# **Furbearer Management Report and Plan, Game Management Unit 5:**

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

## **Roy T. Churchwell**



© 2012 ADF&G. Photo by Larry Edfelt



Alaska Department of Fish and Game

## **Furbearer Management Report and Plan, Game Management Unit 5:**

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

**PREPARED BY:** 

<u>Roy T. Churchwell</u> Wildlife Biologist III

#### **APPROVED BY:**

<u>Stephen Bethune</u> Acting Management Coordinator

© 2019 Alaska Department of Fish and Game

Alaska Department of Fish and Game Division of Wildlife Conservation PO Box 115526 Juneau, AK 99811-5526



This funding provided support for Federal Aid in Wildlife Restoration Furbearer Survey and Inventory Project 7.0.

Hunters are important founders of the modern wildlife conservation movement. They, along with trappers and sport shooters, provided funding for this publication through payment of federal taxes on firearms, ammunition, and archery equipment, and through state hunting license and tag fees.

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 Stephen Bethune, Acting Management Coordinator for the Division of Wildlife Conservation.

Species management reports and plans are available via the Alaska Department of Fish and Game's public website (www.adfg.alaska.gov) or by contacting Alaska Department of Fish and Game's Division of Wildlife Conservation, PO Box 115526, Juneau, AK 99811-5526; phone: (907) 465-4190; email: dfg.dwc.publications@alaska.gov. The report may also be accessed through most libraries, via interlibrary loan from the Alaska State Library or the Alaska Resources Library and Information Services (www.arlis.org).

This document, published in PDF format only, should be cited as:

 Churchwell, R.T. 2019. Furbearer management report and plan, Game Management Unit 5: Report period 1 July 2012–30 June 2017, and plan period 1 July 2017–30 June 2022. Alaska Department of Fish and Game, Species Management Report and Plan ADF&G/DWC/SMR&P-2019-12, Juneau.

The State of Alaska is an Affirmative Action/Equal Opportunity Employer. Contact the Division of Wildlife Conservation at (907) 465-4190 for alternative formats of this publication.

ADF&G does not endorse or recommend any specific company or their products. Product names used in this publication are included for completeness but do not constitute product endorsement.

Cover Photo: Coyote. © 2012 ADF&G. Photo by Larry Edfelt.

## Contents

Purpose of this Report
I. RY 2012–RY 2016 Management Report
Management Area
Summary of Status, Trend, Management Activities, and History of Furbearers in Unit 5 1
Management Direction
Goals
Codified Objectives
Amounts Reasonably Necessary for Subsistence Uses
Intensive Management
Management Objectives
Management Activities
2. Mortality-Harvest Monitoring and Regulations
3. Habitat Assessment-Enhancement
Nonregulatory Management Problems or Needs
Data Recording and Archiving13
Agreements
Permitting13
Conclusions and Management Recommendations
II. Project Review and RY17-RY21 Plan
Review of Management Direction
Management Direction
Goals
Codified Objectives
Amounts Reasonably Necessary for Subsistence Uses14
Intensive Management14
Management Objectives
Review of Management Activities15
1. Population Status and Trend15
2. Mortality-Harvest Monitoring15
3. Habitat Assessment-Enhancement15
Nonregulatory Management Problems or Needs
Data Recording and Archiving16
Agreements
Permitting16
References Cited

## List of Figures

Figure 1. Map of Game Management Unit (GMU) 5 showing unit boundaries, Southeast Alaska.	
	2

## List of Tables

Table 1. Harvest of beaver, marten, otter, lynx, and wolverine from Unit 5 Alaska, RY79–RY16.
Table 2. Average (U.S.) fur prices for beaver, marten, otter, and wolverine from regulatory years2012–2016 published by the North American Fur Auction and Fur Harvesters Auction Inc.(Parr 2017)
Table 3. Harvest and method of take for marten sealed in Unit 5, Southeast Alaska, RY12–      RY16.      8
Table 4. Harvest and method of take for river otter sealed in Unit 5, Southeast Alaska, RY12– RY16
Table 5. Harvest and method of take for beaver sealed in Unit 5, Southeast Alaska, RY12–RY16.9
Table 6. Harvest and method of take for wolverine sealed in Unit 5, Southeast Alaska, RY12– RY16
Table 7. Unit 5 Alaska marten, river otter, beaver, wolverine and lynx harvest chronology (%), RY12–RY16
Table 8. Unit 5 marten, river otter, beaver, wolverine, and lynx harvest by transport method (%), RY12–RY16

