

Wolf Management Report and Plan, Game Management Unit 22:

Report Period 1 July 2015 –30 June 2020, and
Plan Period 1 July 2020–30 June 2025

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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 Phillip L. Perry, Management Coordinator for Region V for the Division of Wildlife Conservation.

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Purpose of this Report

This report provides a record of survey and inventory management activities for wolves (*Canis lupus*) in Game Management Unit 22 for the 5 regulatory years 2015–2020 and plans for survey and inventory management activities in the next 5 regulatory years, 2020–2025. A regulatory year (RY) begins 1 July and ends 30 June (e.g., RY15 = 1 July 2015–30 June 2016). 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 report more efficiently on trends and to describe potential changes in data collection activities over the next 5 years. It replaces the wolf management report of survey and inventory activities that was previously produced every 3 years.

I. RY15–RY19 Management Report

Management Area

The study area, Unit 22, is located in western Alaska and covers much of the Seward Peninsula and southern Norton Sound, including St. Lawrence and Little Diomed islands. Wolves are not generally present on St. Lawrence Island or Little Diomed. Game Management Unit 22 is divided into 5 administrative units (Units 22A, 22B, 22C, 22D, and 22E). Terrain varies from rugged mountains and river valleys to flat coastal wetlands. Spruce forests characterize eastern portions of the unit (Units 22A and 22B), while western portions are treeless and largely tundra covered, with willow thickets along the riparian corridors. Unit 22 is approximately 25,230 mi².

Summary of Status, Trend, Management Activities, and History of Wolf in Unit 22

Wolves were scarce throughout Unit 22 for most of the past century. From the late 1890s, when reindeer herding was introduced to the Seward Peninsula, until statehood in 1959, wolf numbers were actively suppressed by predator control programs and bounties intended to protect reindeer. In the 1960s, after government-sponsored predator control ended, wolf numbers in Unit 22 gradually increased, and wolves expanded their range westward across the Seward Peninsula (Grauvogel 1979). By 1980 reported sightings were of individual animals or small groups of 2 to 3 wolves; the Unit 22 wolf population was estimated at fewer than 100 wolves (Grauvogel 1980). There were no known wolves in the northern portion of Unit 22 in the 1980s. Prior to 1996, wolves were most abundant in Units 22A and 22B where large numbers of the migratory Western Arctic caribou herd (WAH) frequently wintered (Ballard et al. 1997). WAH winter distribution moved into the northeast portion of the unit after 1996, and wolves were then observed in that area within a year (Jim Dau, Wildlife Biologist, ADF&G, Kotzebue, personal communication). Wolves are now observed in all administrative units and major drainages in Unit 22. Anecdotal reports and staff observations suggest that wolf numbers and pack sizes have gradually increased across the Seward Peninsula since 1996. Wolf numbers on the Seward Peninsula can vary greatly, seasonally and annually, depending on distribution and abundance of WAH caribou. A study in Northwest Alaska found an average of 11% of radiomarked packs

annually migrated with caribou (Ballard et al. 1997). Additional ungulate prey available to wolves in Unit 22 consists of resident moose and muskoxen.

Management Direction

There are no specific management issues for the wolf population in Unit 22; therefore, wolves will be managed to complement the 6 statewide goals established by ADF&G (1976) and approved by the Alaska Board of Game. These goals ensure wolves remain an integral part of the Seward Peninsula ecosystem, while providing for both consumptive and nonconsumptive human uses. Wolves are utilized in many ways in Unit 22, including hunting and trapping (both for personal use and commercial sale of furs), photography, viewing, listening, and scientific and educational uses. The use and sale of wolf pelts as a harvestable resource is an important part of the subsistence lifestyle (Adams et al. 2008; Braem 2012a, 2012b). The aesthetic value of being aware of or observing wolves in natural interactions with their environment is also recognized as an important human use of wolves.

EXISTING WILDLIFE MANAGEMENT PLANS

Direction set out in the *Alaska Wolf Management Plan* (ADF&G 1976, pages 47–53) has been modified as a result of Board of Game regulatory actions and public input over the years and these changes have been recorded in previous management reports. The plan section of this report represents the plan for management of wolves in Unit 22 for the next period (RY20–RY24).

GOALS

- Maintain a wolf population in Unit 22 that will provide for a wide range of human uses.
- Increase public awareness and understanding of uses, conservation, and management of wolves, their prey, and habitat in Alaska.

