

## Wolf Management Report and Plan, Game Management Unit 1A:

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

**Ross Dorendorf**



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## **Wolf Management Report and Plan, Game Management Unit 1A:**

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

**PREPARED BY:**

Ross Dorendorf  
Wildlife Biologist III

**APPROVED BY:**

Richard Nelson  
Management Coordinator

**PUBLISHED BY:**

Patricia Harper  
Technical Reports Editor

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Alaska Department of Fish and Game  
Division of Wildlife Conservation  
PO Box 115526  
Juneau, AK 99811-5526



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This species management report and plan was reviewed and approved for publication by Richard Nelson, Management Coordinator for Region I for the Division of Wildlife Conservation.

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**Cover Photo:** A wolf chases fish in Southeast Alaska. ©2012 ADF&G.

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## Purpose of this Report

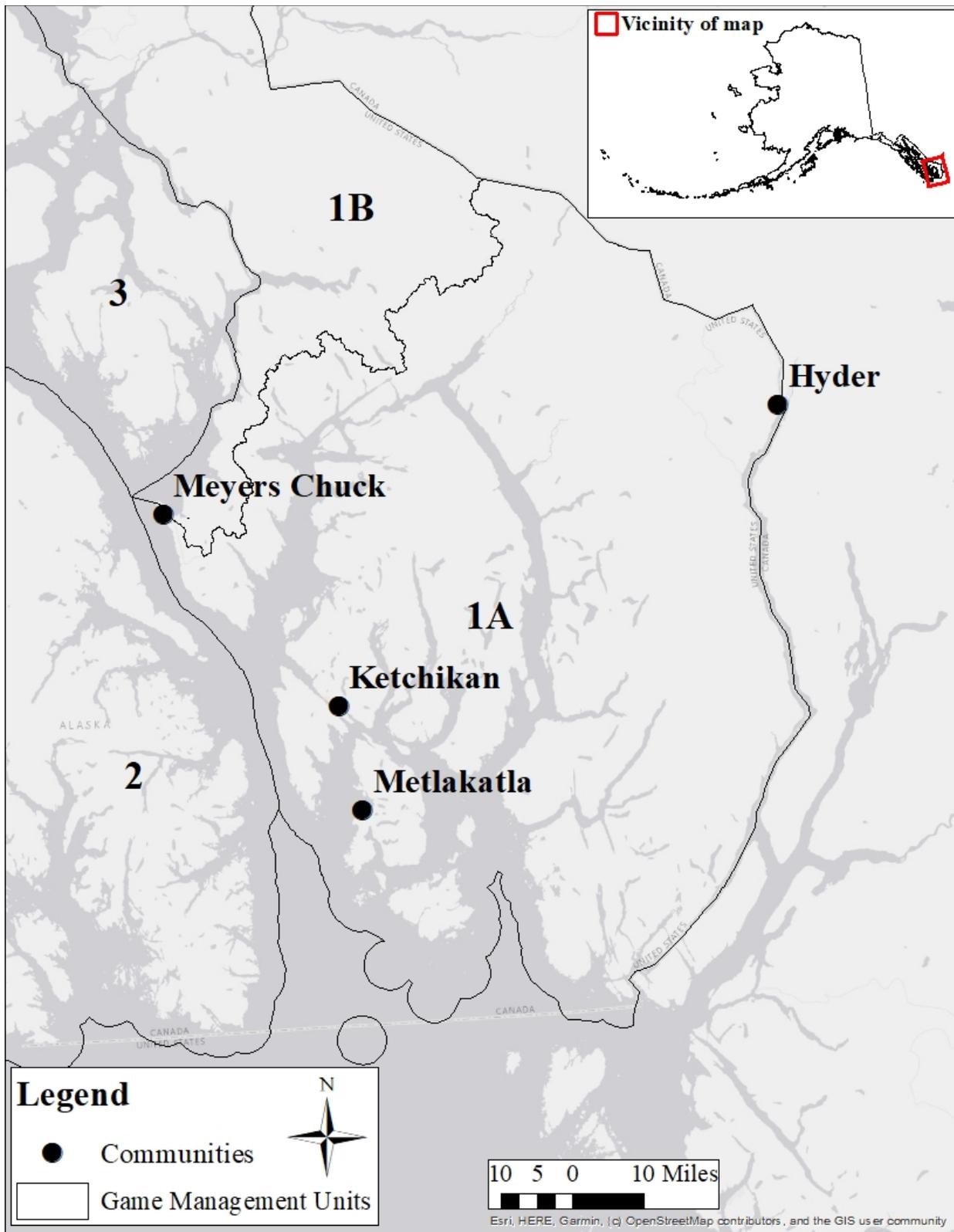
This report provides a record of survey and inventory management activities for wolves in Unit 1A for the 5 regulatory years 2015–2019 and plans for survey and inventory management activities in the following 5 regulatory years, 2020–2024. A regulatory year (RY) begins 1 July and ends 30 June (e.g., 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 wolf management report of survey and inventory activities that was previously produced every 3 years.

