

Special Publication No. 2018-05

**Subsistence Wildlife Harvests in Buckland, Koyuk,
and Noatak, Alaska, 2016–2017**

by

Daniel Gonzalez

Elizabeth H. Mikow

and

Marylynn L. Kostick

December 2018

Alaska Department of Fish and Game

Division of Subsistence



Symbols and Abbreviations

The following symbols and abbreviations, and others approved for the *Système International d'Unités* (SI), are used without definition in Division of Subsistence reports. All others, including deviations from definitions listed below, are noted in the text at first mention, in the titles or footnotes of tables, and in figures or figure captions.

Weights and measures (metric)

centimeter	cm
deciliter	dL
gram	g
hectare	ha
kilogram	kg
kilometer	km
liter	L
meter	m
milliliter	mL
millimeter	mm

Weights and measures (English)

cubic feet per second	ft ³ /s
foot	ft
gallon	gal
inch	in
mile	mi
nautical mile	nmi
ounce	oz
pound	lb
quart	qt
yard	yd

Time and temperature

day	d
degrees Celsius	°C
degrees Fahrenheit	°F
degrees kelvin	K
hour	h
minute	min
second	s

Physics and chemistry

<i>all atomic symbols</i>	
alternating current	AC
ampere	A
calorie	cal
direct current	DC
hertz	Hz
horsepower	hp
hydrogen ion activity (negative log of)	pH
parts per million	ppm
parts per thousand	ppt, ‰
volts	V
watts	W

General

Alaska Administrative Code	AAC
all commonly-accepted abbreviations	e.g., Mr., Mrs., AM, PM, etc.
all commonly-accepted professional titles	e.g., Dr., Ph.D., R.N., etc.
at	@
compass directions:	
east	E
north	N
south	S
west	W
copyright	©
corporate suffixes:	
Company	Co.
Corporation	Corp.
Incorporated	Inc.
Limited	Ltd.
District of Columbia	D.C.
et alii (and others)	et al.
et cetera (and so forth)	etc.
exempli gratia (for example)	e.g.
Federal Information Code	FIC
id est (that is)	i.e.
latitude or longitude	lat. or long.
monetary symbols (U.S.)	\$, ¢
months (tables and figures) first three letters (Jan.,...,Dec)	
registered trademark	®
trademark	™
United States (adjective)	U.S.
United States of America (noun)	USA
U.S.C.	United States Code
U.S. states	two-letter abbreviations (e.g., AK, WA)

Measures (fisheries)

fork length	FL
mid-eye-to-fork	MEF
mid-eye-to-tail-fork	METF
standard length	SL
total length	TL

Mathematics, statistics

<i>all standard mathematical signs, symbols and abbreviations</i>	
alternate hypothesis	H _A
base of natural logarithm	e
catch per unit effort	CPUE
coefficient of variation	CV
common test statistics	(F, t, χ^2 , etc.)
confidence interval	CI
correlation coefficient (multiple)	R
correlation coefficient (simple)	r
covariance	cov
degree (angular)	°
degrees of freedom	df
expected value	E
greater than	>
greater than or equal to	≥
harvest per unit effort	HPUE
less than	<
less than or equal to	≤
logarithm (natural)	ln
logarithm (base 10)	log
logarithm (specify base)	log ₂ , etc.
minute (angular)	'
not significant	NS
null hypothesis	H ₀
percent	%
probability	P
probability of a type I error (rejection of the null hypothesis when true)	α
probability of a type II error (acceptance of the null hypothesis when false)	β
second (angular)	"
standard deviation	SD
standard error	SE
variance:	
population	Var
sample	var

SPECIAL PUBLICATION NO. 2018-05

**SUBSISTENCE WILDLIFE HARVESTS IN BUCKLAND, KOYUK, AND
NOATAK, ALASKA, 2016–2017**

by

Daniel Gonzalez and Elizabeth H. Mikow
Alaska Department of Fish and Game Division of Subsistence, Fairbanks

and

Marylynne L. Kostick
Alaska Department of Fish and Game Division of Subsistence, Anchorage

Alaska Department of Fish and Game
Division of Subsistence
1300 College Road
Fairbanks, Alaska 99701

December 2018

The Division of Subsistence Technical Paper Series was established in 1979 and represents the most complete collection of information about customary and traditional uses of fish and wildlife resources in Alaska. The papers cover all regions of the state. Some papers were written in response to specific fish and game management issues. Others provide detailed, basic information on the subsistence uses of particular communities which pertain to a large number of scientific and policy questions.

Technical Paper series reports are available through the Alaska Resources Library and Information Services (ARLIS), the Alaska State Library and on the Internet: <http://www.adfg.alaska.gov/sf/publications/>. This publication has undergone editorial and professional review.

Daniel Gonzalez and Elizabeth H. Mikow
Alaska Department of Fish and Game Division of Subsistence
1300 College Road, Fairbanks, AK 99701-1551 USA

and

Marylynne L. Kostick
Alaska Department of Fish and Game Division of Subsistence
333 Raspberry Road, Anchorage, AK 99518-1565 USA

This document should be cited as:

Gonzalez, D., E.H. Mikow, and M.L. Kostick. 2018. Subsistence Wildlife Harvests in Buckland, Koyuk, and Noatak, 2016–2017. Alaska Department of Fish and Game Division of Subsistence, Special Publication No. 2018-05, Fairbanks.

The Alaska Department of Fish and Game (ADF&G) administers all programs and activities free from discrimination based on race, color, national origin, age, sex, religion, marital status, pregnancy, parenthood, or disability. The department administers all programs and activities in compliance with Title VI of the Civil Rights Act of 1964, Section 504 of the Rehabilitation Act of 1973, Title II of the Americans with Disabilities Act (ADA) of 1990, the Age Discrimination Act of 1975, and Title IX of the Education Amendments of 1972.

If you believe you have been discriminated against in any program, activity, or facility please write:

ADF&G ADA Coordinator, P.O. Box 115526, Juneau, AK, 99811-5526

U.S. Fish and Wildlife Service, 4401 N. Fairfax Drive, MS 2042, Arlington, VA, 22203

Office of Equal Opportunity, U.S. Department of the Interior, 1849 C Street NW, MS 5230, Washington, D.C. 20240

The department's ADA Coordinator can be reached via phone at the following numbers:

(Voice) 907-465-6077, (Statewide Telecommunication Device for the Deaf) 1-800-478-3648,

(Juneau TDD) 907-465-3646, or (Fax) 907-465-6078

For information on alternative formats and questions on this publication, please contact:

ADF&G Division of Subsistence at <http://www.adfg.alaska.gov/index.cfm?adfg=contacts.anchorage>

TABLE OF CONTENTS

	Page
List of Tables	ii
List of Figures	ii
List of Appendices	iii
List of Appendix Tables	iii
Abstract	iv
Introduction	1
Regulatory Context	2
Methods	5
Survey Design in 2016.....	5
Analysis.....	7
Results	9
Caribou.....	9
Moose and Other Big Game	16
Furbearers	18
Summary of Respondent Comments	19
Comparing the 2016–2017 Results with Previous Survey Data.....	20
References	23

LIST OF TABLES

Table	Page
Table 1.–Demographic characteristics, study communities, 2016–2017.....	6
Table 2.–Conversion factors.	6
Table 3.–Estimated harvest and use of caribou, study communities, 2016–2017.	9
Table 4.–Estimated harvest and use of moose, study communities, 2016–2017.....	16

LIST OF FIGURES

Figure	Page
Figure 1.–Western Arctic caribou herd range and communities surveyed, 2017.	1
Figure 2.–Caribou harvests by sex and month of harvest, Buckland, 2016–2017.....	10
Figure 3.–Caribou harvests by sex and month of harvest, Koyuk, 2016–2017.	11
Figure 4.–Caribou harvests by sex and month of harvest, Noatak, 2016–2017.	11
Figure 5.–Caribou harvests by UCU, study communities, 2016–2017.	12
Figure 6.–Caribou harvests by UCU, Buckland, 2016–2017.	13
Figure 7.–Caribou harvests by UCU, Koyuk, 2016–2017.....	14
Figure 8.–Caribou harvests by UCU, Noatak, 2016–2017.	15
Figure 9.–Moose harvests by UCU, study communities, 2016–2017.	17
Figure 10.–Moose harvests by UCU, Buckland, 2016–2017.	18
Figure 11.–Moose harvests by UCU, Koyuk, 2016–2017.....	19
Figure 12.–Moose harvests by UCU, Noatak, 2016–2017.	20
Figure 13.–Per capita caribou harvests, study communities and other Northwest Alaska communities, 1990–2017.	21

LIST OF APPENDICES

Appendix	Page
Appendix A – Survey Instrument	25
Appendix B – Harvest and Use of Land Mammals	31
Appendix C – Harvests by Sex and Month of Harvest	35
Appendix D – Harvests by Sex, Month, and Location of Harvest	39
Appendix E – Respondent Comments	47

LIST OF APPENDIX TABLES

Table	Page
Table B1.–Harvest and use of land mammals, Buckland, 2016–2017.	32
Table B2.–Harvest and use of land mammals, Koyuk, 2016–2017.....	33
Table B3.–Harvest and use of land mammals, Noatak, 2016–2017.	34
Table C1.–Caribou harvests by sex and month of harvest, Buckland, 2016–2017.....	36
Table C2.–Caribou harvests by sex and month of harvest, Koyuk, 2016–2017.....	36
Table C3.–Caribou harvests by sex and month of harvest, Noatak, 2016–2017.	36
Table C4.–Moose harvests by sex and month of harvest, Buckland, 2016–2017.....	37
Table C5.–Moose harvests by sex and month of harvest, Koyuk, 2016–2017.....	37
Table C6.–Moose harvests by sex and month of harvest, Noatak, 2016–2017.	37
Table D1.–Caribou harvests by sex, month, and location of harvest, Buckland, 2016–2017.	40
Table D2.–Caribou harvests by sex, month, and location of harvest, Koyuk, 2016–2017.....	41
Table D3.–Caribou harvests by sex, month, and location of harvest, Noatak, 2016–2017.	42
Table D4.–Moose harvests by sex, month, and location of harvest, Buckland, 2016–2017.	44
Table D5.–Moose harvests by sex, month, and location of harvest, Koyuk, 2016–2017.....	45
Table D6.–Moose harvests by sex, month, and location of harvest, Noatak, 2016–2017.	46

ABSTRACT

This report summarizes the results of big game subsistence harvest surveys conducted in Buckland, Koyuk, and Noatak in the spring of 2017. Since 1999, the Alaska Department of Fish and Game Division of Subsistence, with support from the Division of Wildlife Conservation, has conducted this limited-scope harvest survey in communities within game management units (GMUs) 22 and 23 that harvest from the Western Arctic caribou herd. The survey asked heads of households in each community about their harvests of caribou, moose, other large land mammals, and furbearers between April 2016 and March 2017. Researchers documented the number, sex, and harvest timing for these subsistence resources as well as observations, if any, of unhealthy animals. Reported results were expanded to account for unsurveyed households. In the 2016–2017 study year, Buckland hunters harvested an estimated 693 caribou, or 179 edible pounds per person. In Koyuk, hunters harvested 143 caribou, or 58 edible pounds per capita. Noatak’s estimated harvest was 337 caribou, or 80 lb per person.

Key words: caribou, moose, brown bears, black bears, furbearers, Buckland, Koyuk, Noatak, WAH, Western Arctic caribou herd, subsistence hunting

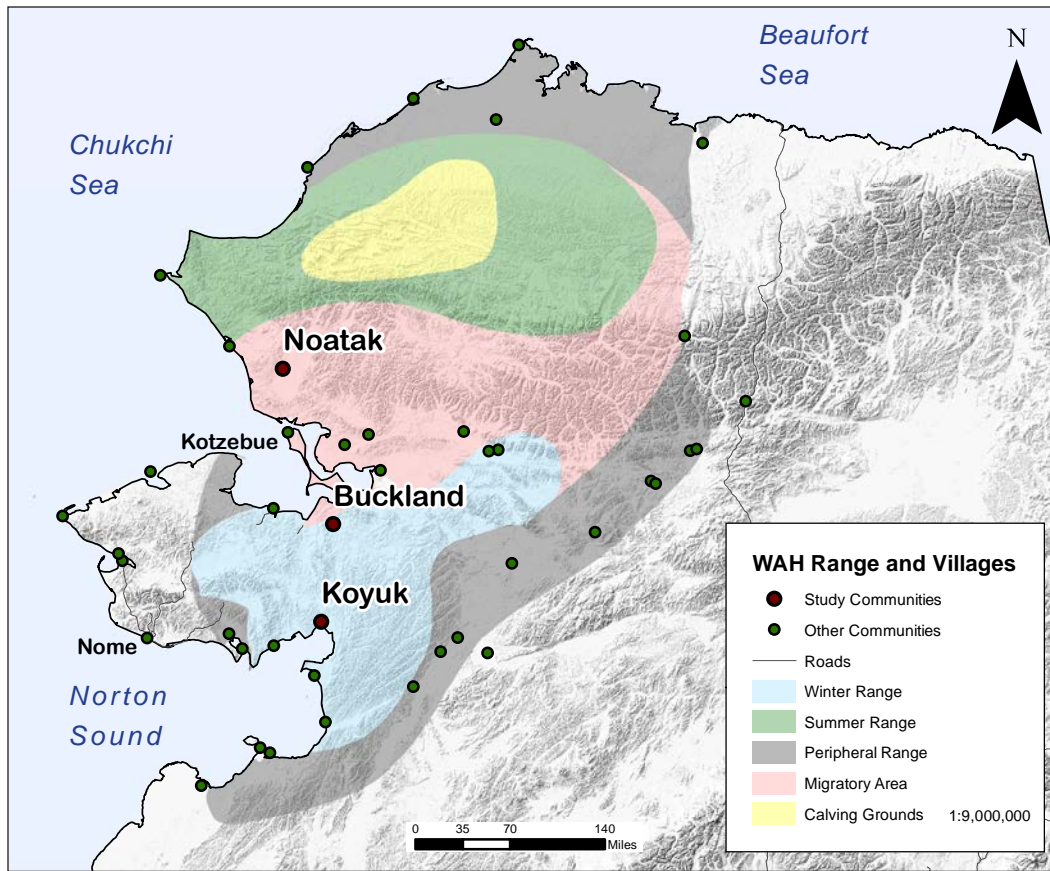


Figure 1.—Western Arctic caribou herd range and communities surveyed, 2017.

