Interim Report to the Alaska Board of Game on Intensive Management for Caribou with Wolf Predation Control in the Northern Alaska Peninsula, Game Management Units 9C and 9E, Northern Alaska Peninsula Caribou Herd.

Prepared by the Division of Wildlife Conservation
August 2015

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[1] and Department recommendation for reporting period

A) This report is an annual evaluation for a predation control program authorized by the Alaska Board of Game (Board) under 5 AAC 92.111

B) Month this report was submitted by the Department to the Board:

February ___ (annual report) August _X_ (interim annual update[2]) Year 2015

2) Prey data

Date(s) and method of most recent summer abundance assessment for the Northern Alaska Peninsula Caribou Herd (NAP):

October 16 and 17, 2014; Population size is extrapolated from the number of caribou and percent of collared caribou observed during the October composition survey.

Compared to IM area, was a similar trend and magnitude of difference in abundance observed in nearby non-treatment area(s) since program inception (Y/N) N/A **and in the last year (Y/N)** N/A? **Describe comparison if necessary:**

Not Applicable: This program was implemented in January, 2012 (RY11). It is too early to determine trends in abundance that may have resulted from these activities.

Dates of most recent age and sex composition survey (if statistical variation available, describe method here and show result in Table 1):

October 16 and 17, 2014.

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 (Y/N) N/A **and in the last year (Y/N)** N/A?

Not Applicable: This program was not implemented until January, 2012 (RY11), and it is too early to determine trends or make comparisons.

[1] For purpose and context of this report format, see *Intensive Management Protocol, section on Tools for Program Implementation and Assessment*

[2] The interim annual update may be limited only to sections that changed substantially since prior annual report

Table 1. **Caribou abundance, age and sex composition in assessment area (L) since program implementation in year 1 (not exclusively limited to inception of predation control) to reauthorization review in year 10 (2020) in the Northern Alaska Peninsula Predation Management Area. Regulatory year is 1 July to 30 June (e.g. RY 2010 is 1 July 2010 to 30 June 2011).**

			Composition (number per 100 females)		
Period	RY	Abundance	Calves	Bulls	Total *n*
Year 0	2010	-	18	25	1,795
Year 1	2011	2,500 – 3,000	20	26	2,395
Year 2	2012	-	22	28	1,352
Year 3	2013	2,400	21	31[a]	2,076
Year 4	2014	2.700	34	40	2,295

[a]Model-based adjustment of bulls probably mis-categorized during survey by a new observer.

Describe trend in abundance or composition:

The fall bull:100 cow and calf:100 cow ratios have both increased from the low ratios observed in the mid-2000s. However, active wolf removal was not initiated until January, 2012 (RY11), and wolf control activities in RY12 --RY14 were limited by poor winter tracking conditions, e.g., no snow cover, so the increasing trend is not associated with wolf control activities.

Table 2. Caribou harvest in assessment area (M). Methods for estimating unreported harvest are described in Survey and Inventory reports.

Period	RY	Reported		Estimated		Total harvest	Other mortality[a]	Total
		Male	Female	Unreported	Illegal			
Year 0	2010	0	0	0	15	15	3	18
Year 1	2011	0	0	0	15	15	3	18
Year 2	2012	0	0	0	15	15	2	17
Year 3	2013	0	0	0	15	15	4	19
Year 4	2014	0	0	0	15	15	4	19

[a] Mortuary, Ceremonial, and Cultural-Educational Harvest Permits.

Describe trend in harvest:

Caribou hunting has remained closed since RY05. A small number of ceremonial and cultural-educational permits to harvest caribou were issued in RY10–RY13 after calf recruitment began improving.

Describe any other harvest related trend if appropriate:

Not Applicable: Hunting seasons have been closed since RY05.

3) Predator data

Date(s) and method of most recent spring abundance assessment for wolves (if statistical variation available, describe method here and list in Table 2):

The wolf population is being evaluated through a cooperative wolf collaring study with USFWS.