## I. RY15–RY19 Management Report

### Management Area

Game Management Unit (Unit) 1A encompasses 5,252 mi<sup>2</sup> of the southern Alaska mainland and adjacent islands south of Lemesurier Point, including all drainages into Behm Canal, excluding all drainages into Ernest Sound, and bounded to the east and south by the Canadian border (Fig. 1). The unit is bounded to the west by Clarence Strait. Larger islands included in the unit are Revillagigedo, Annette, and Gravina. The Ketchikan Gateway Borough has an estimated population of 13,865 (U.S. Census Bureau 2018). Smaller outlying communities include Metlakatla (estimated population of 1,375), Hyder (est. pop. 87), and Meyers Chuck (est. pop. 25). Mean temperatures range from a low of 30°F (-1°C) in January to a high of 64°F (18°C) in August with 141 inches (358 cm) of rain annually (U.S. Climate Data 2019). The dominant habitat type in Unit 1A below 2,000 feet (600 m) elevation is temperate rainforest consisting of Sitka spruce (*Picea sitchensis*), western hemlock (*Tsuga heterophylla*), red cedar (*Thuja plicata*), and Alaska yellow cedar (*Callitropsis nootkatensis*). Other lower elevation habitats include muskegs, stands of red alder (*Alnus rubra*), and black cottonwood (*Populus balsamifera trichocarpa*) along major rivers and riparian areas. Old-growth forests are interspersed with a patchwork of even-aged forest stands at different successional stages resulting from extensive clear-cut logging and a few natural windthrow events. Mainland areas above 2,000 feet (610 m) elevation are predominately rock, ice, and open alpine.

Most land in Unit 1A is administered by the U. S. Forest Service, including the 2.3 million-acre Misty Fjords National Monument. This monument is the largest wilderness area in Alaska’s national forests and the second largest in the nation. There are also private, state, and Native lands in Unit 1A.



**Figure 1. Map of Game Management Unit 1A boundaries, Southeast Alaska.**

## Summary of Status, Trend, Management Activities, and History of Wolf in Unit 1A

Wolves (*Canis lupus ligoni*) are found throughout Unit 1A with varying density according to habitat quality and prey availability. Much of the mainland is less suitable habitat with low prey density which supports fewer wolves compared to islands which have higher quality habitat with higher prey abundance. Sitka black-tailed deer (*Odocoileus hemionus sitkensis*, hereafter referred to as deer) are the main prey species for wolves in southeast Alaska (Roffler et al. 2021). Deer distribution is limited by snow accumulation that is much higher on the mainland traveling inland compared to other islands in the unit (Gilbert et al., 2017). The distribution of deer and other a-biotic and biotic factors influence wolf distribution in Unit 1A.

Wolves have a long and contentious history in Southeast Alaska. During the 1940s–1950s widespread wolf control occurred in Alaska including poisoning, bounties, and aerial shooting by federal agents. Shortly after statehood in 1959, poisoning and bounties for wolves were stopped (Regelin 2002).

Wolves in Southeast Alaska were petitioned to be listed under the Endangered Species Act in 1993, 2011, and most recently in 2020 (Biodiversity Legal Foundation et al. 1993, Center for Biodiversity and Greenpeace 2011, Center for Biodiversity et al. 2020). The U.S. Fish and Wildlife Service (USFWS) concluded in reviews following each of the 1993 and 2011 petitions that listing of the Alexander Archipelago was, at those times, “not warranted” (USFWS 1997, USFWS 2016). A USFWS 90-day review of the 2020 petition published in July 2021 (USFWS 2021), found that the petition presented substantial information indicating the petitioned action may be warranted, so the USFWS will conduct a status review toward another 12-month finding on whether listing is warranted.

