

Furbearer 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

Charlotte Westing



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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.

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Purpose of this Report

This report provides a record of survey and inventory management activities for furbearer in Unit 6 for the 5 regulatory years 2012–2016 and plans for survey and inventory management activities in the following 5 regulatory years 2017–2021. A regulatory year (RY) begins 1 July and ends 30 June (e.g., RY10 = 1 July 2010–30 June 2011). 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 it 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 report of survey and inventory activities that was previously produced every 3 years.

I. RY12–RY16 Management Report

Management Area

Unit 6 is approximately 10,140 mi² of land including Prince William Sound, the Copper River Delta, the North Gulf Coast of Alaska. Unit 6 is further divided into four administrative units (6A, 6B, 6C and 6D; Fig. 1). The terrain in Unit 6 includes rugged mountains, old-growth forest, coastal wetlands, and muskeg meadows.

Summary of Status, Trend, Management Activities, and History of Furbearers in Unit 6

Beavers (*Castor canadensis*), coyotes (*Canis latrans*), lynx (*Lynx canadensis*), marten (*Martes americana*), mink (*Neovison vison*), muskrats (*Ondatra zibethicus*), river otters (*Lontra canadensis*), weasels or ermine (*Mustela* spp.) and wolverines (*Gulo gulo*) are present in Unit 6. Density of individual species is variable, depending upon a variety of ecological factors and levels of harvest. Historical information on population status and trends is mostly anecdotal. Harvests of beavers, lynx, marten, river otters, and wolverines were monitored by sealing.

Beavers are abundant in Units 6A, 6B and 6C, where the deltas of the Copper and Bering rivers, and other freshwater streams provide suitable habitat. Cache surveys in 1988 and 1990 indicated 2,400 and 3,100 animals, respectively (Nowlin 1993). Beaver habitat, particularly in 6C, increased when uplift caused by the 1964 earthquake transformed what had previously been an intertidal area into an uplifted marsh. Density is lower in Unit 6D, where less habitat is available. Heller (1910) reported beavers in the Rude River drainage of eastern Prince William Sound (PWS), but he apparently did not find them on islands. J. Reynolds, past area biologist, documented occurrence on Hawkins and Hinchinbrook islands, in Simpson Bay, and in the Rude and Gravina river drainages (ADF&G, 1976, unpublished data). Beavers are also present in the Sheep River drainage.

