Species Management Report and Plan ADF&G/DWC/SMR&P–2025–54

Wolf Management Report and Plan, Game Management Unit 23:

Report Period 1 July 2015–30 June 2020, and

Plan Period 1 July 2020–30 June 2025

Christie R. Osburn

2025

Alaska Department of Fish and Game Division of Wildlife Conservation

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Hunters are important founders of the modern wildlife conservation movement. They, along with trappers and sport shooters, provided funding for this publication through payment of federal taxes on firearms, ammunition, and archery equipment, and pay state hunting license and tag fees. These taxes and fees fund the federal Wildlife Restoration Program and the State of Alaska's Fish and Game Fund, which provided funding for the work reported on in this publication.

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

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

Osburn, C. R. 2025. Wolf management report and plan, Game Management Unit 23: Report period 1 July 2015–30 June 2020, and plan period 1 July 2020–30 June 2025. Alaska Department of Fish and Game, Species Management Report and Plan ADF&G/DWC/SMR&P-2025-54, Juneau.

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Cover Photo: Wolf on the tundra. ©2020 ADF&G.

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Purpose of this Report

This report provides a record of survey and inventory management activities for wolf (*Canis lupis*) in Game Management Unit 23 for the 5 regulatory years 2015–2019 and plans for survey and inventory management activities in the next 5 regulatory years, 2020–2024. 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

Unit 23 encompasses approximately 43,000 mi² of mainland in northwestern Alaska and covers the drainages into Kotzebue Sound, the Chukchi Sea, and the Arctic Ocean (Fig. 1). Mainland terrain varies from rugged mountains and river valleys to flat coastal wetlands. Spruce forests characterize eastern portions of the unit, while western portions are treeless and largely tundra-covered with willow thickets along the riparian corridors. Maps for Unit 23 boundaries and hunt areas can be found at: https://www.adfg.alaska.gov/index.cfm?adfg=huntingmaps.gmumap&gmu=23.

Summary of Status, Trend, Management Activities, and History of Wolves in Unit 23

Wolves are indigenous to northwest Alaska and are present throughout Unit 23. Through the early territorial days, wolves were targeted for bounties and predator control programs to protect caribou and reindeer (McKnight 1973). After statehood in 1959, federal government bounties were replaced with liberal state hunting regulations that allowed for same-day-airborne and aerial shooting. An increase in fur prices in the mid-1970s led to an increase in wolf harvest by both local and nonlocal hunters. In the late 1980s and early 1990s, both federal and state regulations were adopted to prohibit the same-day-airborne take of wolves. Wolf harvest notably declined following the restriction of aircraft use and a concurrent decrease in fur prices; however, wolf hides remain very valuable and sought after in local markets for use in garments, regardless of fur prices. The majority of wolf harvest within the unit is now by local residents who hunt and trap by snowmachine, but wolves also remain highly valued by nonconsumptive users who visit the unit for recreation.