## **Purpose of this Report**

This report provides a record of survey and inventory management activities for furbearers in Unit 5 for the previous 5 regulatory years and plans for survey and inventory management activities in the 5 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 Division of Wildlife Conservation 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. RY 2012–RY 2016 Management Report

## **Management Area**

The Unit 5 management area encompasses 5,800 mi<sup>2</sup>, including the mainland Gulf of Alaska coast from Cape Fairweather to Icy Bay and inland to the Canadian border (Fig. 1), and is divided into 2 administrative units (5A and 5B). The 5A unit includes Cape Fairweather to Yakutat Bay. Some management on the Yakutat Forelands within Unit 5A is split into west of and east of the Dangerous River because of the differences in access of these two areas. The area west of the Dangerous River is close to Yakutat with more road and river access compared to the area east of the Dangerous River that is more remote and is often accessed by aircraft or boat. Unit 5B from Yakutat Bay to Icy Bay is also remote and mostly accessed by aircraft or boat. Yakutat is the only municipality in Unit 5 (population 600), and the major economic drivers are fishing, logging, and jobs with native, municipal, state, and federal government. Nearly all of Unit 5A is Tongass National Forest, or Glacier Bay National Park and Preserve. The Park was established in 1925. Almost all of Unit 5B is Wrangell-St. Elias National Park and Preserve, which was designated as a provision of the Alaska National Interest Lands Conservation Act (ANILCA) legislation in 1980.

## Summary of Status, Trend, Management Activities, and History of Furbearers in Unit 5

Small mammals including furbearers may have weathered the Wisconsin glaciation in refugia along the Gulf of Alaska because glaciation in the lowlands of the Katalla-Yakutat-Dry Bay areas was not much more extensive than what is found there presently (Klein 1965). Those species that did not survive the ice age in this refugia probably recolonized the area through access from interior Canada down major river valleys like the Alsek River. This recolonization is still occurring, for example fisher (*Martes pennant*) have recently recolonized areas around Juneau by way of the Taku River valley (Churchwell 2019).

Marten (*Martes americana*), river otter (*Lutra canadensis*), and beaver (*Castor canadensis*) make up the majority of Unit 5 furbearer harvest. These species along with wolverine (*Gulo gulo*) and lynx (*Lynx canadensis*) have a sealing requirement, which provides information on

annual harvest. Other species that are harvested, but do not require sealing include mink (*Mustela vison*), weasel or ermine (*Mustela erminea*), coyote (*Canis latrans*), fox (Vulpes vulpes), and red squirrel (*Tamiasciurus hudsonicus*). Mink, weasels, and coyotes are trapped regularly. Fox are rare in the unit. Red squirrels are trapped incidentally while trying to capture other species like marten. Historically muskrats were present in Unit 5 and documented in Yakutat Bay (MacDonald and Cook 2009), but to our knowledge they are no longer present.



Figure 1. Map of Game Management Unit (GMU) 5 showing unit boundaries, Southeast Alaska.

Wolves (*Canis lupus*) are both hunted and trapped, but they are discussed in a separate management report (Sell 2018).

Trapping in Unit 5 is concentrated around Yakutat and the road system including Forest Highway 10 that goes from Yakutat to the Dangerous River and adjoining logging roads. Trapping pressure has been light with fewer than ten trappers using the area. Some years, especially when there is heavy snow and rain, there may be little to no trapping. Low harvest could be from low trapping effort instead of low population size. However, muskrats were once present in the unit but now seem to be absent. The last recorded muskrat harvest was in 1972 (Quimbey 1978). Currently, the closest population is in the Cordova area (Westing 2019).

Foxes were farmed on at least three islands near Yakutat in the 1920's and 30's, but they were blue phase animals (Dinneford 1986). It is suggested in the 1984 furbearer report that these animals were no longer observed at that time (Dinneford 1986). The report also suggests that foxes were common in the 1950's and 60's, but that foxes were infrequently observed after the early 1970's. Also, coyotes expanded their range in the 1920's or 1930's (Quimbey 1978), and

while foxes were abundant prior to coyote expansion, their populations were low by 1973. At that time, foxes were mostly found in Dry Bay area (Quimbey 1978) and coyotes were more abundant.

Prior to 1982 beaver were only found east of the Dangerous River (Hundertmark and Ball 1983). This species started an expansion in the early 1980's to the west of Dangerous River portion of Unit 5A (Dinneford 1986). By the 2000's several beavers were being taken under nuisance permits around the Yakutat airport for plugging culverts and damaging roads (Barten 2004).