INTRODUCTION

Caribou *Rangifer tarandus* are an important subsistence resource for communities in the Northwest, Arctic, and Interior regions of Alaska. People from more than 40 communities, from Wainwright in the north to Kotlik in the south, as well as from the regional centers of Utqiagvik, Kotzebue, and Nome, are known to harvest caribou from the Western Arctic caribou herd (WAH; Figure 1). This herd, which roams throughout an area of 140,000 square miles, is the largest caribou herd in Alaska (ADF&G 2012). At its peak in 2003, the herd numbered 490,000 caribou. It declined at a rate of 4–6% annually between that census and 2011, when the herd numbered 325,000. The July 2013 census counted 235,000 animals, a decrease of about 27% since 2011 (ADF&G, Division of Wildlife Conservation 2014). In May of 2014, Alaska Department of Fish and Game (ADF&G) reported:

[It] appears that summer and winter weather combined with predators has affected survival during recent years...Disease does not appear to be a factor, caribou have generally been in good body condition throughout this decline, and we don't think harvests initiated it. But, if harvests remain stable, they will increasingly affect the population trend as herd size goes down. (ADF&G, Division of Wildlife Conservation 2014)

The census conducted in the summer of 2016 estimated the herd to be at 201,000 animals. Researchers estimated the annual rate of decline for the herd to be 5% between 2013 and 2016. That was lower than the estimated 15% annual rate of decline between 2011 and 2013 (Western Arctic Caribou Herd Working Group 2016). Biologists did find that calf production in 2016 was very high, calf weights were greater than any previous year, and the proportions of calves and adult females surviving the winter were the highest

recorded since 2007. ADF&G Division of Wildlife Conservation upgraded its camera equipment from film to digital format before the 2017 photocensus. The new digital format allows biologists to take higher resolution photos and capture images in a wider range of light conditions; therefore, herd information accuracy is expected to increase (Western Arctic Caribou Herd Working Group 2017). The results of the July 2017 photocensus presented a minimum count of 239,055 caribou, meaning that the herd size increased for the first time since its peak population in 2003.¹ After applying a statistical method for estimating abundance from the minimum count photocensus, biologists announced that the population increased from the 2016 count by 29% to an estimated total of 259,000 caribou.

The role of caribou in the nutritional, cultural, and economic health of northwestern Alaska communities varies. In some communities, caribou meat is a large portion of the total subsistence harvest each year. In communities where other resources are more abundant, caribou may represent a smaller portion of the total subsistence harvest. In communities located along key migration routes, residents might take caribou during several months of the year, but residents of communities more distant from these routes may have only occasional access to the WAH. A variety of other factors may also influence caribou harvests each year, including gasoline prices, user conflicts, weather, the success (or lack thereof) in harvesting other subsistence resources, migration timing, and others. Subsistence harvesters adapt to local conditions. Therefore, interannual variation in harvest numbers and characteristics is not uncommon, even within a single community.

REGULATORY CONTEXT

Alaska is unique in the nation in having both state and federal laws that prioritize customary and traditional subsistence hunting and fishing over other consumptive uses. Aboriginal hunting and fishing rights were extinguished by the Alaska Native Claims Settlement Act (ANCSA) in 1971, and the lack of legal protection of Alaska's subsistence way of life was noted by the Alaska State Legislature and U.S. Congress. Concerned over competing commercial and recreational uses, both bodies subsequently adopted laws intended to protect opportunities for customary and traditional uses of fish and wildlife in the state.

In 1978, the Alaska State Legislature adopted priorities for subsistence uses of fish and game over other consumptive uses, including a subsistence fishing priority under AS 16.05.251(b) and a subsistence hunting priority under AS 16.05.255(b). In 1980, the U.S. Congress adopted a similar subsistence priority in the Alaska National Interest Lands Conservation Act (ANILCA). In 1986, the Alaska Legislature adopted a statute establishing a rural subsistence priority consistent with ANILCA's so that the state could manage all subsistence uses on state and federal land. In 1989, the state statute establishing a rural subsistence priority was ruled unconstitutional in *McDowell v. State of Alaska*.² In 1992, the Alaska Legislature adopted the current subsistence statute, AS 16.05.258. After the rural priority statute was ruled unconstitutional, the federal government began managing subsistence uses by rural residents on federal public lands and waters.

The Alaska Board of Fisheries (BOF) and the Alaska Board of Game (BOG) adopt and revise state subsistence regulations throughout Alaska. Fishing and hunting statutes and regulations have been further refined by subsequent court rulings. Federal subsistence regulations are promulgated by the Federal Subsistence Board, although certain subjects must be addressed by regulations of the Secretaries of Interior and Agriculture.

The practical consequence of this arrangement is that subsistence users must often consult both state and federal regulations for the lands on which they are hunting and fishing. This can become confusing, even for agency personnel. State regulations generally apply on most lands, and exclusively on state and

1. Hansen, A. 2018. "Western Arctic caribou herd increases after years of decline—ADF&G Press Release." Accessed March 30, 2018. <http://www.adfg.alaska.gov/index.cfm?adfg=pressreleases.main>

2. *McDowell v. State of Alaska*. 785 P. 2d 1 (Alaska 1989).

private lands, which include ANCSA corporation lands.³ Federal subsistence regulations apply to federally qualified subsistence users⁴ on federal public lands. On most federal public lands, all Alaska residents may hunt and fish under state regulations and bag limits, unless the lands have been closed by federal regulation. In certain national parks and monuments, hunting and fishing may be restricted to certain federally qualified subsistence users.

The study communities are located within state game management units (GMUs) 22 and 23: Buckland and Noatak are located within GMU 23, and Koyuk is located within GMU 22B (ADF&G, Division of Wildlife Conservation 2016). During the 2016–2017 study year, state regulatory bodies responded to declining numbers of WAH caribou by revising regulations for hunters. Alaska resident hunters targeting caribou in GMU 22 on state lands were introduced to the region’s first caribou registration permit hunt since 1984. The registration permit hunt (RC800) set an annual bag limit of 20 caribou (up to 5 per day, no calves could be taken); furthermore, it required permit holders to report within 15 days of taking the legal bag limit or within 15 days after the end of the season. Caribou hunting regulations on state-regulated lands in GMU 23 were the same as those in 2015–2016: Alaska resident hunters could take 5 caribou per day with no annual limit. The regulations specified that bulls could not be taken October 15 through January 31, cows could not be taken August 1 through August 15, and no calves could be taken. From 1990 through 2015, hunters in GMU 23 could harvest 5 caribou per day with a closed season for cows from May 16 to June 30.

State regulations also specify one controlled use area (CUA) in GMUs 22 and 23. During the 2016–2017 study year, the Noatak CUA was a corridor extending 5 miles on either side of and including the Noatak River from the mouth of the Noatak River to the mouth of Sapun Creek. In 2016–2017, this area was closed to the use of aircraft in any manner for big game hunting from August 15 to September 30. Under 2016–2017 state regulations, nonresident hunters hunting for caribou in Units 22 and 23 were limited to 1 bull (per hunt area), and they needed a harvest ticket, a big game hunting license, and a metal locking tag. Sixty-day seasons for nonresidents, each with a 1-bull bag limit, occurred simultaneously (August 1–September 30) in Unit 22D⁵ and Unit 22E⁶. The same nonresident hunt openings occurred in Unit 23. Regulations in GMUs 22 and 23 can vary by specific subunits and geographic areas, and more detail can be found in the Alaska Department of Fish and Game 2016–2017 Alaska hunting regulations booklet.

Federally qualified users hunting on federal public lands in GMU 22 during the 2016–2017 regulatory year could harvest 5 caribou a day with no allowable harvest of calves. In GMU 23, the Federal Subsistence Board passed Temporary Special Action WSA16-01, which closed federal public lands to hunting of caribou by non-federally qualified hunters.⁷ Regulations for federally qualified users hunting on the majority of federal public lands in GMU 23 during the 2016–2017 regulatory year allowed for bull harvest from July 1 to October 14 and from February 1 to June 30. Cows harvest was allowed from July 15 to April 30; however, cows accompanied by calves could not be taken between July 31 and October 14 (Federal Subsistence Management Program 2016). Regulations varied slightly in the portion of GMU 23 which includes all drainages north and west of and including the Singoalik drainage. In this area, bulls could be harvested from July 1 to October 14 and from February 1 to June 30. Cow harvests were allowed from July 31 to March 31; however, cows accompanied by calves could not be taken between July 31 and October 14. Under both state and federal hunting regulations, hunters in GMU 23 may harvest caribou from a boat moving under

3. However, ANCSA corporations and individual allotment owners may limit access to Native-owned lands, like any other landowner. NANA, Inc. has placed restrictions on access to its lands for hunting, fishing, and trapping by nonshareholders.

4. Federal qualifications include being a rural Alaska resident domiciled in a community determined to have customary and traditional use of a fish stock or game population.

5. That portion of the Kuzitrin River drainage (excluding the Pilgrim River drainage) and the Agiapuk River drainage.

6. That portion east of and including the Sanaguich River drainage.

7. McKee, C. 2016. “Federal Subsistence Board closes Federal public lands to caribou hunting.” U.S. Department of the Interior, Federal Subsistence Management Program – Archive. Accessed November 19, 2018. <https://www.doi.gov/subsistence/news/hunting/federal-subsistence-board-closes-federal-public-lands-caribou-hunting>

power and may take swimming caribou with a firearm using rimfire cartridges. These exceptions to general hunting regulations reflect the customary and traditional caribou hunting practices of the residents of Unit 23.

It is the statutory responsibility of ADF&G Division of Subsistence to provide information to the public, agencies, the Alaska Board of Fisheries, and the Alaska Board of Game about the role of subsistence hunting and fishing in the lives of Alaska residents (AS 16.05.094). The division studies and reports on the seasonality, methods, sharing and trading, use areas, cultural and economic values, and trends of subsistence harvests and uses. This information is increasingly necessary as development projects are proposed throughout rural areas of Alaska. Documenting and understanding subsistence harvests is also necessary in order to evaluate reasonable opportunities for customary and traditional uses of wild resources. Other duties of the division set forth in statute include:

- quantifying the amount, nutritional value, and extent of dependency on foods acquired through subsistence hunting and fishing;
- evaluating the impacts of state and federal laws and regulations on subsistence hunting and fishing, and when corrective action is indicated, making recommendations to the department; and
- making recommendations to the Board of Game and the Board of Fisheries regarding adoption, amendment, and repeal of regulations affecting subsistence hunting and fishing.

Subsistence harvest surveys of varying scope have been conducted in over 250 Alaska communities since the division was formed in 1978. This research helps ADF&G estimate subsistence harvests and understand the role of subsistence in local economies. Each year since 1999, ADF&G has gathered big game harvest information in selected Kotzebue and Norton Sound area communities.

METHODS

In 2017, division staff collected subsistence harvest information in 3 communities in the Western Arctic caribou herd range: Buckland, Koyuk, and Noatak (Figure 1). All data were processed and analyzed by the division. Survey data were expanded to account for unsurveyed households.

Survey timing was designed to coincide with the end of a major harvest period. Buckland, Koyuk, and Noatak households were asked about their harvest of caribou, other large game, and furbearers between April 2016 and March 2017. Fieldwork occurred in all study communities between the end of March and early May 2017. Funding for the big game survey was provided by ADF&G divisions of Wildlife Conservation and Subsistence.

The division's policy is to seek community approval before conducting local research. Community approval from the traditional councils of all study communities was obtained by the Division of Subsistence. ADF&G Subsistence Research Specialist (SRS) Elizabeth Mikow traveled to Koyuk in March 2017 to train local surveyors and help administer surveys. In Koyuk, ADF&G hired local residents Ellen Adams, Jeffrey Kimoktoak, Viola Kimoktoak, and Evelyn Okitkun to update the household list and complete surveys. SRS Mikow and SRS Daniel Gonzalez traveled to Noatak in April 2017, where they trained local surveyors and helped administer surveys. In Noatak, ADF&G hired local residents Mildred M. Booth, Paul W. Downey, Enoch Mitchell, Harry S. Penn, and Jerry L. Shy Sr. SRSs Mikow and Gonzalez visited Buckland in late April and early May of 2017. In Buckland, ADF&G hired local residents Ernest Barger, Lila Barger, Emil Carter Jr., Thomas Lawrence, Brian J. Luther, and Betsy R.L. Thomas.

SURVEY DESIGN IN 2016

The Division of Subsistence standard method for collecting harvest information in smaller communities is through a census; that is, an attempt to survey every household, usually by talking to the head or heads of each household.

Confidentiality is protected by using randomly assigned household numbers instead of names on the survey form. Before starting the project, survey workers compile an updated list of every household present in the community during the study period. Participation in surveys is voluntary—people may refuse to answer any or all questions. Surveyors try to contact each household on 3 separate occasions. If no contact is made, then that household is recorded as “no contact.” There are a variety of reasons why a household may be marked “no contact:” household members may be out of town during the survey effort; they may have moved to another community; or they may have passed away during or after the study year. Surveyors often go door to door, and they make appointments for surveys when necessary.

The big game survey used in 2017 gathered demographic information for each household member: the age, sex, and relationship to the head(s) of household, and whether members were Alaska Native (Table 1).

The survey (Appendix A) included questions about harvests and uses of caribou, moose *Alces alces*, brown bear *Ursus arctos*, black bear *Ursus americanus*, wolf *Canis lupus*, and wolverine *Gulo gulo* (gray wolves and wolverines are classified as both big game and as furbearers by the Board of Game). In the interest of brevity, muskox and sheep were left off the survey. Harvest amounts for big game resources, excluding furbearers, are reported both in numbers of animals harvested and edible weight (see Table 2 for conversion factors). Researchers also asked about sharing (i.e., if a household gave away a resource to other households or if the household received it). Harvest locations were recorded by ADF&G Division of Wildlife Conservation Uniform Coding Unit (UCU). These units are geographical areas that can vary in size from just a few square miles to several thousand square miles. Respondents were asked about the locations of harvests, the sexes of harvested animals, and the months in which harvests occurred. In this study period, as in the previous year's survey, respondents were given the option of naming a season of harvest. At times, season of harvest (for example, fall) is the most detail that can be obtained; in previous studies this has been merely recorded as “unknown.” Surveys typically took 5–10 minutes to administer.

Table 1.—Demographic characteristics, study communities, 2016–2017.

Characteristics	Community		
	Buckland	Koyuk	Noatak
Sampled households	83	61	100
Eligible households	100	88	128
Percentage sampled	83.0%	69.3%	78.1%
Household size			
Mean	5.3	3.8	4.5
Minimum	1.0	1.0	1.0
Maximum	16.0	11.0	12.0
Age			
Mean	26.5	27.2	29.5
Minimum ^a	0.0	0.0	0.0
Maximum	87.0	86.0	83.0
Median	23.5	22.0	25.0
Sex			
Estimated male			
Number	283.1	184.7	308.5
Percentage	53.7%	54.7%	53.9%
Estimated female			
Number	244.6	152.9	263.7
Percentage	46.3%	45.3%	46.1%
Alaska Native			
Estimated households ^b			
Number	100.0	88.0	128.0
Percentage	100.0%	100.0%	100.0%
Estimated population			
Number	518.1	330.4	538.9
Percentage	98.2%	97.9%	94.2%

Source ADF&G Division of Subsistence household surveys, 2017.

a. A minimum age of 0 (zero) is used for infants that are less than 1 year of age.

b. The estimated number of households in which at least 1 head of household is Alaska Native.

Table 2.—Conversion factors.

