Furbearer Management Report and Plan, Game Management Unit 20D:

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

Plan Period 1 July 1 July 2017–30 June 2022

Robert W. Schmidt

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Alaska Department of Fish and Game Division of Wildlife Conservation

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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.

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).

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Cover Photo: ©ADF&G 2017. Photo by Ellie Mason. Canada Lynx in southwestern Unit 20D.

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Purpose of this Report

This report provides a record of survey and inventory management activities for furbearers in Unit 20D 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., RY14 = 1 July 2014–30 June 2015). This report is produced primarily to provide agency staff with data and analysis to help guide and record agency 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 (ADF&G, the department) Division of Wildlife Conservation (DWC) launched this 5-year report to more efficiently report on trends and to 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

Unit 20D is in the Central Tanana River Valley, Interior Alaska, and is approximately 5,637 mi^2. The community of Delta Junction is on the west side of the Game Management Unit and is located 100 miles Southeast of Fairbanks. The northern portion of the unit consists of the Goodpaster, Volkmar, and Healy river valleys and includes the Tanana Highlands with elevations ranging from 851–6,444 feet. The southern portion consists of the Tanana River floodplain, the lower Delta River floodplain, the Delta Agricultural Project, the drainages of the Robertson, Johnson, and Gerstle Rivers, and the northern foothills and mountains of the Alaska Range with elevations varying up to 10,278 feet. Lowland vegetation is a mosaic of shrub and early successional dominated forests, climax bogs, and mature black spruce (*Picea mariana*) forest. Vegetation in the hills, foothills, and mountains grades from taiga at lower elevations into shrub dominated communities with alpine tundra at higher elevations. The climate is typical of Interior Alaska where temperatures frequently reach 80°F in summer and -40°F in winter. Snow depths are generally below 32 inches (Western Regional Climate Center 2006). Unique to the Delta Junction area from other interior communities are the strong southern chinook winds often experienced through the winter. These winds bring mild temperatures to the mountains and foothill regions of southern Unit 20D with many exposed snow free ridgetops through the high country.

Summary of Status, Trend, Management Activities, and History of Furbearers in Unit 20D

Furbearer species in Unit 20D include beaver, coyote, lynx, marten, mink, muskrat, red fox, red squirrel, river otter, weasel, wolverine, and wolf. Wolves are discussed in a separate species management report and plan.

Furbearer species are an important resource in Alaska for cultural tradition, income, recreation, viewing, subsistence, and personal use (Alaska Trappers Association 2013).

Historically, there has been sustained interest and high value placed on the multiple uses for furbearers in Unit 20D. There is competition for traplines and furbearers due to the population centers Delta Junction, Fort Greely, and Fairbanks that are in or proximate to Unit 20D, and easy access into the unit by road, river, and trails.

Management Direction

ADF&G manages the furbearers in Unit 20D at levels sufficient to provide for consumptive and nonconsumptive uses. Management will include population trend counts on snowshoe hare (prey population) and fur sealing to analyze population trends and harvest patterns.

Existing Wildlife Management Plans

Previous management direction has been documented in the furbearer management reports of survey and inventory activities.

Goals

G1. Provide for a sustained optimal harvest of furbearers in order to protect, maintain, and enhance furbearer populations in concert with other components of the ecosystem.

G2. Provide the greatest opportunity to participate in viewing, hunting, and trapping of furbearers.

Codified Objectives

Amounts Reasonably Necessary for Subsistence Uses

C1. Unit 20D has 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 nonconsumptive uses.

MANAGEMENT ACTIVITIES

1. Population Status and Trend

ACTIVITY 1.1. Track furbearer trends through annual prey species surveys, and anecdotal furbearer observations by the public and ADF&G staff (objective M1).

Data Needs

Annual snowshoe hare surveys are needed to track trends in prey abundance and therefore predator abundance. Trapper questionnaires and other anecdotal furbearer observations are an important basis for determining the status of various furbearer populations.