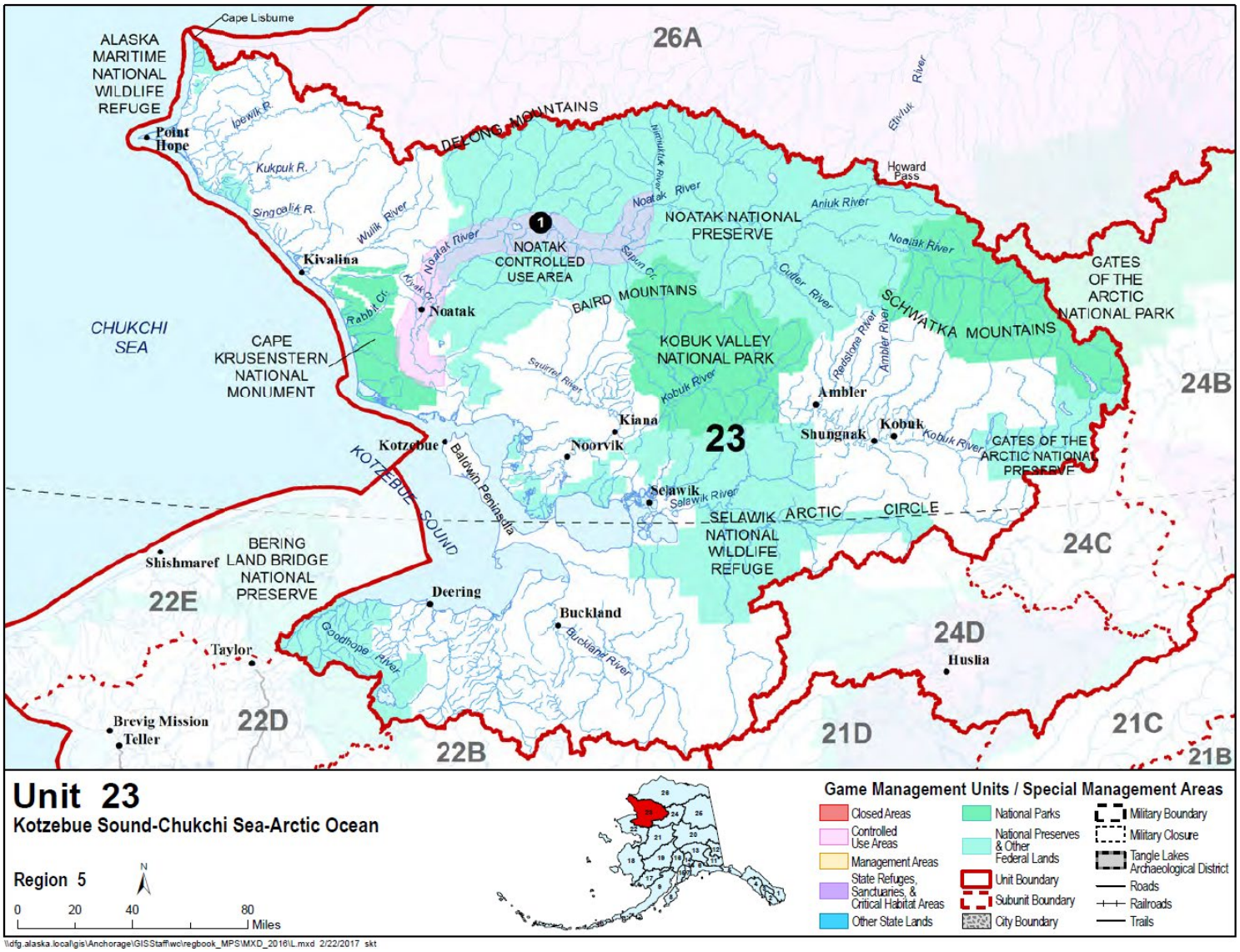

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Figure 1. Map of Unit 23 including special management and controlled use areas as found in the Alaska Hunting Regulations.

Management Direction

Existing Wildlife Management Plans

Alaska wildlife management plans: A public proposal for the management on Alaska's wildlife: Northwestern Alaska (ADF&G 1976).

Goals

Management goals are to maintain viable populations of wolves in Unit 23 that provide opportunity for hunting, viewing, and other nonconsumptive uses.

Codified Objectives

Amounts Reasonably Necessary for Subsistence Uses

Unit 23 has a positive customary and traditional use finding for wolves, as determined by the Board of Game, with an amount necessary for subsistence uses as 10–30 wolves.

Intensive Management

Unit 23 does not have any codified objectives for intensive management.

Management Objectives

Management objectives are to maintain the furbearer sealing program and explore alternative harvest reporting systems. Additionally, we strive to get more rural sealing agents and continue to improve communication between ADF&G and harvesters.

Management Activities

1. Population Status and Trend

ACTIVITY 1.1. Monitor population status and trend through sealing data, trappers' reports, incidental sightings, and public information.

Data Needs

Monitoring the status of wolves within Unit 23 through sealing data and anecdotal accounts allows for a general idea of population trends in absence of a practical abundance survey.

