Species Management Report and Plan ADF&G/DWC/SMR&P–2024–19

Furbearer Management Report and Plan, Game Management Units 9 and 10:

Report Period 1 July 2017–30 June 2022, and

Plan Period 1 July 2022–30 June 2027

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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 Todd Rinaldi, Management Coordinator for Region IV 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). To subscribe to email announcements regarding new technical publications from the Alaska Department of Fish and Game, Division of Wildlife Conservation please use the following link: http://list.state.ak.us/mailman/listinfo/adfgwildlifereport.

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Cover Photo: A female lynx. ©2022 ADF&G. Photo by Evelyn Lichwa.

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Purpose of this Report

This report provides a record of survey and inventory management activities for furbearers in Game Management Units (GMU) 9 and 10 for the 5 regulatory years 2017–2021 and plans for survey and inventory management activities in the next 5 regulatory years, 2022–2026. A regulatory year (RY) begins 1 July and ends 30 June (e.g., RY15 = 1 July 2015–30 June 2016). This report was 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 report more efficiently on trends and to 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. RY17–RY21 Management Report

Management Area

Unit 9 (33,639 mi^2; Fig. 1) consists of the Alaska Peninsula of Southwest Alaska, bounded in the north by the drainages of Lake Clark (Unit 9B) and Tuxedni Bay on Cook Inlet (Unit 9A), on the west by the Kvichak River drainage and Bering Sea, and extending southwest to Isanotski Strait near False Pass and Izembek National Wildlife Refuge (Unit 9D). The Aleutian Mountain Range extends down the Pacific coast of the peninsula, providing cool maritime conditions, alpine tundra, heavy precipitation, high winds, and active volcanoes. Boreal forest occurs over much of the northern and central portions of Unit 9 at lower elevations, and coastal plains of rolling tundra extend down the western slope of the peninsula along the Bering Sea. Many of the rivers originating in Unit 9 are spawning habitats for anadromous salmon returning through Bristol Bay.

Unit 10 (15,798 mi^2) includes the Aleutian and Pribilof islands; however, furbearer harvest is only monitored on Unimak Island (approximately 1,500 mi^2; Fig. 2), the easternmost of the Aleutian Islands extending from the southwestern tip of the Alaska Peninsula. Unimak is the only Aleutian Island with indigenous large game including caribou *(Rangifer tarandus)*, brown bears *(Ursus arctos)*, wolves *(Canis lupus),* wolverines (*Gulo gulo*), river otters *(Lontra canadensis),* and red fox (*Vulpes vulpes*). Arctic fox *(Alopex lagopus)* and caribou were introduced to Adak Island. Unimak Island is volcanic in origin with ongoing volcanic activity. Unimak Island consists of unvegetated habitats of glaciers, snowfields, or ash-flats at elevations over 1,000 ft (Pitcher et al. 1990) and extensive unvegetated lava flows and cinder blows are present at lower elevations. The city of False Pass is the only occupied human settlement on the island.

Summary of Status, Trend, Management Activities, and History of Furbearers in Units 9 and 10

Furbearers in Unit 9 include beavers (*Castor canadensis*), coyotes (*Canis latrans*), red foxes, lynx *(Lynx canadensis),* marten (*Martes americana*), mink (*Neovison vison*), muskrat (*Ondatra zibethicus*), river otters, wolves, and wolverines. In Unit 10, wolves, wolverines, river otters, red