Marten are the most heavily harvested furbearer in southeast Alaska; however annual harvest can fluctuate considerably in the Yakutat area depending on trapper participation (0–289 marten harvested between RY79 and RY16; Table 1). Access to marten habitat has increased over the years as logging operations opened access to more areas off Forest Highway 10. There was worry by wildlife managers that marten populations could be impacted by logging activity around Yakutat in the 1980's (Hundertmark and Ball 1983), but marten harvest in Unit 5 were actually higher in the 1990's compared to the 1980's. Many of the original timber clear-cuts are now reaching an age where they may again be used by marten as hunting habitat. Harvest was relatively high in RY 1994-97 but has not been over 200 since 1997 with the next highest harvest at 173 marten in 2005. Because there is no effort data associated with our harvest information it is impossible to know if this decrease in harvest is due to a decline in the population or due to differences in harvest pressure, but it is mentioned here to show that within the last 10 years trappers rarely harvest over 100 marten in this unit (Table 1).

Beaver, otter, lynx and wolverine have had low harvest during the 1979–2011 period (Table 1). Aside from harvest statistics, no other studies were conducted on these species in Unit 5. The Department has no population indices or estimates for these species or the other furbearers. Otter, lynx, and wolverine harvest is usually less than 10 individuals annually except for a few years when less than 20 were harvested. Otters are more plentiful than harvest indicates for this unit (Dinneford 1990). Lynx are captured within peaks of the 10-year hare/lynx cycle indicating that lynx populations may persist in the unit (Table 1) between snowshoe hare crashes in Canada, but numbers seem to spike at the time of those crashes as lynx disperse after a decline in food resources in Canada (Robus 1995).Wolverines are thought to occur throughout the unit in low numbers and annual harvest supports this (Dinneford 1990; Table 1).

Regulatory Year	Beaver	Marten	Otter	Lynx	Wolverine
1979	0	13	2	0	3
1980	0	200	4	1	2
1981	0	200	4	0	3
1982	3	30	1	5	1
1983 <sup>a</sup>	4	75	4	3	2
1984	1	63	1	0	2
1985	6	0	2	2	0
1986	8	38	2	0	2
1987	7	111	1	0	1
1988	3	17	0	10	0
1989	4	22	0	6	0
1990	3	83	1	0	3
1991	8	47	1	0	0
1992	1	20	6	0	2
1993	9	76	7	14	0
1994	0	289	4	5	8
1995	4	116	2	2	4
1996	1	103	0	2	12
1997	11	229	10	0	4
1998	3	134	4	0	3
1999	8	0	0	0	1
2000	7	48	5	0	0
2001	0	7	2	1	4
2002	17	21	3	3	4
2003	7	82	0	0	0
2004	9	118	5	3	2
2005	8	173	9	1	1
2006	0	156	1	1	1
2007	0	28	0	0	0
2008	4	86	2	6	2
2009	7	95	1	5	5
2010	3	54	7	1	0
2011	3	152	1	3	5
2012	8	73	7	0	2
2013	5	89	18	0	3
2014	9	98	11	1	0
2015	16	117	4	0	2
2016	0	69	0	0	0
Average <sup>b</sup>	4.5	87.5	2.8	2.2	2.3

Table 1. Harvest of beaver, marten, otter, lynx, and wolverine from Unit 5 Alaska, RY79–RY16.

<sup>a</sup> Values prior to 1983 may be estimates.

<sup>b</sup> Averages apply to RY79 through RY11.

## **Management Direction**

Existing Wildlife Management Plans: Greater Alaska Furbearer Management Plan in 1976 Species Management Plan (ADF&G 1976).

#### GOALS

To provide:

- 1. An optimum harvest of furbearers.
- 2. The greatest opportunity to participate in hunting and trapping furbearers.

#### **CODIFIED OBJECTIVES**

#### Amounts Reasonably Necessary for Subsistence Uses

The Alaska Board of Game has made a positive subsistence finding for furbearers in all units, including Unit 5, with a harvestable surplus to be 90% of the harvestable portion (5 AAC 99.025(13).

#### Intensive Management

Not applicable.

#### **MANAGEMENT OBJECTIVES**

- 1. Regulate seasons and bag limits to maintain viewable and harvestable populations of furbearers.
- 2. Seal harvested beaver, marten, otter, lynx, and wolverine pelts as they are presented for sealing.
- 3. Contact reliable observers for general information about the status and trends of furbearer populations, including the use of an annual trapper survey.