Methods

A summer snowshoe hare population trend index was completed in 2 locations in Unit 20D in conjunction with nongame breeding bird surveys. The Delta breeding bird survey was conducted by surveying the Richardson Highway from Milepost 256.2 to 230.4 by Salcha-Delta Soil and Water Conservation District staff. It required the surveyor to stop at half-mile intervals for 3 minutes at each stop. The survey began a half-hour before sunrise (approximately 3:00 a.m.) in late June or early July. All hares seen during the survey were counted (Table 1). The Donnelly Breeding Bird Survey (BBS) route is conducted along Meadows Road by Ft. Greely staff. Data were summarized by regulatory year.

ADF&G staff mailed trapper questionnaires to trappers in Unit 20D through the Statewide Furbearer Management Program. A trapper questionnaire was conducted almost every year during RY12–RY16, with the exception of RY14. Trappers were asked to rate furbearer and prey species abundance as scarce, common, or abundant. They were also asked to rate species population trends as fewer, same, or more than the previous year. Numerical values were assigned to trappers' responses; abundance and numerical trend indices were calculated for each species (Parr 2017).

Locations and characteristics are recorded for any furbearers observed during any other survey work conducted by ADF&G staff.

Results and Discussion

Population Size

BEAVER

RY12–RY16 data were not collected to calculate relative abundance and numerical trend indices. Trapper questionnaires sent out during the reporting years showed that trappers felt the relative abundance of beaver was common and the numerical population trend index indicated that the beaver population was the same as previous years (Schumacher 2012, 2013; Parr 2016, 2017). Population composition is unknown for beaver in Unit 20D during RY12–RY16.

Table 1. Snowshoe hare numbers observed during the summer Delta and Donnelly Breeding Bird Surveys, Unit 20D, 1995–2017, Alaska.

	Number of hares	
Year	Delta[a]	Donnelly[b]
1995	4	–
1996	24	–
1997	46	–
1998	73	–
1999	85	–
2000	43	10
2001	6	0
2002	2	0
2003	2	1
2004	11	4
2005	57	10
2006	129	–
2007	96	50
2008	89	21
2009	87	14
2010	18	12
2011	7	3
2012	8	3
2013	5	1
2014	8	1
2015	6	4
2016	35	14
2017	52	26

Note: En dash indicates that a survey was not conducted.
[a] Breeding Bird Survey route conducted along the Richardson Highway beginning at MP 256.2 and proceeding south, currently completed by Jeff Mason of Salcha-Delta Soil and Water Conservation District.
[b] Breeding Bird Survey route conducted by Ft. Greely personnel along Meadows Road.

COYOTE

RY12–RY16 data were not collected to calculate relative abundance and numerical trend indices. Trapper questionnaires sent out during the reporting years showed that trappers felt the relative abundance of coyote was scarce, and the numerical population trend index indicated that the beaver population was the same as previous years (Schumacher 2012, 2013; Parr 2016, 2017). Population composition was unknown for coyote in Unit 20D during RY12–RY16.

LYNX

In RY12–RY16 data were not collected to calculate relative abundance and numerical trend indices. Trapper questionnaires sent out during the reporting years showed that trappers felt the relative abundance of lynx was common at the beginning of the reporting period in RY12 and declined to scare by the end of the reporting period in RY16. The numerical population trend

index indicated the lynx population was the same as previous years (Schumacher 2012, 2013; Parr 2016, 2017). Lynx sex composition was unknown for Unit 20D during RY12–RY16.

Marten

RY12–RY16 data were not collected to calculate relative abundance and numerical trend indices. Trapper questionnaires sent out during the reporting years showed that trappers felt the relative abundance of marten was common and the numerical population trend index indicated that the marten population was the same as previous years (Schumacher 2012, 2013; Parr 2016, 2017). Population composition was unknown for marten in Unit 20D during RY12–RY16.

Mink

RY12–RY16 data were not collected to calculate relative abundance and numerical trend indices. Trapper questionnaires sent out during the reporting years showed that trappers felt the relative abundance of mink was scarce and the numerical population trend index indicated that the mink population was the same as previous years (Schumacher 2012, 2013; Parr 2016, 2017). Population composition was unknown for mink in Unit 20D during RY12–RY16.