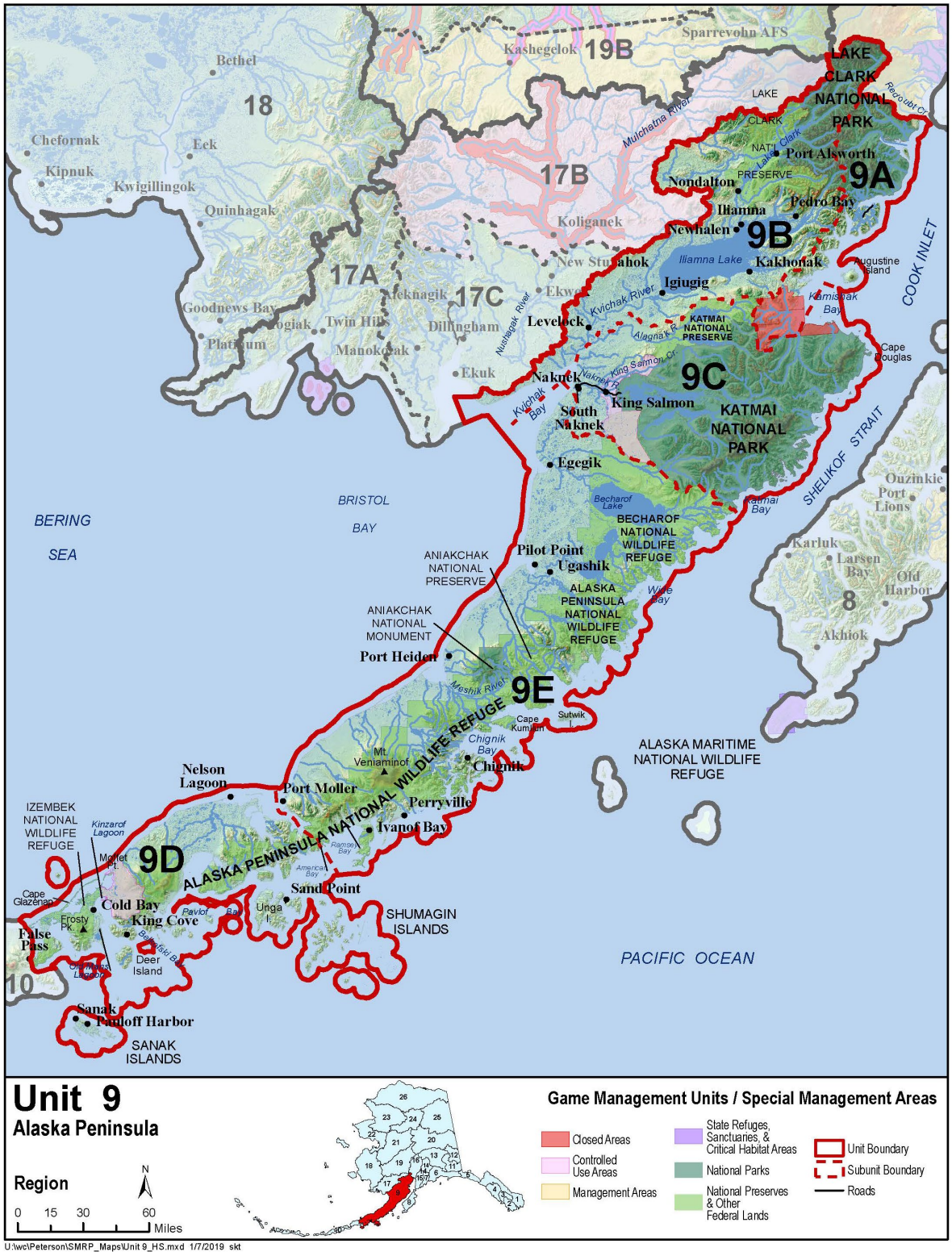


Figure 1. Game Management Unit 9 boundaries, Alaska Peninsula, Southwest Alaska.

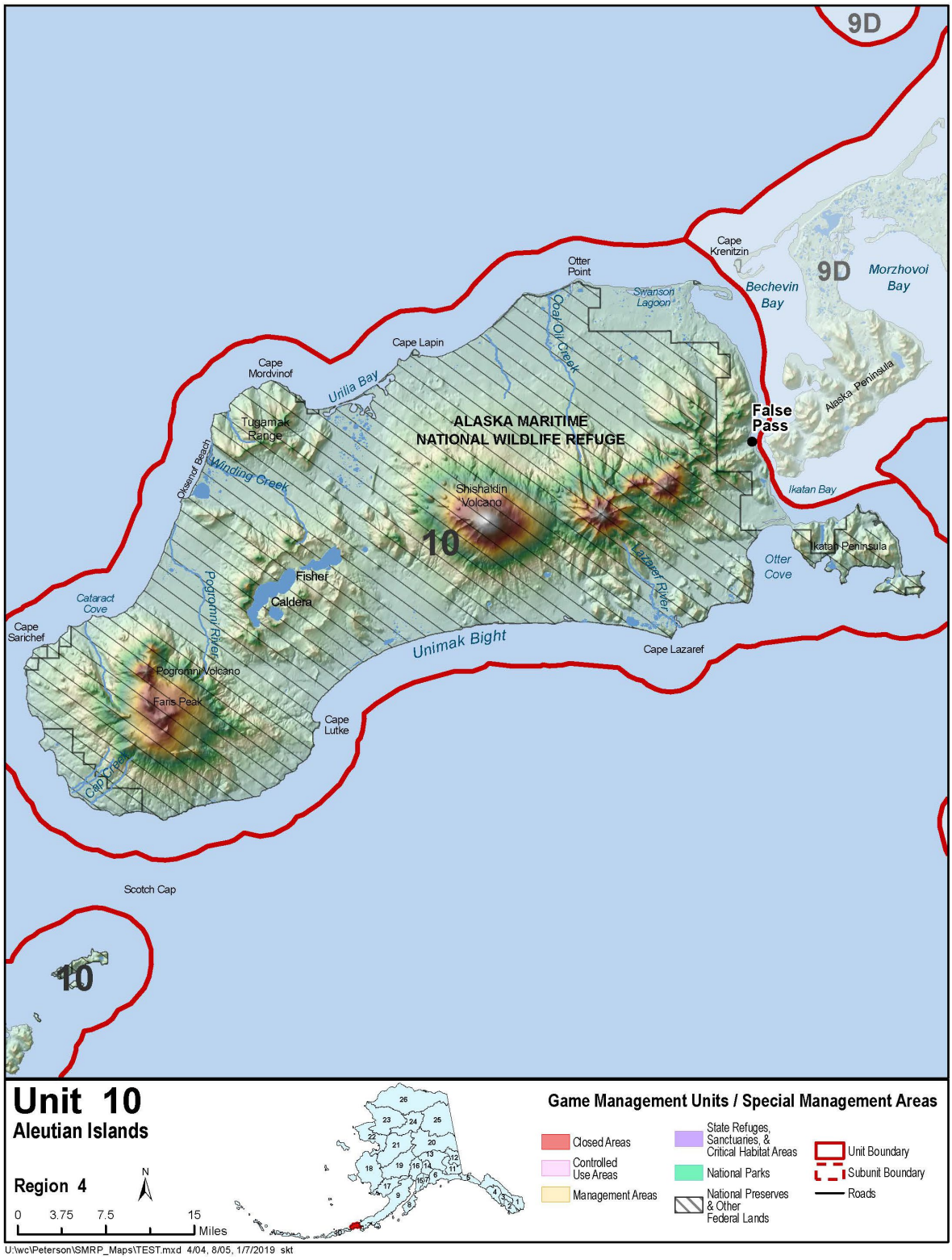


Figure 2. Unimak Island in Unit 10, Alaska Peninsula, Southwest Alaska.

fox, and mink have been observed. Arctic foxes have been traditionally listed as present on the mainland of Unit 9 and Unimak Island; however, it is thought that the species has been extirpated from the region. On approximately 30–40 islands in Units 9 and 10, furbearers (mostly foxes, but also hares, marmots, domestic cats, and ground squirrels) are present largely because of historical introductions to propagate the fur industry or establish harvestable wild populations.