Date(s) and method of most recent fall abundance assessment for wolves (if statistical variation available, describe method here and list in Table 2):

The wolf population is being evaluated through a cooperative wolf collaring study with USFWS.

Other research or evidence of trend or abundance status in wolves:

Wolf sightings remain common on the Alaska Peninsula.

Table 3. Wolf abundance objectives and removal in wolf assessment area (N) of the Northern Alaska Peninsula Predation Management Area. Removal objective is to annually remove 100 **% of the wolves in the wolf predation control area (O), so estimated or confirmed number remaining in the control area (O) by the May calving season each regulatory year is** 0**.**

Period	RY	Harvest removal from area N		Dept. control removal from area O	Public control removal from area O	Total removal[a] from area N	Spring abundance (variation) in area N
		Trap	Hunt				
Year 0	2010	29	3	0	0	32	-
Year 1	2011	16	80	0	10	106	-
Year 2	2012	9	8	0	5	22	-
Year 3	2013	4	23	0	0	27	-
Year 4	2014	12	9	0	1	22	-

[a] Additional removal may be Defense of Life and Property, vehicle kill, etc.

4) Habitat data and nutritional condition of prey species

Where active habitat enhancement is occurring or was recommended in the Operational Plan, describe progress toward objectives:

Objective(s):

Not Applicable: There are no demonstrated methods to improve caribou habitat, and no reason to believe that habitat is limiting this caribou population.

Area treated and method: Not Applicable

Observation on treatment response: Not Applicable

Evidence of progress toward objective(s) (choose one: Apparent Statistical): Not Applicable

Similar trend in nearby non-treatment areas? Not Applicable

Describe any substantial change in habitat not caused by active program (e.g., new wildland fires, flooding, insect mortality of vegetation, etc.): Not Applicable

Table 4. **Nutritional indicators for caribou in assessment area (L) of the Northern Alaska Peninsula Predation Management Area. The Regulatory Year includes May and April of the succeeding calendar year: RY 2013 = July 1, 2013 through June 30, 2014.**

Period	RY	Pregnancy Rate (Females ≥ 2 yrs old), Sample size = (n)	Male Calf Weights (kg)	Female Calf Weights (kg)
Year 0	2010	77% (146)	8.4	8.1
Year 1	2011	81% (193)	-	-
Year 2	2012	-	-	-
Year 3	2013	66% (259)	-	-
Year 4	2014	-	-	-

[a] Pregnancy status is determined in May based on observed characteristics of pregnancy (antler retention, udder development, and/or presence of a calf at heel).

Where objectives on nutritional condition were listed in the Operational Plan, describe trend in condition indices since inception of (a) habitat enhancement or (b) enhanced harvest: Not Applicable

Evidence of trend (choose one: Apparent Statistical): Not Applicable

Similar trend in nearby non-treatment areas? Not Applicable

5) Costs specific to implementing Intensive Management

Table 5. Cost ($1000 = 1.0) of agency salary based on estimate of proportional time of field level staff and cost of operations for intensive management activities (e.g., predator control or habitat enhancement beyond normal Survey and Inventory work) performed by personnel in the Department or work by other state agencies (e.g., Division of Forestry) or contractors in the Northern Alaska Peninsula Predation Management Area. Fiscal year (FY) is also 1 July to 30 June but the year is one greater than the comparable RY (e.g, FY 2010 is 1 July 2009 to 30 June 2010).

		Predation control[a]		Other IM activities		Total IM	Research
Period	FY	Time[b]	Cost[c]	Time	Cost	cost	cost[d]
Year 1	2012	0.0	0.0	0.4	22.0	22.0	0.0
Year 2	2013	0.0	0.0	0.5	6.0	6.0	0.0
Year 3	2014	0.0	0.0	0.3	3.0	3.0	0.0
Year 4	2015	0.0	0.0	0.3	3.0	3.0	0.0

[a]State or private funds only.
[b]Person-months (22 days per month)
[c]Salary plus operations
[d]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).