Methods

Wolf populations within Unit 23 are monitored through information provided in fur sealing reports, ADF&G's annual trapper questionnaire, household subsistence surveys and informal information on wolf abundance. All harvested wolves are required to be sealed within 30 days of harvest or the close of the season. In the fur sealing process, an ADF&G staff member or designated sealing agent affixes a temporary plastic tag to the hide and collects information on

the hunter-trapper and the wolf harvest. The informal abundance information is acquired through conversations with hunters, trappers, guides, pilots, and recreationalists, as well as through incidental sightings during ungulate aerial surveys.

Results and Discussion

Wolf abundance has not been quantitatively collected within the unit due to the challenges associated with tracking in extremely windswept snowscapes and across areas of highly variable terrain. However, anecdotal reports and sealing data suggest that wolf populations within the unit fluctuate and may be primarily dependent on prey availability. Caution is taken when interpreting sealing data for purposes of monitoring abundance, as many extraneous factors such as snow condition, hunter-trapper effort, fur prices, and sealer availability have drastic effects on number of hides sealed.

Recommendations for Activity 1.1

Abundance monitoring activities should continue through fur sealing, subsistence household surveys, and communication with the public. Alternative methods for quantitatively estimating wolf abundance within the northwest Arctic should also continue to be pursued.

2. Mortality-Harvest Monitoring and Regulations

ACTIVITY 2.1. Monitor harvest and hunter effort through sealing records and trapper questionnaires.

Data Needs

Harvest data through fur sealing is needed to help monitor harvest trends, assess wolf presence within the unit, and facilitate dialogue with wolf hunters regarding effort and field observations.

Methods

Harvest data is collected when hunters or trappers have their harvested wolf pelts sealed. At the time of sealing, the name of harvester, information on the kill date, location, method of take, mode of transportation, sex and pelt color of the wolf, and estimated number of wolves in the pack are recorded. All sealing data is archived and searchable by regulatory year in ADF&G's Wildlife Information Network (WinfoNet) database. Hunter effort and ancillary observations are also recorded through voluntary participation in ADF&G's annual Alaska trapper questionnaire.

Seasons and Bag Limits

Season and bag limits	Resident open seasons	Nonresident open seasons
Hunting: 20 wolves	1 Aug–30 Apr	1 Aug–30 Apr
Trapping: No limit	1 Nov–30 Apr	1 Nov–30 Apr

Results and Discussion

Harvest by Hunters-Trappers

Hunters and trappers reported an annual average harvest of 41 wolves (range 21–74) during RY15–RY19. Reported harvest during RY15–RY19 was nearly half the average annual harvest between RY10–RY14 (79 wolves, range 41–128) and included 3 of the lowest harvest years on record since RY92 (Table 1).

Harvest within the unit has varied widely over the years and is likely driven more by winter travel conditions, hunter-trapper effort, and availability of fur sealers than by wolf abundance.

Table 1. Wolf harvest and method of take, regulatory years 2010–2019, Unit 23, northwest Alaska.

Regulatory year	Reported harvest				Method of take			
	Males	Females	Unk	Total	Shot	Trapped	Snared	Unk
2010	46	26	2	74	62	9	0	3
2011	23	17	1	41	31	5	0	5
2012	71	53	4	128	103	17	1	7
2013	61	32	6	99	84	10	4	1
2014	26	15	2	43	36	3	4	0
2015	38	24	0	62	56	3	3	0
2016	43	30	1	74	60	10	0	4
2017	9	11	7	27	21	5	0	1
2018	13	8	1	22	19	2	0	1
2019	14	7	0	21	18	3	0	0

Note: Unk represents unknown.

Hunter Residency and Success

During RY15–RY19, an average of 5 wolves was reported harvested annually by nonresidents (range 3–9), and an average of 36 wolves were reported harvested annually by residents (range 12–70); those groups accounted for an annual average of 18% and 82% of the harvest, respectively (Table 2). Harvest in RY19 was the lowest on record since RY97 at only 21 wolves, and the composition of harvesters varied drastically from prior years. Resident harvest accounted for 12 wolves in RY19, less than half the preceding 3-year average, while nonresidents harvested 9 wolves, double the preceding 3-year average (Table 2).