Historical distributions of Arctic and red foxes in Units 9 and 10 were drastically affected by human activities to benefit the fur industry. Russian fur traders began introducing foxes to the previously fox-free western Aleutian Islands in 1750, culminating in introductions to at least 86 islands in the Aleutians between 1750 and 1936 by Russian and American (Alaska Purchase post-1867) fur traders and farmers (Bailey 1993). Most introductions included Arctic foxes, particularly the blue phase foxes, because of their greater value in the fur industry. However, in the eastern Fox islands (including Unimak Island) of the Aleutian chain, where red foxes are indigenous, they were widely transplanted to surrounding islands (Bailey 1993). Meanwhile, during the 1880s and through the 1930s, Arctic and red foxes were introduced to 65 previously fox-free islands along the south coast (Pacific side) of the Alaska Peninsula. Although some of these earlier red fox introductions were successful, red foxes were sometimes subsequently exterminated to facilitate the introduction of Arctic foxes (Bailey 1993). Fur farming spread through the Kodiak Archipelago, islands of Prince William Sound, and the Alexander Archipelago in Southeast Alaska, and encompassed over 450 islands of coastal Alaska. The fur industry boomed in Alaska during the 1920s, but fur prices began declining in the early 1930s. The industry collapsed in the late 1930s during the Great Depression, and fur prices remained low after World War II, which ultimately resulted in abandonment of all island fox farming by the 1950s.

Of the 65 fox introductions to the Alaska Peninsula islands, only about 10 islands continue to support fox, of which 7 support Arctic foxes, and some of which have feral cattle or other reliable sources for scavenging in addition to bird colonies (Byrd et al. 1996; Bailey 1993). Islands that may continue to support introduced red foxes in Unit 9 include Deer, Dolgoi, and Iliasik; those that may continue to support Arctic foxes in Unit 10 include Clifford, Elma, Finneys, Inikla, Little Koniuji, Wanda, and Wosnesenski. Further consultation with the Alaska Maritime National Wildlife Refuge (AMNWR) may reveal additional Unit 9 eradications that have not been published. In the Aleutian Islands, AMNWR has eradicated foxes from around 48 islands (Ebbert and Byrd 2002; Rozell 2017) since 1949 in response to greatly depleted seabird colonies and an endangered Aleutian cackling goose population (*Branta hutchinsii leucopareia*; Bailey 1993; Buskirk and Gipson 1980; Murie 1959). Fox eradications were very successful in restoring seabird, goose, and other bird populations, but are complicated by the presence of Norway rats (*Rattus norvegicus*) on many islands (Bailey 1993).

Red foxes now occur on the mainland, on some islands south of the Alaska Peninsula, and on the Fox Island group west of the peninsula. Rabies and distemper epidemics occurred periodically in red fox populations in Unit 9, resulting in widespread mortality. During the 1990s and 2000s, red foxes were reported as either “common” or “abundant” in annual ADF&G Alaska Trapper Reports, which are based on trappers’ answers on annual statewide trapper questionnaires.

Arctic foxes are proficient sea ice travelers and considered to be indigenous to the Pribilof Islands in Unit 10 (Bailey 1993; Isto 2012). Historical reports suggest that Arctic foxes arrived intermittently on the southwestern end of the Alaska Peninsula and Unimak Island on pack ice

from mainland Alaska to the north (Murie 1959; Osgood 1904). There are no records of Arctic foxes being released on Unimak Island (Bailey 1993), which is logical considering the island's large size and indigenous predators (red fox, wolf, and wolverine). Johnson (1990) reported that Arctic foxes occurred in a narrow band along the marine coast toward the northwestern shore of Bristol Bay in Unit 9, and on Unimak Island in Unit 10.

We believe that red foxes and wolves extirpated remnant Arctic fox populations on the Alaska Peninsula mainland and Unimak Island through interspecific competition by around 1990. Arctic foxes were reported regularly in fur trapper export and dealer acquisition reports through the mid-1980s and then disappeared from the records. Alaska Trapper Reports since 1989 reported Arctic fox as "scarce" in only 4 years, "not present" in all other years in Unit 9, and none have been seen by ADF&G or U.S. Fish and Wildlife Service (USFWS) staff in recent years. For Unit 10, there were 319 Arctic foxes reported as harvested in RY77 (Johnson 1990), and the last record of harvest was 13 Arctic foxes reported in RY90 (Boudreau 1993). It is generally accepted that red fox populations alone can eliminate an Arctic fox population through competitive exclusion; indeed, vasectomized red fox males were used to eradicate Arctic fox from at least 2 Aleutian Islands in the 1980s (Bailey 1993). We could expect that 2 additional canid species—wolves on Unimak Island and the Alaska Peninsula, and coyotes on the peninsula only—would contribute to the demise of Arctic foxes through interspecific competition. These lands are at the southern extreme for sea ice formation in the Bering Sea. Pack ice formation near False Pass is sporadic, often with decades between pack ice connecting Unimak with the Alaska Peninsula mainland (University of Alaska Fairbanks 2024). Therefore, it is unlikely that Arctic foxes will return to the region anytime soon.

Beavers primarily occur on the Unit 9 mainland north of Port Moller, from sea level to an elevation of about 2,000 feet. The most productive beaver habitat has been dependable stream flow with limited fluctuation adjacent to abundant and easily accessible willow (*Salix* spp.), aspen (*Populus tremuloides*), cottonwood (*Populus balsamifera*), or birch (*Betula* spp.) vegetation. Beaver harvest has declined from an annual average of about 460 in the 1970s, to 90 in the 2010s—a decline of 80%. During the same period, the number of trappers sealing fur in Unit 9 declined by about 60%. The reduction in harvest during the 1990s was primarily attributed to reduced prices for beaver pelts, a high cost in both effort and expense, and a diminished interest in trapping among community residents. Poor trapping and traveling conditions have likely contributed to the more recent reductions in harvest. Beavers do not occupy Unit 10, and none have been sealed there.

