

Moose hunter effort and networks in the upper Koyukuk River valley, 2011-2017



Oral report to the Board of Game
March 2024

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Subsistence Section

RC 4: Oral Reports, tab 1.4

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Overview

- Project background





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- Project background
- Study area



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- Project background
- Study area
- Methods
 - Harvest and use
 - Hunter effort
 - Sharing and cooperation networks

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Overview

- Project background
- Study area
- Methods
 - Harvest and use
 - Hunter effort
 - Sharing and cooperation networks
- Results
- Conclusions
- Questions



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Project background

- Why was this study needed?
 - Low moose densities due to predation by wolves and bears



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Project background

- Why was this study needed?
 - Low moose densities due to predation by wolves and bears
 - Koyukuk Moose Hunters Working Group recommendation to implement intensive management



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Project background

- Project development and implementation
 - Board approved IM program in 2012



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Project background

- Project development and implementation
 - Board approved IM program in 2012
 - DWC collected data on wolf and moose abundance, moose survival/movement, and habitat quality

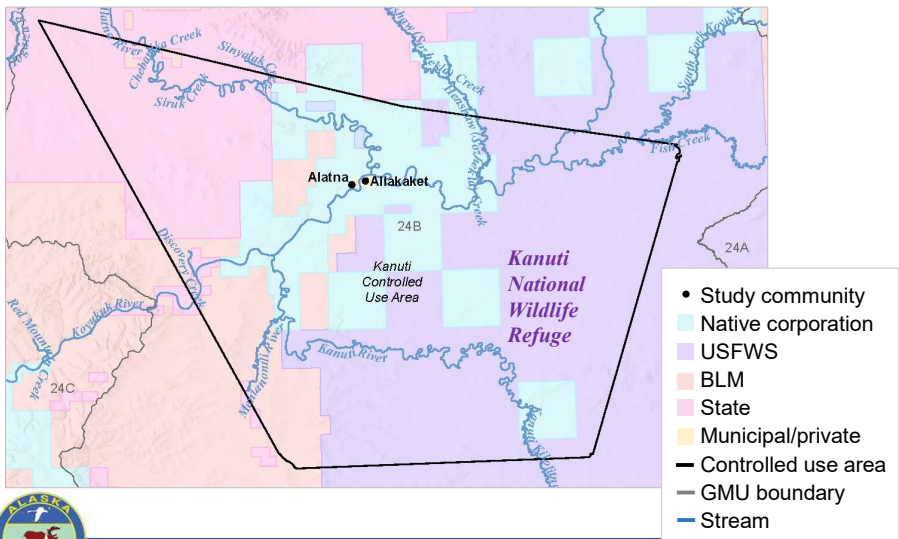


Project background

- Project development and implementation
 - Board approved IM program in 2012
 - DWC collected data on wolf and moose abundance, moose survival/movement, and habitat quality
 - Subsistence collected ethnography and household survey data



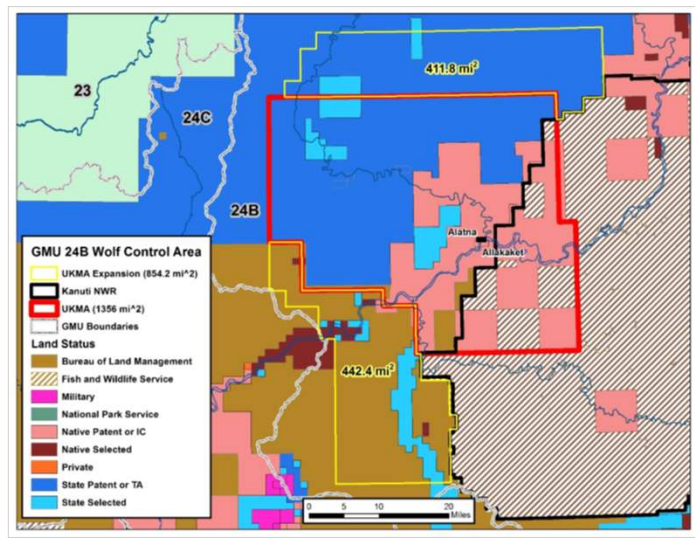
Study area



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Methods: Predator removal



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Methods: Survey instrument

ALLAKAKET/ALATNA LARGE GAME HARVEST ASSESSMENT PROJECT

SHARING: MOOSE HOUSEHOLD ID:

HOUSEHOLD:

During the past year, did members of your household...
 RECEIVE moose from other households? Y N
 GIVE moose to other households? Y N

RECEIVED FROM OTHER HOUSEHOLDS IN ALLAKAKET			RECEIVED FROM OTHER COMMUNITIES			GIVEN TO OTHER HOUSEHOLDS IN ALLAKAKET			GIVEN TO OTHER COMMUNITIES		
HHID	Amount	Units	Comm	Amount	Units	HHID	Amount	Units	Comm	Amount	Units

...RECEIVE moose from other households? Y N

During the past year, did members of your household...
 ...GIVE moose to other households? Y N

DO NOT DO YOUR HOUSEHOLD GET ENOUGH MOOSE? Y N
 IF YES: WHY did your household NOT get enough moose? _____

DO YOUR HOUSEHOLD DO NOTHING DIFFERENTLY THAN YOU DO NOT GET ENOUGH MOOSE? Y N
 IF YES: WHAT did your household do differently? _____

IN YOUR OPINION, HAS MOOSE ABUNDANCE IN 2014 INCREASED, STAYED THE SAME, OR DECREASED COMPARED TO THE PAST YEAR? I L S M

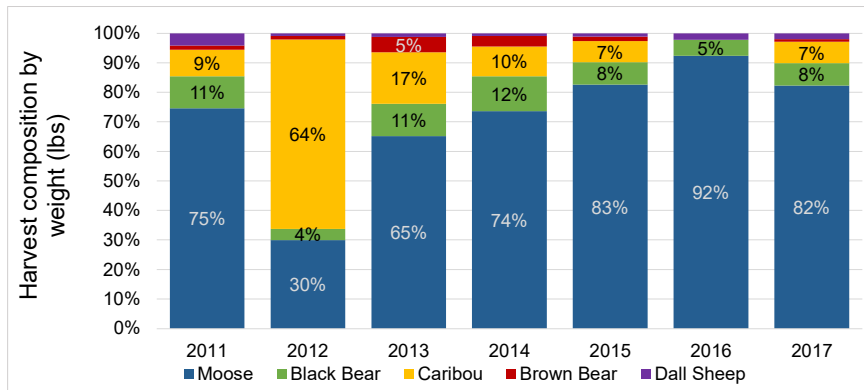
LARGE LAND MARRIAGES: IS ALLAKAKET/ALATNA



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Results: Harvest & use of big game

Annual average harvest of more than 15,000 lbs big game (87 lbs per person)



This study: Average 18 moose/year in Alatna and Allakaket

Late 90s/2000s: Average 45 moose/year (survey data)



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Results: Effort per hunter

$$\frac{\text{Sum of TRIPS* or MILES* in a year}}{\text{Total number of HUNTERS* in a year}}$$



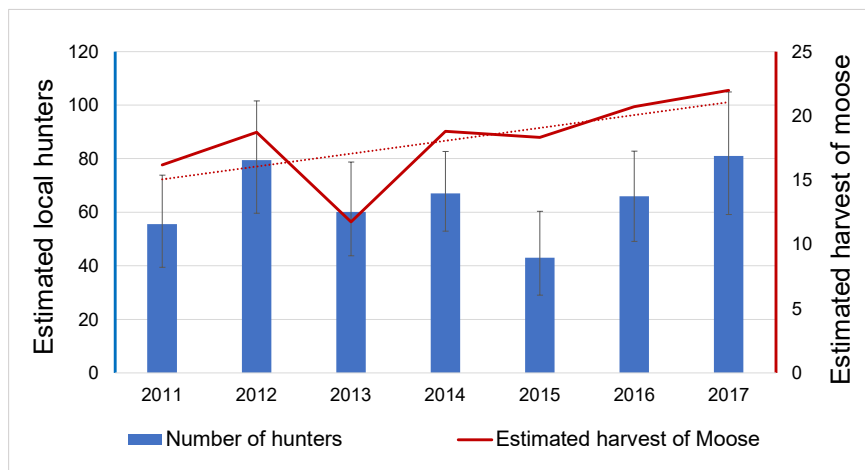
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*INCLUDES UNSUCCESSFUL HUNTERS