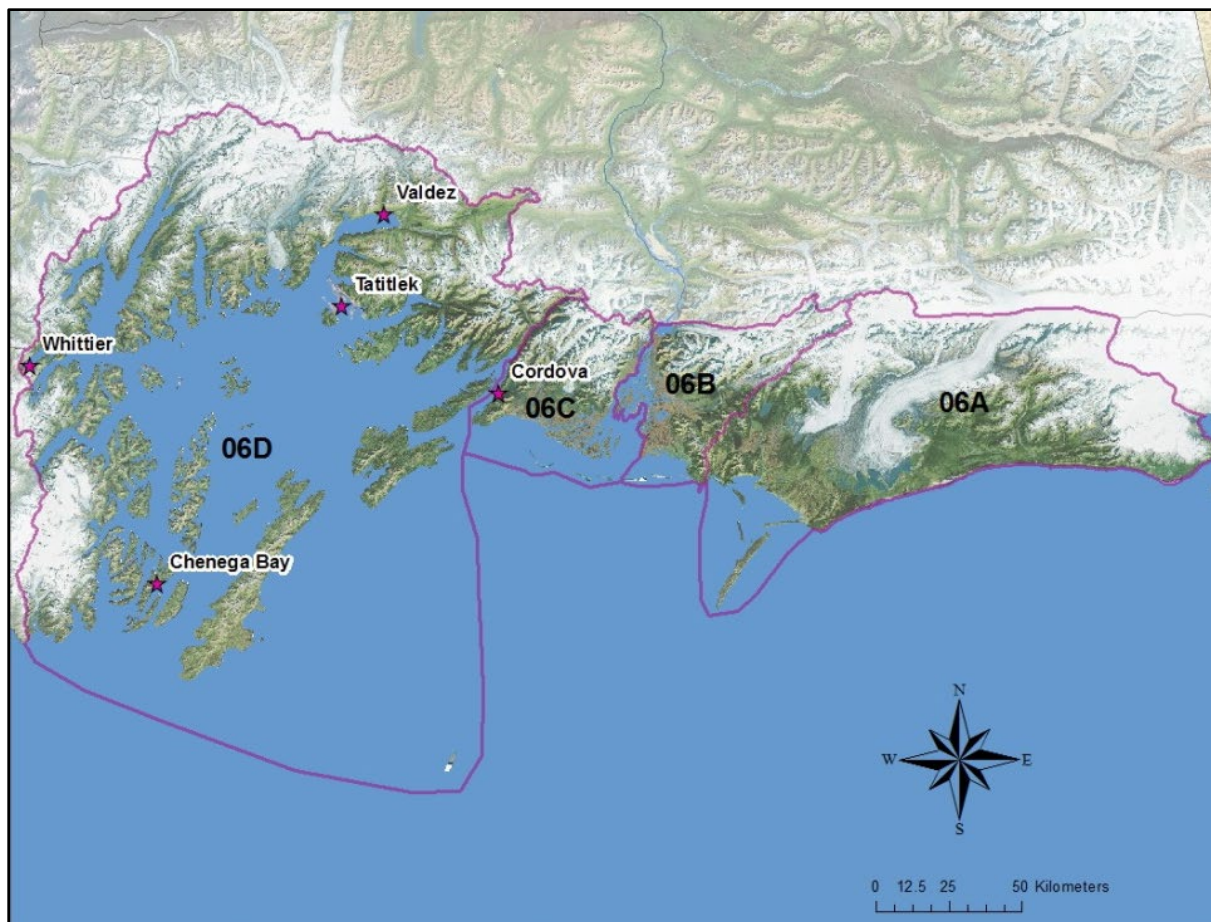


Figure 1. Map showing Unit 6 boundaries, Prince William Sound and North Gulf Coast, Alaska.

ADF&G has sealed beaver hides to monitor harvest since 1927 (Courtright 1968). Most of the take was from the Copper and Bering River deltas, where total harvest has fluctuated wildly. In 1938, C. Rhode (1938, unpublished data, ADF&G files) reported a harvest of 700 beavers from the deltas. When the town of Katalla was abandoned (circa 1943), trapping pressure declined considerably with a 10-year average of 62 beavers annually for all of Unit 6 is about. Harvest was relatively high during the early 2000s, averaging 95 per year during RY00–RY04. From RY12–RY16, the harvest was low at an average of 52 beavers.

Coyotes are relatively new arrivals in Unit 6. Heller (1910) did not note their presence in 1908 however they must have arrived by 1915. Coyotes were hunted and trapped extensively on the Copper River delta during the bounty era (1915–1960). They increased in abundance after predator control ended and are reported as being from common to abundant by trappers. Coyote numbers in Alaska fluctuate with availability of their primary prey, snowshoe hares (Prugh 2004). Carnes (2004) reported snowshoe hare was the most important prey of coyotes, followed by moose and microtine rodents such as voles, and muskrats. Alternate prey for coyotes includes salmon, beaver, waterfowl, and eulachon. Griese (1990) estimated coyote density at 0.1–1.0/mi² in suitable habitat. F. Robards (unpublished data, ADF&G files) suggested that coyotes had

replaced red fox as the dominant canid by 1938. Red foxes are now rare to absent in Unit 6. The last significant harvest of foxes was reported in 1972 in Unit 6C (Griese 1988b).

Lynx occur at low density in Unit 6. In 1949, O. Koppen (unpublished report, ADF&G files) reported that lynx numbers were historically low. Lynx abundance increased in the unit following the cyclical decline of snowshoe hares in adjacent Units 11 and 13, indicating that lynx probably dispersed to coastal areas in search of prey. Harvest increased for 1–5 years in Unit 6 following peak lynx abundance in adjacent units during 1972, 1982, 1992, 2000, and 2011.