Lynx inhabit the mainland north of Port Heiden. Primarily a boreal species, lynx venture onto the tundra in search of microtines (e.g., voles, lemmings) and ptarmigan when prey is scarce. A lynx-hare cycle has been recognized, and population highs that come every 8 to 11 years can sometimes be predicted. However, Unit 9 is on the fringe of the range for both lynx and snowshoe hare and the fluctuations for both species are less consistent than elsewhere in Alaska. The last apparent peak, based on harvest, occurred during RY10–RY12 when 64–86 were harvested annually, which was the highest harvest reported since RY82. Lynx do not occur in Unit 10.

Coyotes first arrived in Alaska near the turn of the 20th century and were rare in much of the state before 1980. They rapidly extended their range and now occur throughout the mainland portion of Unit 9. Relatively few are trapped, and when they are it is usually incidentally to fox,

lynx, or wolf trapping efforts. Because coyote sealing is not required, little is known about actual harvest. Coyotes have not been observed in Unit 10.

Marten occur regularly in parts of Units 9A and 9B and are occasionally trapped in 9C. The distribution of marten is limited primarily to climax spruce forests from sea level to timberline.

Mink inhabit the mainland of the Alaska Peninsula and Unimak Island. The primary factor affecting mink abundance is microtine populations, which fluctuate drastically. An abundance of mice or hares in upland areas will sometimes prompt mink populations to spread inland in search of prey. In some areas, spring flooding may reduce populations by drowning kits in their dens.

River otters occur on the mainland, some adjacent islands east of the Alaska Peninsula, and Unimak Island. The river otter population seems to be stable based on frequent and numerous crossover trails seen from the air. Coastal habitats provide abundant marine foods for river otter. In Unit 9, river otter harvest reached a peak of 150–160 during RY03–RY04 but has since declined to between 20–70 during RY17–RY21. No river otters have been sealed from Unimak Island since 1989; however, river otter sign is abundant on the island and lack of harvest is attributed to the absence of river otter trappers. Only wolves, which were mostly shot, have been sealed from Unimak Island since 1989. Sea otter harvest is only open to Alaska Natives from coastal communities and is managed by the U.S. Fish and Wildlife Service.

Wolverines occur on the peninsula and very few on Unimak Island. Compared to other furbearers, wolverines never attain high densities due to large territorial requirements and low reproductive rates. An average of 64 wolverines were taken from Unit 9 during RY74–RY94, and 33 during RY95–RY02. Wolverine harvest averaged 31 during the 2000s and dropped to 21 during the 2010s. Recent records of wolverine on Unimak Island are scarce. There is 1 sealing record for a wolverine shot in 1980, and an observation by a wildlife biologist of a lone wolverine high in alpine snow in 2011 (Dom Watts, Wildlife Biologist, USFWS, King Salmon, personal communication).

The number of trappers having furbearers sealed by ADF&G—hereafter referred to as successful trappers—is a useful index for trapping effort for furbearers, with the exception of fox, coyote, mink, and weasel, which are not required to be sealed in Units 9 and 10. The number of successful trappers has steadily declined during the last few decades and through the RY17–RY21 reporting period. The average number of successful trappers in Unit 9 was 87 during the 1980s, 58 during the 1990s, 45 during the 2000s, and 38 during the 2010s. Peak years were 1986 and 1987 with 112 and 118 successful trappers; the lowest years on record were 2014 and 2018 with 29 successful trappers (or 0.86 trappers per 1,000 mi^2). Trappers in the once-productive communities of Levelock, Egegik, and Pedro Bay have not sealed furbearers in more than a decade.

Management Direction

The existing management direction and goals are appropriate for furbearer management in Units 9 and 10. Long-term sustainability of the furbearer populations and statewide goals (ADF&G 2002) for human uses are being met; therefore, the management direction for Units 9 and 10 should continue in a manner that complements statewide furbearer management goals.

EXISTING WILDLIFE MANAGEMENT PLANS

Management of furbearer species in Units 9 and 10 is based on 2 statewide plans: the Greater Alaska Furbearer Management Plan (ADF&G 1976), and Strategic Plan (ADF&G 2002).

GOALS

1. To provide optimum harvest of furbearers.

2. To provide the greatest opportunity to participate in hunting and trapping of furbearers.

CODIFIED OBJECTIVES

None.

Amounts Reasonably Necessary for Subsistence Uses

The Alaska Board of Game made a positive customary and traditional finding for furbearers in all units, including Units 9 and 10, with an amount reasonably necessary for subsistence uses (ANS) to be 90% of the harvestable portion (5 AAC 99.025(13)).

Intensive Management

Furbearers are not subject to intensive management.

MANAGEMENT OBJECTIVES

Management objectives for furbearers in Units 9 and 10 have not been developed.

MANAGEMENT ACTIVITIES

1. Population Status and Trend

ACTIVITY 1.1. Monitor furbearer abundance and trends through the sealing of furbearers, trapper contacts, field observations and ADF&G's annual Alaska Trapper Reports.

Data Needs

Alaska Trapper Reports have become of lesser value for management in Unit 9 because data are now pooled by region, and Region IV spans a large area of the state from the Aleutian Islands to the Canadian border. For example, a "Southwest Alaska" grouping, which includes Units 9 and 17, would be more useful than a Region IV grouping. Earlier editions of the Alaska Trapper Reports (e.g., Blejwas 2007) grouped units into a southwest area that included Units 8, 9 and 17, but that was discontinued in more recent editions.