Muskrat

RY12–RY16 data were not collected to calculate relative abundance and numerical trend indices. Trapper questionnaires sent out during the reporting years showed that trappers felt the relative abundance of muskrat was scarce and the numerical population trend index indicated that the muskrat population was the same as previous years (Schumacher 2012, 2013; Parr 2016, 2017). Population composition was unknown for muskrat in Unit 20D during RY12–RY16.

Red Fox

RY12–RY16 data were not collected to calculate relative abundance and numerical trend indices. Trapper questionnaires sent out during the reporting years showed that trappers felt the relative abundance of red fox was common and the numerical population trend index indicated that the red fox population was the same as previous years (Schumacher 2012, 2013; Parr 2016, 2017). Population composition was unknown for red fox in Unit 20D during RY12–RY16.

Red Squirrel

RY12–RY16 data were not collected to calculate relative abundance and numerical trend indices. Trapper questionnaires sent out during the reporting years showed that trappers felt the relative abundance of red squirrel was abundant and the numerical population trend index indicated that the red squirrel population was the same as previous years (Schumacher 2012, 2013; Parr 2016, 2017). Population composition was unknown for red squirrel in Unit 20D during RY12–RY16.

River Otter

RY12–RY16 data were not collected to calculate relative abundance and numerical trend indices. Trapper questionnaires sent out during the reporting years showed that trappers felt the relative abundance of river otter was scarce and the numerical population trend index indicated that the

otter population was the same as previous years (Schumacher 2012, 2013; Parr 2016, 2017). Population composition was unknown for otter in Unit 20D during RY12–RY16.

WOLVERINE

RY12–RY16 data were not collected to calculate relative abundance and numerical trend indices. Trapper questionnaires sent out during the reporting years showed that trappers felt the relative abundance of wolverine was scarce and the numerical population trend index indicated the wolverine population was the same as previous years (Schumacher 2012, 2013; Parr 2016, 2017). Population composition was unknown for wolverine in Unit 20D during RY12–RY16.

PREY SPECIES

Counts of snowshoe hare along the Donnelly and Delta breeding bird survey route showed a significant decline in the hare population starting in 2010 through 2015, after which it began rebounding in 2016 (Table 1). This data suggests that lynx population was down as well but is now also rebounding as the hare population increases. Lynx populations are known to track with hare population because snowshoe hare is a primary food source for lynx; Unit 20D lynx harvest data from RY12–RY16 reflects this predator-prey relationship.

Distribution and Movements

No work was performed to determine furbearer distribution and movements during RY12–RY16.

Recommendations for Activity 1.1

Continue to actively seek information from trappers and others that observe furbearers. We also recommend continued documentation of prey species to help further document trends of furbearer species that rely on snowshoe hare and other prey species as a food source.

2. Mortality-Harvest Monitoring and Regulations

ACTIVITY 2.1. Monitor harvest through sealing records (objective M1).

Data Needs

Harvest data are not necessary to achieve the management goals or to evaluate codified objectives at this time. The current opportunity to harvest furbearers is not restricted because there are no overharvest concerns effecting furbearer abundance or population sustainability. However, tracking harvest of furbearer species that are required to be sealed by regulation may provide useful information for trappers, advisory committees, and the Board of Game.

Methods

ADF&G biologists collected harvest data for lynx, river otter, and wolverine from sealing data. Trappers are required by regulation to seal their furs by an authorized sealer within 30 days of the close of season. Information collected at the time of sealing included name of trapper, harvest location and date, pelt measurements (only lynx and river otter), sex (only river otter and wolverine), method of take, and method of transportation used.

Pelt measurements for lynx were used to determine the proportion of juveniles in the harvest (Table 2). This proportion was compared to known lynx age distributions in samples acquired from trappers during sealing during different phases of the snowshoe hare cycle and used to assess reproductive success.

Table 2. Unit 20D lynx, river otter, and wolverine reported harvest by age and sex, and method of take for regulatory years 2009–2017, Alaska.