Density of marten is quite variable in Unit 6. In 1949, O. Koppen (unpublished report, ADF&G files) characterized populations as scattered with the highest density of marten located between Cape Suckling and Cape Yakataga. Excessive trapping at that time also resulted in low numbers of marten in PWS and the Copper and Bering river deltas (O. Koppen, 1949, unpublished report, ADF&G files). Populations in the 1980s increased, except in heavily trapped areas near Valdez and Cordova (Griese 1988b). During the late 1990s, marten numbers increased unitwide, trappers reported a higher abundance than normal, and a record harvest occurred. A sealing requirement was instituted in 1999 to track harvest. The average annual harvest since 1999 is 131 marten.

Mink are common in most of Unit 6. Observations made between 1931 and 1955 (unpublished data, ADF&G files) suggest that periodic overharvest may have limited the potential for a large mink population in the unit. Trapping effort declined during the 1980s due to low pelt prices except along the road system where recreational trappers continued to harvest mink, and population numbers increased throughout the unit as a result (Larry Kritchen, former Cordova fur dealer, personal communication). Trapping effort for mink was low. Mink on Naked Island have been the subject of much interest due to their impact on the pigeon guillemot population on the island, particularly since the Exxon Valdez oil spill. Genetic analysis of mink samples collected on Naked Island are inconclusive as to whether the population is native or introduced. Discussions between US Fish and Wildlife Service and ADF&G occurred regarding whether a predator control program was appropriate for Naked Island on introduced vs. wild mink. The level of predation on pigeon guillemots should be reduced to allow for their recovery. A mink reduction plan began in 2014.

Muskrats occur at low density in Unit 6 east of PWS. Heller (1910) did not document the presence of muskrats as a result of observations conducted in 1908. On the Copper River Delta, muskrats were plentiful during the 1930s (G. Nelson, unpublished data, ADF&G files); however, by 1935 icing and overflows caused a reduction in numbers of muskrats. O. Koppen (1949, unpublished data, ADF&G files) also reported decreased numbers in 1948 due to predation. By 1955 the Copper River Delta population had recovered (F. Robards, unpublished data, ADF&G files) and persisted with scattered but densities large enough that they were considered common locally (Griese 1988a). Many trappers were successful at catching muskrats in the 1950s and 1960s, but since that time, populations have declined and catches have decreased (Larry Kritchen, former Cordova fur dealer, personal communication); J. Reynolds (area wildlife biologist, ADF&G, 1976, unpublished report) asserted their absence in 1976. The cause of this decline could be related to icing and overflows or changes in habitat caused by the 1964 earthquake. Now most harvested muskrats are caught incidentally in beaver sets. More recently,

many trappers have reported success and increased observations of push-ups (Marv Van den Broek, Tom Carpenter, Cordova area trappers, personal communication)

River otters are common in most of Unit 6. Heller (1910) reported that otters were the most common carnivore in PWS in 1908. However, trapping and hunting with dogs reduced them to low levels during the early 1930s (G. Nelson, unpublished data, ADF&G files). The population recovered during the 1940s (O. Koppen, 1949, unpublished data, ADF&G files) and became plentiful throughout the unit by 1951 (F. Robards, unpublished data, ADF&G files). The Exxon Valdez oil spill in 1989 caused significant mortality in western PWS. However, otters were reported as recovered by the Exxon Valdez Oil Spill Trustee Council in 1999. A cooperative study between the ADF&G and the University of Wyoming documented a river otter density estimate of 46 river otters per 100 km of shoreline in select areas of western PWS (Golden et al. 2011). Otter harvest fluctuates annually and is often dependent on projected pelt prices. Harvest was relatively high from RY02 to RY14 with an average of 149 otters taken per year.

Weasels are common on the mainland of Unit 6. They generally are not a species targeted by trappers but are caught incidentally in marten and mink sets.