Methods

We distributed a statewide trapper questionnaire invite each year to people who purchased a license authorizing them to trap that year. The trappers' responses and fur sealing summaries were compiled into the annual Alaska Trapper Reports (Bogle 2021a, 2021b, 2022; Spivey 2019,

2020). Reports are available online at: http://www.adfg.alaska.gov/index.cfm?adfg=trapping.reports. With the absence of any standardized survey protocols for furbearers in Units 9 and 10, sealing of fur remains the best way to monitor harvest, species abundance, individual trapline management, and unusual events. It is also a way to maintain contact with active trappers. Contacts with trappers have long been considered a strength of the area office model of wildlife management. Field observations were made primarily during aerial ungulate surveys. Sealing was mandatory for hides of beaver, lynx, river otter, wolf, and wolverine during RY17–RY21.

Results and Discussion

Data from Alaska Trapper Reports are currently pooled by region due to low response rates, diminishing the relevancy of data for the management of furbearers in Unit 9. Accordingly, a Southwest Alaska grouping, which includes Units 9 and 17, would be more useful than a Region IV group. Earlier editions of the Alaska Trapper Reports (e.g., Blejwas 2007) grouped units into a southwest area that included Units 8, 9, and 17, but that was discontinued in recent editions. During RY17–RY21, a high of 4 trappers responded for Unit 9 on the trapper questionnaire. Unit 10 was not included in the Alaska Trapper Reports because no trapping effort was reported.

Beaver

From the late 1990s through RY08, trappers in Unit 9 rated beaver as "abundant" and "increasing." Beaver abundance is probably increasing in Unit 9 because of 1) decreasing number of trappers and 2) continued colonization of beavers into the southwest portion of the Alaska Peninsula. Beavers were listed as "common" to "scarce" at the region level during RY17–RY21. Harvest is showing a decreasing trend for Unit 9. Local trappers have described beaver numbers as abundant and that leads us to consider that the harvest decline may be explained by a decline in trappers.

Coyote

Prior to 2000, Unit 9 trappers rated the coyote population as being low in abundance and then increasing after 2000. Interspecific conflict with wolves, which were ranked "abundant" and "increasing," may be limiting the coyote population to relatively low numbers. Field observations and anecdotal information from trappers suggest that a scarce and stable population for coyote is more probable than a continuously increasing trend. Coyotes were scarce at the region level and did not occur in Unit 10.

Red Fox

Red fox was the most prevalent furbearer species, based on trapper ratings, since 2000. Red foxes were "common" at the region level, which coincides with what Unit 9 trappers reported, with a recent decline in abundance.

Lynx

Trappers reported that lynx were "scarce" to "common" during RY17–RY21. Harvest remained at low levels through the period. Lynx abundance is difficult to assess via aerial ungulate surveys because they are rarely seen compared to other species such as fox and wolf. Regarding prey

species, snowshoe hares were rated “common” by trappers, which shows a stable trend, while ptarmigan declined to a scarce level during RY17–RY21.

Marten

Marten distribution is very limited within the northern portion of Unit 9, and changes in status are difficult to document. Trappers rated marten as “scarce” with no change in trend during RY17–RY21.

Mink

Mink abundance was reported as “scarce” at the region level during RY17–RY21. We suspect that mink are not decreasing in abundance given the tremendous refugia free from trapping and a general lack of trapping effort.

River otter

River otter abundance was reported as “common” to “scarce” during RY17–RY21. From the air, otter abundance appears to be high based on the trails observed by ADF&G staff between endless water habitats. River otters are also frequently observed by sport anglers around King Salmon and Brooks Camp.

Wolverine

Trappers reported wolverines as “scarce” during RY17–RY21. The population is probably stable because trapping pressure is low and harvest is fairly stable, depending on trapping conditions.

During RY17–RY21, trappers considered ground squirrels, hares, and rodents to be “common” to “abundant” wolverine prey. Other prey species include grouse, which were reported as “common” and “scarce,” and ptarmigan, which were reported as “scarce.”

Recommendations for Activity 1.1

Continue but do not consider Alaska Trapper Reports for unit-specific data unless data are broken down to the unit or subregional level in future reports.

2. Mortality-Harvest Monitoring and Regulations

ACTIVITY 2.1. Monitor furbearer harvest through fur sealing and contact with trappers and hunters.

Data Needs

Harvest must be monitored to evaluate its potential impacts on furbearer populations. In some cases, harvest can be an index of abundance and population trends, such as through an abrupt increase, peak, and decline of lynx harvest over several years of consistent trapping pressure.

Methods

Sealing was mandatory for beaver, lynx, river otter, wolf, and wolverine in Units 9 and 10 during the report period. Recorded data included the location of harvest, date of harvest, method of take,

method of transportation, sex, and hide measurement (river otter, beaver, and lynx only). Sealing was performed by an ADF&G or a state-appointed sealer within 30 days of the close of the season. These data were entered into an ADF&G database (Wildlife Information Network, or WinfoNet) and summarized by regulatory year.

Season and Bag Limit

Seasons and bag limits have changed little since the previous report and plan (report period RY12–RY16 and plan period RY17–RY21). The biggest changes were the closure of wolverine trapping and hunting in Unit 10, and the alignment of the opening dates for river otter and coyote trapping with lynx, wolverine, and fox trapping season dates (Table 1).

Results and Discussion

Harvest by Hunters-Trappers

The number of successful, individual trappers in Unit 9 declined from an annual average of 87 during the 1980s to 41 during RY17–RY21 (Fig. 3). These included only trappers who have sealed beaver, river otter, lynx, wolf (trapped or shot by residents with trapping or combination licenses), or wolverine. There was a spike in individual numbers when travel was reopened after COVID-19 travel restrictions were lifted, which increased the average approximately 20% from RY12–RY16.

In Unit 10 (Unimak Island), 5 wolves and no other furbearers were sealed during RY17–RY21.

