## Furbearer Management Report and Plan, Game Management Units 19, 21A, and 21E:

Report Period 1 July 2012-30 June 2017, and

Plan Period 1 July 2017–30 June 2022

**Jonathan Barton** 



# Furbearer Management Report and Plan, Game Management Units 19, 21A, and 21E:

Report Period 1 July 2012–30 June 2017, and Plan Period 1 July 2017–30 June 2022

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Species management reports and plans provide information about species that are hunted or trapped and management actions, goals, recommendations for those species, and plans for data collection. Detailed information is prepared for each species every 5 years by the area management biologist for game management units in their areas, who also develops a plan for data collection and species management for the next 5 years. This type of report is not produced for species that are not managed for hunting or trapping or for areas where there is no current or anticipated activity. Unit reports are reviewed and approved for publication by regional management coordinators and are available to the public via the Alaska Department of Fish and Game's public website.

This species management report and plan was reviewed and approved for publication by Doreen Parker McNeill, Management Coordinator for the Division of Wildlife Conservation.

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## Contents

Purpose of this Report	1
I. RY12–RY16 Management Report	1
Management Area	1
Summary of Status, Trend, Management Activities, and History of Furbearers in Units 19, 21A,	
and 21E	1
Management Direction	2
Existing Wildlife Management Plans	2
Goals	2
Codified Objectives	2
Amounts Reasonably Necessary for Subsistence Uses	2
Intensive Management	2
Management Objectives	2
Management Activities	2
1. Population Status and Trend	2
2. Mortality-Harvest Monitoring and Regulations.	2
3. Habitat Assessment–Ennancement	3 2
4. Furbearer Management with Public Participation and Outreach	) ∕
Data Pasarding and Arabiying	+ ⁄
A greements	+ /
Permitting	т 4
Conclusions and Management Recommendations	4
II Droject Daview and DV17 DV21 Dien	5
II. Floject Review and R I $1/-R$ I 21 Flan	5 ~
Review of Management Direction	5
Management Direction	5
Goals	) 5
Codified Objectives	) 5
Amounts Reasonably Necessary for Subsistence Uses	5 6
Management Objectives	0 6
Review of Management Activities	6
1 Population Status and Trend	6
2 Mortality-Harvest Monitoring	6
3. Habitat Assessment-Enhancement	7
4. Furbearer Management with Public Participation and Outreach	, 7
Nonregulatory Management Problems or Needs	7
Data Recording and Archiving	7
Agreements	8
Permitting	8
References Cited	8

## List of Figures

Figure 1. Administrative regions and game management units of the Division of Wildlife Conservation, Alaska Department of Fish and Game
Figure 2. Topographical map showing the Big River beaver cache count area, Interior Alaska 5
Figure 3. Topographical map showing the Takotna beaver cache count area, Interior Alaska6
List of Tables
Table 1. Units 19, 21A, and 21E lynx, river otter, and wolverine harvest by unit during regulatory years 2012–2016
Table 2. Units 19, 21A, and 21E reported furbearer harvest by sex and method of take during regulatory years 2012–2016
Table 3. North American Fur Auctions average furbearer pelt prices in U.S. dollars during regulatory years 2012–2016
Table 4. Units 19, 21A, and 21E furbearer percent harvest chronology by month during regulatory years 2012–2016       11

Table 5. Units 19, 21A, and 21E lynx, river otter, and wolverine harvest by transport method	1
during regulatory years 2012–2016.	12

## **Purpose of this Report**

This report provides a record of survey and inventory management activities for furbearers in Units 19, 21A and 21E for the previous 5 regulatory years and plans for survey and inventory management activities in the 5 regulatory years following the end of that period. A regulatory year (RY) begins 1 July and ends 30 June (e.g., RY16 = 1 July 2016–30 June 2017). This report is produced primarily to provide agency staff with data and analysis to help guide and record its own efforts but is also provided to the public to inform them of wildlife management activities. In 2016 the Alaska Department of Fish and Game's (ADF&G, the department) Division of Wildlife Conservation (DWC) launched this 5-year report to more efficiently report on trends and describe potential changes in data collection activities over the next 5 years. It replaces the furbearer management reports of survey and inventory activities that were previously produced every 3 years.