Wolverines are present in most of the unit. In the late 1930s, they were plentiful and considered a nuisance (G. Nelson, unpublished data, ADF&G files). Bounties were placed on wolverines in 1954 that resulted in “undue” harvest pressure on the population, increasing the take 5-fold (F. Robards, unpublished data, ADF&G files). The bounty was removed at statehood in 1959. Harvest peaked between 1972 and 1978 because of increased trapper access and effort, as well as greater numbers of wolverines (Griese 1988b). Harvest varies widely from year to year in Unit 6 and can range anywhere from a low of 4 wolverines as reported in RY02, to a high of 29 wolverines as reported in RY15. The 10-year average (RY07–RY16) was 16 wolverines.

Management Direction

EXISTING WILDLIFE MANAGEMENT PLANS

Although there is not a formal management plan in regulation, the plan detailed below serves as the operational plan for furbearers in Unit 6.

GOALS

To provide optimum harvests and maximum opportunities to participate in the hunting and trapping of furbearers (ADF&G 1976).

CODIFIED OBJECTIVES

Amounts Reasonably Necessary for Subsistence Uses

There is a positive Amounts Necessary for Subsistence Uses (ANS) finding for furbearers in all units by the Board of Game with a harvestable surplus of 90 percent of the harvestable portion (5AAC 99.025 (13)).

Intensive Management

Not applicable.

MANAGEMENT OBJECTIVES

- Allow for the sustainable harvests of all furbearer species
- Monitor the harvest through sealing and trapper questionnaires

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

Abundance data are necessary to understand changes in the furbearer population and harvest pressure. 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 aerial survey flights. Most observations occur during moose surveys when sightability is ideal. 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

As surveys are not conducted for most furbearer populations, gathering and analyzing harvest data are important to assessing and understanding the potential impact of furbearer harvest to the population in order to manage for a sustainable harvest.

Methods

We collected harvest data by sealing hides of beaver, marten, otter, wolverine, and lynx taken by trappers and hunters. We recorded location and date of harvest, method of take, transportation mode, and sex. Lynx, otters, and beaver hides were measured. Sealing occurred within 30 days of the close of the season by and ADF&G or a State appointed sealer. These data are entered into ADF&G's Wildlife Information Network database (WinfoNet). Harvest data were summarized by regulatory year.

Season and Bag Limit

HUNTING SEASONS AND BAG LIMITS

Regulatory year	Species	Season	Bag Limit
2012–2016	Beaver	No open season	–
2012–2016	Coyote	10 Aug–25 May	No limit
2012–2016	Fox, Red	No open season	–
2012–2016	Lynx	10 Nov–28 Feb	2 lynx
2012–2016	Wolverine	1 Sep–1 Mar	1 wolverine

TRAPPING SEASONS AND BAG LIMITS

Regulatory year	Species	Season	Bag Limit
2012–2016	Beaver	10 Nov–Apr 30	No limit
2012–2016	Coyote	10 Nov–31 Mar	No limit
2012–2016	Fox, Red	1 Nov–28 Feb	No limit
2012–2016	Lynx	10 Nov–28 Feb	No limit
2012–2016	Marten	10 Nov–28 Feb	No limit
2012–2016	Mink	10 Nov–28 Feb	No limit
2012–2016	Muskrat	10 Nov–10 Jun	No limit
2012–2016	River Otter	10 Nov–31 Mar	No limit
2012–2016	Wolverine	10 Nov–28 Feb	No limit

Results and Discussion

Harvest by Hunters-Trappers

BEAVER

Harvest ranged from 33–81 beaver for this reporting period (Table 1). The 5-year average harvest is 52 beavers, compared with a 10-year average of 47 beavers. Traps were the most common method of take, and the proportion of juveniles in the harvest varied greatly. Beavers reported as shot were killed under nuisance permits for airport or highway maintenance purposes. Within Game Management Unit 6, Unit 6C received most of the harvest pressure (57–92% annually) during the last 5 years (Table 2).

Table 1. Harvest and method of take for beavers sealed in Unit 6, Southcentral Alaska, RY97–RY16.

