the Board documents evaluation of progress toward IM population or harvest objectives for ungulate or other objectives determined by public process for existing IM programs. Initially these reports will be only for areas with predation control to meet annual reporting requirements (Alaska Statutes, Title 16, Section 50, Part b), but they may be expanded to IM programs that only include ungulate habitat enhancement, diverse strategies for hunter access and ungulate harvest, and outreach programs (see *Guidelines*). Predator harvest is achieved through hunting and trapping regulations, whereas predation control typically removes predators by additional means such as by public participants (by special Department permit) or by Department personnel (non-lethal methods could also be applied). Report information will be used for Department recommendations and Board decisions on continuing, modifying, suspending, or terminating IM programs. The annual report will be issued on 1 February with an interim report on 1 August. These dates account for lag time in entering reported predator removal and ungulate harvest into an electronic database for archive and analysis. The August interim report will have the ungulate harvest and wolf removal from the previous regulatory year, whereas the February annual report will include most of the ungulate harvest from the prior fall and bear removal from the prior regulatory and calendar years. Report information is for a single program, but it may also be presented in a table showing multiple IM programs in a region or all IM programs statewide.