CODIFIED OBJECTIVES

Amounts Reasonably Necessary for Subsistence Uses

The Alaska Board of Game made a positive customary and traditional use determination for the Unit 22 wolf population at its November 2011 meeting in Utqiagvik (formerly known as Barrow). At this meeting, the board determined the amount reasonably necessary for subsistence uses (ANS) as 5–20 wolves in Unit 22 (5 AAC 99.025).

Intensive Management

Not applicable.

MANAGEMENT OBJECTIVES

1. Assess population distribution using minimum wolf count surveys, wolves observed per hour from wildlife aerial surveys, and records of wolf sightings.
2. Monitor wolf harvest through the fur sealing program, annual hunter-trapper questionnaires, and community-based harvest assessments conducted in selected Unit 22 villages.
3. Maintain license vendors and fur sealers in all Unit 22 villages and improve compliance with current sealing requirements through public communication and education.

MANAGEMENT ACTIVITIES

1. Population Status and Trend

Activity 1.1. Assess wolf population distribution annually.

Data Needs

A wolf abundance estimate is difficult to obtain in Unit 22 because of weather conditions and logistical factors. An index of wolf distribution and abundance can provide insight on annual and historical trends for this dynamic and reclusive species.

Methods

Wolf observations during fall and spring moose and muskox aerial surveys, in addition to sightings from knowledgeable hunters and trappers, are recorded and archived in the Nome ADF&G office files.

Results and Discussion

Wolf observations during the RY15 spring Geospatial Population Estimator (GSPE) moose survey in Units 22B and 22C reported 32 wolves, in pack sizes of 2–9 wolves. Fall moose composition surveys in Unit 22 reported a total of 18 wolves observed during the RY15–RY19 reporting period; the annual documented sightings ranged from 0 to 13 wolves. Low density of caribou in the survey area during the moose aerial surveys may have contributed to the lack of wolves observed. No efforts were made during this reporting period to track wolves observed per hour and estimate wolf abundance. Wolf numbers and productivity are subject to the abundance of available prey in their area (Adams et al. 2008). Detecting changes in the population from previous survey results is difficult because snow conditions, prey availability, and staff and pilot limitations have led to inconsistencies in the data.

Recommendations for Activity 1.1

Continue to track anecdotal observations from the public and record incidental staff sightings of wolves observed during other wildlife aerial surveys. The activity to assess wolf population distribution annually will remain, with the acknowledgment that wolf distribution within Unit 22 is highly variable due to seasonal caribou migrations and declining WAH caribou population,

and a thorough study of the wolf population is cost prohibitive with the weather and logistical challenges in Unit 22.

ACTIVITY 1.2. Conduct a minimum wolf count survey (MWC) to obtain the minimum population of wolves in Unit 22.

Data Needs

A minimum wolf count survey may establish an index of the minimum number of wolves in Unit 22 in areas where moose and muskox populations have stabilized at lower densities.

Additionally, a minimum count survey may serve as a metric to determine if the presence of wolves has increased as a result of increased ungulate abundance.

Methods

An experienced wolf survey pilot can survey river drainages looking for wolves or signs of wolves in a fixed-wing Super Cub aircraft. Wolf tracks are followed until wolves are observed or tracks can no longer be followed. Wolf and track observations are recorded on a data sheet and the waypoints are entered into a GPS (Global Positioning System) unit to document survey coverage and save locations of observed wolves during the survey. The end result is the minimum count and serves as the minimum number of wolves present in that area, which if successful, can contribute to a long-term data set to better understand wolf numbers and distribution in a given area.

Results and Discussion

No MWCs were conducted during the RY15–RY19 reporting period. The primary challenges to successful wolf surveys in Unit 22 include limited favorable weather conditions to conduct the survey during a time period that coincides with the annual schedules of other aerial surveys; the high number of tracks across the landscape related to the presence of Western Arctic caribou; and the widespread hard-packed snow conditions that make tracking wolves difficult.

Recommendations for Activity 1.2

Discontinue.

2. Mortality-Harvest Monitoring and Regulations

ACTIVITY 2.1. Monitor wolf mortality by regulated harvest in Unit 22 through sealing records and subsistence surveys.

Data Needs

The Alaska Board of Game has identified wolves in Unit 22 with a positive customary and traditional use finding and determined an ANS of 5–20 wolves. Annual summaries of harvest are needed to understand harvest demographics and to monitor the level of harvest. Summarizing harvest data will facilitate department recommendations for Board of Game proposals.

Methods

Wolves harvested by trappers and hunters are required to be sealed within 30 days of harvest. This involves attaching a Convention on the Trade of Endangered Species (CITES) tag to the fur; gathering data about the harvested wolf including pelt color and sex, the method of take, date, and location, and the estimated number of wolves in the associated pack; and providing the trapper or hunter with a sealing certificate that verifies the fur has been sealed. Harvest data are archived and monitored in ADF&G's Wildlife Information Network (WinfoNet) database. Harvest is reported by regulatory year.