#### **MANAGEMENT ACTIVITIES**

1. Population Status and Trend

#### ACTIVITY 1.1.

Record observations of furbearers seen incidentally during other survey work and anecdotal reports from the public.

#### Data Needs

Incidental observations are insufficient for estimating the population or detecting changes that would trigger management action. Statistical estimates of furbearers derived from a sample-

based estimator including a measure of the precision would be needed to detect change in the population.

#### Methods

GPS locations and characteristics are recorded for any furbearers observed during other field work. Most observations occur during spring deer pellet, mortality and body condition surveys. Anecdotal reports are recorded to the maximum level of detail available.

#### Results and Discussion

None.

#### Recommendations for Activity 1.1.

Continue to actively seek information from trappers and others that observe furbearers.

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

#### ACTIVITY 2.1.

Monitor harvest through sealing records.

#### Data Needs

Harvest must be assessed to understand the potential impact of furbearer harvest.

#### Methods

The Department collected harvest data by sealing hides of beaver, marten, otter, lynx, and wolverine taken by trappers. We recorded location and date of harvest, method of take, transportation mode, and sex. Hides were measured for otters and beavers. Sealing must occur by ADF&G or a State appointed sealer within 30 days of the close of the season. These data are entered into ADF&G's Wildlife Information Network database (Winfonet). Harvest data were summarized by regulatory year (RY), which begins 1 July and ends June 30 (e.g., RY15 = 1 July 2015–30 June 2016).

Season and Bag Limit

#### RY12-RY16

Species	Season	Bag Limit
Beaver	Nov. 10–Apr. 30	No Limit
Coyote <sup>a</sup>	Nov. 1–Apr. 30	No Limit
Red Fox	Nov. 10–Feb. 15	No Limit
Lynx	Dec. 1–Feb. 15	No Limit
Marten	Nov. 10–Feb. 15	No Limit
Mink	Nov. 10–Feb. 15	No Limit
Weasel	Nov. 10–Feb. 15	No Limit
River Otter	Nov. 10–Feb. 15	No Limit
Squirrel	No Closed Season	No Limit
Wolverine <sup>b</sup>	Nov. 10–Feb. 28	No Limit

<sup>a</sup> Season extended in RY13.

<sup>b</sup> Season initiated in RY15.

#### Results and Discussion

#### Harvest by Hunters-Trappers

Fish and Game's annual Alaska Trapper Report (Schumacher 2013a; Schumacher 2013b; Parr 2016, 2017, 2018) summarized crude measures of abundance and trend based on trapper observations between 2012 and 2014. After that, the report summarizes these data by region, which is less useful for reporting here. However, 2012–2014 abundant species included mink and squirrels; common species included beaver, coyote, weasel, marten, and otters; and scarce species included lynx, red fox, and wolverine. In summarizing the abundance of food resources used by most furbearers, grouse, hares, and ptarmigan were scarce, while mice and rodents were common. These trapper questionnaires also report some catch of non-sealed species for 2012 through 2016 including 0 coyotes, 0–10 weasels, 1–7 mink, 0–1 red fox, and 0–1 squirrel annually. Fur prices during 2012 through 2016 for the four most important species were \$10.04 to \$32.56 for beaver, \$46.51 to \$143.81 for marten, \$20.00 to \$100.75 for otter, and \$208.90 to \$271.35 for wolverine (Table 2).

Year	Beaver	Marten	Otter	Wolverine
2012	32.56	143.81	100.75	271.35
2013	18.71	76.94	53.95	224.90
2014	13.30	54.12	38.65	217.41
2015	10.04	46.51	20.00	208.90
2016	10.71	83.32	28.79	242.19

Table 2. Average (U.S.) fur prices for beaver, marten, otter, and wolverine from regulatory years 2012–2016 published by the North American Fur Auction and Fur Harvesters Auction Inc. (Parr 2017).

#### AMERICAN MARTEN

The number of marten harvested during this reporting period ranged from 69 to 117 (Table 3). The majority of harvest was from Unit 5A with 8% of the harvest from Unit 5B. There were no marten harvested in 2012, 11 in 2013, 14 in 2014, 12 in 2015, and none in 2016 from Unit 5B. Annual harvest in Unit 5 was greater than the 1979 to 2011 average (87.5 marten; Table 1) in three of the five years of the reporting period, and the 5-year average of the reporting period was 89.2 marten. In 2013, 10 trappers participated in the hunt, which was one of the highest number of participants ever recorded (Table 3). Seventy percent or more of the harvest was male marten and all the animals were trapped (Table 3).