Harvest of wolves is thought to be sustainable in Unit 1A. Most trapping occurs in close proximity to Ketchikan with some pressure on the mainland. The hunting season was increased from a 9-month to a 10-month season from 1 August–May 31 during the Alaska Board of Game’s (BOG) 2010 meeting, and no changes to trapping wolves in Unit 1A have occurred since. Harvest was tracked through mandatory sealing RY15–RY19, which provided information on harvested wolves for management purposes.

## Management Direction

### EXISTING WILDLIFE MANAGEMENT PLANS

General management guidelines can be found in an Alaska Department of Fish and Game (ADF&G) regionwide plan for the management of big game species (ADF&G 1976). No specific management plan exists for Unit 1A wolves. Earlier management objectives for Unit 1A wolves have been documented in previous species management reports.

### GOALS

- Maintain sustainable harvest and viewing opportunities of wolves in Unit 1A.

## **CODIFIED OBJECTIVES**

### Amounts Reasonably Necessary for Subsistence Uses

The BOG’s positive customary and traditional use determination finding for wolves in Unit 1A was set out in 5 AAC 99.025 and listed as 90 percent of the harvestable portion of the population. The amount necessary for subsistence uses was set at 90 percent of the harvestable portion of the population.

### Intensive Management

The current population (15,000) and harvest (700) objectives for deer in Unit 1A were created during the fall 2000 BOG meeting. An intensive management plan was intended to increase deer populations through wolf population reduction in Unit 1A, but it was never implemented (ADF&G 2013). This plan expired in 2018.

## **MANAGEMENT OBJECTIVES**

There are no specific management objectives for wolves in Unit 1A. However, ADF&G regulates wolf seasons and bag limits to maintain sustainable harvest and viewing opportunities.

## **MANAGEMENT ACTIVITIES**

### 1. Population Status and Trend

ACTIVITY 1.1. Monitor wolf abundance using trail cameras.

#### *Data Needs*

Monitoring abundance aids in determining wolf presence and abundance.

#### *Methods*

Wolf abundance was monitored on Gravina Island in Unit 1A using trail cameras from RY16 through RY18. For each wolf photographed, we compared pelt color, body size (adult/pup), and associated wolves to identify individuals and estimate abundance. Wolf tracks on snow-covered ground are distinguishable from other animals and minimum wolf group size can be estimated after same-day evaluation of all known travel routes on Gravina Island.

#### *Results and Discussion*

No wolves were detected on cameras during RY16–RY18. Cameras were removed during RY18 after the intensive management plan for deer expired. Wolves likely dispersed from Gravina; some may have been trapped or may have died from other causes. For this reason, cameras were pulled. In RY19, a single wolf was detected on a Ketchikan resident’s trail camera.

#### *Recommendations for Activity 1.1*

Discontinue monitoring wolves on Gravina with trail cameras.

## 2. Mortality-Harvest Monitoring and Regulations

ACTIVITY 2.1. Monitor and document hunter and trapper harvest to assess trends in abundance.

### *Data Needs*

Data on harvest and other causes of mortality are needed to inform management decisions to maintain sustainable harvest and viewing opportunities.

### *Methods*

All wolves harvested in Alaska are required to be sealed. Information collected from hunters and trappers for each wolf harvested includes sex, date and location of harvest, method of take, transportation used, pelt color, and an estimate of how many wolves the trapper thought were in the pack. Anecdotal information about wolves was obtained from hunters, trappers, and ADF&G staff during the reporting period. Additional information was obtained from trappers through an annual mail-out survey and summarized in the annual trapper questionnaire report.

### *Season and Bag Limit*

<u>Season and bag limits</u>	<u>Residents and nonresidents</u>
Trapping: No limit	1 November–30 April
Hunting: 5 wolves (General hunt only)	1 August–31 May

### *Results and Discussion*

#### Harvest by Hunters-Trappers

Total wolves harvested annually by hunting and trapping ranged 15 to 42 during RY10–RY14, and 26–31 during RY15–RY19. The annual average RY15–RY19 was 29 wolves (Table 1). Harvest differed little between the 2 reporting periods suggesting harvest is sustainable. However, annual variation in wolf harvest is more likely related to weather and boating conditions during the trapping season than wolf abundance. Most wolves were harvested using traps or snares during the trapping season as harvesting wolves with firearms is typically incidental to hunting other species (Table 1).