Resource	Unit	Usable pounds
		per unit
Black bear	ind	88
Brown bear	ind	86
Caribou	ind	136
Moose	ind	538

Sources ADF&G Division of Subsistence and Kawarek, Inc., Subsistence Hunting Harvest Survey GMU 22.

Cooperative harvests are common in rural Alaska, and hunters sometimes pool resources, particularly fuel, for the hunting effort. In order to avoid double-counting harvests, harvests are attributed to the household of the hunter who actually shot the animal. For some resources, particularly caribou, that level of detail is difficult to obtain because hunting parties often harvest many animals; in this case, respondents were asked about how many animals were their share of the total harvest.

Sample achievement varied in the 3 communities: 83% of Buckland households, 69% of Koyuk households, and 78% of Noatak households participated in the survey (Table 1).

ANALYSIS

Since its establishment in 1978, the Division of Subsistence Information Management (IM) team has adopted standards based on observations and findings to analyze subsistence harvest resource data. The base unit for the majority of surveys is the household. IM generates harvest estimates and participation rates at the community level. The statistical program SPSS⁸ is used to analyze data and prepare tables.

Results from surveyed households were entered into the division's data repository in MS SQL Server. Each survey was entered 2 times by different staff members. As the first step in data validation, the 2 versions were compared and corrected according to the actual values recorded on paper surveys. Once entered and validated, data were then extracted using SPSS v21.0 and analyzed using standard division methods. Harvest amounts and demographic information were extrapolated to unsurveyed households to derive total harvest and human population estimates for the community. Fractional estimates are the direct result of this expansion procedure and are rounded to the nearest tenth in accompanying report tables and usually to whole numbers for discussion in the text. Participation levels, presented in percentages, are derived directly from the sampled data, which are assumed to be representative of participation levels for the entire community.

Harvest estimates and responses to all questions were calculated based upon the application of weighted means (Cochran 1977). These calculations are standard methods for extrapolating sampled data. The formula applied for this method is:

$$X_C = \frac{N}{n} \sum_{i=1}^n x_i$$

where:

x = household harvest

i = i th household in the community

n = number of sampled households in the community

N = number households in the community

X_C = total estimated community harvest

8. Product names are given because they are established standards for the State of Alaska or for scientific completeness; they do not constitute product endorsement.

In addition to harvest estimates, the division reports confidence intervals (CI) to provide some context to the quality and accuracy of the sample. This value represents the relative precision of the mean, or likelihood that an unknown value falls within a certain distance from the mean. In the accompanying tables, the CI is expressed as a percentage and applies to both the mean household harvest and total community harvest. The division standard is to use a 95% confidence interval. The formula applied to produce this value is:

$$C.I.%(±) = \frac{t_{(\alpha/2)} \times s_{\bar{x}}}{\bar{x} \times \sqrt{n}} \times \sqrt{\frac{N-n}{N-1}}$$

where:

$t_{\alpha/2}$ = student's t statistic for alpha level ($\alpha = 0.95$) with $n-1$ degrees of freedom.

s = the sample standard deviation

\bar{x} = sample mean for the community

n = sample size for the community

N = total households in the community

As an interim step, the standard deviation (SD), or variance (V; which is the SD squared), was also calculated with the raw, unexpanded data. The standard error (SE), or SD of the mean was also calculated for the community. This was used to estimate the relative precision of the mean, or the likelihood that an unknown value would fall within a certain distance from the mean.

Small CL percentages indicate that an estimate is likely to be very close to the actual mean of the sample. Larger percentages mean that estimates could be further from the mean of the sample.

RESULTS

CARIBOU

Percentages of households that reported use of caribou varied little between the 3 study communities. In Buckland, 99% of households reported using this resource, followed by 96% in Noatak (Table 3). Koyuk showed the lowest percentage of households that reported using caribou during the 2016–2017 study year (89%). Buckland and Koyuk are both situated inside of the commonly understood winter range of the Western Arctic caribou herd (Figure 1). Noatak is situated in the herd’s migratory range. Although access to caribou may be more difficult for hunters in communities in the migration area of the range, traditional food distribution networks based on sharing and barter may account for the high levels of use. There was greater variability in the percentage of households that hunted caribou between communities. Buckland had the highest percentage of households attempting to harvest caribou (86%), followed Noatak (70%), and Koyuk (51%; Table 3).

Table 3.—Estimated harvest and use of caribou, study communities, 2016–2017.

Community	Percentage of households reporting					Estimated harvest			
	Using	Attempting harvest	Harvesting	Giving away	Receiving	Total amount	Mean amount per household	Weight (lb) per capita	95% CI harvest
Buckland	98.8%	85.5%	83.1%	72.3%	80.7%	692.8	6.9	178.5	12.6%
Koyuk	88.5%	50.8%	45.9%	36.1%	67.2%	142.8	1.6	57.5	18.7%
Noatak	96.0%	70.0%	51.0%	56.0%	84.0%	336.6	2.6	80.0	13.9%

Source ADF&G Division of Subsistence household surveys, 2017.

The percentages of households that reported harvests of caribou varied between the 3 study communities. In Buckland, 83% of households harvested caribou. In Koyuk (46%) and Noatak (51%) the percentages of households that harvested caribou were significantly lower than in Buckland. Household success rates (roughly measured by dividing the percentage of households that harvested caribou by the percentage of households that attempted to do so) were significantly higher in Koyuk and Buckland than Noatak during the study year. In Buckland and Koyuk, 97% and 90% of hunting households were successful in their efforts, respectively. In Noatak, 73% of hunting households successfully harvested caribou. However, this rough measure of success does not account for other measurements of effort such as the number of trips made, instances of trips made with no harvest, distance traveled, and the money spent on gasoline and other supplies. The prevalence of sharing subsistence food accounts for the difference between percentages of harvest and use in all 3 study communities. For example, although 51% of households in Noatak harvested caribou, 96% used the resource during the study year.

Total caribou harvest by community ranged from 143 animals in Koyuk to 693 in Buckland. Looking at results in terms of per capita harvests (pounds per person) allows comparisons of results between communities with different population sizes as well as results from a single community over time. Buckland harvested the most caribou per capita during the study year: an estimated 179 lb per resident. Noatak harvested the second most caribou (80 lb per capita), followed by Koyuk (58 lb per capita). Detailed information on the harvest and uses of caribou and all other resources queried during the survey is available in Appendix B.

The survey asked about sex and month of harvest. For a complete breakdown of caribou harvest by sex and month, see Appendix C. Uncertainty about month of harvest can be attributed to a number of factors, including: the length of the study period, the time between harvest of animals and survey administration, the sheer number of animals harvested by a particular hunter or household (in the case of caribou), and which member of the household answers the survey questions. Although surveyors attempt to speak to the hunters,

they are at times unavailable, and another household head may respond to the survey questions. A hunter may be out of town, for example, and although the spouse can provide the number of caribou harvested, he or she may not be able to recall the sex or the exact month the caribou was harvested. Often, the season of harvest (for example, fall) is the most detail that can be obtained.

The majority of Buckland’s harvest was bulls (56%); the remaining harvest was composed of cows (38%) and caribou of unknown sex (6%; Table C1). Harvests took place in every month between April 2016 and March 2017 except June (Figure 2; Table C1). Harvests in April, May, and July (12 caribou) composed 2% of the total harvest, and harvests in August through October (123 caribou) accounted for 18% of the harvest. Larger harvests occurred in November through March (184 caribou; 26% of the total harvest). March and September stood out as the months of highest harvest with 15% (102 caribou) and 14% (94 caribou) of total caribou harvest respectively. Some respondents were able to recall the season, but not the month of harvest; 27% of the harvest (184 caribou) was taken during unknown fall months, 7% (52 caribou) during unknown winter months, and 2% (13 caribou) during unknown spring months. An additional 18% (124 caribou) of the harvest occurred during unknown seasons.

In Koyuk, 86% of the harvest was bulls, 9% was cows, and 5% was caribou of unknown sex (Table C2). No harvests were reported for April, May, June, July, October, and November. February and March harvests together composed 39% (56 caribou) of the total caribou harvest during the study year (Figure 3; Table C2). Four percent (6 caribou) of the harvest was taken in August and September, and an additional 4% (6 caribou) was harvested in December and January. Some respondents were able to recall the season, but not the month of harvest; half of the harvest (72 caribou) was taken during unknown winter months, and 2% (3 caribou) was harvested during unknown spring months.

The majority of Noatak’s harvest was bulls (64%); the remaining harvest was composed of cows (34%) and caribou of unknown sex (2%; Table C3). No harvests took place in May, June, August, and November. Harvests in April and July (10 caribou) together composed 3% of the total caribou harvest. Harvests in September and October (147 caribou) accounted for 44% of the total harvest. Harvests in December through March (70 caribou) accounted for 21% of the total harvest (Figure 4; Table C3). Some respondents were unable to recall the season, but not the month of harvest; 14% of the harvest (49 caribou) was taken during unknown fall months, 12% of the harvest (40 caribou) during unknown winter months, and 1% (4 caribou) during unknown spring months. An additional 5% (17 caribou) of the harvest occurred during unknown seasons.

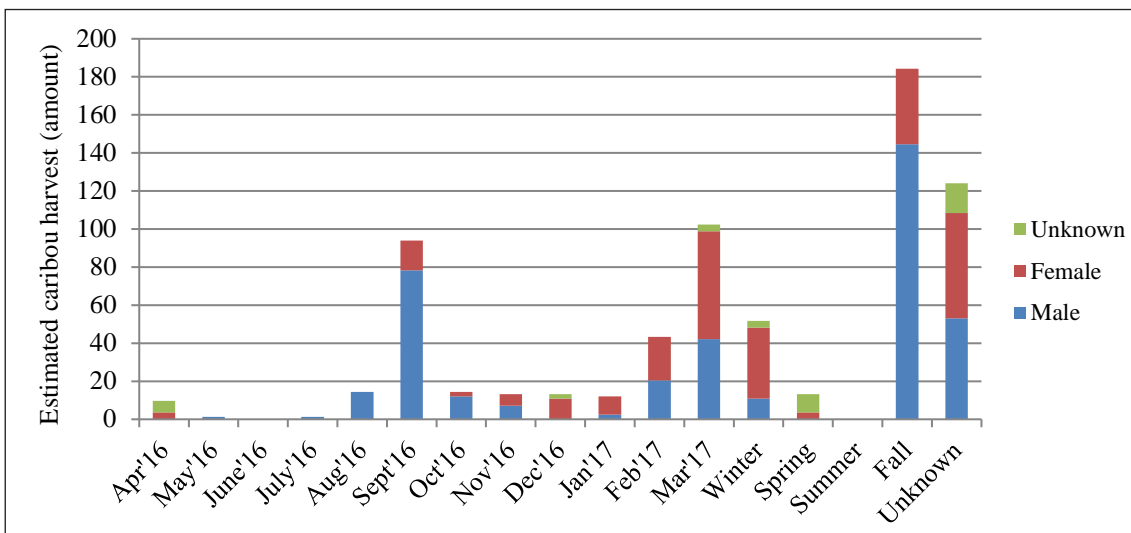


Figure 2.—Caribou harvests by sex and month of harvest, Buckland, 2016–2017.

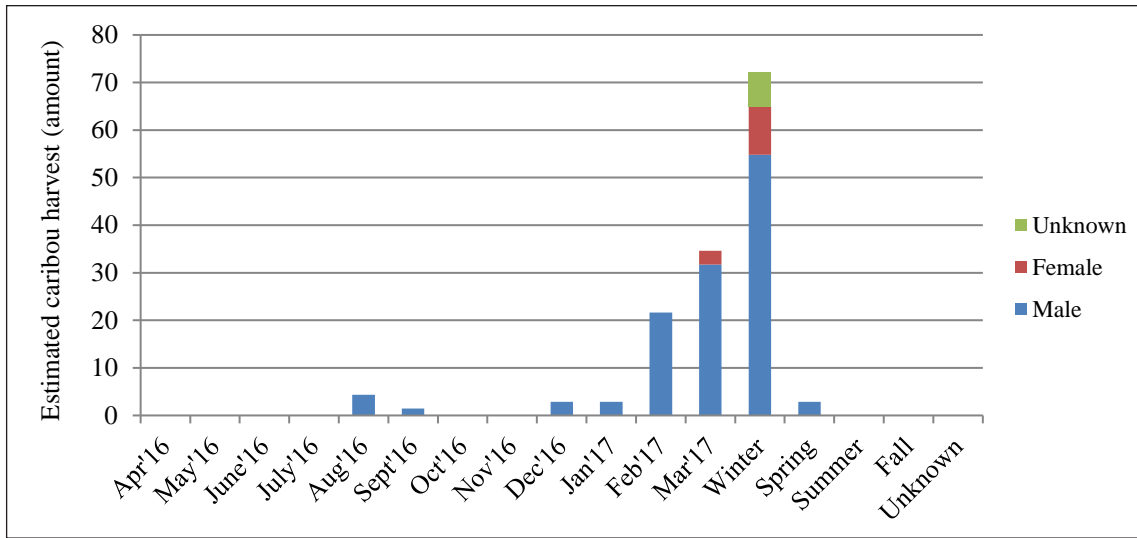


Figure 3.—Caribou harvests by sex and month of harvest, Koyuk, 2016–2017.

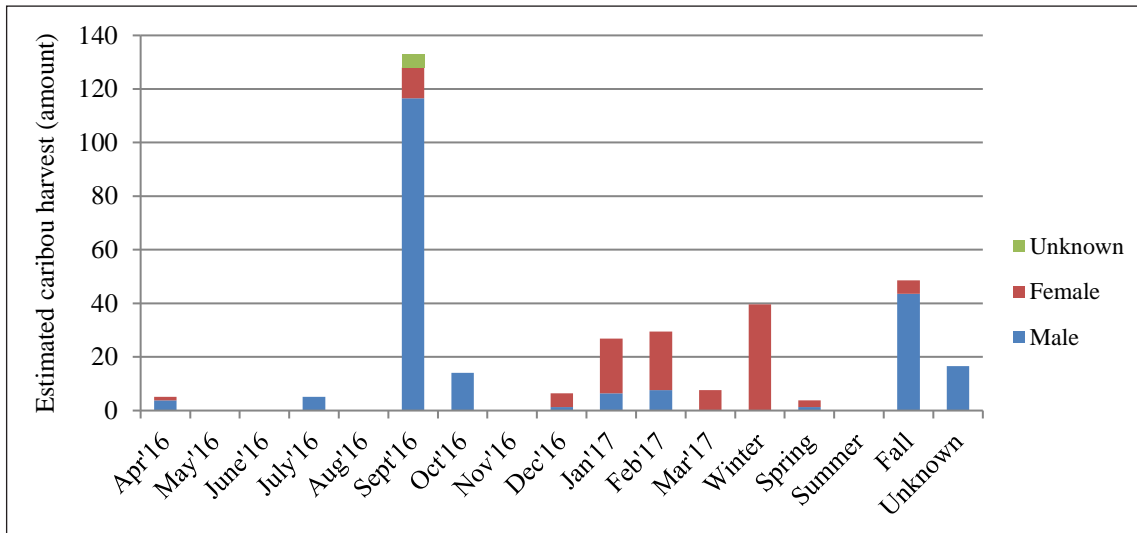


Figure 4.—Caribou harvests by sex and month of harvest, Noatak, 2016–2017.