Table 3. Harvest and method of take for marten sealed in Unit 5, Southeast Alaska, RY12–RY16.

Regulatory	Total	Successful	Percent	Percent Method of Take %			
Year	Harvest	Participants	Males	Shot	Trapped	Snared	Unknown
RY12	73	4	71	0	100	0	0
RY13	89	10	83	0	100	0	0
RY14	98	7	80	0	100	0	0
RY15	117	6	71	0	100	0	0
RY16	69	3	71	0	100	0	0

#### RIVER OTTER

The number of otters harvested ranged from 0 to 18 (Table 4) with a 5-year average of 8 otters during the reporting period. The 1979 to 2011 average was 2.8 (Table 1). There was no harvest in 2016. In 2013, two otters were incidentally captured in a set net, and turned over to the Department. In 2014, an otter was taken as bycatch in a wolf snare and confiscated (Unit 5A). The percentage of male weasels ranged from 43% to 75%, and the percentage of juveniles ranged from 43% to 100%. Most otters were trapped although some were snared or shot. Like other species, most of the harvest is from Unit 5A with 40% of the harvest from Unit 5B. In Unit

5B, there were 9 otters harvested in 2013 and 7 in 2014, the remainder of harvest for this reporting period was from Unit 5A.

Regulatory	Total Successful		Percent	Percent	t Method of Take %			
Year	Harvest	Participants	Males	Juveniles <sup>a</sup>	Shot	Trapped	Snared	Unknown
RY12	7	5	43	43	0	43	29	28
RY13	18	4	61	72	0	72	28	0
RY14	11	4	55	82	0	91	9	0
RY15	4	1	75	100	50	50	0	0
RY16	0	—	_	—	_	_	_	_

Table 4. Harvest and method of take for river otter sealed in Unit 5, Southeast Alaska, RY12–RY16.

<sup>a</sup> Juvenile otter measure (length) <42".

#### BEAVER

The number of beavers harvested ranged from 0 to 16 (Table 5) with a 5-year average of 9.5 beavers during the reporting period. The 1979 to 2011 average was 4.5 (Table 1). There was no harvest in 2016 except for one beaver taken under a nuisance permit. No beavers were taken from Unit 5B. The percentage of juveniles ranged from 11% to 40%, and most of the animals were trapped.

Table 5. Harvest and method of take for beaver sealed in Unit 5, Southeast Alaska, RY12–RY16.

Regulatory	Total	Successful	Percent		Method	d of Take %	/0
Year	Harvest	Participants	Juveniles <sup>a</sup>	Shot	Trapped	Snared	Unknown
RY12	8	3	25	0	100	0	0
RY13	5	4	40	0	100	0	0
RY14	9	2	11	0	78	22	0
RY15	16	3	12	0	94	6	0
RY16	0	_	_	_	_	_	_

<sup>a</sup> Juvenile beavers measure (length + width)  $\leq$  52".

#### WOLVERINE

The number of wolverines ranged from 0 to 3 (Table 6) with a 5-year average of 2.3 wolverines during the reporting period. The 1979 to 2011 average was 2.3 wolverines harvested as well. No animals were harvested in RY14 and RY16, and there was no harvest from Unit 5B. The male percentage in the harvest ranged from 33% to 100% and all the wolverines were trapped.

Regulatory	Total	Successful	Percent	Method of Take %				
Year	Harvest	Participants	ants Males		Trapped	Snared	Unknown	
RY12	2	1	100	0	100	0	0	
RY13	3	2	33	0	100	0	0	
RY14	0	—	_	_	_	_	—	
RY15	2	2	50	0	100	0	0	
RY16	0	_	_	_	_	_	_	

Table 6. Harvest and method of take for wolverine sealed in Unit 5, Southeast Alaska, RY12–RY16.

#### Lynx

There was 1 male lynx trapped in Unit 5A in 2014 (Table 7).

#### Harvest Chronology

Furbearer harvest occurs November through February except for beavers that are also harvested in March and April (Table 7). Within those months the bulk of the harvest can vary among years for all the species, and it is probably related to weather.

#### Transport Methods

The major transportation used to harvest furbearers in Unit 5 is highway vehicle (Table 8). Boats, 4-wheelers, snow machines, by foot or snowshoes, and airplanes are also used in descending order.