		Reported harvest									
	Regulatory	Sex			Age[a]			Method of take			Total
Species	year	M	F	Unk	Juv	Adults	Unk	Trap/snare	Shot	Unk	harvest
Lynx											
	2009	87	64	68	50	159	10	184	7	28	219
	2010	40	52	63	48	100	7	144	11	0	155
	2011	46	43	30	21	87	11	115	1	3	119
	2012	24	22	47	14	78	1	83	7	3	93
	2013	15	12	24	5	44	2	48	3	0	51
	2014	6	6	26	11	26	1	35	4	0	38
	2015	9	7	20	10	23	3	31	4	1	36
	2016	13	12	36	14	46	1	57	4	0	61
	2017	42	40	126	39	166	3	205	3	0	208
River otter											
	2009	2	3	2	–	–	–	7	0	0	7
	2010	0	1	1	–	–	–	1	1	0	2
	2011	2	1	1	–	–	–	4	0	0	4
	2012	0	0	0	–	–	–	0	0	0	0
	2013	2	1	4	–	–	–	7	0	0	7
	2014	0	0	2	–	–	–	0	2	0	2
	2015	5	3	2	–	–	–	9	1	0	10
	2016	1	2	2	–	–	–	5	0	0	5
	2017	6	3	0	–	–	–	9	0	0	9
Wolverine											
	2009	2	4	0	–	–	–	6	0	0	6
	2010	4	3	0	–	–	–	6	0	1	7
	2011	4	2	0	–	–	–	6	0	0	6
	2012	5	3	0	–	–	–	8	0	0	8
	2013	14	5	0	–	–	–	17	2	0	19
	2014	9	7	0	–	–	–	15	1	0	16
	2015	7	7	0	–	–	–	14	0	0	14
	2016	3	4	0	–	–	–	7	0	0	7
	2017	12	4	0	–	–	–	16	0	0	16

Note: En dash represents no data.

[a] Juvenile (Juv) is measured as ≤35 inches in pelt length; adult is measured as >35 inches in pelt length.

Season and Bag Limit

Unit 20D furbearer seasons and bag limits for RY12–RY16 are listed in Table 3.

Table 3. Furbearer trapping and hunting seasons and bag limits in Unit 20D, regulatory years 2012–2017, Alaska.

Species	Trapping season	Trapping bag limit	Hunting season	Hunting bag limit
Beaver	25 Sep–31 May	No limit	No open season	NA
Coyote	1 Nov–31 Mar	No limit	No closed season	No limit
Lynx	1 Nov–15 Mar	No limit	1 Dec–31 Jan	2
Marten	1 Nov–28 Feb	No limit	No open season	NA
Mink	1 Nov–28 Feb	No limit	No open season	NA
Muskrat	1 Nov–10 Jun	No limit	No open season	NA
River Otter	1 Nov–15 Apr	No limit	No open season	NA
Red Fox	1 Nov–28 Feb	No limit	1 Sep–15 Mar	10, no more than 2 before 1 Oct
Red Squirrel	No closed season	No limit	No closed season	No limit
Weasel	1 Nov–28 Feb	No limit	No open season	NA
Wolverine	1 Nov–28 Feb	No limit	1 Sep–31 Mar	1

Note: Regulatory year begins 1 July and ends 30 June (e.g., regulatory year 2013 = 1 July 2013–30 June 2014).

Results and Discussion

Harvest by Hunters and Trappers

Traps and snares were the most commonly used method for taking lynx, river otter, and wolverine in Unit 20D during RY12–RY16 (Table 2).

LYNX

Lynx harvest was the highest for the reporting period in RY12. After RY12, harvest decreased reaching the lowest at 36 lynx in RY15. The harvest then began to rebound in RY16 with a harvest of 61 lynx in RY16 and 208 in RY17, which is the highest since RY09 (Table 2). Proportion of juveniles in the harvest consisted of 15% in RY12, 8% in RY13, 29% in RY14, 28% in RY15, and 23% in RY16 (Table 2).