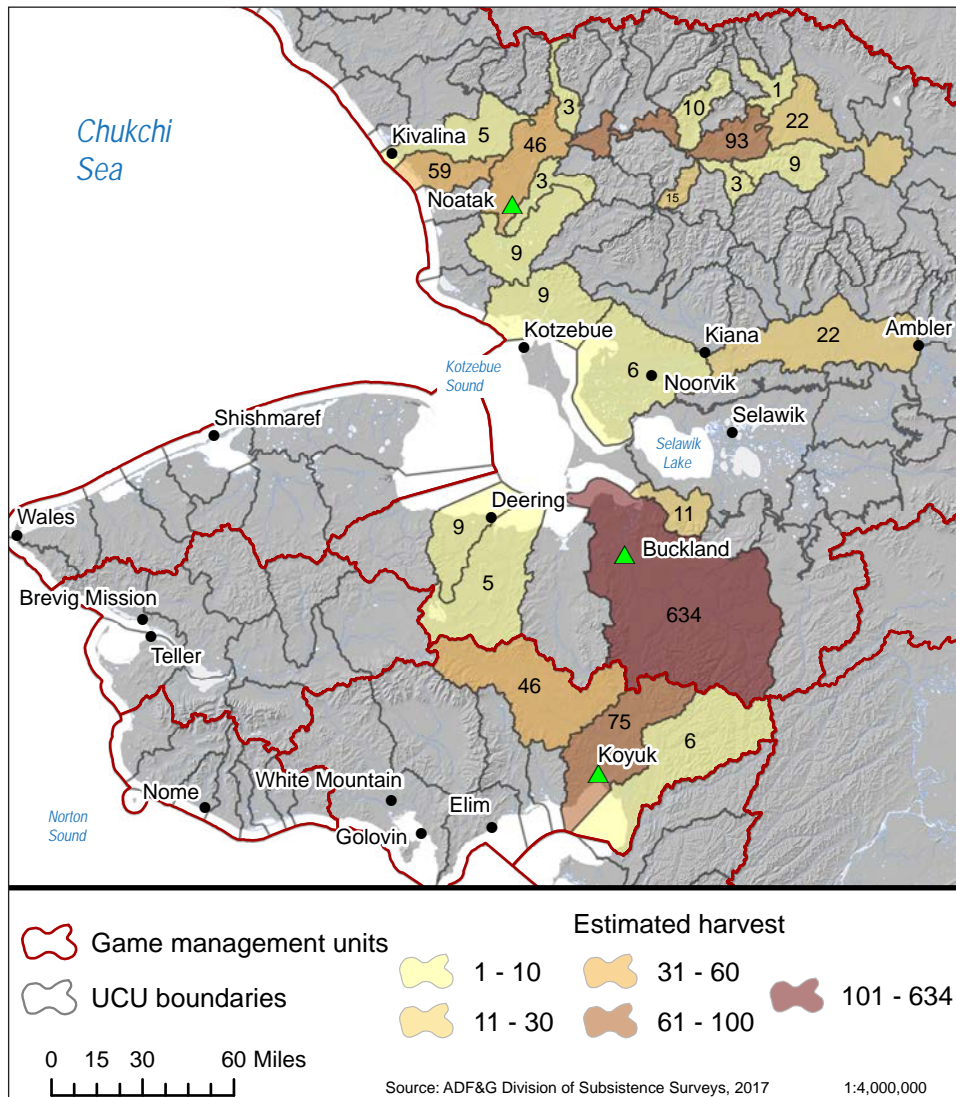


Figure 5.—Caribou harvests by UCU, study communities, 2016–2017.

Caribou harvests took place in 23 UCUs near the study communities in 2016–2017 (Figure 5). Harvest by location is broken down by community in tabular form in Appendix D; figures 6–8 show harvest apportioned to the UCUs for each community separately. The survey did not ask where the caribou were hunted, but rather where they were killed. Thus, these data do not represent the totality of areas searched. The UCU data indicate the most common generalized harvest areas for the study year. In any year, hunters may use a vastly larger (or smaller) area than reflected in these maps.

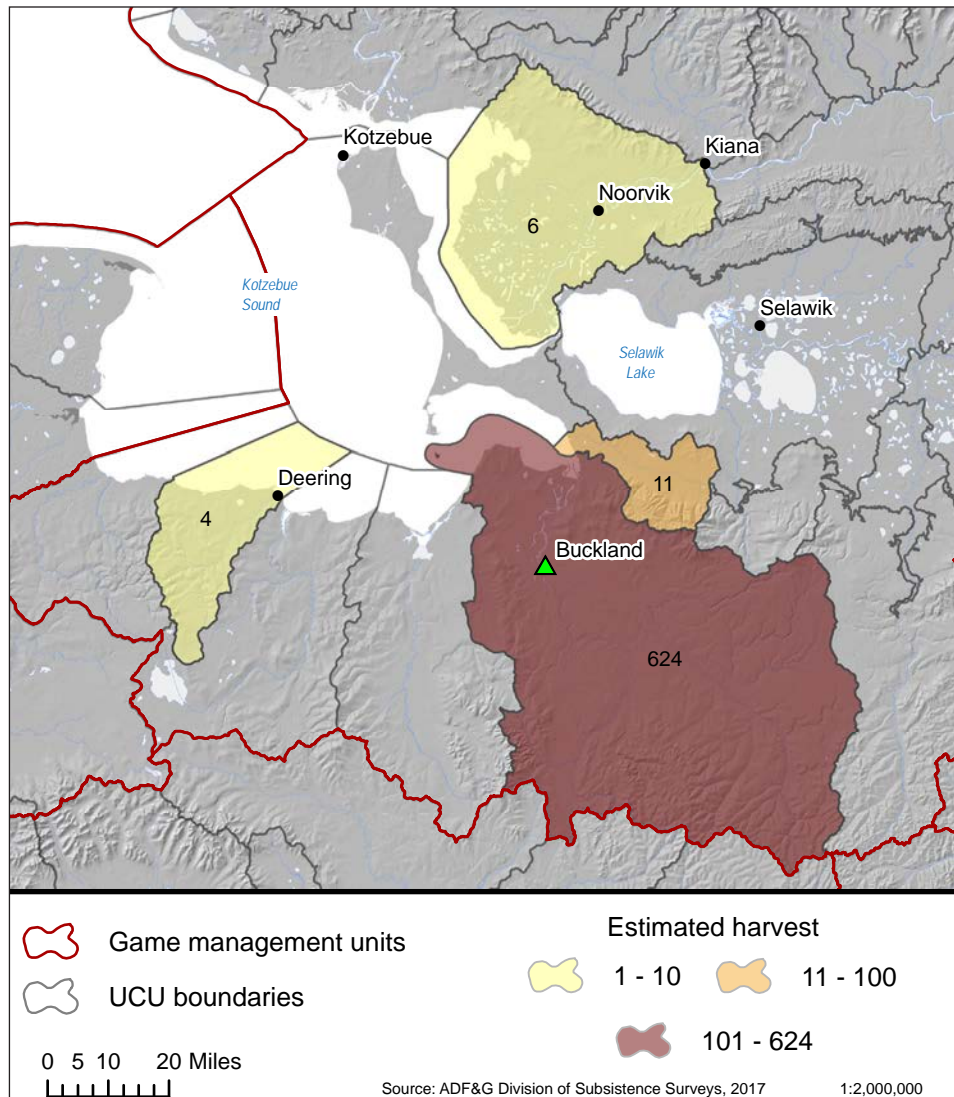


Figure 6.—Caribou harvests by UCU, Buckland, 2016–2017.

In Buckland, 90% (624 caribou) of the harvest took place in the UCU where the community is located (Figure 6; Table D1). Hunters identified 3 additional UCUs as areas where caribou were harvested during the study year. In an adjacent UCU to the northeast of Buckland, which contains the Kauk River, hunters harvested 11 caribou (2% of the estimated harvest). Six caribou (1% of the estimated harvest) were harvested in a UCU reported by hunters that contains the community of Noorvik. The last UCU reported by hunters contains the community of Deering; hunters harvested 4 caribou in this area (1% of the estimated harvest).

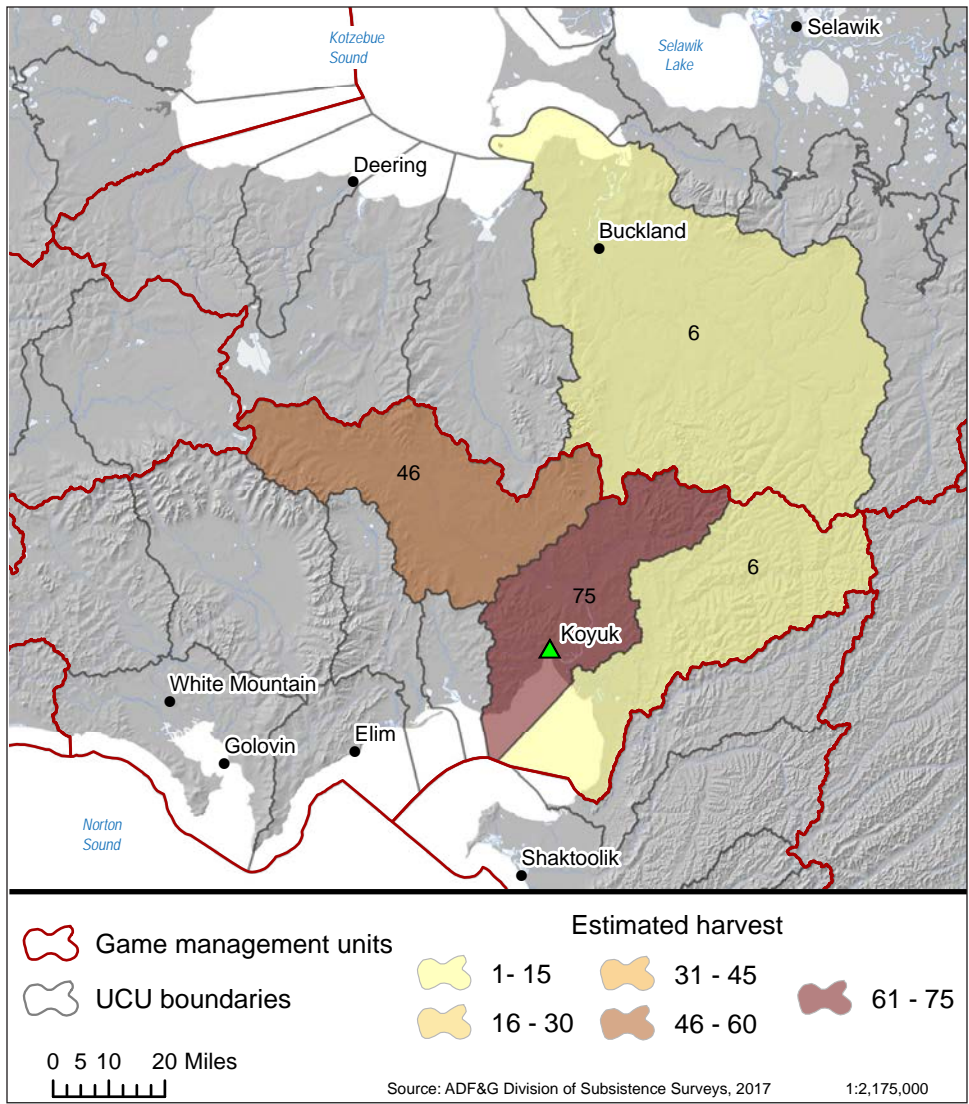


Figure 7.—Caribou harvests by UCU, Koyuk, 2016–2017.

In Koyuk, 53% (75 caribou) of the harvest took place in the UCU where the community is located. Hunters identified 3 additional UCUs as areas where caribou were harvested during the study year. (Figure 7; Table D2). Koyuk residents harvested 46 caribou (32% of the harvest) in an adjacent UCU to the northwest of the community containing the Koyuk River. An additional 6 caribou (4% of the harvest) were harvested in an adjacent UCU to the east that contains the Inglutalik River and Akulik River. Six more caribou were harvested in another adjacent UCU to the northeast of Koyuk that contains the West Fork and South Fork of the Buckland River.

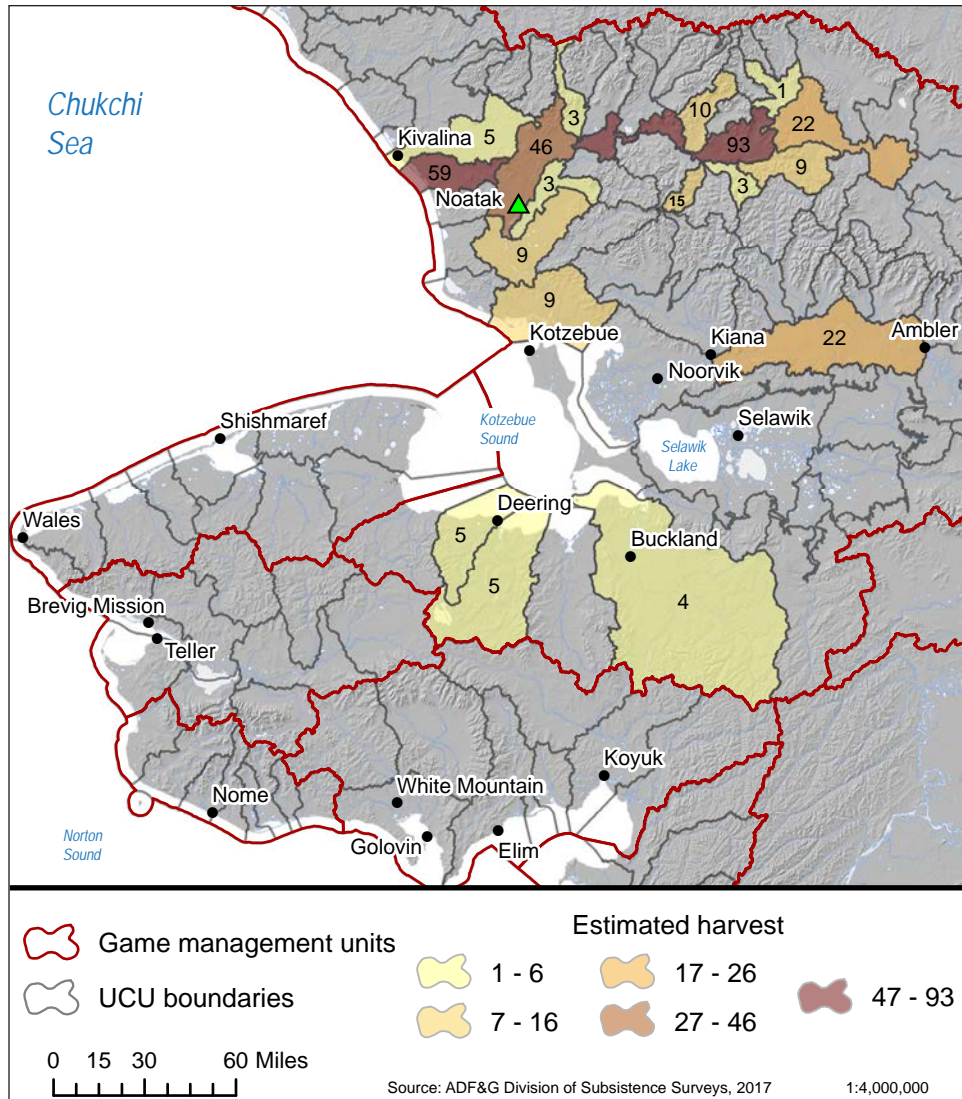


Figure 8.—Caribou harvests by UCU, Noatak, 2016–2017.