#### Other Mortality

Trappers in the Yakutat area are good about targeting beaver that are causing problems and that would be taken as nuisance animals in other Units. Only one nuisance animal was harvested by the Department of Transportation in 2016. Sometimes otters are captured incidentally in set nets like the two captured in 2013.

Regulatory				Month				_
Year	Nov	Dec	Jan	Feb	Mar	Apr	May	п
Marten								
RY12	60	21	3	16	0	0	0	73
RY13	69	21	10	0	0	0	0	89
RY14	25	21	43	11	0	0	0	98
RY15	27	34	39	0	0	0	0	117
RY16	0	46	36	18	0	0	0	69
Otter								
RY12	20	40	40	0	0	0	0	7
RY13	44	44	12	0	0	0	0	18
RY14	37	45	9	0	9	0	0	11
RY15	75	25	0	0	0	0	0	4
RY16	—	_	-	-	-	_	-	-
Beaver								
RY12	0	13	61	13	0	13	0	8
RY13	80	20	0	0	0	0	0	5
RY14	22	0	22	0	0	56	0	9
RY15	6	6	13	25	25	25	0	16
RY16	—	—	-	-	-	-	-	-
Wolverine								
RY12	0	50	50	0	0	0	0	2
RY13	33	33	34	0	0	0	0	3
RY14	—	—	-	-	-	-	-	-
RY15	0	50	0	50	0	0	0	2
RY16	_	—	-	-	-	-	-	-
Lynx								
RY12	_	_	-	-	-	-	-	-
RY13	_	_	-	-	-	_	-	_
RY14	0	100	0	0	0	0	0	1
RY15	_	—	_	_	_	_	_	_
RY16	_	_	-	-	-	-	-	

Table 7. Unit 5 Alaska marten, river otter, beaver, wolverine and lynx harvest chronology(%), RY12–RY16.

Note: En dash indicates no harvest.

D 1 . t	Percent of Harvest								
Year	Airplane	Foot	Boat	3 or 4- wheeler	Snow Machine	Highway Vehicle	Unknown	n	
Marten									
RY12	3	0	12	1	54	30	0	73	
RY13	2	0	10	29	26	33	0	89	
RY14	0	9	0	20	0	71	0	98	
RY15	0	8	13	0	0	79	0	117	
RY16	0	6	17	2	0	75	0	69	
River Otter									
RY12	0	40	0	0	0	60	0	7	
RY13	0	0	0	72	17	11	0	18	
RY14	0	9	82	0	0	9	0	11	
RY15	0	0	100	0	0	0	0	4	
RY16	—	_	-	-	-	-	-	-	
Beaver									
RY12	0	50	13	0	0	37	0	8	
RY13	0	33	0	0	0	67	0	5	
RY14	0	0	0	22	0	78	0	9	
RY15	0	0	0	75	0	25	0	16	
RY16	_	_	-	-	-	-	-	-	
Wolverine									
RY12	0	0	0	0	100	0	0	2	
RY13	0	0	34	0	0	66	0	3	
RY14	_	_	-	-	-	-	-	-	
RY15	0	0	0	100	0	0	0	2	
RY16	_	_	-	-	-	-	-	-	
Lynx									
RY12	_	_	_	_	_	-	_	-	
RY13	_	—	_	_	_	_	_	_	
RY14	0	0	0	0	0	100	0	1	
RY15	_	—	_	_	_	_	_	_	
RY16	_		_		_	_	-		

Table 8. Unit 5 marten, river otter, beaver, wolverine, and lynx harvest by transport method (%), RY12–RY16.

Note: En dash indicates no harvest.

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

There were three Board of Game actions during the reporting period. During the 2013 meeting the coyote season was extended from Dec 1–Feb 15 to Nov 1–Apr 30. During the 2015 Board of Game meeting shooting of beaver with a firearm during the trapping season was legalized. The wolverine season was also extended from Nov 10–Feb 15 to Nov 10–Feb 28.

Recommendations for Activity 2.1

Continue.

3. Habitat Assessment-Enhancement

Not applicable.

#### NONREGULATORY MANAGEMENT PROBLEMS OR NEEDS

#### Data Recording and Archiving

Sealing data are archived on ADF&G's Wildlife Information Network database (Winfonet) including scans of the original data sheets back to 1994 for most species. Hard copies from earlier dates are on file in the Douglas office.

Agreements

None.

Permitting

None.

### **Conclusions and Management Recommendations**

It is impractical to set harvest and population objectives for furbearers without any data on population levels. Quantifiable management objectives need to be established for beavers, river otters and marten. Harvest information is available for all these species from sealing records, and application of existing and emerging methodologies may provide opportunities to monitor population trends.