RIVER OTTER

River otter harvest during RY12–RY16 was about the same as during RY09–RY11 (Table 2). Trapping effort increased for river otter in Unit 20D during the reporting period.

WOLVERINE

Wolverine harvest during RY12–RY16 ranged 7–19 per year (Table 2). Reported harvest for RY12–RY16 was near the 10-year average.

Harvest Chronology

Reported lynx harvest during November remained steady through RY12–RY16. December, January, and February had the highest lynx harvest during all of the reporting months with little to no harvest in March. January had the highest lynx harvest in 3 out of the 5 reporting years (Table 4).

River otter harvest varied widely in the reporting period. The only harvest that occurred in November during the reporting period was in 2016; the only river otter harvest that occurred during either February or December was in 2015. March was the most productive month overall followed by January. April had no reported harvest through the reporting period, however 14 percent of trappers reported unknown for the months that they trapped in 2013. It is possible some of the trappers that reported unknown trapped some river otter in April (Table 4).

Wolverine was trapped throughout the trapping season (November–February), with December, January, and February having fairly similar harvest (Table 4).

Transport Methods

Snowmachines continued to be a commonly used means of transportation for lynx, river otter, and wolverine trappers in Unit 20D during RY12–RY16. Highway vehicle and skis/snowshoes were the second and third most commonly used means of transportation for most species (Table 5).

Other Mortality

Rates of natural mortality are unknown for furbearers in Unit 20D.

Alaska Board of Game Actions and Emergency Orders

Coyote hunting with dogs was authorized during the March 2017 Board of Game meeting under regulation 5 AAC 92.060 with a permit obtained from ADF&G during the open coyote hunting season (no closed season) in Unit 20D.

Table 4. Unit 20D lynx, river otter, and wolverine harvest chronology percent by month, regulatory years 2009–2017.

Species	Regulatory year	Sep/Oct	Nov	Dec	Jan	Feb	Mar	Apr	Unk
Lynx									
	2009	0	3	31	40	19	0	0	7
	2010	0	19	26	16	18	5	0	16
	2011	0	18	38	18	21	5	0	0
	2012	0	12	45	22	22	0	0	0
	2013	0	6	33	37	16	8	0	0
	2014	0	26	18	29	26	0	0	0
	2015	0	14	31	42	14	0	0	0
	2016	0	8	13	38	41	0	0	0
	2017	0	9	30	38	20	3	0	0
River Otter									
	2009	0	14	43	29	14	0	0	0
	2010	0	50	0	0	0	0	50	0
	2011	0	0	0	0	100	0	0	0
	2012	0	0	0	0	0	0	0	0
	2013	0	0	0	57	0	29	0	14
	2014	0	0	0	0	0	100	0	0
	2015	0	0	30	30	40	0	0	0
	2016	0	40	0	20	0	40	0	0
	2017	0	44	0	22	11	22	0	0
Wolverine									
	2002	0	0	13	0	63	25	0	0
	2009	0	8	31	38	23	0	0	0
	2010	0	22	11	34	22	0	11	0
	2011	0	10	30	20	40	0	0	0
	2012	0	0	50	50	0	0	0	0
	2013	0	5	21	26	47	0	0	0
	2014	0	19	38	25	19	0	0	0
	2015	0	0	36	43	21	0	0	0
	2016	0	0	43	14	43	0	0	0
	2017	0	0	19	19	44	19	0	0

Note: Regulatory year begins 1 July and ends 30 June (e.g., regulatory year 2009 = 1 July 2009–30 June 2010).

Table 5. Unit 20D harvest percent by transport method, regulatory years 2009–2017, Alaska.