In Noatak, hunters harvested caribou across 18 UCUs and a much wider geographic range than Buckland and Koyuk (Figure 8; Table D3). Ninety-three caribou (28% of the estimated harvest) were harvested in a UCU along the Noatak River, upriver from Avgun River to Nimiuktuk River. The area of second highest harvest (59 caribou, 17%) was in a UCU containing the Omikviorok River drainage, located between Noatak and Kivalina. Hunters harvested 46 caribou (14%) in the UCU where Noatak is located. Two UCUs had harvests of 22 caribou (7% of the estimated harvest) each. One of those UCUs is adjacent to the eastern edge of the UCU with the highest harvest. The other UCU is located around the stretch of the Kobuk River that flows between Ambler and Kiana. The majority of the 18 UCUs with caribou harvests were geographically contiguous. Of the 4 that were not contiguous, 3 were located near the southern extent of the Kotzebue Sound, near Deering and Buckland. Noatak hunters harvested a combined 14 caribou (4% of estimated harvest) in those 3 UCUs.

MOOSE AND OTHER BIG GAME

Rates of use for moose varied much more between the study communities than those for use of caribou (Table 4). Only 15% of households in Buckland and 24% of households in Noatak reported using moose. Significantly more households reported using moose during the study year in Koyuk (79%) than the other study communities. In Noatak and Buckland, much smaller percentages of households attempted to harvest moose compared to households that attempted to harvest caribou (tables 3 and 4). In Koyuk, the same percentage of households attempted to harvest moose and caribou.

Success rates were significantly lower in Noatak and Buckland for moose than those for caribou. Forty percent of the households that hunted moose in Noatak were successful and 67% in Buckland. In Koyuk, 87% of households that attempted to harvest moose were successful. Harvests were attributed to the household of the hunter who actually shot the animal, and some of the hunters who did not shoot a moose were part of a successful hunt with another household.

During the study year, Buckland households harvested 13 moose (14 lb per capita), Koyuk households harvested 42 moose (67 lb per capita), and Noatak residents harvested 9 moose (8 lb per capita; Table 4). In Buckland, hunters harvested 45% (6 moose, 4 of which were taken in September) of the total moose harvest in the fall and another 45% (6 moose) at an unknown time of year (Table C4). The remaining moose (1 total) was harvested in the spring. In Koyuk, 100% of moose harvests (42 moose) for the study year occurred in August and September. In Noatak, 58% of the moose harvest (5 moose) occurred in fall months. Another 33% (3 moose) were harvested in August, and 1 moose harvest occurred at an unknown time of year.

Table 4.—Estimated harvest and use of moose, study communities, 2016–2017.

Community	Percentage of households reporting					Estimated harvest			
	Using	Attempting harvest	Harvesting	Giving away	Receiving	Total amount	Mean amount per household	Weight (lb) per capita	95% CI harvest
Buckland	14.5%	10.8%	7.2%	6.0%	10.8%	13.3	0.1	13.5	30.0%
Koyuk	78.7%	50.8%	44.3%	36.1%	59.0%	41.8	0.5	66.7	13.8%
Noatak	24.0%	15.0%	6.0%	9.0%	24.0%	9.0	0.1	8.4	27.8%

Source ADF&G Division of Subsistence household surveys, 2017.

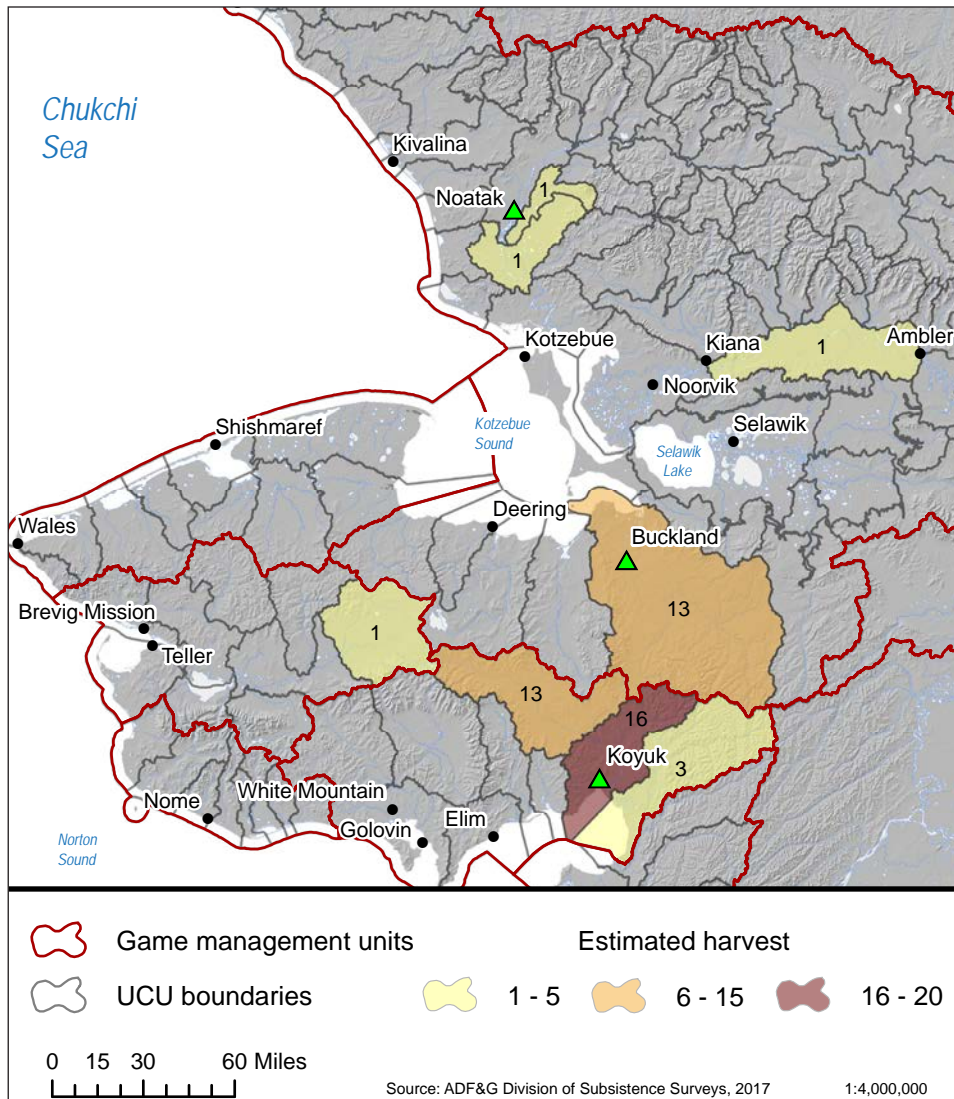


Figure 9.—Moose harvests by UCU, study communities, 2016–2017.

Overall, study communities reported harvesting moose in 8 UCUs in 2016–2017 (Figure 9). Harvest information by UCU for study communities presented in tabular form can be found in Appendix D. In Buckland, 90% of the harvest (12 moose) occurred in the UCU containing the community and the entire Buckland River watershed (Figure 10; Table D4). Respondents could not recall the location of the remaining harvest.

In Koyuk, 38% of the harvest (16 moose) occurred in the UCU containing the community (Figure 11; Table D5). An additional 13 moose (31%) were harvested to the northwest of the community in an area containing the Koyuk River from, and including, the Peace River up to the headwaters. Hunters harvested 3 moose (7%) in the UCU to the west of Koyuk, 1 moose (2%) in the UCU containing Kuzitrin Lake, and 1 moose in the UCU containing the Buckland River.

Noatak moose harvests occurred in 3 UCUs. One moose (11% of total estimated moose harvest) was harvested in the area to the east of the community, which stretches as far east as where the Eli River flows out of the Maiyumerak Mountains (Figure 12; Table D6). One moose was harvested in a J shaped area that stretches from the east to south, and southwest, of Noatak that contains the confluence of the Eli River and Noatak River. A moose was also harvested by Noatak hunters in a UCU encompassing the stretch of

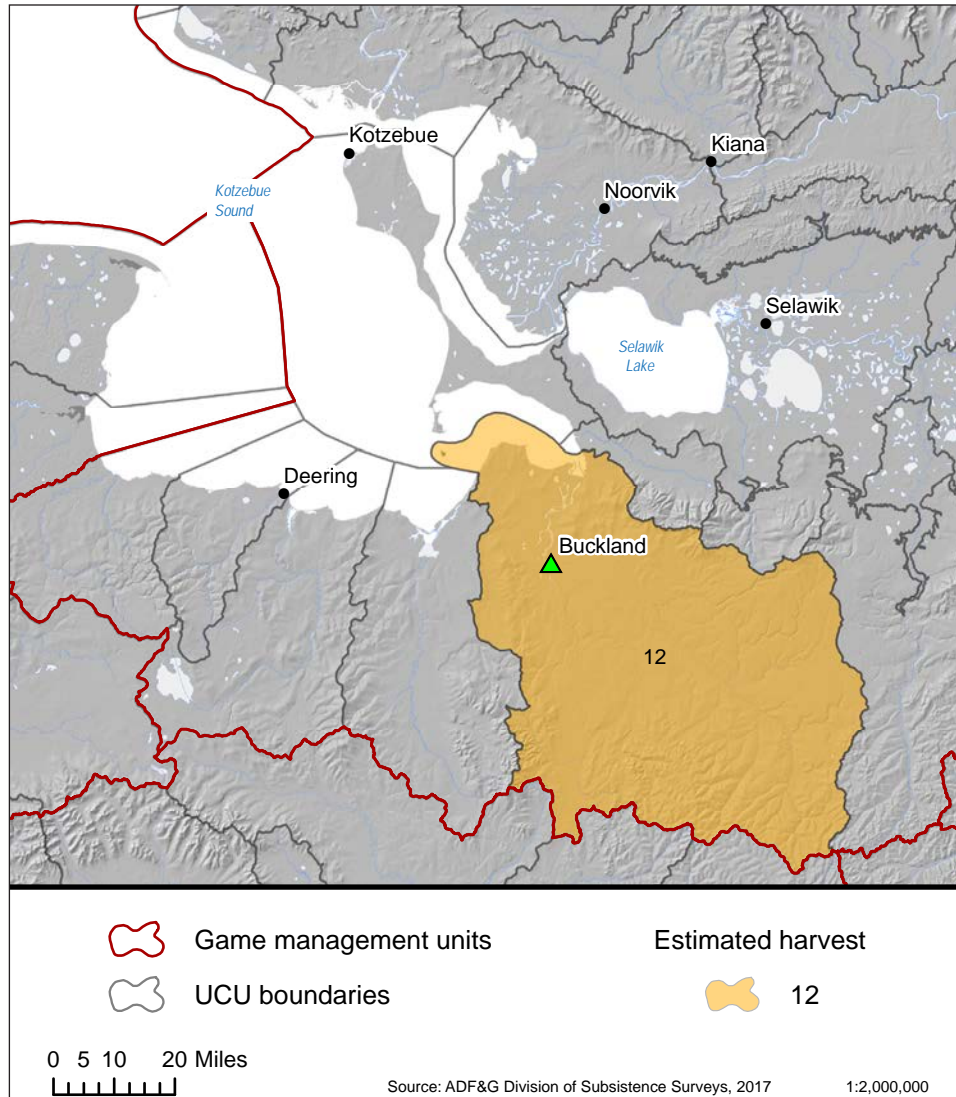


Figure 10.—Moose harvests by UCU, Buckland, 2016–2017.

the Kobuk River between Kiana and Ambler. Harvest location information was unattainable for 5 moose harvested by Noatak hunters.

Respondents in all 3 study communities reported no or very limited harvest and use of brown bears during the study year, and no harvest or use of black bears. Buckland residents harvested 4 brown bears, and 4% of households reported using the resource (Table B1). In Koyuk, no households used or attempted to harvest brown bears in 2016–2017 (Table B2). Noatak residents harvested 3 brown bears (Table B3).

FURBEARERS

The survey asked about the harvest and use of 2 furbearers: gray wolf and wolverine. Buckland residents harvested 7 wolves and 8 wolverines (Table B1). Both species were used by 8% of households. In Koyuk, 3 wolves and 1 wolverine were harvested during the study year (Table B2). Residents in Noatak harvested 1 wolf (Table B3).

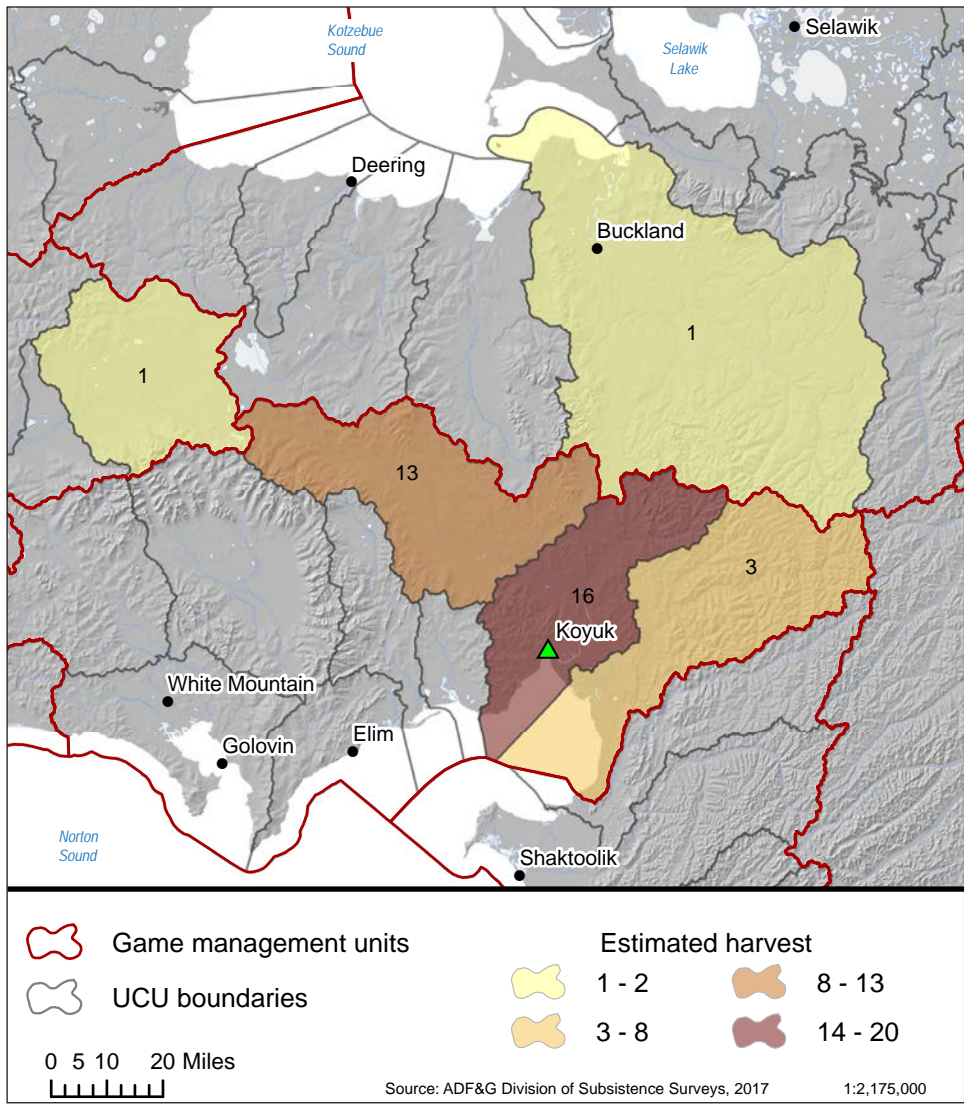


Figure 11.—Moose harvests by UCU, Koyuk, 2016–2017.