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Results: Effort per hunter



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Results: Effort per hunter

On average, over the study period:

- 65 local hunters per year
- 6 trips per hunter
- 459 miles per hunter

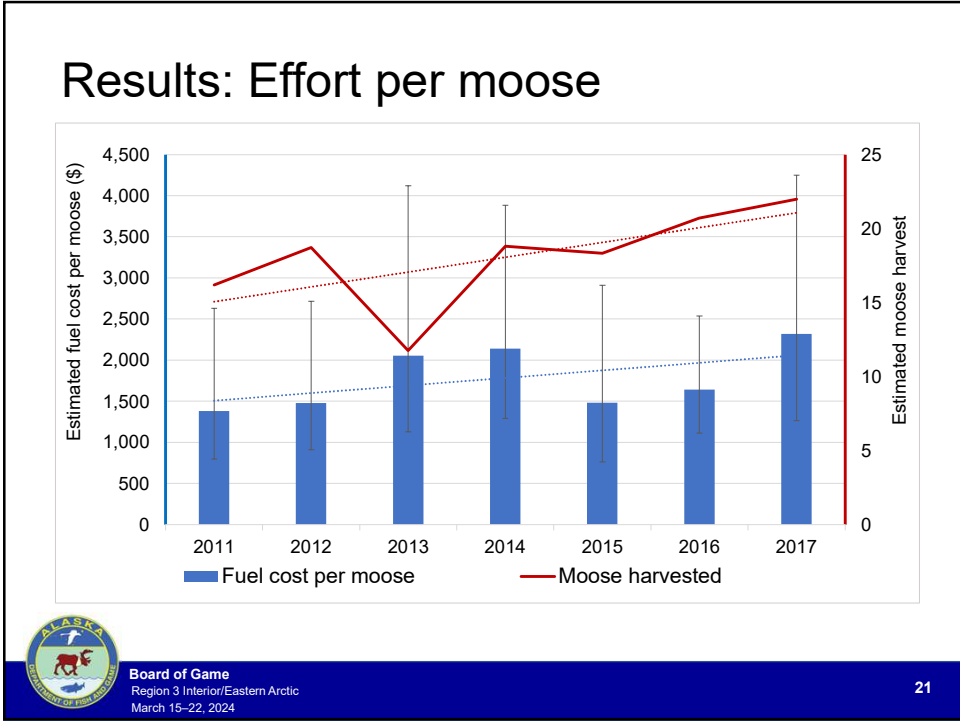


Results: Effort per moose

Sum of FUEL COST or TRIPS* or
MILES* in a year*

Total moose harvested in a year






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Results: Effort per moose

On average, over the study period:

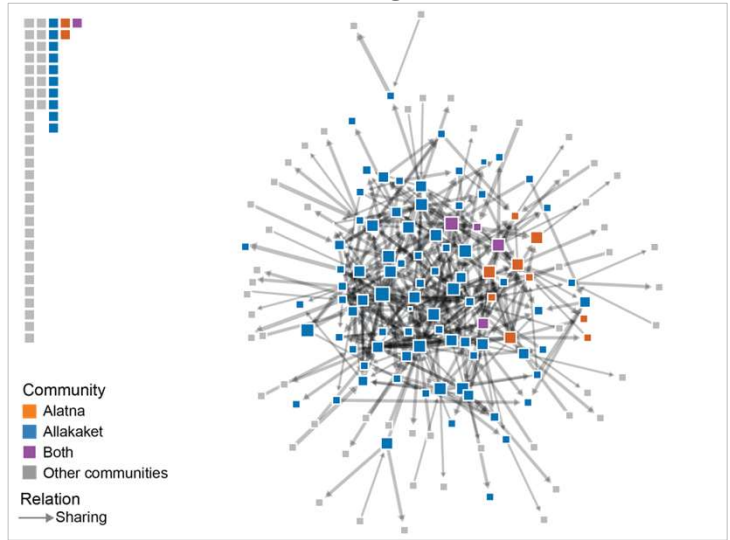
- \$1,785 per moose
- 14 trips per moose
- 834 miles per moose


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Results: Moose sharing networks

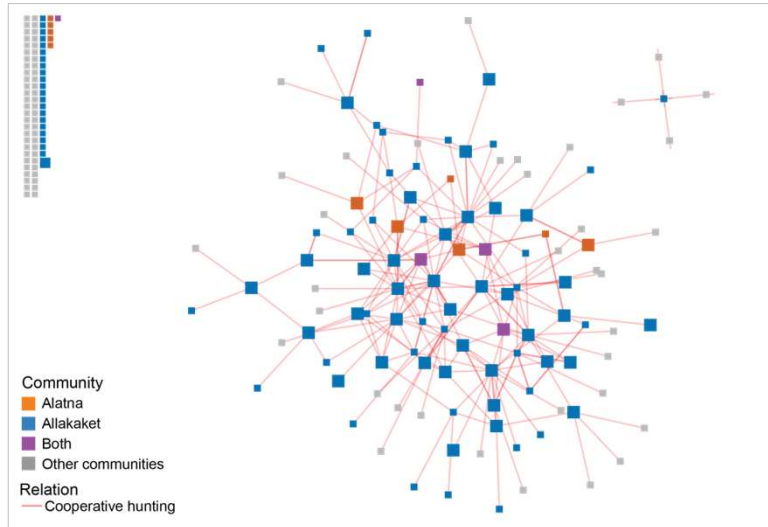


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Results: Cooperative moose hunting networks