Community-based harvest assessment surveys conducted by ADF&G Division of Subsistence capture valuable data about harvest in more remote areas of Unit 22. For select Unit 22 communities, these harvest assessments are conducted annually and the results are analyzed as an additional data source for monitoring the total wolf harvest. The surveys are also used to gain a better understanding of unreported wolf harvest.

Results from ADF&G's annual trapper questionnaires are used as an additional resource for monitoring method of take and the number of wolves harvested. Trapper responses also provide observational evidence regarding the number of wolves they saw during that hunting-trapping season compared to other years.

Season and Bag Limit

Unit 22 season and bag limit for wolves, regulatory years 2015–2019		
Bag limit	Resident open Seasons	Nonresident open seasons
Hunting: 20 wolves	1 August–31 May	1 August–31 May
Trapping: No limit	1 November–30 April	1 November–30 April

Results and Discussion

Harvest by Hunters-Trappers

Reported harvest based on sealing certificate data indicates the average number of wolves harvested annually during the RY15–RY19 reporting period was 52 wolves. In RY15 and RY16 the reported wolf harvest was above the historical average (Table 1). This increase may be representative of good snow conditions, prey availability, increased sealing compliance, or a combination of these factors. Ground shooting is the most widely used method of take in Unit 22. Harvest records indicate that 87% ($n = 224$) of the total reported wolf harvest during this reporting period came from Units 22B, 22D, and 22E (Table 2). The winter distribution of WAH caribou in these units likely led to more opportunistic harvest of wolves.

The annual trapper questionnaires from RY15–RY19 indicated low harvest (the annual harvest reported by trappers in the questionnaire ranged from 0 to 2 wolves). Comments for Region V noted a lack of animal sightings and tracks. Trappers suggested that a decrease in caribou presence may have affected wolf presence.

Table 1. Unit 22 reported wolf harvest from sealing records, Seward Peninsula, Alaska, regulatory years 2015–2019.

Regulatory year	Reported harvest				Method of take		
	Male	Female	Unknown	Total	Shot	Trap/Snare	Unknown
2015	50	36	1	87	82	1	4
2016	48	28	5	81	75	6	0
2017	19	35	1	55	52	3	0
2018	6	4	0	10	10	0	0
2019	15	10	0	25	21	4	0

Table 2. Unit 22 reported wolf harvest from sealing records by administrative unit, Seward Peninsula, Alaska, regulatory years 2015–2019.

Regulatory year	22A	22B	22C	22D	22E
2015	0	21	3	26	37
2016	17	9	3	22	30
2017	6	10	2	20	17
2018	1	3	0	6	0
2019	1	19	1	4	0
Total	25	62	9	78	84

Hunter Residency and Success

During RY15–RY19, local residents harvested the highest percentage of wolves at 84%, nonlocal residents harvested 15% of wolves, and nonresidents harvested 1% of wolves. This is likely due to Unit 22 being off the road system and locals having more knowledge of the area and access.

Harvest Chronology

Wolf harvest in Unit 22 continues to be heavily concentrated during the winter months, when snow conditions aid in accessing much of the country in Unit 22. Most of the harvest occurs during March, when both daylight and snow conditions are the most favorable (Fig. 1).