SUMMARY OF RESPONDENT COMMENTS

Following the survey, some respondents in Buckland, Koyuk, and Noatak provided comments and concerns, and some similar themes emerged across the 3 study communities. In all 3 communities, some respondents associated air traffic during hunting season with a negative impact on their ability to harvest caribou. Some residents in Noatak felt that the closure of federal lands to non-federally-qualified users in Unit 23 helped hunters from the community harvest caribou. Others commented that the herd was a great distance from the community and the expenses to reach it limited attempts to harvest. In Buckland and Koyuk, several respondents mentioned concerns over moose hunting ranging from the length of the season to the wanton waste by nonlocal user groups. A full list of comments can be found in Appendix E.

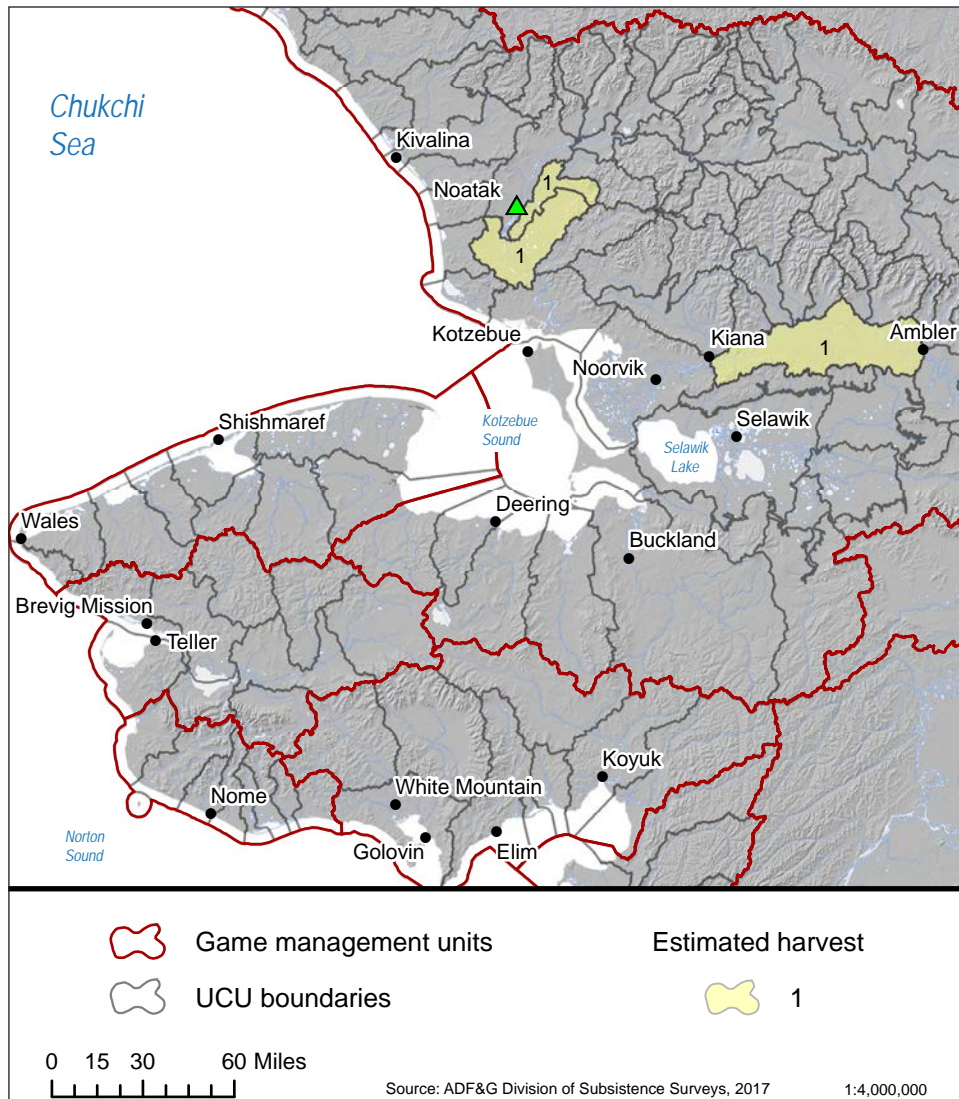


Figure 12.—Moose harvests by UCU, Noatak, 2016–2017.

COMPARING THE 2016–2017 RESULTS WITH PREVIOUS SURVEY DATA

For this section, harvest data are drawn from the Community Subsistence Information System, the state’s repository of Alaska community harvest information compiled by the Alaska Department of Fish and Game, Division of Subsistence.⁹ 2016–2017 was the third year of big game harvest data collection for Buckland; the community had been previously surveyed for the 2003 and 2009 study years. This study year was also the fifth year of big game harvest information in Koyuk, which had been surveyed for the 1998, 2004, 2006, and 2010–2011 study years. Finally, this was the seventh year in which big game harvest information was collected for Noatak; the community had been previously surveyed for the 1994, 1999, 2002, 2007, 2010–2011, and 2011–2012 study years.

Because both community size and harvest volumes vary from year to year, per capita harvest is a useful analytical measure for comparison. Although individuals likely use less or more in reality, a per capita analysis controls for the effect community population size may have on total harvest and allows a comparison of the harvest per person between multiple years of data.

9. Alaska Department of Fish and Game (ADF&G) Division of Subsistence, Juneau. “Community Subsistence Information System: CSIS.” <https://www.adfg.alaska.gov/sb/CSIS>

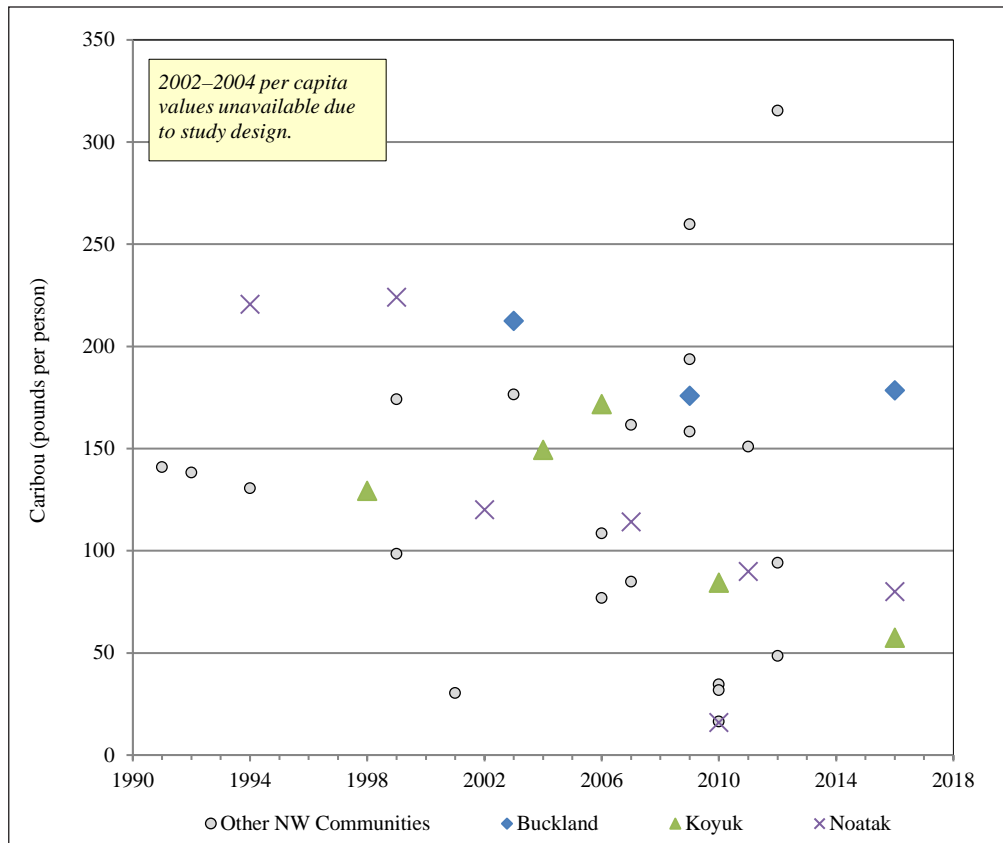


Figure 13.—Per capita caribou harvests, study communities and other Northwest Alaska communities, 1990–2017.

Buckland hunters harvested 179 lb of caribou per person during the study year (Table 3), an estimate situated between the 2 existing estimates in 2003 (212 lb) and 2009 (168 lb; Figure 13). Buckland hunters harvested 14 lb of moose per person in 2016–2017 (Table 4), which was more than the per capita harvest in 2009 (9 lb), and less than that in 2003 (22 lb).

Koyuk hunters harvested 58 lb of caribou per capita during the 2016–2017 study year (Table 3), which was the lowest harvest of the 5 study years (Figure 13). They harvested an estimated 129 lb per capita in 1998, 153 lb in 2004, 168 lb in 2006 and 84 lb in 2010–2011. Koyuk hunters harvested 67 lb of moose per capita during the study year (Table 4), which was the highest recorded harvest. They harvested an estimated 45 lb per person in 1998, 40 lb in 2004, 42 lb in 2006 and 34 lb in the 2010–2011 study year.

Noatak hunters harvested an estimated 80 lb of caribou per capita during the 2016–2017 study year, which was the second lowest harvest of the 7 study years (Table 3; Figure 13). Caribou harvests were estimated at 221 lb per capita in 1994, 224 lb per capita in 1999, 120 lb per capita in 2002, 114 lb per capita in 2007, 16 lb per capita in 2010–2011, and 90 lb per capita in 2011–2012. Noatak hunters harvested 8 lb of moose per capita during the study year, which was the fourth highest harvest recorded over the 7 study years (Table 4). They harvested an estimated 4 lb per capita in 1994, 6 lb per capita in 1999, 4 lb per capita in 2002, 11 lb per capita in 2007, 9 lb per capita in 2010–2011, and 13 lb in the 2011–2012 study year.

Some themes emerged in comparing 2016–2017 data with prior results. Harvest areas for both Buckland and Koyuk have remained largely consistent over time. However, harvest areas for Noatak respondents have varied significantly over the 3 years for which maps are available, likely because Noatak hunters access the herd in its migratory area, within which routes vary from year to year and in response to external pressures. Caribou harvests in Koyuk appear to have been decreasing steadily since a high harvest in 2006.

Similarly, harvests in Noatak have been declining since the early 2000s. Buckland has only participated in harvest surveys 3 times, and this over 14 years, so no definitive harvest trend could be identified.

These harvest surveys provide critical information for managing these important resources, and they offer an opportunity to open dialogue between local subsistence users and managers. Survey respondents shared perceptions about nonlocal user groups, management of the resource, intensive management, and changes to abundance and migratory patterns of the WAH. One common theme mentioned by respondents in Buckland, Koyuk, and Noatak was the dependence of their communities on big game resources and the overwhelming importance of subsistence to their households.

REFERENCES

ADF&G

2012. Western Arctic caribou herd numbers 325,000 animals in recent survey. [press release] July 3, 2012.

Alaska Department of Fish and Game Division of Wildlife Conservation

2016. 2016–2017 Alaska hunting regulations governing general, subsistence, and commercial uses of Alaska's wildlife.

Alaska Department of Fish and Game, Division of Wildlife Conservation

2014. Western Arctic caribou herd numbers 235,000 animals in recent survey [press release] May 12, 2014.

Cochran, W.G.

1977. Sampling techniques, 3rd edition. John Wiley & Sons: New York.

Federal Subsistence Management Program

2016. Federal subsistence management regulations for the harvest of wildlife on federal public lands in Alaska, effective 1 July 2016–30 June 2018. U.S. Department of the Interior, Office of Subsistence Management: Anchorage.

Mikow, E., N.M. Braem, and M. Kostick

2014. Subsistence wildlife harvests in Brevig Mission, Deering, Noatak, and Teller, Alaska, 2011–2012. Alaska Department of Fish and Game, Division of Subsistence Special Publication No. 2014-02: Fairbanks.

Western Arctic Caribou Herd Working Group

2016. Status of the Western Arctic caribou herd. Caribou Trails (16).

Western Arctic Caribou Herd Working Group

2017. Western Arctic caribou herd update. Caribou Trails (17).

APPENDIX A – SURVEY INSTRUMENT

WESTERN ARCTIC CARIBOU HERD SUBSISTENCE SURVEY
BUCKLAND, ALASKA
 APRIL 2016 to MARCH 2017

COOPERATING ORGANIZATIONS

DIVISION OF SUBSISTENCE
 ALASKA DEPT OF FISH & GAME
 1300 COLLEGE RD
 FAIRBANKS, AK 99701

(877) 646-7320

NATIVE VILLAGE OF BUCKLAND

PO BOX 67
 BUCKLAND, AK 99727

(907) 494-2171



We are doing this survey to better understand subsistence in Alaska. Similar surveys have been conducted in more than 100 Alaska communities, including Deering, Kotzebue, Kivalina, Noatak, Shungnak, Shishmaref, Teller, and Wales. Surveys help us estimate subsistence harvests. Surveys also help us describe the role of subsistence in Alaska's economy.

The survey asks how much game your household harvested last year, where you caught it, and the sex of the animal.

It also asks about how many people lived in your household and their age(s). We will NOT identify your household. We will NOT use this information for enforcement. Participation in this survey is voluntary. If you start a survey, you may stop at any time.