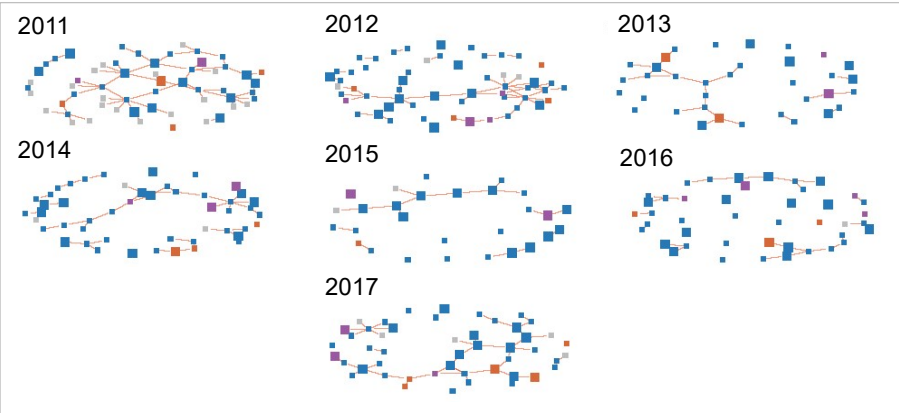


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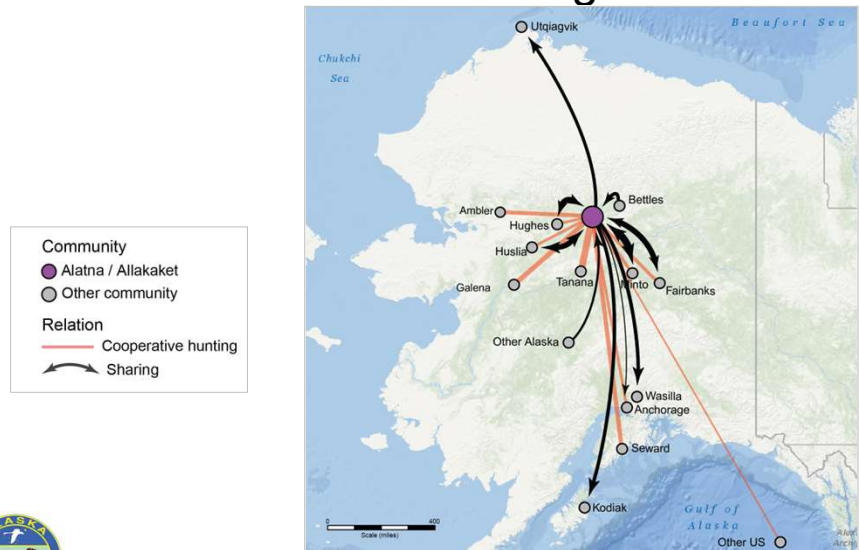
Results: Cooperative hunting networks



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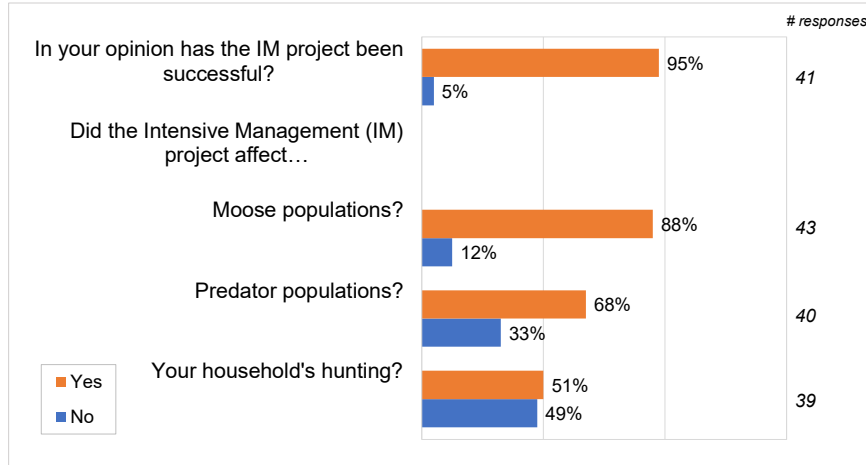
Results: Hunter and sharing networks



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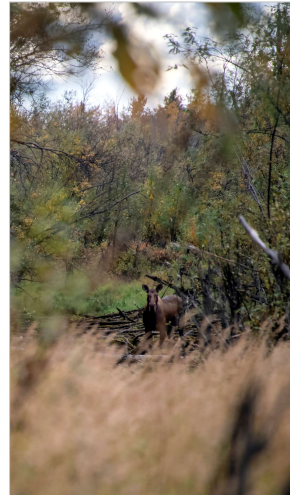
Perception of IM program



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Summary

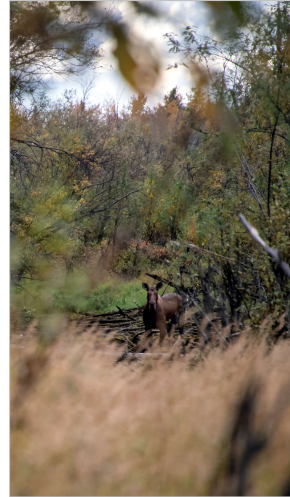
- Harvest and use
 - Average 18 moose harvested per year
- Hunter effort
 - \$1,785 spent, 834 miles traveled per moose annually by local hunters
- Sharing/cooperative networks
 - Dense, extensive, and highly dynamic



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Conclusions

- Uncertainty in moose, hunter effort response
- Non-experimental design, effort as a metric
- Complexity of subsistence practices, not generalizable, important even if unsuccessful
- Perceived benefits experienced by communities



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Questions



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