BEAVER

Unit 9 trapping harvest ranged from 27 to 114 beavers during RY17–RY21 (Table 2), with 27 being the lowest recorded harvest on record. The 5-year average harvest was 65 beavers, which is approximately a 30% decline from RY12–RY16 for harvest and number of trappers. Traps were the most common method of take. There was not an open hunting season for beaver in Units 9 and 10. However, 2 beavers were allowed to be taken per day by firearm from 15 April to 31 May in Unit 9 provided the meat was salvaged for human consumption.

LYNX

The lynx hunting season in Unit 9 ran concurrent with the trapping season in 9A, 9C, 9D, and 9E with a bag limit of 2. There was no bag limit for trapping in Unit 9. Unit 10 was not open for lynx trapping or hunting. Unit 9 harvest ranged from 8 to 22 during RY17–RY21, with an average of 14 per year. Lynx harvest reached a record low of 8 in RY21 for Unit 9.

RIVER OTTER

River otter harvest ranged from 12 to 66 during RY17–RY21. The 5-year average was 37, which decreased from previous 5-year periods. River otters are trapped, snared, and shot. There was no hunting season for river otters in Units 9 and 10.

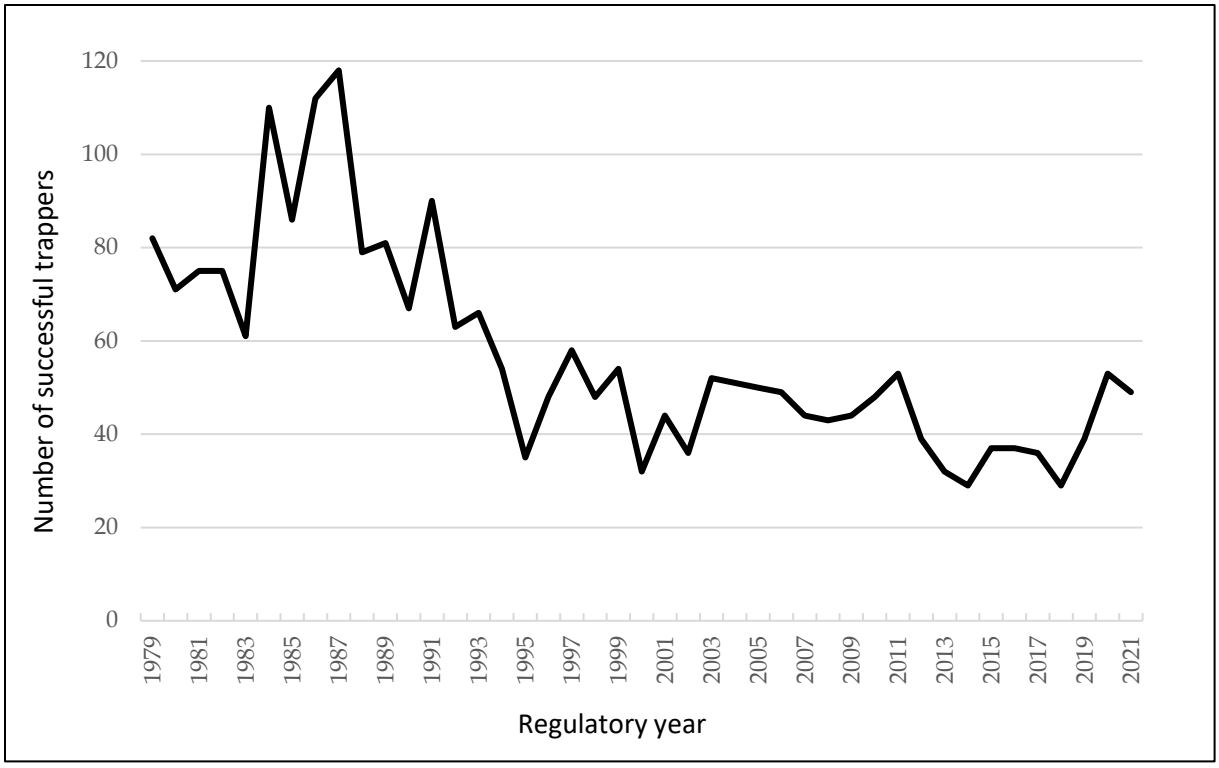
WOLVERINE

Unit 9 wolverine harvest ranged from 11 to 17 during RY17–RY21, with an average of 14 per year. This is a 30% decrease from RY12–RY16; the typical harvest range used to be between 27 and 36 animals. Unit 10 was not open for wolverine hunting or trapping during RY17–RY21.

Table 1. Furbearer seasons and bag limits, Units 9 and 10, regulatory years 2017–2021, Alaska Peninsula.

Species	License	Unit	Season	Bag limit
Beaver	Trapping	9	10 Oct–31 May	No limit
	Trapping with firearm	9	15 Apr–31 May	2 per day
Lynx	Trapping	9A, 9C–9E	10 Nov–28 Feb	No limit
	Trapping	9B	10 Nov–31 Mar	No limit
	Hunting	9	10 Nov–28 Feb	2 per year
River otter	Trapping	9, 10	10 Nov–31 Mar	No limit
Wolverine	Trapping	9A, 9C–9E	10 Nov–28 Feb	No limit
	Trapping	9B	10 Nov–31 Mar	No limit
	Hunting	9	1 Sep–31 Mar	1 per year
Coyote	Trapping	9, 10	10 Nov–31 Mar	No limit
	Hunting	9, 10	No closed season	No limit
Artic fox, red fox	Trapping	9, 10	10 Nov–28 Feb	No limit
Arctic fox	Hunting	9	1 Sep–30 Apr	2 per year
	Hunting	10	No closed season	No limit
Red fox	Hunting	9, 10	1 Sep–15 Feb	2 per year
Marten	Trapping	9	10 Nov–28 Feb	No limit
Mink, weasel	Trapping	9, 10	10 Nov–28 Feb	No limit
Muskrat	Trapping	9, 10	10 Nov–10 Jun	No limit
Squirrel, marmot	Trapping	9, 10	No closed season	No limit

Source: ADF&G's Alaska Hunting Regulations and Alaska Trapping Regulations booklets.