The general approach for furbearer management is to expect population levels to self-regulate trapper effort and harvest. This approach has been successful and though populations are cyclical at times, harvests of furbearers appear to be within sustainable limits, and no changes in seasons or bag limits are recommended.

## II. Project Review and RY17–RY21 Plan

## **Review of Management Direction**

#### **MANAGEMENT DIRECTION**

The existing management direction and goals appropriately direct management of furbearers in Unit 5. The management direction for Unit 5 ensures that furbearers will persist as part of the natural ecosystem and ensures continued trapping (on applicable species) and viewing opportunities. There is no indication that the long-term sustainability of the furbearer populations or that statewide goals (ADF&G 1976) for human uses cannot be met; therefore, the Unit 5 management direction should continue to be that furbearers will be managed in a manner that complements the statewide furbearer management goals. There are no area-specific issues in Unit 5 that require a departure from statewide goals for furbearer management.

#### GOALS

- 1. To provide for an optimum harvest of furbearers.
- 2. To provide the greatest opportunity to participate in hunting and trapping furbearers.

#### **CODIFIED OBJECTIVES**

#### Amounts Reasonably Necessary for Subsistence Uses

The Alaska Board of Game has made a positive subsistence finding for furbearers in all units, including Unit 5, with a harvestable surplus to be 90% of the harvestable portion (5 AAC 99.025(13).

#### Intensive Management

Not applicable.

#### **MANAGEMENT OBJECTIVES**

- 1. Regulate seasons and bag limits to maintain viewable and harvestable populations of furbearers.
- 2. Seal harvested beaver, marten, otter, lynx, and wolverine pelts as they are presented for sealing.
- 3. Contact reliable observers for general information about the status and trends of furbearer populations, including the use of an annual trapper survey.

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

#### 1. Population Status and Trend

#### ACTIVITY 1.1.

Record observations of furbearers seen incidentally during other survey work and anecdotal reports from the public.

#### Data Needs

Incidental observations are insufficient for estimating the population or detecting changes that would trigger management action. Statistical estimates of furbearers derived from a sample-based estimator including a measure of the precision would be needed to detect change in the population.

#### Methods

GPS locations and characteristics are recorded for any furbearers observed during other field work. Most observations occur during spring deer pellet, mortality and body condition surveys. Anecdotal reports are recorded to the maximum level of detail available.

#### 2. Mortality-Harvest Monitoring

#### ACTIVITY 2.1.

Monitor harvest through sealing records.

#### Data Needs

Harvest must be assessed to understand the potential impact of furbearer harvest.

#### Methods

We collected harvest data by sealing hides of beaver, marten, fisher, wolverine, and otter taken by trappers. We recorded location and date of harvest, method of take, transportation mode, sex, and in the case of otters and beavers, hides are measured. Sealing must occur by ADF&G or a State appointed sealer within 30 days of the close of the season. These data are entered into ADF&G's Wildlife Information Network database (Winfonet). Harvest data were summarized by regulatory year (RY), which begins 1 July and ends June 30 (e.g., RY15 = 1 July 2015–30 June 2016).

#### 3. Habitat Assessment-Enhancement

Not applicable.

#### NONREGULATORY MANAGEMENT PROBLEMS OR NEEDS

#### Data Recording and Archiving

- Data collected during surveys will be recorded on datasheets and transcribed into the furbearer observations spreadsheet located on the Douglas server.
- Unit 5 furbearer management report and plans and the management operational plan will be stored online at <a href="http://www.adfg.alaska.gov/index.cfm?adfg=librarypublications.wildlifemanagement">http://www.adfg.alaska.gov/index.cfm?adfg=librarypublications.wildlifemanagement</a>.
- Memos, data-forms, and additional hard copies will be stored in the Juneau/Douglas area biologist files in Douglas.

#### Agreements

None.

#### Permitting

None.