Species	Regulatory year	Harvest percent by transport method									
		Airplane	Dogsled	Boat	3- or 4-Wheeler	Snowmachine	ORV	Highway vehicle	Skis/ Snowshoes	Other	Unk
Lynx											
	2009	0	4	0	4	58	0	17	3	0	13
	2010	0	0	0	1	62	1	30	6	0	0
	2011	0	0	0	7	65	0	13	12	0	3
	2012	1	3	0	1	52	0	19	20	0	3
	2013	2	0	0	0	59	0	10	29	0	0
	2014	3	3	0	0	74	0	18	3	0	0
	2015	0	0	0	0	89	0	11	0	0	0
	2016	0	0	0	3	89	0	3	5	0	0
	2017	0	0	0	0	85	0	10	4	0	0
River Otter											
	2009	14	0	0	29	57	0	0	0	0	0
	2010	0	0	0	0	0	0	100	0	0	0
	2011	0	0	0	0	0	0	25	75	0	0
	2012	0	0	0	0	0	0	0	0	0	0
	2013	0	0	14	0	71	0	0	14	0	0
	2014	0	0	0	0	100	0	0	0	0	0
	2015	0	0	0	0	60	0	0	40	0	0
	2016	0	0	0	0	100	0	0	0	0	0
	2017	0	0	11	0	56	0	11	22	0	0
Wolverine											
	2009	0	25	0	0	50	0	25	0	0	0
	2010	0	0	0	0	86	0	14	0	0	0
	2011	33	0	0	0	50	0	0	17	0	0
	2012	0	25	0	0	75	0	0	0	0	0
	2013	0	0	0	0	58	0	11	32	0	0
	2014	6	19	0	0	56	0	19	0	0	0
	2015	0	7	0	0	79	0	14	0	0	0
	2016	0	0	0	0	71	0	14	14	0	0
	2017	0	0	0	0	100	0	0	0	0	0

Note: Regulatory year begins 1 July and ends 30 June (e.g., regulatory year 2009 = 1 July 2009–30 June 2010).

Recommendations for Activity 2.1

Continue to collect harvest data through sealing records.

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 nor to evaluate codified objectives. No habitat assessment work occurred for furbearers during RY12–RY16. Furbearer habitat appears sufficient to support viable populations. Forest fires continue to keep a natural balance of habitats needed by all furbearer species.

NONREGULATORY MANAGEMENT PROBLEMS OR NEEDS

Habitat and subsequently furbearer productivity is changing with climate change. Species such as marten can be affected by the frequency and intensity of wildfire (Paragi et al. 1995). Wildfire frequency is just one example of many things that will continue to change with climate change. Therefore, as managers we need to be vigilant of these changes and manage accordingly with these changes in mind. However, there is no immediate management problems or needs with furbearer populations in Unit 20D.

Data recording and archiving

- Harvest data are stored on an internal database housed on a server (http://winfonet.alaska.gov/index.cfm).

- All other electronic data and files such as survey memoranda and reports are located on the Delta Area Biologists computer hard drive; Furbearer and archived in WinfoNet Data Archive (project title: Delta area survey and inventory: furbearer).

- Field data sheets, paper files, hard copies, et cetera are located in the file cabinet located in the Delta Junction area biologist's office (MP 266.8, Richardson Highway, Delta Junction, Alaska).

Agreements

None.

Permitting

None.

Conclusions and Management Recommendations

Several indicators suggest that the lynx population in Unit 20D is likely past the downward trend and on the rise again. These indicators are a recent increase in harvest, an increase in the proportion of juvenile lynx in the harvest, and a rapid increase in the number of hares seen during surveys.

Snowshoe hare population numbers during RY12–RY15 were the lowest since 2003. But in 2016 the snowshoe hare numbers increased nearly 5 times of what they were and continued to increase in 2017 (Table 1). Hare abundance influences lynx reproduction, kitten survival and ultimately, the abundance of lynx (Brand and Keith 1979). When hares are in low abundance, lynx populations decline, and when hare numbers rebound, the lynx population rebounds 1 to 2 years later (Finerty 1979); the 20D lynx harvest data also reflects this.

The proportion of juvenile lynx in the harvest tracks with known and previously documented lynx age compositions during different phases of the snowshoe hare cycle (Stephenson and Karczmarczyk 1989). The overall reproductive success of lynx in Unit 20D is typical when compared to other known-age compositions of lynx populations.