## I. RY12–RY16 Management Report

## **Management Area**

Units 19, 21A, and 21E are approximately 55,343 mi<sup>2</sup> combined and include all drainages into the Kuskokwim River upstream from a straight line drawn between Lower Kalskag and Paimiut. Unit 21A includes the Innoko River drainage upstream from and including the Iditarod River drainage. Unit 21E includes the Yukon River drainage from Paimiut upstream to, but not including, the Blackburn Creek drainage, and the Innoko River drainage downstream from the Iditarod River drainage. Unit 19 is divided into 4 administrative units (19A, 19B, 19C, and 19D.) These units express a wide range of habitat including wetlands, rugged mountains, riparian corridors, and boreal forests. Wildfires often contribute to the habitat diversity and productivity within the management units.

## Summary of Status, Trend, Management Activities, and History of Furbearers in Units 19, 21A, and 21E

Furbearers historically have contributed to the economic base in western Interior Alaska and have been an integral part of the subsistence lifestyle in the region. Native Alaskans have relied on furbearers for garments, food, and trading. The quest for furs prompted early Russian settlement and trading centers in the area. During the middle part of the 20th century, miners in the area were largely unemployed during winter and supplemented their income by trapping and selling fur (Brown et al. 2012).

Local economies are still influenced by income from the sale of wild pelts and the economic incentive to trap furs has fluctuated with market conditions. Other factors that also influence the annual harvest of various furbearer species are population levels, snow conditions, climate, fuel prices, availability of alternate income, and regulations.

Recently, weather conditions such as warmer, milder winters and late freeze-ups have delayed trappers from reaching their lines at the beginning of trapping season. Overflow from rivers and lakes, open water leads, and low snow accumulation can severely restrict access to trap lines.

## **Management Direction**

Furbearer management is designed to annually assess populations, maintain, or enhance those populations, and develop regulations to encourage sustainable harvests.

#### **EXISTING WILDLIFE MANAGEMENT PLANS**

The plan section of this document outlines the current plan for furbearers in Units 19 (19A, 19B, 19C, and 19D), 21A, and 21E. Previous management direction has been documented in the furbearer management reports of survey and inventory activities.

#### GOALS

- G1. Protect, maintain, and enhance furbearer populations in concert with other components of the ecosystem.
- G2. Provide for continued use of furbearers by Alaska residents who have customarily and traditionally depended on these populations.

#### **CODIFIED OBJECTIVES**

#### Amounts Reasonably Necessary for Subsistence Uses

C1. Units 19A, 19B, 19C, 19D, 21A, and 21E have a positive finding for customary and traditional use of furbearers. The amount reasonably necessary for subsistence uses is 90% of the harvestable portion for each furbearer species.

#### Intensive Management

Not applicable.

#### **MANAGEMENT OBJECTIVES**

M1. Manage furbearer populations to maintain populations at levels sufficient to provide for sustained consumptive and non-consumptive uses.

#### MANAGEMENT ACTIVITIES

#### 1. Population Status and Trend

ACTIVITY 1.1. Conduct trapper questionnaires and interviews to determine the status of various furbearer populations (M1, C1).

#### Data Needs

Supplemental information provided by trappers is one of the few data sources we have for furbearers in our area that do not require sealing. With these reports, trappers make suggestions, provide harvest information, and discuss apparent trends and relative abundance of furbearers.

#### Methods

The Alaska Department of Fish and Game's (ADF&G) Trapper Questionnaire Statewide Annual Report (Parr 2017) was reviewed for RY16. The report was offered online to trappers to fill out and submit in an effort to improve accuracy and participation. Trappers were assigned to one of 5 standard regions within the State (Fig. 1). This questionnaire lumped Units 19, 21E, and 21A into Region III. Although there are Trapper Questionnaire results for individual regulatory years, the 2016 report is the most current data we have from trappers in Region III concerning trends and relative abundance of furbearers (Parr 2016).



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Figure 1. Administrative regions and game management units of the Division of Wildlife Conservation, Alaska Department of Fish and Game.

#### Results and Discussion

The most recent results and opinions from trappers from Region III are summarized in the 2016 Alaska Trapper Questionnaire (Parr 2017).