#### Hunter Residency and Success

Alaska residents harvested almost all wolves harvested during RY15–RY19. Only 5 wolves were harvested by nonresidents during the reporting period. Average catch per harvester differed little throughout the reporting period (Table 2).

#### Harvest Chronology

Wolf harvest peaked in January and February when trapping season was open and wolf furs were at their prime (Table 3).

**Table 1. Wolf harvest by sex, method of take, and pelt color, Unit 1A, Southeast Alaska, regulatory years 2010–2019.**

Regulatory Year	Harvest				Method of take					Pelt color				
	Female	Male	Unk	Total	Shot	Trapped	Snared	Unk	Total	Black	Gray	White	Unk	Total
2010	17	25	0	42	4	26	12	0	42	10	30	0	0	40
2011	9	15	0	24	4	17	3	0	24	5	13	0	0	18
2012	7	8	0	15	2	13	0	0	15	3	12	0	0	15
2013	10	16	0	26	5	15	6	0	26	8	11	0	0	19
2014	15	10	0	25	5	15	6	0	26	6	15	0	0	21
2015	14	17	0	31	7	15	9	0	31	9	21	0	1	31
2016	16	14	0	30	3	23	4	0	30	6	9	0	15	30
2017	7	20	3	30	11	17	2	0	30	1	7	0	22	30
2018	10	17	0	27	4	22	1	0	27	6	20	1	0	27
2019	13	13	0	26	1	19	4	2	26	7	0	0	19	26

Note: Unk = Unknown.

**Table 2. Number of wolf harvesters and average catch in GMU 1A, Southeast Alaska, regulatory years 2015–2019.**

Regulatory year	Number of harvesters	Average catch per person	Total harvest
2015	13	2.4	31
2016	9	3.3	30
2017	11	2.7	30
2018	10	2.7	27
2019	8	3.3	26

**Table 3. Chronology of wolves harvested in Unit 1A, Southeast Alaska, regulatory years 2015–2019.**

Regulatory year	Number of wolves harvested									
	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Total
2015	0	3	2	7	6	8	3	0	2	31
2016	0	0	0	2	9	10	5	3	1	30
2017	4	1	2	5	4	5	3	4	2	30
2018	1	0	2	2	8	4	7	1	2	27
2019	0	0	0	6	3	4	7	5	1	26
Total	5	4	6	22	30	31	25	13	8	144

Transport Methods

The most common method of transportation used while hunting or trapping wolves was boats (Table 4). Boats continue to be the most common method used to access wolves because road access is limited in Unit 1A, and the most common sets trappers make for wolves are tide-pool sets which are easily accessed and maintained by boat.

**Table 4. Wolf harvest by method of transportation, Unit 1A, Southeast Alaska, regulatory years 2015–2019.**

Regulatory year	Number of hunter or trappers using transport method						Total
	Aircraft	Boat	4-wheeler	Off-road vehicle	Highway vehicle	Foot	
2015	0	28	1	0	1	1	31
2016	0	28	0	2	0	0	30
2017	0	28	0	2	0	0	30
2018	1	25	0	0	1	0	27
2019	0	24	0	0	0	2	26
Total	1	133	1	4	2	3	144

### *Other Mortality*

Mortality from natural causes (starvation, accidents, disease, fighting) in exploited populations is low, typically averaging 5 to 10% per year (Fuller 1989). Some wolves are likely harvested illegally, but it is difficult to assess how often and to what extent this occurs.

### *Alaska Board of Game Actions and Emergency Orders*

There were no changes made by the BOG, or emergency orders issued for wolves in Unit 1A for RY15–RY19.

### *Recommendations for Activity 2.1*

Continue with no changes recommended.

## 3. Habitat Assessment-Enhancement

The U.S. Forest Service continues to allow large scale clearcut logging of old-growth forest, which reduces critical old-growth winter habitat for Sitka black-tailed deer (Gilbert et al. 2017). By reducing old-growth habitat, the population carrying capacity for Sitka black-tailed deer is also reduced. Sitka black-tailed deer are the most important prey species for wolves and reducing the number of deer will also decrease the number of wolves. (Darimont et al. 2004, Roffler et al. 2018, Roffler et al. 2021). The creation of roads for access to timber increases road density in an area. Roads provide increased access for wolf hunters and trappers which positively correlates with wolf mortality except when road densities are  $>0.9 \text{ km/km}^2$  (Person and Russell 2008).