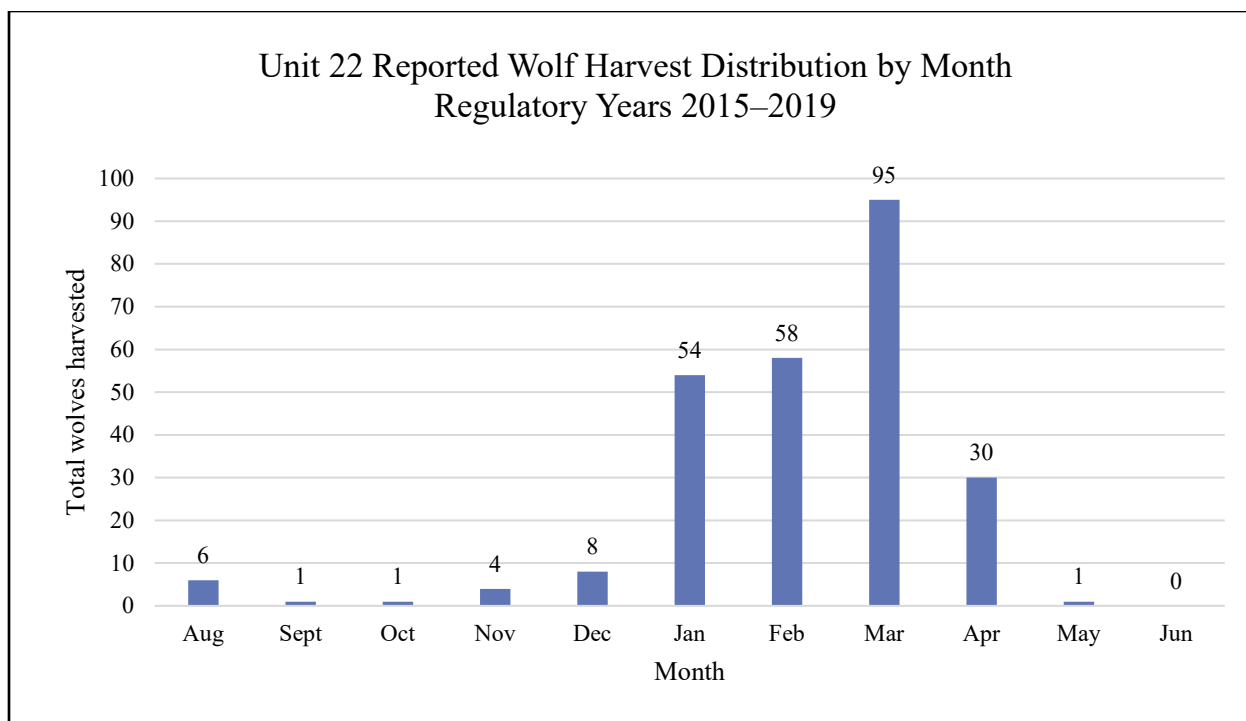


Figure 1. Unit 22 reported wolf harvest distribution by month, Seward Peninsula, Alaska, regulatory years 2015–2019.

Recommendations for Activity 2.1

Continue.

ACTIVITY 2.2. Maintain fur sealers in all Unit 22 communities.

Data Needs

Regulations require wolves must be sealed within 30 days of harvest. Wolves that have been sealed with a CITES tag are considered reported harvest and thus help managers monitor harvest (Activity 2.1). Fur sealers in all 13 communities of Unit 22 play an important and necessary role by helping wolf hunters and trappers keep in compliance with regulation and capturing wolf harvest data for managers.

Methods

Fur sealers in Unit 22 communities are recruited through communication with individuals, city offices, or Indian Reorganization Act (IRA) organizations. Department staff members visit communities and attend city and IRA meetings to recruit local fur sealers. Department staff members also spend time in communities sealing wolves, in addition to providing hunters with contact information for the appointed fur sealer in that community.

Results and Discussion

Throughout the reporting period, staff worked with Unit 22 fur sealing vendors to enhance communication and discuss sealing concerns. It is a challenge for the department to generate

interest in becoming a fur sealer among residents of rural communities, and even more challenging to keep a fur sealer locally available for any length of time. It is important for department staff to develop a solid communicative relationship with fur sealers to provide and receive wolf harvest information. Conversations with sealers need to take place throughout the year, with emphasis on the winter and spring months when the peak of wolf harvest occurs. Local hunters do not always know who to contact for fur sealing or they are unaware of how the sealing information is useful for wildlife managers. This can be remedied by department staff continuing to prioritize outreach and education efforts during community visits.

Recommendations for Activity 2.2

Continue to develop relationships with fur sealers and maintain fur sealers in all Unit 22 communities to encourage increased sealing compliance. Efforts to enhance compliance with current sealing requirements through public communication and education should also continue.

3. Habitat Assessment-Enhancement

There is adequate wolf habitat in Unit 22 which also supports diverse prey species, including populations of caribou, moose, muskox, snowshoe and Alaska hare, and beaver. There were no habitat enhancement activities for wolves during RY15–RY19 and no activities are recommended for RY20–RY25.

NONREGULATORY MANAGEMENT PROBLEMS OR NEEDS

Maintaining fur sealers in rural communities of Unit 22 has remained challenging. This is a key component to understanding population and harvest trends which aid in management decisions and Board of Game proposals. If the department continues to lose fur sealers in rural communities, we will lose support for sustained sealing compliance, as well as important relationships that enhance public communications and education.

Without our rural community constituents, ADF&G staff would need to increase the frequency of village trips, which are costly for the department. Reassessing and increasing incentives to become a fur sealer is a cost-effective option for ADF&G and would also help to maintain invaluable relationships with fur sealers, community members, hunters, and trappers.