#### Recommendations for Activity 1.1

Activity 1.1 should continue. Although the abundance and number trend indices do not provide ample data for management decisions due to low participation, it promotes good relations between the department and user groups, and it may highlight variables and issues that may impact fur harvest (i.e., ectoparasites, prices, and importance).

ACTIVITY 1.2. Monitor trends in the McGrath area beaver populations by conducting beaver cache surveys (M1, C1).

#### Data Needs

Beaver cache counts provide a tool to assess whether gross changes in beaver numbers occur. This index allows us to monitor beaver availability among select areas around McGrath. There are liberal harvest regulations for beaver in our units and if pressure increases such that populations are impacted; regulations may need to be revised to ensure overharvest does not occur.

#### Methods

Beaver cache surveys were conducted during 2014 in the riparian area on the south side of the Kuskokwim River downriver from Big River to the Sand Bluffs and south to the ridge defining the lowland riparian area (Fig. 2). This approximately 20 mi<sup>2</sup> area does not include the Kuskokwim or Big Rivers but does include the north shore of Blackwater Creek. Surveys were also conducted in the riparian area on the north side of the Takotna River, downriver to the Nixon Fork, including the beaver habitat to the north of the Takotna River, and stopping when black spruce forests predominate (Fig. 3). Beaver lodges were identified during the 2010 and 2011 surveys in the same area, and previous Global Positioning System (GPS) waypoints were used to relocate them and determine whether they were active or inactive. Any newly discovered lodges, whether active or inactive, were also logged for inclusion in subsequent surveys. Beaver lodges were identified as either active or inactive based on the presence or absence of a cache pile with fresh cuttings.

#### Results and Discussion

Beaver cache surveys were conducted November 2014. In the Big River to Sand Bluffs area, 16 active and 4 inactive lodges were found. In the Takotna River area, 11 active and 7 inactive lodges were found including 3 newly discovered active lodges.

Beavers are seen during surveys for other species in all suitable habitats within the McGrath area. There is less suitable habitat in Units 19B and 19C than in Units 19A, 19D, 21A, and 21E. However, even marginal habitats were generally occupied.

If beaver prices increase sufficiently that the department would propose to change beaver regulations, and it should be evident in the survey locations (Seavoy 2013). The survey areas are far enough from town that casual harvest is light but are also close enough to town and close

enough to active traplines, that they should see heavy trapping pressure if prices were to increase.

#### Recommendations for Activity 1.2

Beaver cache surveys should continue as time and funding allow. This will allow ADF&G biologists to consider submitting proposals for regulation changes in beaver trapping to the Board of Game if heavy trapping pressure depresses their numbers.



Figure 2. Topographical map showing the Big River beaver cache count area, Interior Alaska.

#### 2. Mortality-Harvest Monitoring and Regulations

ACTIVITY 2.1. Report and monitor the annual harvest of species that are required to be sealed by regulation (lynx, wolverine, and river otter) M1, C1.



Figure 3. Topographical map showing the Takotna beaver cache count area, Interior Alaska.

#### Data Needs

Harvest and sealing data are collected to identify and assess trends in furbearer populations to work towards meeting our management objectives.

#### Methods

We collected harvest data on sealing certificates from lynx, wolverine, and river otter pelts which were taken by both trappers and hunters. Sealing is required within 30 days after the close of the season specific to each applicable species of furbearer. Total harvest, harvest chronology, sex, method of take, and transportation were summarized by regulatory year (RY) which begins 1 July and ends 30 June (e.g., RY16 = 1 July 2016–30 June 2017) based on sealing certificates. This data is recorded on ADF&G's Wildlife Information Network (WinfoNet). Total harvest, harvest chronology, sex, method of take, and transportation were summarized by regulatory year (RY) which begins 1 July and ends 30 June (e.g., RY16 = 1 July 2016–30 June 2017) based on sealing certificates.

