

BOARD OF GAME

FINDINGS ON UNIT 13 MOOSE SEASON AND BAG LIMITS

FINDING #91-52-BOG

MARCH 29, 1991

The Board of Game has considered the establishment of a 1991 season and bag limits for moose in Game Management Unit 13, which comprises generally that area east and south of the Alaska Range, north of the Talkeetna Mountains and west of the Wrangell Mountains, in the Copper River and Susitna River drainages. The Board referred to a committee consideration of the season and bag limits for moose in Unit 13, which was before the Board in Proposal 133 by the Department of Fish and Game. The committee recommended that the Board establish a 10 day subsistence as well as a 5 day non-subsistence hunt for moose in Unit 13. For the reasons stated below, the Board finds that a seven day hunt by all users, from the period September 5 through 11, provides a reasonable opportunity to satisfy the subsistence uses on the various moose populations in Unit 13. Accordingly, the Board has amended the committee regulation to establish the seasons and bag limits attached to these findings as Appendix B.

There are two primary components in determining reasonable opportunity: (1) the opportunity to participate in a hunt, and (2) the opportunity to kill an animal during a hunt. The "opportunity to participate" in a hunt is a function of the number of hunters allowed to hunt and of the percentage of interested hunters allowed to hunt. The "opportunity to kill" during a hunt is a function of the percentage of hunter success on the area's game population, the duration of successful hunts (mean days to kill and the time to achieve a percentage of the kill), as well as the duration of unsuccessful hunts. The latter function is important for determining the period of time before which a hunter loses interest and ceases to use additional opportunity.

Both primary components are important in the decision to determine reasonable opportunity. For example, if there are 300 hunter days of hunting opportunity available, using only opportunity to kill could result in one person being given 300 days to hunt. Using opportunity to participate only could lead to 300 people hunting for one day. The Board must strike a balance between the two components and focus on the range of numbers of hunters and of the season lengths.

The Board recognizes there are secondary considerations. Hunters like the freedom to select the time to hunt, they like to have a "quality" hunt, and there is interest expressed in selecting the sex, age or size of the animal. Information from Department staff indicates the relative importance of the primary components. For example, during the 1990 Nelchina (Unit 13) registration hunt for caribou (a three day registration hunt) many people were willing to compromise flexibility and "quality" in order to get the opportunity to hunt.

The findings, and the basis for those findings, follow:

1. The Average Duration of Time in the Field By All Successful Hunters for Moose in Unit 13 Does Not Exceed Seven Days.

The Board heard testimony from ADFG staff that the average length of time in the field by all successful hunters for Moose in Unit 13 does not exceed seven days. This information was taken from harvest reports by hunters in the field for the years 1985-1990. The data are indicated in Appendix A. It indicates that for the general hunts with a 20 day season from 1985-1989, with a mean of 3277 hunters, the average duration of time spent in the field by successful hunters was 6.1 days. For Unit 13 resident subsistence hunters during the same time period for a 25 day season, with a mean of 640 hunters, the average duration of time spent in the field by successful hunters was 4.9 days.

One issue relating to length of time in the field by successful hunters was discussed by the Board. During the 1980s, there were a number of subsistence moose seasons for residents of Unit 13 that exceeded 20 days. The Board is cognizant of the fact that some hunters would prefer to strategically determine when they want to spend the time in the field within a longer hunting season. The Board believes that this preference should not guide the Board as long as the Board believes, based upon all the facts presented, that a reasonable opportunity is presented. One consideration in this issue, is that hunters may use time in the field before and after the season to mobilize for the hunt and to demobilize after the hunt (including removing a harvested animal). The data referred to above does not make that distinction, and the Board believes it likely that data reported by hunters of duration in the field reflects some time for mobilizing and demobilizing, thereby making the calculation of average duration on the liberal side.

In 1990, a general hunt of five days was held for moose in Unit 13. A total of 1918 hunters participated. The average length of time in the field for successful hunters was 3.9 days.

2. The Average Duration of Time In The Field By Unsuccessful Hunters in Unit 13 Likely Does Not Exceed Seven Days.

The same data referred to in Appendix A indicates that during 1985-1989, the average duration of time in the field spent by unsuccessful hunters in a general hunt was 6.0 days. For the 1990 five day general hunt, the average duration of time in the field for unsuccessful hunters was 4.5 days. During 1985-1989, the average duration of time in the field spent by unsuccessful hunters in a subsistence hunt was 7.7 days. The Board believes that, given the likelihood that the data for duration of time in the field includes some time for mobilization before the hunt and demobilization after the hunt, that it is more probable than not that the average duration of time in the field spent by subsistence hunters did not exceed seven days.

3. A Seven Day Season Does Not Significantly Diminish The Success Rate for Hunting Moose in Unit 13.

Appendix A also indicates that the overall success rate for hunters in Unit 13 in general hunts, for the years 1985 to 1989, was 23%. The success rate for subsistence hunters during the same period was 29%. In 1990, the 5 day general hunt had a success rate of 20%. The Board notes that success rate can be influenced by a variety of factors, most notably weather. For example, the Board heard testimony indicating that there was inclement weather during the period of the 1990 general hunt which was a likely contributing factor in the reduction of the success rate by 3%. Another factor contributing to success is the timing of the hunt. The timing of the scheduled 1991 hunt is for those days in September when success rates for hunting moose in Unit 13 increase. Department staff have estimated that it is likely that the success rate for the 1991 Unit 13 moose hunt will be 24% to 25%. Based upon these facts, it is the Board's finding that a seven day season does not significantly diminish the success rate for hunting moose in Unit 13.