Source: Data pulled from the DWC's Wildlife Information Network (WinfoNet) data system on 3 March 2023.

Figure 3. Number of trappers who sealed furbearers (beaver, lynx, river otter, wolf, wolverine) taken in Unit 9, regulatory years 1979–2021, Alaska Peninsula.

Hunter Residency and Success

Residents of communities in Unit 9 have taken about 90% of the reported fur harvest in the unit since 2000. Alaska residents from other areas and nonresidents accounted for 8% and 2% of the fur harvest, respectively.

Harvest Chronology

The harvest chronology should be viewed cautiously because trappers do not always keep close track of when harvests occur. Annual variations in chronology usually reflect weather and travel conditions. November, December, January, and February are typically the most important months for trapping in Unit 9 (Table 3).

Transport Methods

Snowmachines and all-terrain vehicles were the most common methods of transportation for lynx, river otter, and wolverine trappers in Unit 9 (Table 4). Variation in the use of these 2 methods between regulatory years is associated with differences in snow conditions. Boats and all-terrain vehicles were the most common methods of transportation for beaver trappers in Unit 9.

Other Mortality

There were no confirmed cases of rabies during RY17–RY21.

Table 2. Unit 9 successful beaver, lynx, river otter, and wolverine harvests, regulatory years 2017–2021, Alaska Peninsula.

Species	Regulatory year	Total harvest	Method of take			Successful trappers
			Trap/Snare	Shot	Unknown	
Beaver	2017	71	68	3	0	11
	2018	114	112	2	0	15
	2019	42	11	26	5	7
	2020	71	66	3	2	12
	2021	27	27	0	0	6
Lynx	2017	15	14	1	0	12
	2018	14	14	0	0	8
	2019	11	9	2	0	7
	2020	22	19	3	0	12
	2021	8	6	2	0	4
River otter	2017	59	43	16	0	20
	2018	26	23	3	0	10
	2019	22	14	5	3	7
	2020	66	63	3	0	13
	2021	12	12	0	0	4
Wolverine	2017	12	10	2	0	11
	2018	17	16	1	0	12
	2019	16	11	5	0	12
	2020	15	12	3	0	8
	2021	11	9	2	0	6

Source: Data pulled from the DWC's WinfoNet data system on 3 March 2023.

Alaska Board of Game Actions and Emergency Orders

The Board of Game in its January 2022 meeting voted on several proposals that affect furbearers in Units 9 and 10. Proposal 29 addressed liberalizing methods and means for beaver hunting in Unit 9 to have no closed season and no limit (5 AAC 92.095(a)(3)). Proposal 30 shortened the wolf trapping season in Unit 9 from 10 August–30 June to 10 August–30 April and in Unit 10 from 10 November–30 June to 10 November–30 April (5 AAC 84.270). Proposal 30 also restricted the take of coyotes or wolves with a snare smaller than 3/32" diameter from 1 October to 9 November (5 AAC 92.095(a)(7)(A) and (B)). Wolverine trapping and hunting was closed in Unit 10 (5 AAC 84.270 and 5 AAC 85.057) by Proposal 31.

Recommendations for Activity 2.1

Continue.

Table 3. Unit 9 beaver, lynx, river otter, and wolverine harvest percent by period, regulatory years 2017–2021, Alaska Peninsula.

Species	Regulatory year	Harvest percent by period						
		Sept-Oct	Nov	Dec	Jan	Feb	Mar	Apr-May
Beaver	2017	17	15	32	15	8	0	11
	2018	64	7	12	6	6	0	4
	2019	5	70	3	3	0	8	11
	2020	64	1	17	7	6	4	0
	2021	56	11	0	4	0	11	19
Lynx	2017	0	7	33	20	33	7	0
	2018	0	14	21	43	21	0	0
	2019	0	0	27	36	27	9	0
	2020	0	23	32	27	18	0	0
	2021	0	13	0	25	63	0	0
River otter	2017	2	5	24	22	25	22	0
	2018	0	42	27	23	4	4	0
	2019	0	0	32	37	5	21	5
	2020	0	9	12	24	30	24	0
	2021	0	75	13	13	0	0	0
Wolverine	2017	8	8	25	17	25	17	0
	2018	0	18	41	6	18	18	0
	2019	14	21	7	21	21	14	0
	2020	0	20	47	0	20	13	0
	2021	9	0	27	55	0	9	0

Source: Data pulled from DWC's WinfoNet data system on 3 March 2023.

3. Habitat Assessment-Enhancement

No activities for furbearer habitat assessment or enhancement are included in Units 9 and 10 furbearer management.

NONREGULATORY MANAGEMENT PROBLEMS OR NEEDS

Responses to the annual Alaska trapper questionnaires in Unit 9 in the past have provided an index to species abundance and trends, but recently the number of responses from Unit 9 have been inadequate to detect local trends. This is because the number of active trappers has declined considerably in Unit 9. Other units in Alaska have similar or even lower responses. Sealing of furbearers has become a more useful tool than the Alaska trapper questionnaire for monitoring furbearers in Unit 9.

Table 4. Unit 9 beaver, lynx, river otter, and wolverine percent harvest by transportation method, regulatory years 2017–2021, Alaska Peninsula.