#### Season and Bag Limit

Species	Unit	Season	Bag limit
Beaver	19, 21A, 21E	1 Sep–10 Jun	No limit
Coyote	19, 21A, 21E	1 Nov–31 Mar	No limit
Lynx	19, 21A, 21E	1 Nov–28 Feb	No limit
Lynx	19, 21A, 21E	1 Nov–15 Mar <sup>1</sup>	No limit
Marten	19, 21A, 21E	1 Nov–28 Feb	No limit
Mink and Weasel	19, 21A, 21E	1 Nov–28 Feb <sup>2</sup>	No limit
Muskrat	19, 21A, 21E	1 Nov–10 Jun	No limit
Red fox	19	1 Nov–31 Mar	No limit
Red fox	21A, 21E	1 Nov–28 Feb <sup>2</sup>	No limit
River otter	19, 21A, 21E	1 Nov–15 Apr	No limit
Wolverine	19, 21A, 21E	1 Nov–31 Mar	No limit

TRAPPING SEASONS AND BAG LIMITS, REGULATORY YEARS 2012–2016.

<sup>1</sup> Lynx season was extended from 28 February to 15 March in 2014.

<sup>2</sup> Furbearer seasons ending on the last day of February closed 29 February in RY13 and RY15.

Species	Unit	Season	Bag limit
Beaver	19	No open season	
Beaver	21A, 21E	1 Sep–10 Jun	No limit
Coyote	19, 21A, 21E	No closed season	No limit
Red fox	19, 21A, 21E	1 Sep–15 Mar	10 (no more than 2 before 1 Oct)
Lynx	19, 21A, 21E	1 Nov–28 Feb	2
Wolverine	19, 21A, 21E	1 Sep–31 Mar	1

HUNTING SEASONS AND BAG LIMITS, REGULATORY YEARS 2012–2016.

#### Results and Discussion

Harvest by Hunters-Trappers

#### BEAVER

Beaver sealing has not been required since RY02 and current harvest information is limited. During RY84–RY89 an average of 1,864 beaver pelts were sealed from Units 19, 21A, and 21E (Seavoy 2013). During the 1990s, the average dropped to 355 per year, and during RY01, which was the last year sealing was required, only 180 beavers were sealed. Beaver abundance within Region III was reported as "scarce" with a negative trend in the 2016 trapper questionnaire (Parr 2017); however, this was reported for the entire region which does not share the same trends and observations as the area covered by this report (Units 19, 21A, and 21E). Beaver populations seem to be stable and abundant in Units 19, 21A, and 21E.

Winter trapping for beavers seems to be a lower priority due to falling fur prices, but beaver is still used for bait, lure, and food. Within some communities in Units 19 and 21A, and 21E, pelts are sold by trappers to tourists and local fur sewers once they have been tanned. This type of sale can provide trappers with a slightly higher profit compared to selling their fur at auctions. Spring hunting and trapping continues to occur as rivers break-up and ice starts melting; however, many stop hunting and/or trapping inseason if the pelt quality has diminished from animals fighting prior to harvest.

#### Lynx

Harvest during RY12–RY16 ranged 93–27 lynx (Table 1). Harvest totals indicate that the lynx population peaked in RY12, started to decline after RY12, and has continued to decline through RY16. The majority of lynx were harvested in Units 19C, 19D, and 21E. Units 21E and 19C

					Unit				
Species	Regulatory year	19A	19B	19C	19D	19Z <sup>a</sup>	21A	21E	Total
Lynx									
-	2012	8	1	25	33	2	1	23	93
	2013	7	1	15	39	0	4	17	83
	2014	4	2	1	16	0	0	4	27
	2015	3	0	10	8	0	0	8	29
	2016	3	2	8	7	5	0	8	33
River Otter									
	2012	5	0	0	1	0	3	12	21
	2013	8	1	0	4	0	2	7	22
	2014	9	1	1	3	1	2	3	20
	2015	16	2	3	11	0	0	18	50
	2016	1	0	0	2	0	0	20	23
Wolverine									
	2012	12	10	17	10	2	2	11	64
	2013	19	8	6	15	0	2	12	62
	2014	7	2	8	9	1	2	12	41
	2015	1	5	7	12	0	0	13	38
	2016	2	1	5	2	5	1	11	27

Table 1. Units 19, 21A, and 21E lyn	x, river otter, a	and wolverine	harvest by u	nit during
regulatory years 2012–2016.				