Regulatory year	Total harvest	Successful participants	Percent juveniles ^a	Method of take			
				Shot	Trapped	Snared	Unknown
1997	80	8	22	0	60	7	13
1998	33	5	17	0	31	2	0
1999	108	10	30	0	108	0	0
2000	139	7	16	0	139	0	0
2001	75	7	13	15	60	0	0
2002	116	17	22	10	106	0	0
2003	83	13	17	7	73	3	0
2004	109	15	41	8	98	1	2
2005	98	12	23	17	81	0	0
2006	49	10	57	17	32	0	0
2007	55	9	38	1	51	0	3
2008	46	6	25	9	37	0	0
2009	57	5	57	3	54	0	0
2010	31	6	36	0	31	0	0
2011	24	4	25	0	24	0	0
2012	38	8	28	0	28	10	0
2013	64	12	45	0	62	0	2
2014	42	9	24	0	42	0	0
2015	81	9	43	0	81	0	0
2016	33	8	42	0	33	0	0

^a Juvenile beavers measure (length + width) ≤ 52".

Table 2. Unit 6 beaver, river otter, marten, and wolverine harvest percent Unit 6, Southcentral Alaska, RY12–RY16.

Species	Regulatory year	Unit				<i>n</i>
		6A	6B	6C	6D	
Beaver						
	2012	0	0	92	8	38
	2013	0	0	91	9	64
	2014	0	5	57	38	42
	2015	0	9	74	17	81
	2016	3	30	67	0	33
Lynx						
	2012	0	0	62	38	21
	2013	0	0	83	17	6
	2014	50	0	50	0	2
	2015	0	0	0	0	0
	2016	0	0	0	0	0
River otter						
	2012	0	0	7	93	241
	2013	0	0	6	94	197
	2014	1	0	11	87	167
	2015	0	1	22	77	94
	2016	0	2	13	86	56
Wolverine						
	2012	0	33	38	29	24
	2013	9	18	18	55	11
	2014	0	0	45	55	11
	2015	3	52	14	31	29
	2016	0	38	24	38	21
Marten						
	2012	14	29	23	34	97
	2013	47	6	32	15	62
	2014	32	0	40	28	57
	2015	0	37	33	30	70
	2016	0	36	39	25	36

LYNX

Harvest was the highest on record with 21 lynx taken in Unit 6 during RY12. This peak that occurred in RY12 was 10 years after the last peak in harvest which occurred in RY01. With each peak, moderate harvest was observed the year before and after (Table 3). Most successful participants used traps. Lynx were caught primarily in 6C and 6D (Table 2).

Table 3. Harvest and method of take for lynx sealed in Unit 6, Southcentral Alaska, RY97–RY16.

Regulatory year ^a	Total harvest	Successful participants	Percent juveniles ^b	Method of take			
				Shot	Trapped	Snared	Unknown
1997	0	0	0	0	0	0	0
1998	0	0	0	0	0	0	0
1999	1	1	0	0	1	0	0
2000	2	1	100	0	2	0	0
2001	19	9	5	2	16	1	0
2002	3	3	0	1	2	0	0
2003	0	0	0	0	0	0	0
2004	0	0	0	0	0	0	0
2005	0	0	0	0	0	0	0
2006	0	0	0	0	0	0	0
2007	0	0	0	0	0	0	0
2008	0	0	0	0	0	0	0
2009	0	0	0	0	0	0	0
2010	1	1	0	0	1	0	0
2011	7	6	50	3	4	0	0
2012	21	10	0	1	14	1	5
2013	6	5	50	1	5	0	0
2014	2	1	0	0	1	1	0
2015	0	0	0	0	0	0	0
2016	0	0	0	0	0	0	0

^a Season closed RY04–RY09.

^b Juvenile lynx measure (length) < 34".

RIVER OTTER

Harvest during this reporting period was high with an average of 151 otters compared to the 10-year average of 128 otters; participation was high (Table 4). Annually, more than 77% of harvest was in Unit 6D (Table 2). Most otters were harvested using traps or snares.