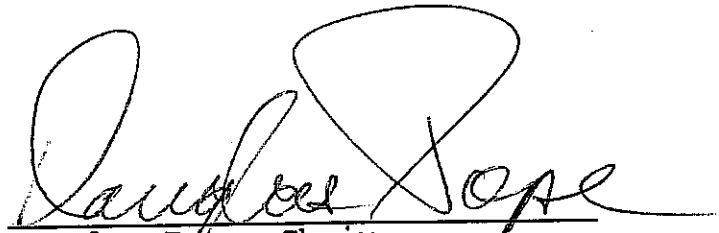
4. The Federal Subsistence Hunt for Moose on Federal Lands Within Unit 13 Provides a Significant Opportunity For Residents of Unit 13 to Harvest Moose.

There is a federal subsistence hunt for moose on federal lands within Unit 13 during the period August 25 to September 20 for residents of Unit 13. The bag limit is one bull. Based upon the history of the 1990 harvest, and the increasing presence of federal management, the federal harvest is expected to amount to 70. Harvests of moose by Unit 13 residents during 1985-1989, ranged from 31 to 215. The Board believes that the federal harvest therefore meets a significant portion of the subsistence needs of Unit 13 residents for moose.

5. The Bag Limits in the 1991 Moose Season for Unit 13 do Not Restrict Reasonable Opportunity.

The bag limits for Unit 13 moose for the 1991 season have antler restrictions throughout the Unit. Antler restrictions differ within the Unit. These restrictions are in place to protect the bull/cow ratios in the various moose populations in the Unit. Subsistence hunts during the period 1985-1989 did not have antler restrictions. The Board believes, given the average duration of time in the field for successful hunters during general hunts in the same time period, which did have antler restrictions, indicates that the antler restrictions will not restrict reasonable opportunity.

The Board has found that the season and bag limits do not restrict reasonable opportunity to satisfy subsistence uses. Based upon the same analysis, the Board also believes that the season and bag limits chosen provide more opportunity to satisfy subsistence uses than the recommendation of the committee.



Douglas Pope, Chair
Alaska Board of Game

ADOPTED: March 29, 1991
Anchorage, Alaska

VOTE: 5 Favor ___ Oppose ___ Abstain 2 Absent

Success rates and average number of moose hunters by successful and unsuccessful moose hunters statewide, 1985-1990. ~~##~~ in Unit 13 and

Year	Total Hunters	% Successful	Average Successful	Average Unsuccessful
1985-89				
Unit 13 General Hunt * (Sep. 1-20) Harvest Ticket	3277 (3136-3479)	23 (20-25)	6.1 (5.9-6.4)	6.0 (5.9-6.1)
Unit 13 Substrate Registration Permit Hunt** (Aug 25 - Sep 20)	640 (566-802)	29% (22-35)	4.9 (4.3-5.3)	7.7 (7.3-8.2)
Statewide - all hunters Janest Ticket	22,846 (22,364 - 23,894)	27% (25-30)	5.7 (5.6-5.8)	6.2 (6.1-6.3)
<u>1990</u>				
Unit 13 Unlimited Substrate Hunt (Sep. 5-9) harvest tickets	1918	20%	3.9	4.5
Statewide - all hunters Harvest tickets	20,578	24%	5.5	5.7

Other restrictions in effect

Data for 1986-89. No other restrictions in most of Unit 13

APPENDIX A

Average Success Rates And Number Of Days Spent Hunting Reported By Successful
And Unsuccessful Moose Hunters In Unit 13 And Statewide, 1985 - 1990

	Total Hunters	% Successful		Days Hunted	
		Successful	Unsuccessful	Successful	Unsuccessful
<u>1985-89</u>					
Unit 13 General Hunt *	3,277 (3136-3479)	23 (20-25)	6.1 (5.9-6.4)	6.0 (5.9-6.1)	
(Sep 1-20) Harvest Tickets					
Unit 13 Subsistence Registration Permit Hunt ** (Aug 25-Sep 20)	640 (566-802)	29 (22-35)	4.9 (4.3-5.3)	7.7 (7.3-8.2)	
Statewide (Harvest Tickets)	22,840 (22,364-23,894)	27 (25-30)	5.7 (5.6-5.8)	6.2 (6.1-6.3)	
<u>1990</u>					
Unit 13 Unlimited Subsistence Hunt (Sep 5-9) (Harvest Tickets)	1,918	20	3.9	4.5	
Statewide - All Hunts (Harvest Tickets)	20,578	29	5.5	5.7	

* Antler restrictions in effect

** Data for 1986-89. No antler restrictions in most of unit

UNIT 13 - MOOSE

Board of Game amendment to Committee Recommendation on Prop. #133
GMU 13 MOOSE

UNITS AND BAG LIMIT

RESIDENT

NONRESIDENT

GENERAL HUNT

Sept. 5-11

NO OPEN SEASON

Unit 13(A), that portion
northwest of Black River.

1 bull with spikefork or
50" antlers

Unit 13(A), that portion
west of the Lake Louise
Road, Lake Louise, Lake
Susitna and Tyone River,
and southeast of Black
River.

1 bull with spikefork antlers

Remainder of Unit 13

1 bull with 36 inch antlers

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APPENDIX B