*Note*: A regulatory year begins 1 July and ends 30 June (e.g., regulatory year 2012 = 1 July 2012-30 June 2013).

<sup>a</sup> Unit 19Z designates an unknown location within Units 19A, 19B, 19C, or 19D.

displayed similar harvest during the report period, 60 and 59, respectively. Area trappers primarily used foot-hold traps to catch lynx (Table 2). Prices ranged from \$134 to \$34 during RY12–RY16 (Table 3; North American Fur Auction 2018). Lynx were harvested throughout the trapping season (Table 4), with variations depending on travel conditions. Fewer lynx were taken during November before adequate travel conditions developed. Snowmachines were the primary method of transportation (Table 5).

#### **RIVER OTTER**

During RY12–RY16, the river otter harvest ranged from 21 to 23 animals per year with the highest harvest at 50 otters in 2015 (Table 1). Unit 21E had the highest harvest of 60 otters total. Most were harvested with traps (Table 2), and the majority were male. Average prices paid at auction ranged from \$69 to \$21 (Table 3; North American Fur Auction 2018). Most harvest occurred in January and February, but November, December, and March were also important months (Table 4). Most trappers used airplanes and snowmachines for access, with airplanes making up the majority of the 2 (Table 5).

#### WOLVERINE

During RY12–RY16, annual wolverine harvest ranged 64–27 animals (Table 1), and they were harvested primarily with traps (Table 2). Unit 21A displayed the lower harvest rates of all the Units for wolverines, most likely due to accessibility. Average prices varied from \$310 to \$198 (Table 3; North American Fur Auction 2018). Most harvest occurred from January through March, with a few wolverines taken earlier in the season (Table 4). Trappers generally used snowmachines, but aircraft and skis/snowshoes were also important modes of travel (Table 5). The 2015 Trapper Questionnaire reported scarce and declining population trends for Region III. The most frequently used method of take for all sealed species during RY12–RY16 was trapping (Table 2).

#### Harvest Chronology

Among listed furbearers, most were harvested in January and February (Table 4). In recent years, freeze up and cold weather seem to be occurring later in winter, sometimes as late as December. This may delay trapper's attempts to start their lines earlier in the season, promoting late winter harvest trends.

#### Transport Methods

Transportation was dominated by snowmachines, although airplanes and skis/snowshoes were commonly used and, in some cases, the predominate mode of transport (Table 5). Beavers taken during open water seasons are generally shot from boats.

#### Other Mortality

No other mortality reported.

	Regulatory	Sex				Method of take			
Species	year	Male	Female	Unk	Shot	Trap	Snare	Unk	Total
Lynx									
	2012	34	31	28	6	74	13	0	93
	2013	24	35	24	7	62	13	1	83
	2014	10	5	12	3	19	5	0	27
	2015	10	7	12	1	22	6	0	29
	2016	15	6	12	0	26	7	0	33
River Otter									
	2012	5	6	10	1	14	6	0	21
	2013	11	7	4	3	18	1	0	22
	2014	9	6	5	2	16	0	2	20
	2015	22	9	19	6	44	0	0	50
	2016	15	8	0	0	23	0	0	23
Wolverine									
	2012	25	29	10	8	50	6	0	64
	2013	33	18	11	5	48	9	0	62
	2014	18	4	19	2	27	8	4	41
	2015	10	6	22	1	34	3	0	38
	2016	12	10	5	2	22	3	0	27

Table 2. Units 19, 21A, and 21E reported furbearer harvest by sex and method of take during regulatory years 2012–2016.

*Note*: Regulatory year begins 1 July and ends 30 June (e.g., regulatory year 2012 = 1 July 2012–30 June 2013).

Table 3. North American Fur Auctions average furbearer pelt prices in U.S. dollars during regulatory years 2012–2016.