Species	Regulatory year	Airplane	Boat	ATV	Snow machine	Hwy vehicle	Ski/ snowshoe
Beaver	2017	0	14	61	8	7	10
	2018	4	63	28	0	1	4
	2019	0	76	3	11	11	0
	2020	17	57	7	14	0	4
	2021	5	4	70	11	0	0
Lynx	2017	0	0	53	33	0	13
	2018	0	0	50	43	0	7
	2019	0	0	0	91	9	0
	2020	0	0	32	45	5	18
	2021	0	0	13	88	0	0
River otter	2017	7	3	56	22	7	5
	2018	0	8	77	0	15	0
	2019	0	0	0	84	11	5
	2020	2	3	29	52	9	6
	2021	0	0	92	8	0	0
Wolverine	2017	8	0	58	33	0	0
	2018	0	12	41	24	12	12
	2019	25	0	19	50	6	0
	2020	0	0	13	73	0	13
	2021	9	0	0	91	0	0

Source: Data pulled from DWC's WinfoNet data system on 3 March 2023.

Data Recording and Archiving

Sealing data will be stored in WinfoNet. Alaska Trapper Reports are available online at: https://www.adfg.alaska.gov/index.cfm?adfg=trapping.reports.

Agreements

None.

Permitting

None.

Conclusions and Management Recommendations

The long-term trend in furbearer harvest in Unit 9 and Unit 10 remains low and relatively stable, despite annual fluctuations in the harvest of some species. Fewer trappers, low fur prices, and difficult travel conditions have reduced harvests of most species below historic levels. Although population information is lacking, harvest of furbearers appeared to be below sustainable yield based on abundance indices and the lack of harvest in vast areas. Harvest information was sufficient for management purposes for all species of furbearers requiring sealing in Unit 9. Seasons and bag limits are historically relatively complex and given the long-term decline in trappers, seasons were aligned among some species to simplify regulations.

Alaska Trapper Reports have become of lesser value for management in Unit 9, since data are now pooled by region and Region IV spans a large area of the state, from the Aleutian Islands to the Canadian border. A "Southwest Alaska" grouping that includes Units 9 and 17 would be more useful than a Region IV group. In some cases, harvest can be an index of abundance and population trends over several years of similar trapping pressure.

Arctic foxes were probably extirpated by other predators on the Unit 9 mainland and Unimak Island decades ago but may occur on remnant island populations off the Alaska Peninsula. We will work with AMNWR to determine which islands may have Arctic foxes. One possible recommendation could be a season closure for Arctic fox harvest in Unit 9.

In Unit 10, we recommend continuing wolverine season closures for trapping and hunting. All indications suggest that wolverines are at a very low density on Unimak Island. There is no information to suggest that they can swim across Isanotski Strait, but 50–100 years ago crossing sea ice would have been possible with greater frequency than now. Small, insular populations should be managed conservatively. Furbearer managers should continue supporting mandatory sealing as a means to monitor trapping activity and furbearer populations.

II. Project Review and RY22–RY26 Plan

Review of Management Direction

Management Direction

The existing management direction and goals are appropriate for furbearer management in Units 9 and 10. Long-term sustainability of the furbearer populations and statewide goals (ADF&G 2002) for human uses are being met; therefore, the Unit 9 and 10 management direction should continue in a manner that complements statewide furbearer management goals.

Goals

1. To provide optimum harvest of furbearers.

2. To provide the greatest opportunity to participate in hunting and trapping of furbearers.

CODIFIED OBJECTIVES

None.

Amounts Reasonably Necessary for Subsistence Uses

The Board of Game made a positive customary and traditional finding for furbearers in all units, including Units 9 and 10, with an amount necessary for subsistence uses to be 90% of the harvestable portion (5 AAC 99.025(13)).

Intensive Management

Not applicable.

MANAGEMENT OBJECTIVES

Management objectives for furbearers in Units 9 and 10 have not been developed.

REVIEW OF MANAGEMENT ACTIVITIES

1. Population Status and Trend

ACTIVITY 1.1. Monitor furbearer abundance and trends through the sealing of furbearers, trapper contacts, field observations and ADF&G's annual Alaska Trapper Reports.

Data Needs

Collect information on species abundance and factors affecting trends in abundance.

Methods

Sealing will continue to be mandatory for hides of beaver, lynx, river otter, marten, wolf, and wolverine during the RY22–RY26 plan period. With the decline in the number of trappers and furbearer harvest in Unit 9, sealing of fur remains the best way to monitor species abundance, how individual traplines are managed, and unusual events. Sealing is also the best way to maintain contacts with active trappers. Contacts with trappers has long been considered a strength of the area office model of wildlife management. Field observations will be recorded during aerial ungulate surveys.

2. Mortality-Harvest Monitoring

ACTIVITY 2.1. Monitor furbearer harvest through fur sealing and contact with trappers and hunters.

Data Needs

Collect information on furbearer harvest such as date of harvest, method of take, method of transportation, the sex, and hide measurements for river otter, beaver, and lynx. Harvest data can be an index of population trends.

Methods

We will continue to seal beaver, lynx, river otter, marten, wolf, and wolverine in Unit 9. Sealing must be performed by an ADF&G or a state-appointed sealer within 30 days of the close of the season. These data will be entered into an ADF&G database (WinfoNet) and will be summarized by regulatory year. The Board of Game at its January 2022 meeting changed the hunting season for beaver in Unit 9 from "no open season" to "no closed season, no bag limit." That change will be implemented during RY22–RY26.

3. Habitat Assessment-Enhancement

No activities for furbearer habitat assessment or enhancement are expected in Units 9 and 10 furbearer management.

NONREGULATORY MANAGEMENT PROBLEMS OR NEEDS

Data Recording and Archiving

Sealing data will be stored in WinfoNet. Alaska Trapper Reports are available online at: https://www.adfg.alaska.gov/index.cfm?adfg=trapping.reports.

Agreements

None anticipated.

Permitting

None anticipated.

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