Wolverine harvest (reported) during RY12–RY16 was higher on average than the last reporting period. The increased harvest is likely attributed to increased trapper effort due to milder and easier trapping conditions. We have no data to that suggests a change in the wolverine population in Unit 20D.

Population status analyses remained general and incomplete for most of the furbearer populations in Unit 20D due to the lack of reproductive, harvest, and sex and age composition data. These data will continue to be lacking unless research is conducted or there are changes to regulation.

Most of the stated and planned management activities for this reporting period were conducted. These included sealing furs and analyzing harvest patterns, conducting trapper questionnaires and interviews, monitoring furbearer population trends and annual harvest using sealing documents, monitoring trends in abundance of furbearer prey species by evaluating snowshoe hare trend surveys, and conducting snowshoe hare surveys to monitor prey abundance.

Based on information and trapper comments from the trapper questionnaire statewide annual report, the furbearer management objective to manage furbearer populations to maintain populations at levels sufficient to provide for sustained consumptive and nonconsumptive uses appears to have been met. We have no data to suggest furbearer populations were adversely affected by sustained yield management. No changes in furbearer trapping or hunting regulations or management goals, objectives, and activities are recommended at this time.

II. Project Review and RY17–RY21 Plan

Review of Management Direction

ADF&G will continue to manage the furbearers in Unit 20D at levels sufficient to provide for consumptive and nonconsumptive uses. Management will include population trend counts of snowshoe hare and fur sealing to analyze population trends and harvest patterns.

GOALS

G1. Provide for a sustained optimal harvest of furbearers in order to protect, maintain, and enhance furbearer populations in concert with other components of the ecosystem.

G2. Provide the greatest opportunity to participate in viewing, hunting, and trapping of furbearers.

CODIFIED OBJECTIVES

Amounts Reasonably Necessary for Subsistence Uses

C1. Unit 20D has 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 levels sufficient to provide for sustained consumptive and nonconsumptive uses.

REVIEW OF MANAGEMENT ACTIVITIES

1. Population Status and Trend

ACTIVITY 1.1. Track furbearer trends through annual prey species surveys and anecdotal furbearer observations by the public and ADF&G staff (objective M1).

Data Needs

Annual snowshoe hare surveys are needed to track trends in prey abundance and therefore predator (lynx) abundance. Trapper questionnaires and other anecdotal furbearer observations are an important basis for determining the status of various furbearer populations.

Methods

Same as previously reported in Activity 1.1 above.

2. Mortality-Harvest Monitoring

ACTIVITY 2.1. Monitor harvest through sealing records (objective M1).

Data Needs

Harvest data are not necessary to achieve the management goals or to evaluate codified objectives at this time. The current opportunity to harvest furbearers is not restricted because of overharvest concerns effecting furbearer abundance or population sustainability. However, tracking harvest of those species required to be sealed by regulation may provide useful information for trappers, advisory committees, and the Board of Game.

Methods

Same as previously reported in Activity 2.1. above.

3. Habitat Assessment-Enhancement

Data are not needed at this time. Furbearer habitat appears sufficient to support viable furbearer populations.

NONREGULATORY MANAGEMENT PROBLEMS OR NEEDS

Habitat and subsequently furbearer productivity is changing with climate change. Species such as marten can be affected by the frequency and intensity of wildfire (Paragi et al. 1995). Wildfire frequency is just one example of many things that will continue to change with climate change. Therefore, as managers we need to be vigilant of these changes and manage accordingly with these changes in mind. However, there is no immediate management problems or needs with furbearer populations in Unit 20D.

Data recording and archiving

- Harvest data are stored on an internal database housed on a server (http://winfonet.alaska.gov/index.cfm).
- All other electronic data and files such as survey memoranda and reports are located on the Delta area biologist's computer hard drive under "furbearer" and archived in the WinfoNet data archive (project title: Delta area survey and inventory: furbearer).
- Field data sheets, paper files, hard copies, et cetera are located in the file cabinet located in Delta Junction area biologist's office (MP 266.8, Richardson Highway, Delta Junction, Alaska).

Agreements

None.

Permitting

None.

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