_	Regulatory year									
Species	2012 <sup>a</sup>	2013 <sup>b</sup>	2014 <sup>c</sup>	2015 <sup>d</sup>	2016 <sup>e</sup>					
Beaver	32	28 <sup>f</sup>	g	13	9					
Marten	105 <sup>h</sup>	152	$80^{\rm h}$	76	50					
Mink	21	27	15	11	7					
Red fox	39	58 <sup>f</sup>	$28^{\mathrm{f}}$	26 <sup>f</sup>	9					
Lynx	123	217	119	84	34					
River otter	69	95	47	35	21					
Wolverine	310	235	231	241	198					

*Note*: Data in this table is from the North American Fur Auctions (NAFA) website: http://www.nafa.ca (Accessed October 2018). A regulatory year begins 1 July and ends 30 June (e.g., regulatory year 2012= 1 July 2012–30 June 2013).

<sup>a</sup> Prices from May-June 2012 sale.

<sup>b</sup> Prices from June 2013 sale.

<sup>c</sup> Prices from May 2014 sale.

<sup>d</sup> Prices from March-April 2015 sale.

<sup>e</sup> Prices from May-June 2016 sale.

<sup>f</sup> Heavy Grade.

<sup>g</sup> Western Beaver mainly withdrawn.

<sup>h</sup> Heavy I grade.

Regulatory	Percent harvest chronology by month								
year	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	п
Lynx									
2012	0	0	6	16	35	34	2	0	93
2013	0	0	1	32	22	27	1	0	83
2014	0	0	2	4	9	9	3	0	27
2015	0	0	0	2	17	8	2	0	29
2016	0	0	0	2	6	18	7	0	33
River Otter									
2012	0	0	6	3	6	6	0	0	21
2013	0	1	1	4	5	5	6	0	22
2014	0	0	1	1	7	6	5	0	20
2015	0	0	6	4	23	15	2	0	50
2016	0	1	0	6	1	15	0	0	23
Wolverine									
2012	5	0	2	9	13	19	13	3	64
2013	1	0	2	9	15	24	11	0	62
2014	2	0	4	7	14	10	4	0	41
2015	1	0	1	3	12	11	10	0	38
2016	2	0	0	5	11	5	3	0	27

Table 4. Units 19, 21A, and 21E furbearer percent harvest chronology by month during regulatory years 2012–2016.

*Note*: Regulatory year begins 1 July and ends 30 June (e.g., regulatory year 2012 = 1 July 2012–30 June 2013).

	Transport method										
	Regulatory				3- or 4-			Highway	Skis or		Total
Species	year	Airplane	Dog sled	Boat	wheeler	Snowmachine	ORV	vehicle	snowshoes	Unknown	harvest
Lynx											
	2012	12	0	0	2	59	0	1	19	0	93
	2013	8	1	0	5	54	2	0	13	0	83
	2014	10	0	0	2	12	0	0	3	0	27
	2015	9	0	0	0	17	0	1	2	0	29
	2016	7	5	0	0	19	0	0	2	0	33
River Otte	er										
	2012	0	0	0	0	21	0	0	1	0	21
	2013	0	1	1	1	15	0	0	1	3	22
	2014	8	1	0	1	6	0	0	3	1	20
	2015	6	0	1	0	41	0	0	2	0	50
	2016	1	0	1	0	15	0	0	0	6	23
Wolverine	e										
	2012	16	0	1	0	43	0	0	4	0	64
	2013	8	0	0	2	44	0	0	7	1	62
	2014	12	0	0	1	22	0	0	2	4	41
	2015	3	0	1	0	34	0	0	0	0	38
	2016	8	0	0	0	17	0	0	2	0	27

 Table 5. Units 19, 21A, and 21E lynx, river otter, and wolverine harvest by transport method during regulatory years 2012–2016.

*Note*: A regulatory year begins 1 July and ends 30 June (e.g., regulatory year 2012 = 1 July 2012–30 June 2013).

#### Alaska Board of Game Actions and Emergency Orders

There were no Board of Game Actions or Emergency Orders issued during this reporting period.

#### Recommendations for Activity 2.1

Recommendations for Activity 2.1 should continue. This information provides useful information for trappers, advisory committees, and the Board of Game.

#### 3. Habitat Assessment-Enhancement

Activities to assess or enhance habitat for furbearers are not necessary at this time to achieve the management goals and objective or to evaluate codified objectives at this time.

#### 4. Furbearer Management with Public Participation and Outreach

ACTIVITY 4.1. Encouraging trappers to participate in the fur trapper questionnaire and other data gathering efforts.