HOUSEHOLD ID:		
COMMUNITY ID:	BUCKLAND	70
RESPONDENT ID:		
INTERVIEWER:		
INTERVIEW DATE:		
START TIME:		
STOP TIME:		
	DATA CODED BY:	
	DATA ENTERED BY:	
	SUPERVISOR:	

HOUSEHOLD MEMBERS

HOUSEHOLD ID

First, I would like to know a few things about the people in your household. I want to know only about permanent members of your household, including college or high school students who return home every summer. I am NOT interested in people who lived with you temporarily, even if they stayed several months.

Between APRIL 2016 to MARCH 2017...

...who lived in your household?

ID#	How is this person related to head 1?	Is this person MALE or FEMALE?	How old is this person?	Is this person Alaska Native?	Is this person answering questions on this survey?	Comments (OPTIONAL) <i>enter text</i>
	<i>relation</i>	<i>circle</i>	<i>age</i>	<i>circle</i>	<i>circle</i>	
HEAD 1	SELF	M F		Y N	Y N	
01	1					

NEXT, enter spouse or partner. If household has a SINGLE HEAD, leave HEAD 2 blank.

HEAD 2	SPOUSE	M F		Y N	Y N	
02	2					

BELOW, enter children (oldest to youngest), grandchildren, grandparents, brothers, sisters, and other household members.

03		M F		Y N	Y N	
04		M F		Y N	Y N	
05		M F		Y N	Y N	
06		M F		Y N	Y N	
07		M F		Y N	Y N	
08		M F		Y N	Y N	
09		M F		Y N	Y N	
10		M F		Y N	Y N	
11		M F		Y N	Y N	
12		M F		Y N	Y N	
13		M F		Y N	Y N	
14		M F		Y N	Y N	
15		M F		Y N	Y N	

PERMANENT HH MEMBERS: 01

BUCKLAND: 70

HARVESTS: LARGE LAND MAMMALS

HOUSEHOLD ID

Now I am going to ask about large land mammals such as caribou, moose, and bear.

Do members of your household USUALLY hunt large land mammals for subsistence?..... Y N

Between APRIL 2016 to MARCH 2017...

...Did members of your household USE or TRY TO CATCH large land mammals?..... Y N

IF NO, go to the next harvest page.

If YES, continue on this page...

Please estimate how many large land mammals ALL MEMBERS OF YOUR HOUSEHOLD CAUGHT for subsistence use last year. INCLUDE large land mammals you gave away, ate fresh, fed to dogs, lost to spoilage, or got by helping others. If hunting or trapping with others, report ONLY YOUR SHARE of the catch.

In the last 12 months, did your household...			
Use?	Try to Harvest?	Give Away?	Receive?
<i>circle one</i>			

In the last 12 months, where did members of your HH catch _____?"			
<i>Each line is for 1 area, 1 sex, 1 amount, and 1 month. Four bulls killed in the same area in September should be on the same line. A cow killed in the same area would be on a new line. Do not enter the same animal in two lines!</i>			
WHERE were they harvested?	Were these MALE or FEMALE?	HOW MANY animals were killed?	In what MONTH were these animals harvested?
<i>enter UCU</i>	<i>circle one</i>	<i>enter number</i>	<i>enter one month</i>

CARIBOU	Y	N	Y	N	Y	N	Y	N
<i>Tuttu</i>								
211000000								

	BULL	COW	?
	BULL	COW	?
	BULL	COW	?
	BULL	COW	?
	BULL	COW	?
	BULL	COW	?
	BULL	COW	?
	BULL	COW	?
	BULL	COW	?
	BULL	COW	?

❖ If month of harvest is 'unknown', ask if respondent knows the season of harvest and write that in instead.

large land mammals continued on next page...

HARVESTS: LARGE LAND MAMMALS (continued)

HOUSEHOLD ID

In the last 12 months... did your household...					In the last 12 months, where did members of your HH catch _____?			
Use?	Try to Harvest?	Give Away?	Receive?		WHERE were they harvested?	Were these MALE or FEMALE?	HOW MANY animals were killed?	In what MONTH were these animals harvested?
circle one					enter UCU	circle one	enter number	enter one month
MOOSE	Y N	Y N	Y N	Y N		BULL COW ?		
<i>Tinniikaq</i>								
211800000								
						BULL COW ?		
						BULL COW ?		
						BULL COW ?		
BROWN BEAR	Y N	Y N	Y N	Y N		BOAR SOW ?		
<i>Aklaq</i>								
210800000								
						BOAR SOW ?		
						BOAR SOW ?		
BLACK BEAR	Y N	Y N	Y N	Y N		BOAR SOW ?		
<i>Iyyagriq</i>								
210600000								
						BOAR SOW ?		
						BOAR SOW ?		

HARVESTS: FURBEARERS

WOLF	Y N	Y N	Y N	Y N		n/a		
<i>Amaguq</i>								
223200000								
WOLVERINE	Y N	Y N	Y N	Y N		n/a		
<i>Qavvik</i>								
223400000								

❖ If month of harvest is 'unknown', ask if respondent knows the season of harvest and write that in instead.

LAND MAMMALS: 10

BUCKLAND: 70

**APPENDIX B – HARVEST AND USE OF LAND
MAMMALS**

Table B1.—Harvest and use of land mammals, Buckland, 2016–2017.

Resource	Percentage of households					Harvest weight (lb) ^a			Harvest amount (individual)		
	Using	Attempting harvest	Harvesting	Giving away	Receiving	Total	Per household	Per capita	Total	Per household	95% CI (±%)
Land mammals	98.8%	85.5%	83.1%	72.3%	83.1%	101,657.8	1016.6	192.6	725.3	7.3	17.0%
Large land mammals	98.8%	85.5%	83.1%	72.3%	83.1%	101,657.8	1016.6	192.6	709.6	7.1	16.9%
Black bear	0.0%	1.2%	0.0%	0.0%	0.0%	0.0	0.0	0.0	0.0	0.0	0.0%
Brown bear	3.6%	3.6%	3.6%	1.2%	0.0%	310.8	3.1	0.6	3.6	0.0	33.3%
Caribou	98.8%	85.5%	83.1%	72.3%	80.7%	94,216.9	942.2	178.5	692.8	6.9	12.6%
Moose	14.5%	10.8%	7.2%	6.0%	10.8%	7,130.1	71.3	13.5	13.3	0.1	30.0%
Small land mammals	10.8%	12.0%	9.6%	2.4%	1.2%	0.0	0.0	0.0	15.7	0.2	29.1%
Wolf	8.4%	9.6%	7.2%	2.4%	0.0%	0.0	0.0	0.0	7.2	0.1	32.4%
Wolverine	8.4%	8.4%	8.4%	1.2%	1.2%	0.0	0.0	0.0	8.4	0.1	29.8%

Source ADF&G Division of Subsistence household surveys, 2017.

a. A harvest weight of zero pounds for a resource with a nonzero harvest amount indicates that the resource was used exclusively for fur and not eaten.

Table B2.—Harvest and use of land mammals, Koyuk, 2016–2017.

Resource	Percentage of households					Harvest weight (lb) ^a			Harvest amount (individual)		
	Using	Attempting harvest	Harvesting	Giving away	Receiving	Total	Per household	Per capita	Total	Per household	95% CI (±%)
Land mammals	91.8%	59.0%	54.1%	45.9%	77.0%	41,931.3	476.5	124.2	189.0	2.1	21.4%
Large land mammals	91.8%	59.0%	54.1%	45.9%	77.0%	41,931.3	476.5	124.2	184.7	2.1	21.2%
Black bear	0.0%	0.0%	0.0%	0.0%	0.0%	0.0	0.0	0.0	0.0	0.0	0.0%
Brown bear	0.0%	0.0%	0.0%	0.0%	0.0%	0.0	0.0	0.0	0.0	0.0	0.0%
Caribou	88.5%	50.8%	45.9%	36.1%	67.2%	19,423.5	220.7	57.5	142.8	1.6	18.7%
Moose	78.7%	50.8%	44.3%	36.1%	59.0%	22,507.8	255.8	66.7	41.8	0.5	13.8%
Small land mammals	3.3%	3.3%	3.3%	0.0%	0.0%	0.0	0.0	0.0	4.3	0.0	81.4%
Wolf	3.3%	3.3%	3.3%	0.0%	0.0%	0.0	0.0	0.0	2.9	0.0	77.1%
Wolverine	1.6%	1.6%	1.6%	0.0%	0.0%	0.0	0.0	0.0	1.4	0.0	109.9%

Source ADF&G Division of Subsistence household surveys, 2017.

a. A harvest weight of zero pounds for a resource with a nonzero harvest amount indicates that the resource was used exclusively for fur and not eaten.

Table B3.—Harvest and use of land mammals, Noatak, 2016–2017.

Resource	Percentage of households					Harvest weight (lb) ^a			Harvest amount (individual)		
	Using	Attempting harvest	Harvesting	Giving away	Receiving	Total	Per household	Per capita	Total	Per household	95% CI (±%)
Land mammals	97.0%	70.0%	52.0%	57.0%	85.0%	50,823.7	397.1	88.8	349.4	2.7	18.0%
Large land mammals	97.0%	70.0%	52.0%	57.0%	85.0%	50,823.7	397.1	88.8	348.2	2.7	18.1%
Black bear	0.0%	0.0%	0.0%	0.0%	0.0%	0.0	0.0	0.0	0.0	0.0	0.0%
Brown bear	2.0%	3.0%	2.0%	0.0%	0.0%	220.2	1.7	0.4	2.6	0.0	46.3%
Caribou	96.0%	70.0%	51.0%	56.0%	84.0%	45,783.0	357.7	80.0	336.6	2.6	13.9%
Moose	24.0%	15.0%	6.0%	9.0%	24.0%	4,820.5	37.7	8.4	9.0	0.1	27.8%
Small land mammals	1.0%	6.0%	1.0%	1.0%	1.0%	0.0	0.0	0.0	1.3	0.0	92.8%
Wolf	1.0%	6.0%	1.0%	1.0%	1.0%	0.0	0.0	0.0	1.3	0.0	92.8%
Wolverine	0.0%	5.0%	0.0%	0.0%	0.0%	0.0	0.0	0.0	0.0	0.0	0.0%

Source ADF&G Division of Subsistence household surveys, 2017.

a. A harvest weight of zero pounds for a resource with a nonzero harvest amount indicates that the resource was used exclusively for fur and not eaten.

**APPENDIX C – HARVESTS BY SEX AND MONTH
OF HARVEST**

Table C1.–Caribou harvests by sex and month of harvest, Buckland, 2016–2017.

Community	Sex	2016										2017			Season				Unknown	Total
		Apr	May	June	July	Aug	Sept	Oct	Nov	Dec	Jan	Feb	Mar	Win	Spr	Sum	Fall			
Buckland	Male	0.0	1.2	0.0	1.2	14.5	78.3	12.0	7.2	0.0	2.4	20.5	42.2	10.8	0.0	0.0	144.6	53.0	388.0	
	Female	3.6	0.0	0.0	0.0	0.0	15.7	2.4	6.0	10.8	9.6	22.9	56.6	37.3	3.6	0.0	39.8	55.4	263.9	
	Unknown	6.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.4	0.0	0.0	3.6	3.6	9.6	0.0	0.0	15.7	41.0	

Source ADF&G Division of Subsistence household surveys, 2017.

Table C2.–Caribou harvests by sex and month of harvest, Koyuk, 2016–2017.

Community	Sex	2016										2017			Season				Unknown	Total
		Apr	May	June	July	Aug	Sept	Oct	Nov	Dec	Jan	Feb	Mar	Win	Spr	Sum	Fall			
Koyuk	Male	0.0	0.0	0.0	0.0	4.3	1.4	0.0	0.0	2.9	2.9	21.6	31.7	54.8	2.9	0.0	0.0	0.0	0.0	122.6
	Female	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.9	10.1	0.0	0.0	0.0	0.0	0.0	13.0
	Unknown	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7.2	0.0	0.0	0.0	0.0	0.0	7.2

Source ADF&G Division of Subsistence household surveys, 2017.

Table C3.–Caribou harvests by sex and month of harvest, Noatak, 2016–2017.

Community	Sex	2016										2017			Season				Unknown	Total
		Apr	May	June	July	Aug	Sept	Oct	Nov	Dec	Jan	Feb	Mar	Win	Spr	Sum	Fall			
Noatak	Male	3.8	0.0	0.0	5.1	0.0	116.5	14.1	0.0	1.3	6.4	7.7	0.0	0.0	1.3	0.0	43.5	16.6	216.3	
	Female	1.3	0.0	0.0	0.0	0.0	11.5	0.0	0.0	5.1	20.5	21.8	7.7	39.7	2.6	0.0	5.1	0.0	115.2	
	Unknown	0.0	0.0	0.0	0.0	0.0	5.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.1

Source ADF&G Division of Subsistence household surveys, 2017.

Table C4.–Moose harvests by sex and month of harvest, Buckland, 2016–2017.

Community	Sex	2016										2017			Season				Unknown	Total
		Apr	May	June	July	Aug	Sept	Oct	Nov	Dec	Jan	Feb	Mar	Win	Spr	Sum	Fall			
Buckland	Male	0.0	0.0	0.0	0.0	0.0	3.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.4	6.0	12.0	
	Female	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	Unknown	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.2	0.0	0.0	0.0	1.2	

Source ADF&G Division of Subsistence household surveys, 2017.

Table C5.–Moose harvests by sex and month of harvest, Koyuk, 2016–2017.

Community	Sex	2016										2017			Season				Unknown	Total
		Apr	May	June	July	Aug	Sept	Oct	Nov	Dec	Jan	Feb	Mar	Win	Spr	Sum	Fall			
Koyuk	Male	0.0	0.0	0.0	0.0	18.8	23.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	41.8	
	Female	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	Unknown	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	

Source ADF&G Division of Subsistence household surveys, 2017.

Table C6.–Moose harvests by sex and month of harvest, Noatak, 2016–2017.

Community	Sex	2016										2017			Season				Unknown	Total
		Apr	May	June	July	Aug	Sept	Oct	Nov	Dec	Jan	Feb	Mar	Win	Spr	Sum	Fall			
Noatak	Male	0.0	0.0	0.0	0.0	2.6	2.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.6	0.0	7.7	
	Female	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.3	1.3	
	Unknown	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	

Source ADF&G Division of Subsistence household surveys, 2017.

**APPENDIX D – HARVESTS BY SEX, MONTH,
AND LOCATION OF HARVEST**

Table D1.–Caribou harvests by sex, month, and location of harvest, Buckland, 2016–2017.