Table 4. Harvest and method of take for river otter sealed in Unit 6, Southcentral Alaska, RY97–RY16.

Regulatory year	Total harvest	Successful participants	Percent males	Percent juveniles ^a	Method of take			
					Shot	Trapped	Snared	Unknown
1997	74	17	60	75	25	45	0	6
1998	36	7	38	76	1	27	4	4
1999	47	15	70	55	4	39	4	0
2000	64	6	55	66	2	62	0	0
2001	64	13	52	58	14	50	0	0
2002	176	18	59	45	8	168	0	0
2003	107	21	55	60	4	103	0	0
2004	196	26	64	34	5	173	1	17
2005	188	26	63	52	1	187	0	0
2006	149	16	65	52	2	146	1	0
2007	136	17	66	58	1	113	22	0
2008	107	21	68	64	5	97	0	5
2009	59	11	69	72	4	54	0	1
2010	118	15	60	76	1	117	0	0
2011	100	19	64	70	7	76	15	2
2012	241	25	59	56	3	222	16	0
2013	197	24	63	56	4	192	0	1
2014	167	21	56	55	12	151	0	4
2015	94	18	59	56	0	94	0	0
2016	56	11	66	86	0	53	3	0

^a Juvenile otters measure (length) <42".

WOLVERINE

Harvest during this reporting period averaged 19 wolverines which was slightly higher than the 10-year average of 18 wolverines (Table 5). The majority of these animals were trapped. In most years harvest occurred in Unit 6D, however in some years, there was significant harvest in 6B and 6C also (Table 2).

Table 5. Harvest and method of take for wolverine sealed in Unit 6, Southcentral Alaska, RY97–RY16.

Regulatory year	Total harvest	Successful		Method of take			
		Participants	% Males	Shot	Trapped	Snared	Unknown
RY97	15	10	73	2	12	1	0
RY98	21	9	71	3	17	1	0
RY99	10	4	60	1	9	0	0
RY00	8	5	50	0	8	0	0
RY01	10	7	70	1	9	0	0
RY02	4	4	100	0	3	1	0
RY03	16	8	38	0	14	0	2
RY04	15	9	46	0	14	0	1
RY05	19	19	68	1	18	0	0
RY06	26	12	58	1	24	1	0
RY07	20	10	50	1	18	1	0
RY08	16	12	69	3	13	0	0
RY09	10	7	60	3	6	1	0
RY10	8	4	50	1	5	2	0
RY11	17	8	62	1	14	1	1
RY12	24	13	57	2	19	3	0
RY13	11	10	90	1	10	0	0
RY14	11	7	44	0	11	0	0
RY15	29	9	72	2	27	0	0
RY16	21	9	70	0	21	0	0

MARTEN

Harvest during this reporting period averaged 64 marten which was lower than the 10-year average of 103 marten during this reporting period (Table 6). Marten prices had been high and stable until RY12 when they nearly doubled. Since that time, the market has stabilized. Most harvest during the reporting period were taken by trapping. In most years, the majority of the harvest is in Unit 6C, however distribution of harvest can vary considerably between all Units (Table 2).

Table 6. Harvest and method of take for marten sealed in Unit 6, Southcentral Alaska, RY99–RY16.

Regulatory year	Total harvest	Successful participants	Percent males	Method of take			
				Shot	Trapped	Snared	Unknown
1999	198	11	70	0	198	0	0
2000	157	8	59	3	88	0	66
2001	114	13	67	0	114	0	0
2002	84	14	67	0	84	0	0
2003	149	17	64	0	134	0	15
2004	162	19	66	0	162	0	0
2005	256	23	65	0	256	0	0
2006	200	20	67	0	198	0	2
2007	137	20	66	0	137	0	0
2008	171	17	78	0	171	0	0
2009	156	18	70	0	156	0	0
2010	97	15	60	0	96	1	0
2011	147	14	75	0	146	1	0
2012	97	11	61	0	87	10	0
2013	62	12	75	0	62	0	0
2014	57	12	77	0	57	0	0
2015	70	9	61	0	70	0	0
2016	36	7	77	0	35	0	1

OTHER SPECIES

There are no harvest data for coyote, mink, muskrat, and weasel due to the absence of sealing requirements and minimal harvest and effort.