Hunter and trapper residency within the unit should be analyzed with caution as relatively few Unit 23 residents seal their wolves, and only wolves that are sealed are included in the harvest numbers. Georgette (1999) reported that <10% of resident wolf harvest is reported through the sealing program, and Westing (2012) noted that when fur sealers increased their effort to get local hunters and trappers to participate in the sealing program, there was a corresponding increase in the number of wolves sealed by residents. Home tanning of wolf hides is common locally and it is not unusual for local residents to seal wolves only if shipping them out for

commercial tanning or sale. Nonresident compliance with the sealing requirement, however, is believed to be near 100%.

Table 2. Wolf harvest by hunter or trapper residency, regulatory years 2010–2019, Unit 23, northwest Alaska.

				Percent	
Regulatory year	Nonresident	Resident	Total harvest	Nonresident	Resident
2010	13	61	74	18	82
2011	2	39	41	5	95
2012	14	114	128	11	89
2013	9	90	99	9	91
2014	8	43	51	16	84
2015	5	57	62	8	92
2016	3	70	74[a]	4	95
2017	4	23	27	15	85
2018	4	18	22	18	82
2019	9	12	21	43	57

[a] The residency of one harvester is unknown.

Harvest Chronology

Wolf harvest within the unit occurs most frequently during the winter months of December through April, with peak harvest occurring in March (Table 3). This is not surprising as the snow cover in winter months allows access to substantially more area than the fall, which typically limits hunters to boat-accessible waterways. Harvest by nonresidents is often opportunistic while the hunters are pursuing other big game species and occurs almost exclusively in August and September when nonresident seasons for bear and caribou are open.

Table 3. Wolf harvest chronology, regulatory years 2010–2019, Unit 23, northwest Alaska.

Regulatory year	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	Unk
2010	2	15	0	3	5	0	5	20	24	0
2011	1	4	0	2	0	4	8	17	5	0
2012	2	17	1	14	8	10	37	16	16	7
2013	0	13	0	11	14	7	19	20	14	1
2014	1	8	1	0	0	13	13	9	5	1
2015	0	7	0	5	8	9	19	8	6	0
2016	2	4	0	1	19	6	14	24	2	2
2017	1	3	0	0	3	4	1	7	1	7
2018	3	5	0	0	1	2	1	8	0	2
2019	1	9	0	0	0	4	3	1	3	0

Note: Unk represents unknown.

Transport Methods

Most hunters and trappers used snowmachines to harvest wolves during RY15–RY19 (Table 4). The next most common method of transportation was by airplane, followed by boat, which was only used for a single harvest in both RY18 and RY19.

Table 4. Wolf harvest by transportation method, regulatory years 2010–2019, Unit 23, northwest Alaska.

Regulatory year	Snowmachine	Boat	Airplane	Other	Unknown
2010	52	1	18	0	3
2011	36	0	5	0	0
2012	98	1	19	3[a]	7
2013	84	1	13	0	1
2014	35	3	10	1[b]	2
2015	53	0	8	1[b]	0
2016	68	0	4	0	2
2017	16	0	4	0	7
2018	10	1	9	0	2
2019	11	1	9	0	0

[a] Two wolves were harvested by skis or snowshoe, and one by 4-wheeler.
[b] One wolf was harvested by skis or snowshoe.

Other Mortality

No other major source of mortality was documented during RY15–RY19.

Alaska Board of Game Actions and Emergency Orders

There were no department-issued emergency orders or Board of Game actions for wolves in Unit 23 during RY15–RY19.

Recommendations for Activity 2.1

Monitoring of wolf harvest and hunter-trapper effort through the fur sealing program should continue. As the fur sealer program is currently structured, there is very little incentive for community members to become fur sealers, making it an ongoing challenge to recruit new fur sealers and maintain relationships with current sealers. Increasing the compensation of sealers would likely improve sealing compliance within Unit 23.