UCU ^a	Sex	2016										2017			Season				Unknown	Total		
		Apr	May	June	July	Aug	Sept	Oct	Nov	Dec	Jan	Feb	Mar	Win	Spr	Sum	Fall					
23ZB001101	Male	0.0	0.0	0.0	0.0	0.0	6.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.0	
	Female	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Unknown	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
23ZH004903	Male	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.4	1.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.6
	Female	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Unknown	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
23ZH000501	Male	0.0	1.2	0.0	1.2	14.5	67.5	8.4	7.2	0.0	2.4	15.7	38.6	10.8	0.0	0.0	144.6	53.0	365.1			
	Female	3.6	0.0	0.0	0.0	0.0	13.3	2.4	6.0	10.8	6.0	19.3	50.6	37.3	3.6	0.0	39.8	42.2	234.9			
	Unknown	6.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.4	0.0	0.0	3.6	0.0	0.0	0.0	0.0	12.0	24.1			
23ZH000602	Male	0.0	0.0	0.0	0.0	0.0	2.4	3.6	0.0	0.0	0.0	2.4	2.4	0.0	0.0	0.0	0.0	0.0	10.8			
	Female	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
	Unknown	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
Unknown	Male	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
	Female	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	13.3	13.3			
	Unknown	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.6	9.6	0.0	0.0	3.6	16.9			
Missing	Male	0.0	0.0	0.0	0.0	0.0	2.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.4			
	Female	0.0	0.0	0.0	0.0	0.0	2.4	0.0	0.0	0.0	3.6	3.6	6.0	0.0	0.0	0.0	0.0	0.0	15.7			
	Unknown	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			

Source ADF&G Division of Subsistence household surveys, 2017.

a. ADF&G uniform coding unit.

Table D2.–Caribou harvests by sex, month, and location of harvest, Koyuk, 2016–2017.

UCU ^a	Sex	2016										2017			Season				Unknown	Total
		Apr	May	June	July	Aug	Sept	Oct	Nov	Dec	Jan	Feb	Mar	Win	Spr	Sum	Fall			
22BN000101	Male	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.9
	Female	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.9	0.0	0.0	0.0	0.0	0.0	2.9
	Unknown	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
22BN000201	Male	0.0	0.0	0.0	0.0	1.4	0.0	0.0	0.0	1.4	2.9	10.1	21.6	28.9	1.4	0.0	0.0	0.0	0.0	67.8
	Female	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7.2	0.0	0.0	0.0	0.0	0.0	7.2
	Unknown	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
22BN000202	Male	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	8.7	0.0	26.0	1.4	0.0	0.0	0.0	0.0	36.1
	Female	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.9	0.0	0.0	0.0	0.0	0.0	0.0	2.9
	Unknown	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7.2	0.0	0.0	0.0	0.0	0.0	7.2
23ZH000501	Male	0.0	0.0	0.0	0.0	1.4	0.0	0.0	0.0	1.4	0.0	0.0	2.9	0.0	0.0	0.0	0.0	0.0	0.0	5.8
	Female	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Unknown	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Unknown	Male	0.0	0.0	0.0	0.0	1.4	1.4	0.0	0.0	0.0	0.0	0.0	1.4	0.0	0.0	0.0	0.0	0.0	0.0	4.3
	Female	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Unknown	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Missing	Male	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.8	0.0	0.0	0.0	0.0	0.0	0.0	5.8
	Female	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Unknown	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Source ADF&G Division of Subsistence household surveys, 2017.

a. ADF&G uniform coding unit.

Table D3.–Caribou harvests by sex, month, and location of harvest, Noatak, 2016–2017.

UCU ^a	Sex	2016									2017			Season				Unknown	Total	
		Apr	May	June	July	Aug	Sept	Oct	Nov	Dec	Jan	Feb	Mar	Win	Spr	Sum	Fall			
23ZA003101	Male	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.6	6.4	9.0	
	Female	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	Unknown	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
23ZA003102	Male	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.3	0.0	0.0	0.0	1.3	
	Female	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.1	0.0	0.0	0.0	0.0	2.6	0.0	0.0	0.0	7.7
	Unknown	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
23ZA003103	Male	0.0	0.0	0.0	0.0	0.0	2.6	1.3	0.0	0.0	6.4	0.0	0.0	0.0	0.0	0.0	5.1	0.0	15.4	
	Female	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	16.6	12.8	1.3	0.0	0.0	0.0	0.0	0.0	30.7	
	Unknown	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
23ZA003301	Male	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	Female	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.6	0.0	0.0	0.0	0.0	0.0	0.0	2.6	
	Unknown	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
23ZA003401	Male	0.0	0.0	0.0	0.0	0.0	2.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.6	
	Female	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	Unknown	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
23ZA003501	Male	0.0	0.0	0.0	0.0	0.0	51.2	12.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	23.0	0.0	87.0	
	Female	0.0	0.0	0.0	0.0	0.0	2.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.6	0.0	5.1	
	Unknown	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
23ZA003503	Male	0.0	0.0	0.0	0.0	0.0	2.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.6	
	Female	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	Unknown	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
23ZA003701	Male	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.6	7.7	10.2	
	Female	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	Unknown	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
23ZA003802	Male	0.0	0.0	0.0	0.0	0.0	15.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	15.4	
	Female	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	Unknown	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
23ZA003901	Male	0.0	0.0	0.0	0.0	0.0	9.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	9.0	
	Female	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	Unknown	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
23ZA004001	Male	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.3	0.0	1.3	
	Female	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	Unknown	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
23ZA004101	Male	0.0	0.0	0.0	0.0	0.0	15.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.8	0.0	19.2	
	Female	0.0	0.0	0.0	0.0	0.0	2.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.6	
	Unknown	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	

-continued-

Table D3–Continued.

UCU ^a	Sex	2016									2017			Season				Unknown	Total	
		Apr	May	June	July	Aug	Sept	Oct	Nov	Dec	Jan	Feb	Mar	Win	Spr	Sum	Fall			
23ZB001201	Male	0.0	0.0	0.0	5.1	0.0	11.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	16.6
	Female	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Unknown	0.0	0.0	0.0	0.0	0.0	5.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.1
23ZH000201	Male	3.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.8
	Female	1.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.3
	Unknown	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
23ZH000501	Male	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Female	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.8
	Unknown	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
23ZH000601	Male	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Female	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.6	2.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.1
	Unknown	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
23ZH004903	Male	0.0	0.0	0.0	0.0	0.0	2.6	0.0	0.0	0.0	0.0	7.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	10.2
	Female	0.0	0.0	0.0	0.0	0.0	3.8	0.0	0.0	0.0	1.3	3.8	0.0	39.7	0.0	0.0	0.0	0.0	0.0	48.6
	Unknown	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
23ZH005001	Male	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0 #	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Female	0.0	0.0	0.0	0.0	0.0	2.6	0.0	0.0	0.0	2.6	0.0	0.0 #	0.0	0.0	0.0	0.0	0.0	0.0	5.1
	Unknown	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0 #	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Missing	Male	0.0	0.0	0.0	0.0	0.0	3.8	0.0	0.0	1.3	0.0	0.0	0.0 #	0.0	0.0	0.0	5.1	2.6	12.8	
	Female	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0 #	0.0	0.0	0.0	2.6	0.0	2.6	
	Unknown	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0 #	0.0	0.0	0.0	0.0	0.0	0.0	

Source ADF&G Division of Subsistence household surveys, 2017.

a. ADF&G uniform coding unit.

Table D4.—Moose harvests by sex, month, and location of harvest, Buckland, 2016–2017.

UCU ^a	Sex	2016									2017			Season				Unknown	Total
		Apr	May	June	July	Aug	Sept	Oct	Nov	Dec	Jan	Feb	Mar	Win	Spr	Sum	Fall		
23ZH000501	Male	0.0	0.0	0.0	0.0	0.0	3.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.4	6.0	12.0
	Female	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Unknown	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Missing	Male	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Female	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Unknown	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.2	0.0	0.0	0.0	1.2
Unknown	Male	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Female	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Unknown	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Source ADF&G Division of Subsistence household surveys, 2017.

a. ADF&G uniform coding unit.

Table D5.—Moose harvests by sex, month, and location of harvest, Koyuk, 2016–2017.

UCU ^a	Sex	2016									2017			Season				Unknown	Total	
		Apr	May	June	July	Aug	Sept	Oct	Nov	Dec	Jan	Feb	Mar	Win	Spr	Sum	Fall			
22BN000101	Male	0.0	0.0	0.0	0.0	1.4	1.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.9
	Female	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Unknown	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
22BN000201	Male	0.0	0.0	0.0	0.0	10.1	5.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	15.9
	Female	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Unknown	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
22BN000202	Male	0.0	0.0	0.0	0.0	4.3	8.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	13.0
	Female	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Unknown	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
22DN000304	Male	0.0	0.0	0.0	0.0	0.0	1.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.4
	Female	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Unknown	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
23ZH000501	Male	0.0	0.0	0.0	0.0	1.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.4
	Female	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Unknown	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Unknown	Male	0.0	0.0	0.0	0.0	1.4	2.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.3
	Female	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Unknown	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Missing	Male	0.0	0.0	0.0	0.0	0.0	2.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.9
	Female	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Unknown	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Source ADF&G Division of Subsistence household surveys, 2017.

a. ADF&G uniform coding unit.

Table D6.—Moose harvests by sex, month, and location of harvest, Noatak, 2016–2017.

UCU ^a	Sex	2016										2017			Season				Unknown	Total	
		Apr	May	June	July	Aug	Sept	Oct	Nov	Dec	Jan	Feb	Mar	Win	Spr	Sum	Fall				
23ZA003102	Male	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.3	0.0	1.3	
	Female	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Unknown	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
23ZA003301	Male	0.0	0.0	0.0	0.0	1.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.3
	Female	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Unknown	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
23ZB001201	Male	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.3	0.0	1.3	
	Female	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Unknown	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Missing	Male	0.0	0.0	0.0	0.0	1.3	2.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.8
	Female	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.3	1.3	
	Unknown	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Source ADF&G Division of Subsistence household surveys, 2017.

a. ADF&G uniform coding unit.

APPENDIX E – RESPONDENT COMMENTS

Buckland

No

Stop that sports hunting. Security out more to stop those sports hunting. We hunt our caribou sometimes they make it hard for us to catch the caribou. All year we live off caribou.

About to go hunt geese now.

Let us hunt with no limit

Mostly hunt for the town. Help don't have boats or snow machines. Grandson hunts for the family.

Too much air traffic during hunting season

Bring more wolverine tags to village. Let people buy trapping and hunting license in villages.

Caribou is our main source of food

Make moose season longer and open season for bear

No

Hope they don't stop caribou

Glad we're able to catch for our subsistence.

Some of the caribou were given to elders

Hunt what we want when we want. Open season year round.

No questions, no concerns.

Why did the cows close in Unit 23 while the other Units were open?

Need to make moose season longer. Open bear season.

Respond faster to calls in villages so we can get animals too. Stop illegal hunters. Get a license vendor seller here in Buckland

Why are we having less snow? Why are weather patterns changing? Would it be possible to make the hunting season a little earlier for moose? Would it be possible to build new shelter cabins for the hunters, fishers, and travelers?

No

Like to know if they're tagged and look online for caribou and see where they are at, takes a lot of gas to go out and look. Planes flying, hunting time, landing on our beach beyond our units and plus scaring the caribou away from us hunters trying to hunt.

Those planes that fly all summer.

Caribou female season open longer? Bull moose open earlier due to rut or no water in river.

Caribou is one of the main food that helping us stay alive

Have license seller in Buckland. Put more jobs in villages.

-continued-

Koyuk

None at the moment

None

Never hunt big game

None

None

Caribou moving out earlier than normal -> later winter / early spring. Didn't get caribou much last year.

Don't bother us, let us hunt. We need our Native foods to survive.

Concern about decline to catch moose and caribou

We need to keep our subsistence lifestyle, which is less important and necessary than any other ethnic lifestyle in America and around the earth.

No

None

None

20 caribou limit impacts hunters who share with others. Wants to give to elders and others, but difficult to get enough for themselves and others.

No comment

Moose hunting - too much traffic - plane - dead moose - guides are not able to fly with plane.

None

None

Do more predator control...local hire

No

None

Last year big game hunters were taking horns and leaving meat to rot. Wanton waste. Interior hunters.

None

Concern about caribou herd size

Why so many rules and regulations

None

Too old to hunt now days

None

None

None

None

-continued-

Koyuk, continued

None

Thanks for coming

None

Noatak

Too many planes, sportsman hunters

Waiting for caribou to rebound. The last couple of years were the hardest to harvest.

Sometimes they're too far to hunt (caribou). Gas cost too much.

They do use subsistence game weekly, at least.

No concerns or questions

Too far to hunt, cost of gas

The closure for caribou harvest was successful for our village, ie planes, outside sports hunters

None

No comments

I wish sports hunters that fly with airplanes would be stopped or controlled. In this region.

None

Taikuu

We saw a lot of non-local hunters at sapuh before the closure. How there was hardly any this fall it was good. It's now cutting the gas to get there is cost effective for many families today. It wasn't like that when the caribou tracked through Squirrel, Aggie, and Eli river. The caribou cross near the village when the caribou cross through these rivers and it didn't cost as much to hunt caribou about ten years ago. And our people are concerned that this might be because permanent and we want something done

We got more caribou with the closures, gas is too high and can't go up river more to hunt.

Thanks to the closure we have peaceful hunting

It was good to receive meat from hunters

Too many sport hunters

Too crowded in river, too much air traffic.

None. All people flying during hunting season. Small planes: I hope they aren't poachers or out of state hunters.

Thankful caribou are still here

Spend lot of money on gas and oil. Most of the time come home with nothing.

Why are the sport hunters still coming to our hunting grounds

Only concerns are of the airplanes flying over during hunting season.

No comments

Noatak, continued

I like and encourage our local people to keep up with our subsistence life style and preservation. In the past we have had too much sport hunters in our traditional hunting grounds.

It's not like years ago. Their crossing route has changed. Airplane hunters need to stop scaring them. Young hunters need to let the 1st group cross first.

One time we were hunting at Sapun and waiting for caribou for hours and they started down and all of a sudden they stood still and wondering what they do. All of a sudden they start running away. Sport hunters were walking toward them and they smell them and went north.

Too much sports hunters had to go 150 plus miles up river with boat

Caribou: every year there are too many people, planes along the migration route. Every year there are different user groups in large numbers, different user groups such as sport hunters, recreational miners, recreational cannery, transporters, etc.

So it would be good to limit the number of all user groups especially during the time of the fall caribou migration.

Why can't all these different user groups start coming to the villages and start putting us locals to work bringing you different user groups out

Glad they stopped the drop offs (controlled use near Thompson), finally saw some. Heard from Kobuk side the caribou were early because of that. Kivalina waited til some passed road before harvesting, which helped keep from diverting them.

Why are they declining

The closure they had last year was good for our local hunters and should be continued until the caribou population starts to come up in numbers.

People are having to go further, having to catch them before they get down further towards sport hunters. Shooting from hills, it can be dangerous. Planes in control use area when it should be prohibited. Inform airport that they should tell people about the no-fly. Want to continue to our way of life, sports hunting.

Can they extend Noatak's land usage for hunting and broaden it for 5 to 10 miles into the foothills of the Gates of the Arctic National Wildlife Refuge.

Due to lots of sport hunters on the river, we had to go Kiana to harvest caribou. We need to keep sport hunters out of our traditional hunting grounds.

Are they going to reopen sheep?

With the sport hunters not up the river it was better, because the caribou started to come back through some old trails.

Cost of gas too high

Takes a lot to go get caribou. High fuel cost.

Sport hunters got caught to leave the area up river

Planes flying around still during hunting season