Data Recording and Archiving

- Wolf track survey data and wolf observation files are stored on the computer server in the Nome ADF&G Division of Wildlife Conservation office (V://Wildlife/Wolf).
- Harvest data and scanned copies of sealing certificates are stored in WinfoNet. Paper copies of sealing certificates are stored in files located in the Nome DWC office.

Agreements

None.

Permitting

None.

Conclusions and Management Recommendations

Anecdotal reports and staff observations suggest the Unit 22 wolf population is stable. There are no quantitative data to detect abundance. Wolf sealing records and documented agency wolf sightings show wolves have expanded their range throughout the Seward Peninsula. This expansion may increasingly affect moose, muskox, or caribou management throughout Unit 22. The combination of monitoring harvest and enhancing sealing compliance will help provide wildlife managers with an index of what could be occurring in the Unit 22 wolf population.

It is a challenge to retain fur sealers. Developing good wildlife manager-sealer relationships, in addition to recruiting new fur sealers and sustaining those in current positions, will help reduce unreported wolf harvest, achieve better sealing compliance, and contribute to a better understanding of wolves on the Seward Peninsula by wildlife managers and the public alike.

II. Project Review and RY20–RY24 Plan

Review of Management Direction

MANAGEMENT DIRECTION

The existing management direction and goals for Unit 22 should be maintained with modifications to Activity 1.1 and increased efforts for Activity 2.2. Activity 1.1 will continue to track anecdotal observations during aerial surveys but discontinue estimating wolf abundance and wolves observed per hour. Wolf distribution within Unit 22 is highly variable with seasonal caribou migrations and declining WAH caribou abundance. Unit 22 continues to struggle to maintain fur sealers in all 13 communities. Increasing our efforts to establish and maintain local fur sealers is crucial to maintaining sealing compliance and gathering information used to understand mortality and harvest of wolves. These objectives and goals ensure that the population of wolves in Unit 22 will continue to provide for widespread hunting, trapping, and viewing opportunities by both residents and nonresidents.

GOALS

No change recommended.

- Maintain a wolf population in Unit 22 that will provide for a wide range of uses.
- Increase public awareness and understanding of uses, conservation, and management of wolves, their prey, and habitat in Alaska.

CODIFIED OBJECTIVES

No change recommended.

Amounts Reasonably Necessary for Subsistence Uses

No change recommended.

Intensive Management

Not applicable.

MANAGEMENT OBJECTIVES

Modify. Management Objective 1 is being modified to discontinue the use of minimum wolf counts and wolves observed per hour during aerial surveys to assess population distribution, but we will continue to document anecdotal observations from the public and agency staff.

1. Assess population distribution using records of anecdotal observations from the public and staff wolf sightings during wildlife aerial surveys.
2. Monitor wolf harvest through the fur sealing program, annual hunter-trapper questionnaires, and community-based harvest assessments conducted in selected Unit 22 communities.
3. Maintain license vendors and fur sealers in all Unit 22 communities and improve compliance with current sealing requirements through public communication and education.

REVIEW OF MANAGEMENT ACTIVITIES

1. Population Status and Trend

ACTIVITY 1.1. Assess wolf population distribution annually.

Data Needs

A wolf abundance estimate is difficult to obtain in Unit 22 because of weather conditions and logistical factors. However, tracking anecdotal observations from the public and staff sightings of wolves during other wildlife aerial surveys can provide an index of wolf distribution and abundance, which could help identify any changes in the annual and historical trends for this dynamic and reclusive species.

Methods

Staff observations of wolves during fall and spring moose and muskox aerial surveys and reported wolf sightings from knowledgeable hunters and trappers will be recorded and archived in the Nome ADF&G office files.

2. Mortality-Harvest Monitoring

ACTIVITY 2.1. Monitor wolf mortality by regulated harvest in Unit 22 through sealing records and subsistence surveys.

Data Needs

No change from RY15–RY19.

Methods

No change from RY15–RY19.

ACTIVITY 2.2. Maintain fur sealers in all Unit 22 communities.

Data Needs

No change from RY15–RY19.

Methods

No change from RY15–RY19.

3. Habitat Assessment-Enhancement

None.

NONREGULATORY MANAGEMENT PROBLEMS OR NEEDS

Developing good wildlife manager-sealer relationships, in addition to recruiting new fur sealers and sustaining those in current positions, is crucial to achieving high levels of sealing compliance and gathering information used to understand wolf mortality and harvest. This is a key component to understanding population and harvest trends which aid in management decisions and Board of Game proposals.

Data Recording and Archiving

No change from RY15–RY19.

Agreements

None.

Permitting

None.

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