Hunter Residency and Success

As in most years, hunters from Unit 6 comprised nearly all of the harvest. Success rates cannot be calculated for furbearers because only successful take is reported.

Harvest Chronology

The maritime climate often causes annual variation in timing and endurance of winter conditions that are favorable to trappers. During the reporting period, peak beaver harvest occurred in November during 3 of the last 5 years, however, this can vary depending on winter conditions (Table 7). River otters were primarily harvested during December (Table 7). The highest harvest of marten occurred in January (Table 7). Wolverine harvest was highest during December and January most years during the reporting period (Table 7).

Table 7. Beaver, river otter, lynx, marten and wolverine harvest chronology percent by time period, Unit 6, Southcentral Alaska, RY12–RY16.

Species	Regulatory year	Month								<i>n</i>
		Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	
Beaver ^a										
	RY12	3	3	8	21	42	18	0	0	38
	RY13	0	10	21	26	18	19	0	5	62 ^b
	RY14	0	0	45	26	0	7	5	17	42
	RY15	0	0	12	4	32	35	17	0	81
	RY16	0	0	33	30	24	9	0	3	33
River otter										
	RY12	0	0	24	32	28	9	18	0	241
	RY13	0	0	15	43	33	7	6	0	196 ^b
	RY14	0	0	9	67	14	2	13	0	167
	RY15	0	0	5	61	20	14	0	0	94
	RY16	0	0	2	75	7	5	6	0	56
Lynx										
	RY12	0	0	5	24	52	19	0	0	21
	RY13	0	0	50	33	17	0	0	0	6
	RY14	0	0	0	0	50	0	50	0	2
	RY15	0	0	0	0	0	0	0	0	0
	RY16	0	0	0	0	0	0	0	0	0
Marten										
	RY12	0	0	10	34	29	27	0	0	97
	RY13	0	0	16	10	40	34	0	0	62
	RY14	0	0	4	26	53	18	0	0	57
	RY15	0	0	9	26	37	29	0	0	70
	RY16	0	0	16	32	36	16	0	0	25
Wolverine										
	RY12	0	0	4	17	29	42	8	0	24
	RY13	0	0	0	27	45	18	9	0	11
	RY14	0	0	0	36	27	36	0	0	11
	RY15	0	0	3	24	48	21	3	0	29
	RY16	0	0	0	38	29	33	0	0	21

^a Beavers were taken during May through August under damage control permits as follows: 2 (5%) in RY12 1 (2%) in RY13.

^b Total includes unknown month of take.

Transport Methods

Beaver trappers consistently used highway vehicles for the majority of transportation (Table 8). Heavy reliance on highway vehicles occurred during this reporting period due to easy access provided by the Copper River Highway to areas of Subunit 6C with large beaver populations. River otter trappers primarily used boats. Transportation methods used by wolverine trappers and hunters were predominantly airplane and snow machine, depending on snow conditions. Marten trappers primarily used highway vehicles and airplanes (Table 8). Typically, good snow conditions allow better access for targeting all species with snow machines, and increased use and harvest. During the reporting period snow cover was inadequate for snow machining in RY13, RY14, and RY15 in most of the unit, which may have influenced the use of snow machines for trapping, as well as overall effort.

Table 8. Beaver, river otter, marten, and wolverine harvest percent by transport method, RY12–RY16, Unit 6, Southcentral Alaska.