3. Habitat Assessment-Enhancement

No wolf habitat assessment or enhancement activities occurred in Unit 23 during RY15–RY19.

NONREGULATORY MANAGEMENT PROBLEMS OR NEEDS

Data Recording and Archiving

Copies of sealing forms are maintained on the ADF&G WinfoNet internal server. Harvest data are stored digitally on the Kotzebue server (W:\Wolf\Harvest). Digital copies of Unit 23 wolf management reports and plans can be found online at https://www.adfg.alaska.gov/index.cfm?adfg=librarypublications.wildlifepublications.

Agreements

There were no formal agreements pertaining to wolf management in RY15–RY19.

Permitting

No permits were needed to conduct wolf management activities in Unit 23 during RY15–RY19.

Conclusions and Management Recommendations

While wolf populations within Unit 23 are not directly assessed through targeted surveys, sealing data, trapper questionnaires, incidental sightings and anecdotal evidence suggest that wolves remain present throughout the unit and that harvest is occurring at sustainable levels. General declines in the numbers of wolves harvested is likely a result of decreasing trapping efforts with increased fuel prices and low demand for fur outside the unit. Continued efforts to recruit new fur sealers and encourage local harvesters to seal their furs will improve harvest data and provide additional opportunities to hear perceptions of wolf abundance within the unit. Community subsistence harvest surveys conducted by ADF&G's Subsistence section provide an additional component of harvest information that can be used to assess the local utilization of the fur sealing program.

Decreases in moose, sheep and caribou abundance within the unit have also led to increased public interest in predator control measures. Yet, at this point in time, wolf abundance does not appear to be a significant enough factor in prey survival to warrant this avenue of intensive management. Additionally, predator control within Unit 23 would likely be ineffective as 73% of the unit comprises federal lands. Liberal seasons and bag limits for wolves remain in place to provide hunters with ample opportunity to pursue increased local harvest, therefore no changes in seasons or bag limits are recommended at this time.

II. Project Review and RY20–RY24 Plan

Review of Management Direction

MANAGEMENT DIRECTION

Wolves in Unit 23 will be managed to provide for the optimum sustainable harvest of wolves while also maintaining opportunity for non-consumptive uses.

GOALS

Management goals are to maintain viable populations of wolves in Unit 23, and to provide hunting and viewing opportunities.

CODIFIED OBJECTIVES

Amounts Reasonably Necessary for Subsistence Uses

Unit 23 has a positive customary and traditional use finding for wolves, as determined by the Alaska Board of Game, with an amount necessary for subsistence uses as 10–30 wolves.

Intensive Management

Unit 23 does not have any codified objectives for intensive management.

MANAGEMENT OBJECTIVES

Management objectives are to maintain the fur sealing program and explore alternative harvest reporting systems. Additionally, we will strive to get more rural sealing agents and continue to improve communication between ADF&G and harvesters.

REVIEW OF MANAGEMENT ACTIVITIES

1. Population Status and Trend

ACTIVITY 1.1. Monitor population status and trend through sealing data, trappers' reports, incidental sightings, and public information.

Data Needs

No change from RY15–RY19.

Methods

No change from RY15–RY19.

2. Mortality-Harvest Monitoring

ACTIVITY 2.1. Monitor harvest and hunter effort through sealing records and trapper questionnaires.

Data Needs

No change from RY15–RY19.

Methods

No change from RY15–RY19.

3. Habitat Assessment-Enhancement

No activities for wolf habitat assessment or enhancement are expected in Unit 23 wolf management.

NONREGULATORY MANAGEMENT PROBLEMS OR NEEDS

Data Recording and Archiving

Copies of sealing forms are maintained on the ADF&G WinfoNet internal server. Harvest data are stored digitally on the Kotzebue server (W:\Wolf\Harvest). Digital copies of Unit 23 wolf management reports and plans can be found online at https://www.adfg.alaska.gov/index.cfm?adfg=librarypublications.wildlifepublications.

Agreements

Currently there are no agreements with other agencies pertaining to wolf management.

Permitting

No permits are expected to be required in RY20–RY24.

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