#### Data Needs

Public participation in data gathering can help identify trends in furbearer populations. Larger sample sizes through greater participation provide more accurate and representative data.

#### Methods

Advisory committee meetings, public outreach, and conversations with user groups promote participation, cooperation, and aid in furbearer data gathering.

One potential area for trapper participation is voluntary disposal of marten carcasses to ADF&G for purposes of gathering demographic data. Sex, age, and month of take may provide indices to help understand furbearer population dynamics within areas close to McGrath.

#### Results and Discussion

There has been a relatively small sample size or number of participants for the Alaska Trapper Questionnaire. As a result, species relative abundance and trend is presented at the regionwide level instead of the unitwide level. Because this sample size is low and the data represents such a broad scale, these indices provide little evidence of furbearer population dynamics to a specific unit-level scale. Encouraging trappers to participate can be difficult, but information provided by the public is valuable. Finding new ways to expand the questionnaire's participation or make it more useful in areas where sealing is not required should be revisited to supplement sealing data.

Local trappers have participated in and expressed ongoing interest in marten carcass counts and any other related projects that might help supplement our knowledge of furbearer populations. Higher participation and greater sample sizes will be needed if such projects undergo a more rigorous implementation to provide indices with any significant conclusions or management considerations. Despite the inconclusive results from such small samples sizes, the effort and basic observations provided from department personnel to participating user groups is noticed and appreciated.

#### Recommendations for Activity 4.1.

Continue. It is important that user groups have the opportunity to voice their observations and report their findings. Public participation can provide the state with additional data sets and observations that can be beneficial to furbearer management. Working closely with user groups and constituents should remain a high priority for area managers.

#### NONREGULATORY MANAGEMENT PROBLEMS OR NEEDS

Funding allocations to furbearer management in this area is low. Applying more resources to research in this area could benefit management endeavors by providing more accurate analysis of populations and trends.

Later winters and freeze up is proving to influence trapping seasons and success. Understanding impacts to furbearer populations and behavior may prove beneficial to management. Changing conditions could also have a bearing on transport methods and means of take, altering success rates and harvest levels.

#### Data Recording and Archiving

Sealing certificates are scanned and archived in the State of Alaska's Wildlife Information Network (WinfoNet). Hardcopies of sealing certificates are located at the McGrath area office.

Furbearer survey notes and memoranda are scanned and archived in WinfoNet data archive and hard copies are stored in the McGrath Area Office.

#### Agreements

None.

#### Permitting

None.

## **Conclusions and Management Recommendations**

The management objective to maintain populations at levels sufficient to provide for sustained consumptive and non-consumptive uses was met. Furbearers fully occupy all available habitats in Units 19, 21A, and 21E, populations are lightly harvested, and there are no concerns of overharvest of any of the furbearer species. Marten still continue to be the most targeted and highly valued furbearer species among most trappers.

With low pelt prices for other species, other motivations can influence their harvest. Many furbearers are taken primarily for personal uses such as for hats, mittens, and other garments. Beaver in particular are also taken for meat (Brown et al. 2012), particularly in areas where access to moose is poor. Beavers are also taken for bait, and the longer seasons and authorized use of firearms during the trapping season beginning in RY08 reflect these uses. Meat of other

furbearers such as muskrats and lynx are also utilized. Wolverines are valued as a trophy animal and some incidental harvest in association with big game hunts is accommodated by hunting regulations.

Beaver cache counts provide a tool to assess whether gross changes in beaver numbers occur and should be continued on a regular basis. This will allow ADF&Gs biologists to consider proposals for regulation changes in beaver trapping if heavy trapping pressure depresses their numbers. The survey areas were selected because they are expected to be sensitive to changes in local trapping effort and interest.

The trapper questionnaire has been a useful tool to survey trapper perceptions and opinions. The questionnaire moved from individual unit reporting to regionwide representations making it difficult to provide an accurate picture of unit trends. Additional support for this tool to increase trapper participation could be beneficial. It should be noted that some trappers provide actual counts of animals they harvest in the GMU in which their trap line is located (Parr 2017). With increased participation this could provide managers with insight into trends of furbearers that do not require sealing, however, a much larger sample size would be needed.