## **NONREGULATORY MANAGEMENT PROBLEMS OR NEEDS**

### Data Recording and Archiving

Wolf sealing data are electronically archived in the ADF&G WinfoNet database (<http://winfonet.alaska.gov/index.cfm>).

### Agreements

There were no formal agreements during this reporting period.

### Permitting

There were no special permits issued during this reporting period.

## **Conclusions and Management Recommendations**

Ongoing changes in habitat and access related to logging, particularly on Revillagigedo and Gravina islands, will continue to challenge wildlife managers. Logging roads have greatly increased human access for hunting and trapping, but previous and ongoing clearcutting of old-growth forest has resulted in declining carrying capacity for deer. Many hunters believe they are increasingly competing with wolves for deer and call for reducing the number of wolves. As habitat conditions continue to change, managers will need to carefully monitor populations of

wolves and their primary prey, deer, to ensure both species are sustainably harvested while allowing for the greatest hunter harvest of both species.

Current trapping and hunting regulations appear adequate for sustainably managing wolves in Unit 1A, and we do not anticipate any need for changes in the near future.

## **II. Project Review and RY20–RY24 Plan**

### **Review of Management Direction**

#### **MANAGEMENT DIRECTION**

General management guidelines can be found in an Alaska Department of Fish and Game (ADF&G) Region wide plan for the management of big game species (ADF&G 1976). Other than these guidelines, no specific management plan exists for Unit 1A wolves. Earlier management objectives for Unit 1A wolves have been documented in previous species management reports.

#### **GOALS**

- Maintain sustainable harvest and viewing opportunities of wolves in Unit 1A.

#### **CODIFIED OBJECTIVES**

##### Amounts Reasonably Necessary for Subsistence Uses

The BOG’s customary and traditional use determination finding for wolves in Unit 1A was set out in 5 AAC 99.025 and listed as 90 percent of the harvestable portion of the population. The amount necessary for subsistence uses was 90 percent of the harvestable portion of the population.

##### Intensive Management

The current population (15,000) and harvest (700) objectives for deer in Unit 1A were created during the fall 2000 BOG meeting. An intensive management plan was intended to increase deer populations through wolf population reduction in Unit 1A but never implemented (ADF&G 2013). This plan expired in 2018.

#### **MANAGEMENT OBJECTIVES**

There are no specific management objectives for wolves in Unit 1A; however, ADF&G regulates wolf seasons and bag limits to maintain sustainable harvest and viewing opportunities.

## **REVIEW OF MANAGEMENT ACTIVITIES**

### 1. Population Status and Trend

ACTIVITY 1.1. Monitor wolf abundance using trail cameras

#### *Data Needs*

Monitoring wolves on Gravina Island using trail cameras will be discontinued. This monitoring is no longer needed due to the expired intensive management plan.

### 2. Mortality-Harvest Monitoring

ACTIVITY 2.1. Monitor and document hunter and trapper harvest to assess trends in abundance.

#### *Data Needs*

Data on harvest and other causes of mortality are needed to inform management decisions to maintain sustainable harvest and viewing opportunities.

#### *Methods*

All wolves harvested in Alaska are required to be sealed. Information collected from hunters and trappers for each wolf harvested includes sex, date and location of harvest, method of take, transportation used, pelt color, and an estimate of how many wolves the trapper thought were in the pack. Anecdotal information about wolves will be obtained from hunters, trappers, and ADF&G staff during the reporting period. Additional information will be obtained from trappers through an annual mail-out survey and summarized in the annual trapper questionnaire report.

### 3. Habitat Assessment-Enhancement

No habitat assessment or enhancement is anticipated for RY20–RY24.

## **NONREGULATORY MANAGEMENT PROBLEMS OR NEEDS**

### Data Recording and Archiving

Wolf sealing data are electronically archived in the ADF&G WinfoNet database (<http://winfonet.alaska.gov/index.cfm>).

### Agreements

No new agreements are anticipated for the planning period.

### Permitting

No special permits are anticipated for the planning period.

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