

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

**Prepared by the Division of Wildlife Conservation  
August 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) 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 to year 8. Regulatory year is 1 July to 30 June (e.g, RY 2010 is 1 July 2010 to 30 June 2011).

Period	RY	Abundance (variation) <sup>1</sup>	Composition (number per 100 females) <sup>2</sup>		
			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% 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 8. Regulatory year is 1 July to 30 June (e.g, RY 2011 is 1 July 2011 to 30 June 2012).

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
Year 8	2011	2 <sup>b</sup>	--	2	1	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

**2) 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: February 2011- calculated by subtracting total removal from MMA 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 is 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	1	0	0	10	11	19
Year 8	2011	--	0	0	0	8	8	--

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

### 3) Costs specific to implementing Intensive Management

**Table 4.** Proportional time of field level staff and cost (\$1000 = 1.0) of ADF&G personnel salary plus operations for predation control and for other intensive management activities (e.g., habitat enhancement, wildlife survey efforts beyond normal Survey and Inventory work) in Unit 19A. Fiscal year (FY) is also 1 July to 30 June but the year is one greater than the comparable RY (e.g, FY 2011 is 1 July 2010 to 30 June 2011).

Period	FY	Predation control <sup>a</sup>		Other IM activities		Total IM cost	Research cost <sup>d</sup>
		Time <sup>b</sup>	Cost <sup>c</sup>	Time	Cost		
Year 7	2011	0.4	3.5	5.2	47.2	50.7	0.0
Year 8	2012	0.5	3.9	2.0	31.8	35.7	0.0

<sup>a</sup>State or private funds only.

<sup>b</sup>Person-months (22 days per month)

<sup>c</sup>Salary plus operations

<sup>d</sup>Separate from implementing IM program but beneficial for understanding of ecological or human response to management treatment (scientific approach that is not unique to IM)