### **References** Cited

- Alaska Department of Fish and Game (ADF&G). 1976. Greater Alaska furbearer management plan. Pages 92–104 [*In*] Alaska Wildlife Management Plans: Southeastern Alaska. Draft proposal subsequently approved by the Alaska Board of Game. Division of Game, Federal Aid in Wildlife Restoration Project W-17-R, Juneau.
- Barten, N. L. 2004. Unit 5 furbearer management report. Pages 73-79 in C. Brown, editor. Furbearer management report of survey and inventory activities 1 July 2000-30 June 2003. Alaska Department of Fish and Game. Project 7.0. Juneau, Alaska.
- Churchwell, R. T. 2019. Furbearer management report and plan, Game Management Unit 1C: Report period 1 July 2012–30 June 2017, and plan period 1 July 2017–30 June 2022. Alaska Department of Fish and Game, Species Management Report and Plan ADF&G/DWC/SMR&P-2019, Juneau.
- Dinneford, W. B. 1986. Furbearers survey-inventory progress. Pages 18–21 [*In*] B. Townsend, editor. Annual report of survey-inventory activities 1 July 1983–30 June 1984: Part XIV furbearers. Alaska Department of Fish and Game, Division of Game, Federal Aid in Wildlife Restoration Job 7.0, Juneau.
- Dinneford, W. B. 1990. Furbearers survey-inventory progress report. Pages 39–43. [*In*] S.O.
  Morgan, editor. Annual report of survey-inventory activities 1 July 1987–30 June 1988:
  Part XIV Furbearers. Alaska Department of Fish and Game, Division of Wildlife Conservation, Federal Aid in Wildlife Restoration Study 7.0, Juneau.

- Hundertmark, K. J., and R. E. Ball. 1983. Furbearers survey-inventory progress report. Pages 27–28. [*In*] J. A. Barnett, editor. Annual report of survey-inventory activities 1 July 1981-30 June 1982: Part VII beaver, furbearers, lynx, wolf, and wolverine. Alaska Department of Fish and Game, Division of Game, Federal Aid in Wildlife Restoration Jobs 7.0, 14.0, and 15.0, Juneau.
- Klein, D. R. 1965. Postglacial distribution patterns of mammals in the southern coastal regions of Alaska. Arctic 18:7–20.
- MacDonald, S. O., and J. A. Cook. 2009. Recent Mammals of Alaska. University of Alaska Press, Fairbanks, Alaska.
- Parr, B. L. 2016. 2015 Alaska trapper report: 1 July 2015–30 June 2016. Alaska Department of Fish and Game, Division of Wildlife Conservation, Wildlife Management Report ADF&G/DWC/WMR-2016-1, Juneau.
- Parr, B. L. 2017. 2016 Alaska trapper report: 1 July 2016–30 June 2017. Alaska Department of Fish and Game, Division of Wildlife Conservation, Wildlife Management Report ADF&G/DWC/WMR-2017-3, Juneau.
- Parr, B. L. 2018. 2013 Alaska trapper report: 1 July 2013–30 June 2014. Alaska Department of Fish and Game, Wildlife Management Report ADF&G/DWC/WMR-2018-1, Juneau.
- Quimby, R. L. 1978. Furbearers: survey-inventory progress report 1973-1976. Pages 45–46. [*In*]
  R. A. Hinman, editor. Annual report of survey-inventory activities 1976-1977: Part IV bison, beaver, furbearer, wolf, wolverine, seal, walrus. Alaska Department of Fish and Game, Division of Game, Federal Aid in Wildlife Restoration Jobs 7.0, 8.0, 9.0, 14.0, 15.0, and 22.0, Juneau.
- Robus, M. H. 1995. Unit 5 furbearer management report. Pages 49–52 [*In*] M. V. Hicks, editor. Survey-inventory management report 1 July 1991–30 June 1994 - furbearers. Alaska Department of Fish and Game, Division of Wildlife Conservation, Federal Aid in Wildlife Restoration Study 7.0, Juneau.
- Schumacher, T. 2013. Trapper questionnaire statewide annual report: 1 July 2011–30 June 2012. Alaska Department of Fish and Game, Wildlife Management Report, ADF&G/DWC/WMR-2013-4, Juneau.
- Schumacher, T. 2013. Trapper questionnaire statewide annual report: 1 July 2012–30 June 2013. Alaska Department of Fish and Game, Wildlife Management Report, ADF&G/DWC/WMR-2013-5, Juneau.
- Sell, S. 2018. Wolf management report and plan, Game Management Unit 1C: Report period 1 July 2010–30 June 2015, and plan period 1 July 2015–30 June 2020. Alaska Department of Fish and Game, Species Management Report and Plan ADF&G/DWC/SMR&P-201837, Juneau.
- Westing, E. 2019 (*In prep*). Furbearers management report and plan, Game Management Unit 6: Report period 1 July 2012–30 June 2017, and plan period 1 July 2017–30 June 2022. Alaska Department of Fish and Game, Species Management Report and Plan ADF&G/DWC/SMR&P-2019, Juneau.