Species	Regulatory year	Percent of harvest						Unknown	<i>n</i>
		Airplane	Dogsled/ foot	Boat	3- or 4- wheeler	Snow- machine	Highway vehicle		
Beaver	2012	42	0	0	13	0	45	0	38
	2013	8	0	19	2	5	58	9	64
	2014	19	0	24	0	0	50	5	42
	2015	15	0	37	7	0	27	14	81
	2016	9	0	9	24	0	39	18	33
	River otter	2012	6	1	84	0	0	8	1
2013		0	4	85	0	0	6	4	205
2014		1	2	84	0	0	11	2	170
2015		0	4	78	2	1	11	4	98
2016		4	2	86	0	0	5	2	57
Lynx		2012	19	0	0	0	10	67	5
	2013	0	0	0	17	0	17	67	6
	2014	100	0	0	0	0	0	0	2
	2015	0	0	0	0	0	0	0	0
	2016	0	0	0	0	0	0	0	0
	Marten	2012	66	0	7	5	12	9	0
2013		47	21	5	0	13	15	0	62
2014		46	4	9	18	0	25	11	57
2015		41	14	16	7	0	21	0	70
2016		0	0	0	39	42	19	0	36
Wolverine		2012	38	0	17	4	25	17	0
	2013	9	18	27	0	36	9	0	11
	2014	27	0	18	45	0	9	0	11
	2015	31	3	3	17	41	3	0	29
	2016	14	0	33	5	33	14	0	21

Alaska Board of Game Actions and Emergency Orders

The Board of Game met in 2013 and 2015. There were no proposals and the board took no action regarding furbearers in Unit 6. No emergency orders were issued during this reporting period.

Recommendations for Activity 2.1

Continue.

3. Habitat Assessment-Enhancement

None.

NONREGULATORY MANAGEMENT PROBLEMS OR NEEDS

Data Recording and Archiving

- Data sheets are scanned and stored on the Cordova ADF&G server (O:\DWC\Furbearer)
- Original data sheets are stored in file folders located in the Cordova area biologist's office.
- Historical survey notes and data sheets are in the process of being digitally archived on the file server.

Agreements

None.

Permitting

None.

Conclusions and Management Recommendations

Quantifiable management objectives need to be established for beavers, river otters and wolverines. 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. Harvest 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 6. The management direction for Unit 6 ensures that furbearers will persist as part of the

natural ecosystem and ensures continued hunting (on applicable species), trapping, and viewing opportunities. There is no indication that the long-term sustainability of the furbearer populations or that statewide goals (ADF&G 2002) for human uses cannot be met; therefore the Unit 6 management direction should continue in a manner that aligns with statewide furbearer management goals. There are no unit-specific issues in Unit 6 that require a departure from statewide goals for furbearer management, and furbearers are currently managed on a unitwide scale.

GOALS

To provide optimum harvests and maximum opportunities to participate in the hunting and trapping of furbearers (Rausch 1977).

CODIFIED OBJECTIVES

Amounts Reasonably Necessary for Subsistence Uses

There is a positive Amounts Necessary for Subsistence Uses (ANS) finding for furbearers in all units by the Board of Game with a harvestable surplus of 90 percent of the harvestable portion (5AAC 99.025 (13)).

Intensive Management

Not applicable.

MANAGEMENT OBJECTIVES

- Allow for the sustainable harvests of all furbearer species
- Monitor the harvest through sealing and trapper questionnaires

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

Abundance data are necessary to understand changes in the furbearer population and harvest pressure.

Methods

GPS locations, group size (if applicable), and characteristics will be recorded during aerial survey flights. Most observations occur during moose surveys when sightability is ideal. Anecdotal reports will be 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 on their populations.

Methods

We will collect harvest data by sealing hides taken by trappers and hunters. We will record location and date of harvest, method of take, transportation mode, sex, and measure beavers, lynx, and otters. These data will be entered into an ADF&G's Wildlife Information Network database.

3. Habitat Assessment-Enhancement

None.

NONREGULATORY MANAGEMENT PROBLEMS OR NEEDS

Data Recording and Archiving

Data collected during aerial surveys will be recorded on data sheets and transcribed into a spreadsheet (furbearer observations) located on the Cordova server.

Species wildlife management reports and plans and the management operational plan for furbearers in Unit 6 will be available online at <https://wildlife.org/publications/>. Memos, data forms, and additional hard copies will be stored in the Cordova Area Biologist files in Cordova.

Agreements

None.

Permitting

None.

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