## II. Project Review and RY17-RY21 Plan

## **Review of Management Direction**

#### **MANAGEMENT DIRECTION**

There are no suggested changes to the management direction for furbearers in units 19A, 19B, 19C, 19D, 21A, and 21E from the previous report. Furbearer populations in the reported areas appear stable, healthy, and available to all user groups.

#### GOALS

- Protect, maintain, and enhance furbearer populations in concert with other components of the ecosystem.
- Provide for continued use of furbearers by Alaska residents who have customarily and traditionally depended on these populations.

#### **CODIFIED OBJECTIVES**

#### Amounts Reasonably Necessary for Subsistence Uses

C1. Units 19A, 19B, 19C, 19D, 21A, and 21E have a positive finding for customary and traditional use of furbearers. The amount reasonably necessary for subsistence uses is 90% of the harvestable portion for each furbearer species.

#### Intensive Management

Not applicable.

#### **MANAGEMENT OBJECTIVES**

M1. Manage furbearer populations to maintain populations at levels sufficient to provide for sustained consumptive and non-consumptive uses.

#### **REVIEW OF MANAGEMENT ACTIVITIES**

#### 1. Population Status and Trend

ACTIVITY 1.1. Conduct trapper questionnaires and interviews to determine the status of various furbearer populations (M1, C1).

#### Data Needs

Supplemental information provided by trappers is one of the few data sources we have for furbearers in our area that do not require sealing. With these reports, trappers make suggestions, provide harvest information, and discuss apparent trends and relative abundance of furbearers.

#### Methods

There is no change in methodology from the report section.

ACTIVITY 1.2. Monitor trends in the McGrath area beaver populations by conducting beaver cache surveys (M1, C1).

#### Data Needs

Beavers are not required by regulation to be sealed in our management units. Beaver cache surveys help to identify trends in beaver populations. This index provides population trend information used to modify regulations if harvest exceeds management goals.

#### Methods

Aerial fixed wing surveys will be conducted for beaver caches as previously reported once a year.

ACTIVITY 1.3. Investigate the utility of conducting voluntary marten reporting activities with trappers (M1, C1).

#### 2. Mortality-Harvest Monitoring

ACTIVITY 2.1. Report and monitor the annual harvest of species required to be sealed by regulation (lynx, wolverine, and river otter; M1, C1).

#### Data Needs

There is no change from the report section on the data needs for this activity.

#### Methods

There is no change from the report section on the methodology for collecting harvest data from sealing certificates.

#### 3. Habitat Assessment-Enhancement

There are currently no plans to implement any habitat projects for furbearers in Units 19, 21A, or 21E.

#### 4. Furbearer Management with Public Participation and Outreach

ACTIVITY 4.1. Encouraging trappers to participate in the fur trapper questionnaire (M1).

#### Data Needs

There is no change from the report section on the data needs for this activity.

#### Methods

There is no change from the report section on the methodology for collecting harvest data from sealing certificates.

ACTIVITY 4.2. Provide biological information to local, state, and federal committees, boards, and agencies regarding furbearers.

#### Data Needs

Local, state, and federal regulatory processes require data to make informed decisions affecting furbearer management.

#### Methods

ADF&G Area management biologists and staff will attend ADF&G advisory committee meetings, Board of Game meetings, Federal Regional Advisory Council meetings, and provide both written and oral information and data.

#### NONREGULATORY MANAGEMENT PROBLEMS OR NEEDS

#### Data Recording and Archiving

Furbearer data will be archived electronically in WinfoNet. Furbearer management reports and plans will be stored online at www.wildlifepublications.adfg.alaska.gov. Hard copies will be stored in the McGrath area office. Historical data and memoranda will be archived on WinfoNet as time allows.

#### Agreements

None.

#### Permitting

None.

## **References** Cited

Brown, C. L., J. S. Magdanz, D. S. Koster, and N. M. Braem, editors. 2012. Subsistence harvests in 8 communities in the central Kuskokwim River drainage, 2009. Alaska Department of Fish and Game, Division of Subsistence, Technical Paper No. 365, Fairbanks.

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